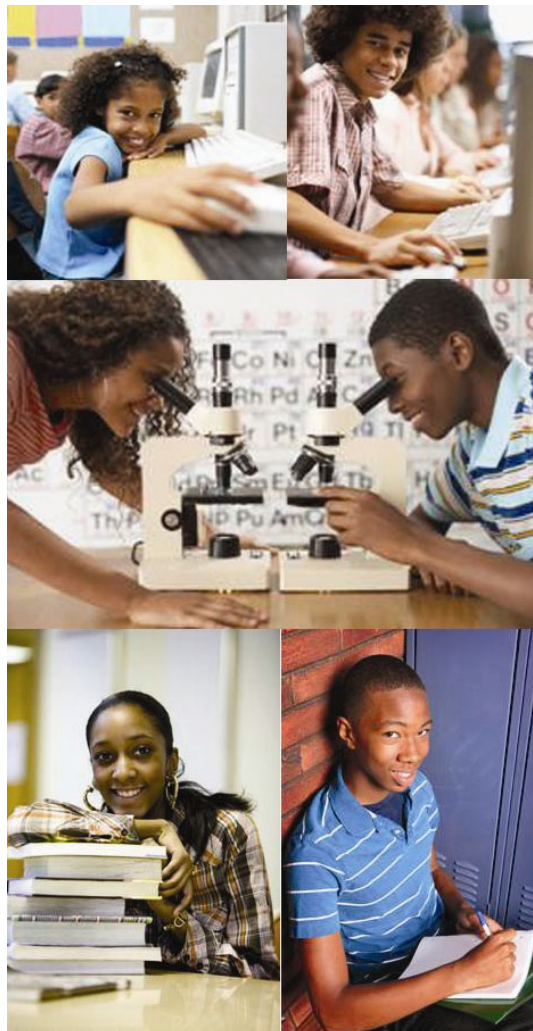




# Educational Technology Plan

July 1, 2012 to June 30, 2015



**Children + Technology = Our Future**

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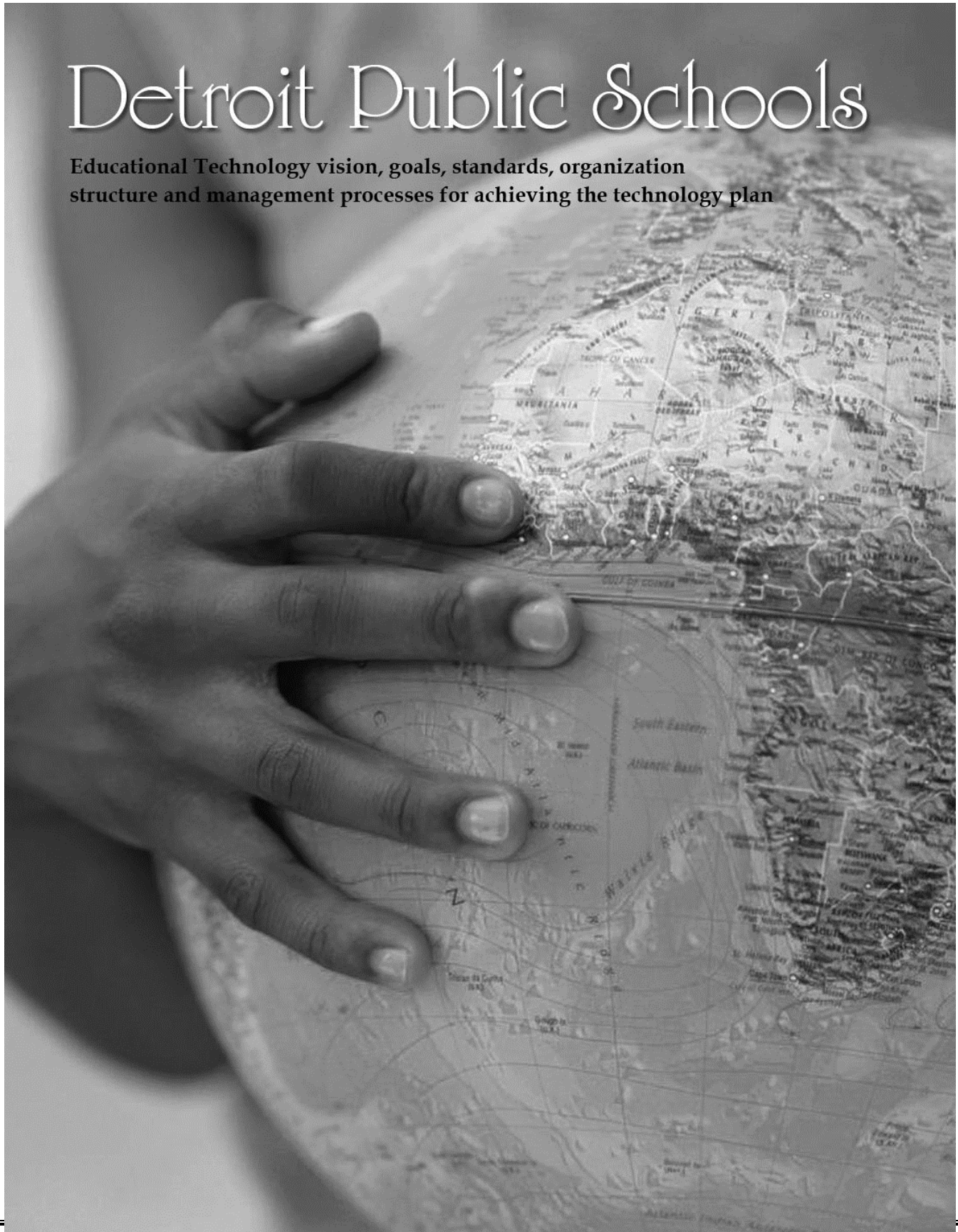
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# Detroit Public Schools

Educational Technology vision, goals, standards, organization  
structure and management processes for achieving the technology plan



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**Section 1 Cover Page**

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## Technology Plan Submittal

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### Submittal Cover Pages

**District:** Detroit Public Schools  
**School District Code:** #82010  
**Address:** 3011 W. Grand Boulevard  
Detroit MI 48202

**Contact:** Roy S Roberts  
Emergency Manager  
Suite 1400  
Detroit MI 48202  
**Phone:** 313-873-7450  
**Fax:** 313-873-7439  
**Email:** <mailto:roy.roberts@detroitk12.org>

**Contact:** Diane Jones  
Chief Technology and Information Officer  
**Phone:** 313-873-3250  
**Fax:** 313-873-7442  
**Email:** [diane.jones@detroitk12.org](mailto:diane.jones@detroitk12.org)

**Educational Technology Plan URL:** <http://www.detroitk12.org/technology/techplan.pdf>

**Years covered by this plan:** 7/1/2012 – 06/30/2015

**Date of next State review:  
(1 year from start date)** 2013

**Intermediate School District:** Wayne County Regional Education Service Agency  
33500 Van Born Road  
Wayne, MI 48184  
Contact: Deborah Clancy  
734-334-1378  
Email: ClancyD@resa.net



## DETROIT PUBLIC SCHOOLS

Diane Jones

Chief Information Officer

3011 W. Grand Blvd., 10th floor, Suite 1000  
Michigan 48202  
[diane.jones@detroitk12.org](mailto:diane.jones@detroitk12.org)

Phone: (313) 873-7445 Detroit,  
Fax: (313) 873-3209

June 12, 2012

To: Mr. Roy Roberts and Superintendent Ridgeway

From: Diane Jones

Subject: Technology Plan Submittal Executive Summary

Dear Mr. Roberts and Superintendent Ridgeway,

I am pleased to offer the Detroit Public Schools (DPS) 2012 -2015 Educational Technology Plan for your review and approval. The plan was a collaborative effort of the Information Technology and Academic Divisions in support of the Superintendent Educational Plan initiative and the Emergency Manager 2012 - 2013 Action Plan.

The technology plan documents the school improvement purpose of requested telecommunication services and internet access under the Erate program. The DPS Technology Plan is not presented as a separate exercise of networks and telecommunication infrastructure; rather establishes the connections between the information technology and the professional development strategies, curriculum initiatives, and objectives that will lead to improved education.

The DPS organization continues to build a structured, strategic approach for the use of technology in support of better instruction and more effective and efficient management practices. A critical part of that major strategy is to develop and maintain a long term Information Technology Plan. An initial plan was completed in 2001 and has served as a guiding manuscript for enormous growth in technology resources and support services; as well as a vital component in acquiring funding for technology from a variety of sources.

This updated plan (June 2012 - 2015) as presented, serves as a dynamic document for the future. The plan will be reviewed and adjusted as a part of the normal priority, assessment and review process

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annually. This ongoing process will maintain the value of the plan as a guide for the District, the staff, and to the Detroit community.

The Technology Plan structure has three major sections:

**Section I: Planning Foundations** – Describes the overall design of the planning process, offers a Technology Vision for Detroit Public Schools, and identifies major goals to guide the plan execution.

**Section II: Plan Blueprint** – Includes current status, major initiatives, and implementation guidelines for the following areas:

- Curriculum and Assessment
- Learning Technologies
- School Facilities and Learning Environments
- Communications and Network Infrastructure
- Administrative Computing and Decision Support
- Professional Development
- Technology Management and Support
- Standards, Policies, and Procedures
- District, School, and Program-level Planning
- Community Involvement

**Section III: Action Plan** – This section provides a multi-year matrix for major initiatives along with responsibilities, indicators of success, alignment with strategic technology goals and district and state education goals.

The Division of Technology and Information Services shall provide the technology blueprint relative to best practices, policies, procedures and service levels that are consistent with the objectives of Detroit Public Schools. The IT division will integrate high-value and diverse technology into a cohesive information management infrastructure to facilitate classroom instructional delivery and business decision making.

The Technology Division’s Mission statement (above) supports this plan and initiatives herein and pledges to deliver the service and support that is required for success. Thank you both for your consideration and approval of this plan.



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# DETROIT PUBLIC SCHOOLS

**Roy S. Roberts**  
**Emergency Manager**

*Fisher Building – 14<sup>th</sup> Floor*  
*3011 W. Grand Boulevard*  
*Detroit, MI 48202-2710*

June 13, 2012

*Phone: (313) 870-3772*  
*Fax: (313) 870-3726*  
*www.detroitk12.org*

Deborah Clancy  
Wayne County Regional Education Service Agency  
33500 Van Born Road  
Wayne, MI 48184

Dear Ms. Clancy,

The Detroit Public School Emergency Manager and Superintendent have reviewed the District's Educational Technology Plan and are in full accord and agreement with the contents and direction of technologies to support the Action Plan and Academic Plan. It is our belief that student learning and effective teaching are enhanced with the use of computer technologies.

Detroit Public Schools is committed to meeting the technology standards and expectations established by the national and state leadership and have adopted NETS and METS as its Educational Technology Standards without modification. It is our goal to improve student achievement through the seamless integration of technology and to assist every Detroit Public School student to become technologically literate, regardless of their race, ethnicity, gender, family income, geographic location or disability.


We have also agreed to support:

1. ongoing efforts to implement the elements of this plan
2. ongoing efforts to maintain currency within the plan through regularly scheduled reviews

The District's technology plan does, to the best of our knowledge, comply with the criteria established for state approval. This Educational Technology Plan was approved and adopted by the Emergency Manager and Superintendent on June 13, 2012.

Sincerely,

  
Roy S Roberts  
Emergency Manager

  
Karen P Ridgeway  
Superintendent of Academics

## MDE Educational Technology Plan Approval Checklist

Page(s)	Required Components
<p>1 <u>6</u></p> <p>2 <u>6</u></p> <p>3 <u>6</u></p> <p>4 <u>6</u></p> <p>5 <u>6</u></p>	<p><b>The cover page includes each of the following basic identification items:</b>  District/school name, address, phone number, and district/school code number;</p> <p>Start date of plan (month, year);</p> <p>End date of plan (month, year);</p> <p>Contact person for plan including phone number, fax number, and email address;  Intermediate School District name;</p> <p>The URL for the location of the technology plan on the web;</p>
Page(s)	Required Components
<p>7 <u>18</u></p> <p>8 <u>19-24</u></p>	<p><b>Mission:</b> The introductory section includes the district/school mission statement (from the school improvement plan).</p> <p><b>Introduction:</b> The introductory section includes a short description of district/school background and demographics including size, number and level of buildings, number of teachers and students, socioeconomic status, etc.</p>
Page(s)	Required Components
<p>9 <u>18</u></p> <p>10 <u>26-59</u></p>	<p><b>Vision:</b> A broad vision is articulated for the district/school technology program.</p> <p><b>Goals:</b> Broad, general district goals are established that reflect expectations of how technology will be utilized within the district. These might include:</p> <ul style="list-style-type: none"> <li>○ The district’s intent to highly integrate technology into teaching and learning;</li> <li>○ The relationship of the goals to the long-term vision and the district mission;</li> <li>○ Realistic strategies on how technology will be used to improve student learning and achievement;</li> <li>○ A description on how the goals address the objectives of the school improvement plan/strategic plan.</li> </ul>

Page(s)	Required Components
11 <u>63</u>	Specific goals are aligned with state or national standards for using advanced technology to improve student academic achievement. (These goals should be “concrete and measurable.”)
12 <u>64</u>	Strategies describe how technology will be used to improve the academic achievement, including technology literacy, of all students.
13 <u>66-77</u>	A description is provided on how the district will identify and promote curricula and teaching strategies that integrate technology effectively into curricula and instruction. ( <b>Could</b> include specific promotions and targeted audiences.)
Page(s)	Required Components
14 <u>171</u>	<p>A description on how technology (including software and electronically delivered learning materials) will be integrated into curricula and instruction. The information described here <b>could</b> include:</p> <ul style="list-style-type: none"> <li>○ Specific examples from within content areas and/or grade levels;</li> <li>○ OR, if desired, the full-curriculum describing the technology integration within the curriculum (OPTIONAL).</li> </ul>
15 <u>352</u>	A timeline for the technology integration into curricula and instruction is included. *Note: A timeline may be directly described in this section or grouped in the timetable section.
Page(s)	Required Components
16 <u>80-89</u>	Internet, interactive video, on-line courses, and/or other appropriate technologies for distance learning are presented in terms of how these technologies are currently being used to access “distant resources” <b>OR</b> might be used in the future to enhance instruction and increase student achievement.
Page(s)	Required Components

17 <u>184</u>	A description is included on how the educational technology plan will be disseminated to the community.
18 <u>181</u>	Additional means of how technology will be used effectively in communicating with parents and promoting parent involvement are identified. These might include web sites, printed materials, and teacher meetings.
19 <u>29</u>	Some parents and other community members are represented with involvement, contribution to the planning stages, the implementation, and the ongoing assessment of the technology plan.
<b>Page(s)</b>	<b>Required Components</b>
20 <u>187-189</u>	<p>A description of how the technology program will be developed in collaboration with adult literacy service providers (i.e., Adult Ed, GED certification programs, ESL) is included. This description should reference “existing” and/or “proposed” collaborations.</p> <ul style="list-style-type: none"> <li>○ Proposed (future) collaborations should be accompanied by a timeline.</li> <li>○ If <b>Not Applicable</b>, include a brief statement explaining the rationale of why it is not applicable and <b>enter N/A in the page number area</b>.</li> </ul>
<b>Page(s)</b>	<b>Required Components</b>
21 <u>210-217</u>	Professional development strategies are in place to ensure that ALL staff and administrators are made aware of how to use available technologies to improve student learning.
22 <u>219-224</u>	An indication is provided that the professional development offerings should set the groundwork for integration rather than a narrow focus on skill development.
23 <u>352</u>	A timeline for the implementation of various types of professional development training is included.
24 <u>207-209</u>	Awareness is indicated of state and national standards addressing technology competencies for teachers, administrators, and other relevant educators.
<b>Page(s)</b>	<b>Required Components</b>

<p>25 <u>210-221</u></p>	<p>The plan describes a variety of resources that are utilized to support the entire technology program. Examples:</p> <ul style="list-style-type: none"> <li>o District policies</li> <li>o Manuals and printed material</li> <li>o Video lending library or access to REMC materials</li> <li>o Informational school web site</li> <li>o Instructional/training software</li> <li>o Online subscription services</li> <li>o ISD, RESA, REMC support</li> <li>o Higher education involvement/support</li> <li>o Other resources</li> </ul>
<p><b>Page(s)</b></p>	<p><b>Required Components</b></p>
<p>26 <u>227-229</u></p> <p>27 <u>230</u></p> <p>28 <u>264-270</u></p> <p>29 <u>224</u></p>	<p>A description of the current status of hardware, software, network infrastructure, telecommunications, and other technology services in the district is provided.</p> <p>The plan includes a description of the hardware, software, network infrastructure, telecommunications, and other services that will need to be acquired to improve instruction and student learning.</p> <p>Basic strategies for ensuring the interoperability of equipment are provided. (Plans for continuous upgrading and a timeline for technology acquisitions should be included.)</p> <p>The plan includes a description of the technical support that is available within the district.</p>
<p><b>Page(s)</b></p>	<p><b>Required Components</b></p>

30 <u>96</u>	The plan addresses the steps that will be taken to ensure all students and teachers have increased access to technology (examples of issues to be addressed might include assistance to students in high-poverty and high-need schools or to students needing assistive technologies).
<b>Page(s)</b>	<b>Required Components</b>
31 <u>305</u>	<p>Budgets are <b>detailed annually</b> (2010-11, 2011-12, 2012-13) for each year covered by the plan. Items budgeted for <i>might</i> include:</p> <ul style="list-style-type: none"> <li>o Salaries and benefits</li> <li>o Hardware and networking costs</li> <li>o Maintenance and service costs o License agreements</li> <li>o Software and curriculum support</li> <li>o Professional development o Technical support</li> <li>o Other areas as required by the technology plan [</li> </ul> <p>The SLD requires that districts address what funding is available to pay for the “<i>un-discounted</i>” portions of services. The district budget section should address funding for those un-discounted services.]</p>
<b>Page(s)</b>	<b>Required Components</b>
32 <u>308</u>	A financial plan for long-term investment and sustainability, including coordination and leveraging through local, state, and federal programs and/or grants has been developed. (Sources of alternative funding resources are identified here.)
<b>Page(s)</b>	<b>Required Components</b>

<p>33 <u>315</u></p> <p>34 <u>316</u></p> <p>35 <u>319</u></p> <p>36 <u>319</u></p> <p>37 <u>319</u></p>	<p>A general description of the process by which the evaluation will be conducted is included.</p> <p>The evaluation section indicates what measures will be used and how success will be determined.</p> <p>The plan indicates the following:</p> <p>Frequency of evaluations</p> <p>Persons responsible for evaluations</p> <p>Strategies describing how unmet goals will be addressed</p>
<p><b>Page(s)</b></p>	<p style="text-align: center;"><b>Required Components</b></p>
<p>38 <u>344</u></p> <p>39 <u>346</u></p>	<p>An Acceptable Use of Technology Policy (AUP) for the district is included.</p> <p>The Acceptable Use Policy recognizes existing federal requirements for privacy and Internet safety (i.e., The Children’s Internet Protection Act [CIPA]). A short description of district “filtering” efforts is included. [</p> <p><b>Note: Although a district is not required to provide hard evidence (board meeting dates, policies, etc.) within the educational technology plan, auditors have often requested that districts provide similar material when undergoing an E-rate Program Integrity Assurance audit.]</b></p>

## 2012-2015 Educational Technology Plan Writing & Approval Teams

The Detroit Public School Educational Technology Plan was developed by a team consisting of a sponsor, an owner, a director, two project managers, a writing team, a technical writer, and a technical writer/integrator.

The plan was reviewed and approved by Superintendent of Academics and the MDE Emergency Financial Manager.

Functional Areas/Organizations	DTP Team Member
<b>Approval Team</b>	
<b>Office of Emergency Manager</b> Approval	<b>Roy S Roberts</b> Emergency Manager <b>Kevin Smith</b> Chief of Staff
<b>Office of the Superintendent</b> Approve	<b>Karen P Ridgeway</b> Superintendent of Academics <b>Shirley Mobley-Woods,</b> Chief Of Staff
<b>Division of Technology and Information Services</b>	<b>Diane Jones</b> Chief Information Officer
<b>Technical Writing Team</b>	
<b>Office of Research, Evaluation, Assessment and Accountability</b>	<b>Deborah E. Gross, Ed.D.</b>
<b>Division of Technology and Information Services</b>	<b>Jon Brent, PMP, RCDD</b> Executive Director, Deployment and Technical Services  <b>George Varghese, PMP</b> Program Manager



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## Section 2. Introduction

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## District Vision and Mission

The Detroit Public Schools will be a competitive leader in academic achievement through the use of continuous improvement strategies, making our schools the first choice for Detroit residents and other eligible students.

The mission of the Detroit Public Schools is to develop a customer and data-driven, student-centered learning environment in which students are motivated to become productive citizens and lifelong learners, equipped with skills to meet the needs of their next customer, higher education, or the world of work.

## District Goals, Objectives and Guiding Principles

### Primary Goal and Supporting Goals

The primary goal of Detroit Public Schools is to

- 1) Improve student achievement and performance

To accomplish this goal, three supporting goals have been identified:

- 2) Create Clean and Safe School Environments
- 3) Enhance Parental and Community Involvement
- 4) Transform the District into an Effective and Efficient Organization

### Guiding Principles

The priority of creating equitable opportunities for greater school achievement led Detroit Public Schools to the following guiding principles:

- 1) All children can learn
- 2) The Detroit Public Schools is a child-focused learning institution
- 3) We will nurture all children entrusted to our care – for they become our children – and our children are our future
- 4) It takes a community-wide effort to educate a child – Everybody has a stake in, and should be held accountable for, the education of our children
- 5) Schools, curriculum and instructional practices, as well as ancillary school support systems, will be organized to provide maximum learning opportunities for all children
- 6) We embrace change as we challenge the status quo
- 7) Principals are the instructional leaders and teachers are the greatest assets in our schools
- 8) We will restructure our professional development activities and provide direct support to our classroom teachers

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## District Profile

The profile components:

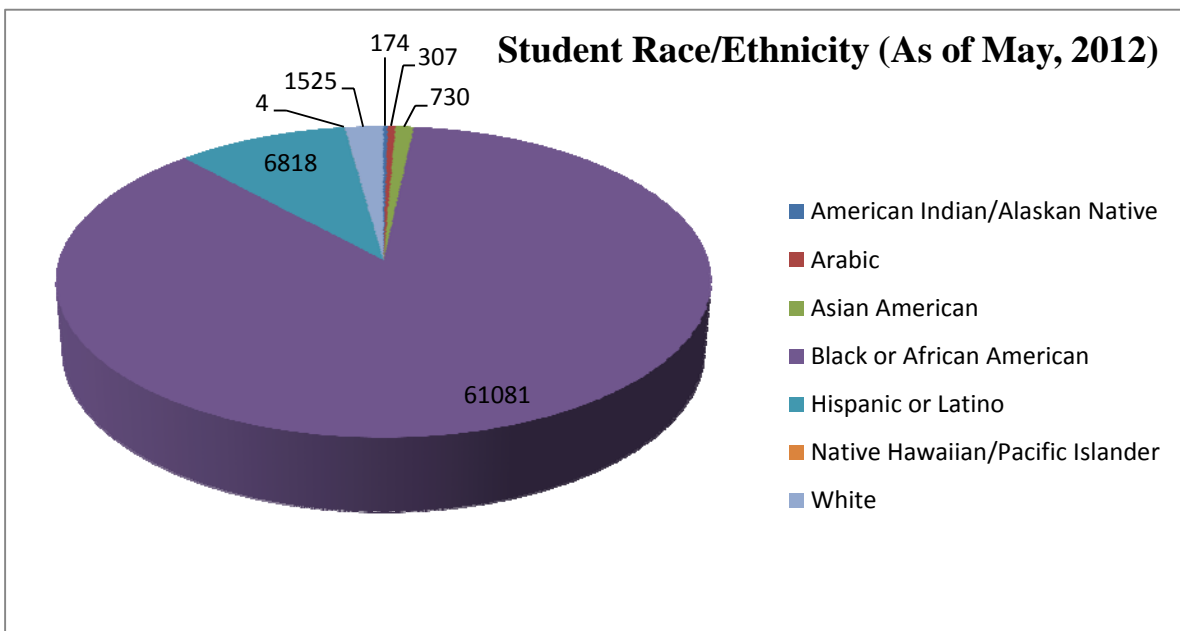
- Student Population
- Teacher Population
- Instructional Sites

### Student Population

71,523 students

Source: DPS Executive Director Pupil Population Management

- Student Race/Ethnicity (As of May, 2012)



### Teacher population

- 5,937

### Instructional Sites and Classrooms

**Educational Technology will be deployed throughout the instructional environment district-wide during this planning period to increase student access to equitable, inclusive learning experiences**

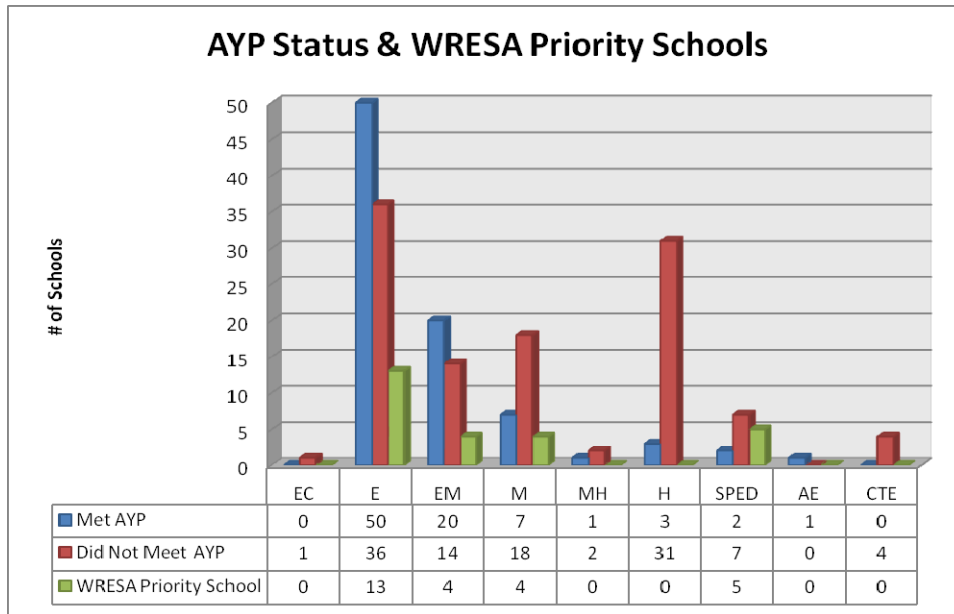
	MI_ID Code	School Name	Grade Level, Fall 2011	Gross Square Footage	2010 Enrollment	General Classrooms (all on-site buildings)	General Classrooms used for Other function	Total # of General Classrooms	Specialty Classrooms	Total # of Instructional Classrooms
1	07793	Academy of The Americas	PK-8	97,929	713	34	7	41	6	47
2	00103	Ann Arbor Trail Magnet School	PK-8	43,343	513	22	0	22	4	26
3	00168	Bagley Elementary School	PK-6	54,317	448	23	7	30	3	33
4	00213	Barton Elementary School	PK-5	38,848	362	19	0	19	3	22
5	02882	Bates Academy	K-8	128,190	834	39	5	44	9	53
6	08987	Beard Early Childhood Center	PK-1	37,060	175	17	7	24	0	24
7	06631	Beckham, William Academy	PK-5	104,836	687	31	0	31	12	43
8	00277	Bennett Elementary School	PK-5	67,144	514	27	1	28	3	31
9	01518	Bethune Academy	PK-8	88,110	808	40	4	44	4	48
10	02058	Blackwell Institute	PK-8	57,044	637	26	1	27	5	32
11	04319	Bow Elementary/Middle School	PK-8	59,100	676	30	2	32	4	36
12	02461	Breithaupt Career and Technical Center	9-12	150,361	3	28	0	28	0	28
13	09991	Brewer, Beulah Cain Elementary/Middle School	K-8	54,174	611	27	1	28	5	33
14	04062	Brown, Ronald Academy	PK-6	122,415	1,138	47	0	47	7	54
15	00446	Bunche, Ralph K. Elementary/Middle School	PK-8	116,381	580	40	2	42	3	45
16	00456	Burns Elementary/Middle School	PK-8	65,370	626	29	1	30	4	34
17	00468	Burton International Academy	PK-8	114,200	868	36	0	36	4	40
18	05553	Carleton Elementary School	PK-5	52,134	495	26	3	29	1	30
19	00975	Carson, Dr. Benjamin High School for Science & Med	9	---	---	4	0	4	0	4
20	00542	Carstens Elementary/Middle School	PK-8	128,000	444	37	2	39	7	46
21	00546	Carver Elementary/Middle School	PK-8	67,102	408	24	4	28	1	29
22	00554	Cass Technical High School	9-12	402,484	2,139	54	3	57	34	91
23	00617	Central Collegiate High School	9-12	213,974	1,047	44	4	48	17	65
24	00689	Chrysler Elementary School	K-5	23,066	174	6	0	6	3	9
25	09992	Clark, J. E. Preparatory Academy	PK-8	56,852	599	29	1	30	4	34
26	00238	Clemente, Roberto Academy	PK-5	86,000	812	34	0	34	5	39
27	07500	Clippert Academy	5-8	46,194	530	17	1	18	3	21
28	00019	Cody - Academy of Critical Thinkers at Cody	9-11	---	178	11	0	11	2	13
29	00022	Cody - Detroit Institute of Technology at Cody	9-11	---	201	12	0	12	2	14
30	00018	Cody - Medicine and Community Health Academy at Cody	9-11	---	234	10	0	10	0	10
31	00026	Cody Academy of Public Leadership	9-11	---	211	7	0	7	0	7
32	00739	Cody College Preparatory Upper School of Teaching and Learning	12	286,752	642	25	2	27	7	34
33	07654	Communication & Media Arts High School	9-12	79,450	504	18	4	22	8	30
34	00781	Cooke Elementary School	PK-6	45,184	425	18	2	20	2	22
35	09591	Crockett Career and Technical Center	9-12	95,691	2	25	7	32	0	32
36	07024	Crockett High School	9-12	129,592	675	26	5	31	12	43
37	00029	Davis Aerospace High School	9-12	66,600	201	12	0	12	10	22
38	00880	Davison Elementary/Middle School	PK-8	110,388	733	42	7	49	4	53
39	00902	Denby High School	9-12	214,518	1,120	50	6	56	15	71

	MI_ID Code	School Name	Grade Level, Fall 2011	Gross Square Footage	2010 Enrollment	General Classrooms (all on-site buildings)	General Classrooms used for Other function	Total # of General Classrooms	Specialty Classrooms	Total # of Instructional Classrooms
40	00038	Detroit City High School	9-12	115,277	403	28	0	28	7	35
41	00908	Detroit Day School For The Deaf	K-8	61,152	49	20	21	41	3	44
42	00039	Detroit International Academy for Young Women	K-12	318,416	611	42	15	57	28	85
43	08925	Detroit Lions Academy	6-8	32,241	107	8	2	10	2	12
44	07794	Detroit School of Arts	9-12	305,634	712	21	1	22	31	53
45	00866	Detroit Collegiate Preparatory High School	9	---	---	10	3	13	0	13
46	00925	Dixon Educational Learning Academy	PK-8	93,258	777	32	1	33	3	36
47	00939	Dossin Elementary/Middle School	PK-8	50,508	429	19	0	19	3	22
48	07135	Douglass Academy for Young Men	6-12	232,817	280	55	12	67	14	81
49	00859	Drew, Charles R. Transition Center	9-12	139,000		31	0	31	22	53
50	00975	Durfee Elementary/Middle School	PK-8	170,870	619	51	10	61	8	69
51	00860	Earhart Elementary/Middle School	PK-8	111,090	---	35	1	36	9	45
52	01084	Edison Elementary School	PK-5	44,263	368	19	1	20	2	22
53	03737	Ellington, Edward (Duke) Conservatory of Music-Art	PK-8	82,954	552	26	3	29	7	36
54	01134	Emerson Elementary/Middle School	PK-8	126,805	705	52	5	57	9	66
55	00864	Farwell Elementary/Middle School	PK-8	96,304	344	26	4	30	4	34
56	08951	Field, Moses Center	PK-8	53,742	163	19	0	19	1	20
57	01236	Finney High School	9-12	133,603	490	32	8	40	8	48
58	09121	Fisher Magnet Lower Academy	PK-4	95,098	791	36	0	36	3	39
59	09345	Fisher Magnet Upper Academy	5-8	147,620	625	32	1	33	6	39
60	01634	Ford High School	9-12	271,742	1,151	44	11	55	21	76
61	07326	Foreign Language Immersion (FLICS)	K-8	92,010	661	34	0	34	6	40
62	01362	Gardner Elementary School	PK-5	32,634	276	16	1	17	3	20
63	07581	Garvey, Marcus Academy	PK-8	144,400	644	35	9	44	7	51
64	02479	Golightly Career and Technical Center	9-12	132,668	1	38	5	43	0	43
65	00176	Golightly Educational Center	PK-8	107,134	627	38	4	42	2	44
66	01438	Gompers, Samuel L. Elementary/Middle School	PK-8	111,882	---	35	1	36	9	45
67	01493	Greenfield Union Elementary/Middle School	PK-8	75,285	484	31	2	33	4	37
68	01574	Harms Elementary School	PK-5	44,933	583	27	0	27	2	29
69	00004	Henderson, Erma Academy	PK-8	109,000	745	33	5	38	7	45
70	00005	Holmes, A. L. Elementary/Middle School	PK-8	102,217	471	31	12	43	5	48
71	00009	Holmes, O. W. Elementary/Middle School	K-8	64,611	506	29	2	31	4	35
72	08396	Hughes, Langston Upper Academy	5-8	95,591	419	23	1	24	6	30
73	01803	Hutchinson Elementary/Middle School (at Howe)	PK-8	98,174		32	1	33	3	36
74	07795	Jemison, Mae C. Academy	PK-8	77,384	523	45	2	47	4	51
75	09594	Keidan Special Education Center	PK-8	83,850	156	34	8	42	2	44
76	02030	Kettering High School	9-12	249,863	822	30	1	31	8	39
77	09475	Kettering West Wing	9-12	---	204	19	2	21	5	26
78	02036	King, John R. Academic and Performing Arts Academy	PK-8	133,580	1,068	41	4	45	6	51
79	01043	King, Martin Luther Jr. Senior High School	9-12	245,413	0	36	2	38	22	60

	MI_ID Code	School Name	Grade Level, Fall 2011	Gross Square Footage	2010 Enrollment	General Classrooms ( all on-site buildings )	General Classrooms used for Other function	Total # of General Classrooms	Specialty Classrooms	Total # of Instructional Classrooms
80	02377	Law Academy	PK-8	125,995	734	41	2	43	10	53
81	02245	Logan Elementary School	K-5	54,810	510	26	1	27	4	31
82	03703	Ludington Magnet Middle School	5-8	53,632	538	20	0	20	3	23
83	02301	MacDowell Elementary School	PK-7	52,500	523	23	1	24	2	26
84	02341	Mann Elementary School	PK-5	44,909	421	20	1	21	2	23
85	02390	Marquette Elementary/Middle School	PK-8	92,618	888	42	0	42	6	48
86	00857	Marshall, Thurgood Elementary School	PK-6	90,905	364	30	4	34	5	39
87	02431	Mason Elementary School	PK-5	46,870	367	19	7	26	2	28
88	02448	Maybury Elementary School	PK-3	45,322	594	24	0	24	3	27
89	02644	Mumford High School	9-12	240,273	1,265	46	4	50	15	65
90	02648	Murphy Elementary/Middle School	PK-8	107,591	580	29	3	32	8	40
91	02669	Neinas Elementary School	PK-5	52,771	359	21	1	22	2	24
92	02703	Nichols Academy	K-8	51,904	375	18	4	22	3	25
93	06103	Noble Elementary/Middle School	PK-8	143,605	416	35	5	40	3	43
94	02708	Nolan Elementary/Middle School	PK-8	112,432	577	35	8	43	7	50
95	02778	Northwestern High School	9-12	388,059	814	50	8	58	16	74
96	02811	Oakman Elementary - Orthopedic School	PK-5	46,464	277	20	0	20	2	22
97	00032	Osborn Academy of Mathematics	9-11	---	192	11	0	11	0	11
98	00030	Osborn College Preparatory Academy	9-11	---	214	10	0	10	0	10
99	00035	Osborn Evergreen Academy of Design and Alternative Energy	9-11	---	177	10	0	10	0	10
100	02855	Osborn Upper School of Global Communications and Culture	12	201,884	402	33	1	34	3	37
101	01552	Palmer Park Preparatory Academy	PK-8	160,261	577	37	13	50	7	57
102	02951	Parker Elementary/Middle School	PK-8	70,528	588	35	3	38	4	42
103	02969	Pasteur Elementary School	PK-6	56,541	398	26	1	27	4	31
104	03015	Pershing High School	9-12	249,694	932	66	4	70	11	81
105	04554	Phoenix Academy	PK-8	112,628	476	30	3	33	2	35
106	03123	Priest Elementary/Middle School	PK-8	117,502	953	46	8	54	3	57
107	03130	Pulaski Elementary/Middle School	PK-8	60,966	619	33	1	34	4	38
108	02465	Randolph Career and Technical Center	9-12	122,883	9	30	0	30	0	30
109	06971	Renaissance High School	9-12	295,523	1,097	20	2	22	28	50
110	07633	Robeson, Paul / Malcolm X Academy (at Hally)	PK-8	48,500	661	20	4	24	2	26
111	02701	Rutherford, Clara Elementary School	PK-5	51,356	373	22	2	24	3	27
112	04413	Sampson Webber Academy	PK-8	145,118	387	32	8	40	9	49
113	03420	Schulze Elementary/Middle School	PK-8	94,991	817	31	0	31	6	37
114	09341	Scott, Brenda Academy for Theatre Arts	PK-8	147,620	1,033	36	0	36	5	41
115	03540	Southeastern High School	9-12	303,890	1,420	46	0	46	15	61

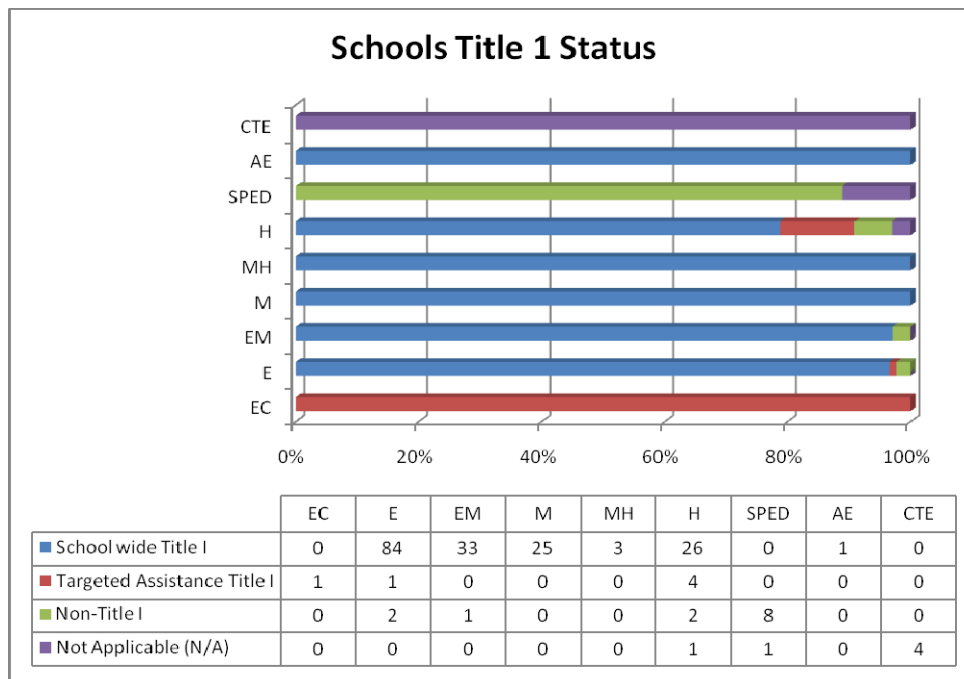
	MI_ID Code	School Name	Grade Level, Fall 2011	Gross Square Footage	2010 Enrollment	General Classrooms (all on-site buildings)	General Classrooms used for Other function	Total # of General Classrooms	Specialty Classrooms	Total # of Instructional Classrooms
116	03555	Southwestern High School	9-12	198,050	785	33	8	41	10	51
117	03558	Spain Elementary/Middle School	PK-8	145,591	780	35	4	39	7	46
118	06074	Stewart Learning Academy	K-8	71,350	549	30	5	35	3	38
119	04156	Thirkell Elementary School	PK-5	68,701	461	23	1	24	8	32
120	04222	Trix Elementary/Middle School	PK-8	48,208	440	25	0	25	4	29
121	09788	Turning Point Academy	K-12	52,768	89	14	10	24	4	28
122	02383	Twain, Mark Academy	PK-8	120,132	310	29	4	33	5	38
123	04292	Vernor Elementary School	PK-6	44,608	322	17	3	20	4	24
124	04406	Wayne Elementary School	PK-5	45,296	388	24	0	24	5	29
125	08929	West Side Academy	9-12	71,283	494	17	7	24	6	30
126	04477	Western International High School	9-12	299,630	1,477	44	0	44	19	63
127	09592	White, Jerry L. Center	9-12	97,739	267	34	0	34	1	35
128	04527	Wilkins Elementary School	PK-8	48,801	384	20	4	24	7	31
129	09125	Wright, Charles Lower Academy	PK-4	94,991	693	33	0	33	4	37
130	03717	Young, Coleman A. Elementary	PK-5	67,800	691	29	1	30	3	33
				1,474,948	8,130	407	47	454	90	544

## AYP Status & WRESA Priority Schools



## Schools Title I Status

- School Title I status is determined by the percentage of students eligible for Free/Reduced Lunch. Once a school meets a 40% poverty threshold, it may become a schoolwide school after submitting an operating plan that is approved by the Michigan Department of Education. The plan is referred to as a Schoolwide School Improvement Plan. There are twelve Title I Targeted Assistance Schools operating in 2011-12: three are contract (Last Chance Schools).**





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## Section 3. Vision and Goals

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**Detroit Public Schools:  
Emergency Manager Mr. Roy Roberts Action Plan 2012-2013**

April 2012

**The Need for Action**

We are not preparing enough of our students to be college and career ready. Over half of our grade 3-8 students were below basic proficiency on a national assessment, and according to ACT, only 1.2% of DPS graduates are college ready in all subjects.

Our financial challenges remain significant and divert much needed resources from educating our students. Our legacy deficit stands at a staggering \$84 million. We have to pay more and more to cover our debt, meaning that fewer and fewer dollars are going to schools, teachers, and students.

- Student enrollment continues to decline. We have lost 100,000 students in the last ten years and we project that this trend will continue. The addition of charter schools and the Education Achievement Authority (EAA ) means that families have more and more school options before them.
- We have been operating with far too much instability. With constant change in district leadership, schools aren't able to stick with programs and plans long enough to see real improvements in student achievement.

**Our Conclusions about DPS Current State**

1. We are facing both academic and financial emergency.
2. We a need to stabilize the district to create the conditions where real improvements in student performance can take place.
3. A new direction will require a fundamental shift in the way we operate.
4. We must push forward as much as we can in the 2012-2013 school year to lay the foundation for sustained progress in years to come.

**Our Response: Action Plan 2012-2013**

**Key Strategies:**

1. **Citywide accountability**
2. **Creating stability for local schools**
  - **Creating Self- Governing Schools**
  - **Bolstering Support for Centrally-Supported Schools**
3. **Redesigning the central organization to support schools**

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#### **4. Continuing focus on financial stewardship**

**Our Goal:** begin to lay the foundation so that DPS can sustain progress in years to come, even as leadership may change.

##### **Strategy 1: Citywide Accountability**

**Drive accountability for performance citywide and commit to take action where underperformance persists.**

##### **How?**

- Citywide commitments among DPS, EAA, NS Charter Authorizers to:
  - Set a common definition/standard for school quality, rooted in “on track for college and career readiness”
  - Adopt and implement common assessment tools to facilitate “apples to apples” comparison of schools
  - Take swift action when schools persistently underperform
- Excellent Schools Detroit as an independent arbiter to collect and report data on which schools are meeting the mark and which are not
- Use of this school performance data as the overriding factor to drive future decisions about school closures and consolidation

##### **Strategy 2: Creating stability for local schools**

###### **1. Create Self-Governing Schools (10 Schools)**

Embed authority and resources at the local school level so that school communities can make local decision and sustain plans.

##### **How?**

- Oversight by a school governing Council, a 5-member body
  - Brings organizational and operational expertise, freeing the principal to serve as the instructional leader of the school
  - Enters into a performance-base contract with DPS
- Local authority to make decisions about budgeting, operations, hiring and curriculum.

###### **2. Bolster Support for Centrally-Supported Schools (86 schools)**

Accelerate achievements in student achievement through application of research-based practices and supports

##### **How?**

- New structures to provide wrap-around support for schools and students
- Extended Day and Extended Year programming

- 
- High quality teaching and learning, including individualized learning plans for all students
  - Talent management strategies, including a principals' training academy and rigorous, differentiated professional development for teachers and principals
  - Continuous improvement strategies, including pre-and post-tests in core subject areas and professional learning communities.

### **Strategy 3: Redesigned central organization to support schools**

Redesign the central office to:

- Drive accountability – student performance, financial performance, and compliance
- Provide support that schools indicate they need, both DPS and non-DPS

#### **Emergency Manager**

##### **Accountability**

- **Set and monitor performance goals for schools**
- **Financial Accountability**
- **Compliance with State, Federal, and Local Requirements**
- **Performance system for all DPS staff**

#### **Support School Offices**

Centrally-Supported Schools (80%)

Led by Superintendent of Academics

- Support for School Improvement Clusters

Self Governing Schools (20%)

Led by Chief Innovation Officer

- Support for Charter Schools and Self-Governing Schools

Enterprise Services

- Market-driven organization that develops and delivers services to DPS centrally-supported schools and other customers based on demand (DPS charters and self-governing schools, EAA schools, non DPS charters, and neighboring districts)
- Services include:
  - Finance
  - Facilities
  - Transportation

- 
- Food Service
  - Information Technology
  - Security
  - Procurement and logistics
  - State and Federal Programs
  - Human Resources
  - Legal

#### **Strategy 4: Continued focus on financial stewardship**

**Restore financial integrity and stability in DPS operations and regain the District's reputation as a trusted financial steward.**

##### **How?**

- Continue efforts to:
  - Eliminate the DPS deficit in 5 years, as outlined in the DPS Elimination plan;
  - Maintain a balanced budget for the current fiscal year;
  - Develop and maintain a balanced budget for FY 2013;
  - Right –size the district, including closures and consolidations of schools and corresponding reductions in the central office;
  - identify opportunities to generate revenue from other sources by repositioning DPS as a potential service provider to all schools citywide;
  - Mitigate the negative financial and budget impact of the accelerated debt service relating to the District's 2005B Series Bonds;
  - Stem the loss of student membership;
  - reengineer budget and financial processes.

At the end of the 2012-2013 school year, we will measure our success according to the following outcomes.

- Demonstrated improvements in student performance
  - Measured by percent of students in all grades who are on track for college and career readiness and are achieving growth each year
- Demonstrated improvements in financial performance
  - Measured by adherence to FY13 budget, reduction in legacy deficit, and reduction in expenditures
- Satisfaction among some of our key customers – school leaders and parents and families
  - Measured by survey responses

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# The Detroit Public Schools

## Superintendent of Academics Education Plan

### Introduction - Superintendent's Message

Karen P. Ridgeway  
Superintendent of Academics

All across the United States, education is taking center stage. The charge to reform our public schools is a national mandate and a call to action. Thus, systemic change and related decision-making and actions must be part of our strategic planning process in building a world-class education system to ensure that all students demonstrate readiness for college, career, and citizenship in a global society.

We are at a pivotal point in preparing our students to be Detroit's future workforce, but we are also positioning our students to be business and civic leaders. As we move forward, our new Academic Plan for 2012-2016 will serve as a living document over a five-year period. It will be consulted frequently and modified as needed. With the ever-changing climate, it will allow us the flexibility we need to achieve our three overarching goals:

- (1) Assure all students graduate college- and career-ready through effective use of proven research, differentiation, and standards-based education;
- (2) Ensure and sustain a rich environment and culture for life-long learners; and
- (3) Continuously improve the effectiveness, efficiency, and responsiveness of the educational system.

These goals focus on strengthening our foundation and build upon the work completed to date. At our foundation is the goal of improving student achievement.

As Superintendent, I will be working closely with assistant superintendents and curriculum directors to improve communication and participatory leadership with school administrators and educators to ensure that the goals and measures delineated in this document are being carried out in our schools and classrooms throughout the District.

The Academic Plan *Higher Standards for All* is comprehensive and achievable. It represents systemic change that is realistic and doable. It is a huge undertaking that will compel students, educators, staff, parents, and community shareholders to acknowledge and embrace our shared responsibility for public education and to collaboratively work with each other to transform Detroit Public Schools so that every student is successful— academically, socially, and emotionally.

All interested parties must work together to create classrooms where students of varied backgrounds and abilities work with expert teachers, learning with understanding, in environments that are equitable, challenging, supportive, and technologically equipped for the twenty-first century. Detroit's graduates must be equipped with the skills necessary to

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compete globally for entry into college and for jobs. Therefore, the speed by which change occurs in our educational system will directly affect the future economic outlook of our city, state, and nation. It is imperative that we accelerate our efforts to attain a world-class education system. Our students deserve and need the best education possible, one that enables them to fulfill personal ambitions and career goals in an ever-changing world.

## Overview of District's Curriculum

Curriculum is more than a collection of activities; it must be intentional, targeted and aligned to high academic standards for all students. It must also have coherence and be well-articulated within and across the grades. The District curriculum will have targeted goals, identified student experiences that enhance learning and more.

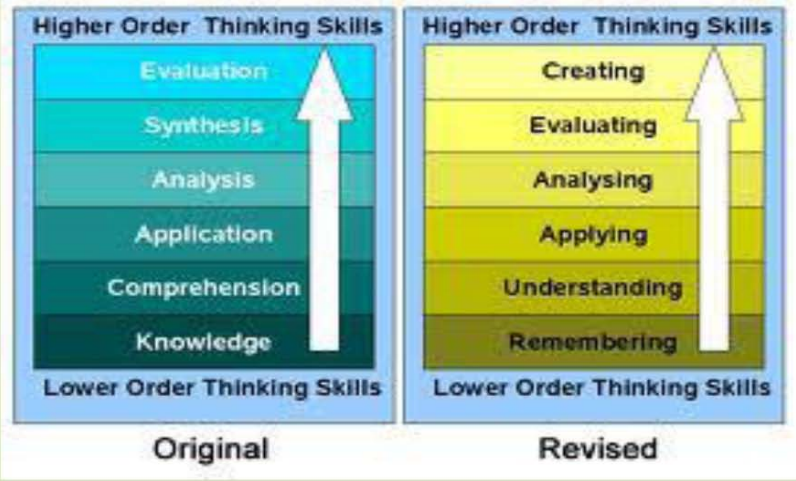
The Comprehensive Curriculum Plan (CCP) identifies the most essential enabling objectives needed to demonstrate proficiency in performing identified competencies. It aligns curriculum and instruction, develops a different view of assessing student learning, and targets high-performing learning outcomes which are critical to applying knowledge both now and in the future. It includes greater rigor in coursework, increased student performance expectations and incorporates state-of-the-art teaching strategies. The curriculum is designed to guide teachers, to suggest active teaching strategies/techniques, and to empower teachers to make professional judgments about specific procedures and instructional materials to use in helping students perform the intended outcomes. The subject area curriculum documents will be developed by teams of teachers, and others, identified as outstanding in their areas of expertise. The curriculum continues to be updated as necessary to align with changing state and national standards.

The CCP includes all the current requirements of the Michigan Department of Education and is correlated and aligned to the Common Core State Standards. The CCP exceeds state standards and requirements. It is a living document that is updated as new state and/or federal requirements emerge. It embodies the new Bloom's Taxonomy model to support increased academic rigor throughout the District. Students will be engaged in problem-based learning applying new learning to new situations and creating product that reflect higher-thinking skills.

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## CORE CONTENT

### English Language Arts Curriculum

Consistent with Detroit Public Schools' commitment to excellence in education, DPS seeks to instill lifelong literacy skills in our students, staff, parents, and community through a comprehensive K-12 English Language Arts curriculum. Our curriculum is aligned with the Common Core State Standards which are standards adopted by many states across our nation. The mission statement for the development of these standards state:

*The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. (National Governors Association Center for Best Practices, 2010)*

Our experienced teaching staff uses frequent analysis of data, high-caliber instruction, current research-based strategies, and engages in ongoing professional development to positively impact student academic achievement.

Literacy instruction begins in the early elementary years with teaching students the essential concepts needed for reading success. These skills have been identified by the National Reading Panel as skills that all students must know and be able to do to become proficient readers. Beginner readers are taught the alphabetic principle which teaches students how letters work together in a systematic way to connect spoken language to written words. Students are also taught the concept of print awareness which helps students recognize the nature of written language, such as print goes left to right and top to bottom. Students are also taught phonemic awareness which is the ability to hear and understand the sounds from which words are made. Systematic and explicit phonics instruction incorporates knowledge about the association between the sounds of the language and the written symbols or spellings that have been chosen to represent sounds.

Additionally, students are taught vocabulary and comprehension skills that propel them toward becoming competent readers. Students are also taught writing skills, which are intricately woven into the process of learning to read.

The Detroit Public Schools' approach to reading instruction begins with a serious commitment to ensuring that all students master these skills before exiting third grade. To accomplish this endeavor, the District provides 120 minutes of daily literacy instruction and provides all students with support systems to help them meet reading goals. Among these supports, the District provides students with access to *Accelerated Reader*<sup>™</sup>, a suite of reading services known as *mClass*, after-school tutoring, *Destination Reading*, *Learning A-Z*, the support of the District's *Volunteer Reading Corps*, and the *Reading Recovery* program. *Reading Recovery*

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teachers teach the lowest achieving first-grade students one-to-one to bring them to the average reading level of their classmates. Additionally, six schools have adopted the *Success for All* reading model which uses research-based reading strategies to ensure student success. Each support system provides opportunities for children needing intensive support and provides challenges and enrichment to those students who are at or above grade level.

As students progress to middle-school, the adolescent reader is impacted by the shift in reading focus. Students become engaged with reading much more informational text. Teachers continue to build on the skills introduced at the elementary level, but also begin to introduce the students to different and more complex reading strategies needed to master the increasingly more challenging text. Supports for the adolescent reader include: *Accelerated Reader*<sup>™</sup>, *Bridges* reading intervention materials, and after-school tutoring.

High school students continue along the spectrum of literacy learning and engage in the use of literacy strategies that impact all content areas. Students at this level must be prepared to read rigorous content area materials and continue to receive instruction in literacy strategies that support reading and writing. High school students must complete four years of instruction in the English Language Arts and have opportunities to use their skills through a variety of venues. Students enroll in *Advanced Placement* courses, register for dual enrollment courses, participate in the Debate League, and enter a wide variety of contests. High school students also explore the world of art, literature, and life's big questions through the curriculum. The texts which are organized around clusters of standards allow for the teaching of major literary concepts across genres. Students analyze fiction, non-fiction, poetry, drama, and media across the clusters of standards thereby allowing them to study information in-depth.

As DPS students graduate from high school and matriculate to college or enter the workplace, they will be equipped with literacy skills that ensure that they are able to function successfully in all endeavors.

### Mathematics Curriculum

The PreK-12 Comprehensive Mathematics Plan provides a curriculum and instructional guide for mathematics teachers. The mathematics curriculum is designed to focus mathematics instruction. High but attainable curriculum standards are required to produce a society that has both the capability to think and reason mathematically and have a useful base of mathematical knowledge and skills needed in life. The mathematics curriculum is designed to enrich the mathematical experiences of both teachers and students. It builds on fundamental mathematical strands and integrates mathematics into other subject areas. The curriculum is based upon an extensive body of research related to how students learn mathematics and provides opportunities for all students to develop mathematical proficiency. The mathematics curriculum outlined in curriculum guides and pacing charts are aligned to the Common Core State Standards for Mathematics and multiple literacies i.e., numeric, graphic, financial, textual, graphic, visual, multimedia, and digital. The curriculum guides represent a scope and sequence of instruction. Guides and pacing charts delineate what mathematics students need to know and be able to do. These documents provide the blueprint for rigorous content in mathematics curriculum.

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The early years in mathematics provides a foundation for future mathematics learning through hands-on and real world activities. *K-8 mathematics classrooms exceed state standards by requiring 90-minutes of uninterrupted, daily mathematics instruction. In an effort to provide rigorous and relevant instruction, the District assigns a mathematics teacher for every grade level beginning with kindergarten. All mathematics courses including at the elementary level allows gifted and talented students to advance.* For instance, a third grade student who excels in mathematics can be found in the fourth grade math class while remaining in all other third grade classes with his peers. The District has instituted Algebra in grades 8. The goal is to support students based on whatever their readiness level is. These opportunities exist throughout the mathematics pipeline from kindergarten to grade 12.

K-12 students who struggle in mathematics will be identified based on test results from state assessments and course grades to receive additional support through all inclusive support services. In addition, ninth grade students who have been identified as needing additional support will receive a double dose of algebra in grade 9. High school students complete Algebra I, Geometry, Algebra II, and one additional higher level mathematics course. Those who take Algebra I prior to high school can begin with Geometry. All high school students must complete four years of mathematics to meet graduation requirements regardless of where they begin. Students interested in challenging themselves are encouraged to enroll in Pre-AP/honors and Advanced Placement courses in mathematics.

Technology plays an integral role in the conceptual development of strong mathematical ideas with understanding. Technology helps to support student investigations into every area of mathematics and facilitates a focus on decision making, reflection, reasoning, and problem solving. Whether the technology is a graphing calculator, a motion detector (Calculator Based Ranger), or video on real news; it will play an essential role in our classrooms to bring the mathematics to life.

The instructional framework for teaching mathematics includes explicit instruction, whole group instruction, small group instruction centered on rigorous tasks, small group differentiated instruction, higher-order questioning strategies, multiple literacy strategies, and more. Mathematics learning requires actively engaged students. Teachers focus instruction on meaningful development of essential mathematical ideas outlined in curriculum guides and state standards. New concepts and skills are developed through real world problem solving opportunities to support a relevant education. Cooperative learning enables small groups of students to discuss, explore, discover, make conjectures, and use appropriate technology to develop conceptual meaning. Whole group collaboration follows with discussion of the specific concepts, connections, and predictions. As students develop numeracy skills and concepts, they become more confident and motivated in the expression of their mathematical abilities. They learn to enjoy and value mathematics, think analytically, and understand the role of mathematics in everyday life.

DPS mathematics curriculum is supported in building student capacity through the inclusion of the following departmental programs and projects:

- 
- District-wide K-12 Mathematics Professional Development
  - District-wide K-12 Mathematics Instructional Specialists and Coaches Meetings
  - Common Core State Standards for Mathematics Transition
  - Mathematics-Focused Coaching Training
  - DPS-Wayne State University Partnerships
  - Michigan State University Measurement Project
  - Woodrow Wilson Teacher Fellows
  - Eighth Grade Algebra
  - Academic Games™
  - Chess League
  - Summer Mathematics Teacher Institute
  - K-12 Mathematics Newsletter

## Science Curriculum

The K-12 Comprehensive Science Plan provides a curriculum and instructional guide for Science teachers. The intention of the Science curriculum structure is to create consistent, cohesive, and comprehensive instruction in Science across the District. This is significant in order to enable better collaboration between colleagues, less disruption for transient students, and focused instructional outcomes. Additionally, the use of Driving Questions, Scientific Explanations, hands on investigations, and technology integration throughout the curriculum provides an inquiry based and literacy laced environment. The Science curriculum also encourages partnerships with local non-profits, institutions of higher education, businesses, and educationally enriching environments, to allow students to experience Science connections in the real world.

The vertical (K-12) and horizontal (across the grade level) alignment of the Science curriculum are constantly being reviewed to address issues related to the cyclical learning cycle. The K-12 Science curriculum has instructional units that cover multiple Grade Level Content Expectations, include a pre and post test, and are organized by a Driving Question that students investigate throughout the unit. At the end of each unit, students should be able to construct a Scientific Explanation that answers the Driving Question with a claim and multiple pieces of evidence gained either through text, experience, investigation, or instruction. There are between 4-6 units during an academic school year. Additionally, at the middle school level, grade level themes were developed that encompassed all units for the entire year. Finally, ancillary programs that best support and enhance Science instruction are encouraged.

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High school graduation requirements demand three credits of Science (Biology is mandated, then students can take either Physics or Chemistry, and one additional Science elective). Some of the electives offered at the high school level are Forensics, Robotics, Environmental Science, and Earth Science. Many high schools have had guest speakers and outreach programs from our local universities such as Eastern Michigan University, Michigan State University, Oakland University, University of Michigan, and Wayne State University. Advanced Placement (AP) Science courses are also offered at some high schools.

Technology is a critical element of Science, and Science instruction. It is imperative to integrate technology in instruction, and utilize it in a manner that enhances the Science experience and deepens the content knowledge for the student. All of the curriculum and textbook resources for Science are available in a digital format. Every teacher in the District received a Netbook for instructional purposes. Teachers are encouraged to share digital content through the internet, powerpoint presentations, interactive white boards, document cameras, and Flex cams. Examples of how and when to use these technology components are in the curriculum guides provided and are highlighted at professional development sessions. Additionally, the use of probeware and data collection tools is encouraged. Finally, identifying technology that can support, challenge, and engage students individually is an important element in differentiated instruction. To that end, the Office of Science, in collaboration with the Detroit Mathematics and Science Center, created a document that includes helpful Science links for students and parents. This document, as well as multiple other helpful links, is available on our [detroitk12.org](http://detroitk12.org) website on the Science page.

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- Future City Competition
- Greening of Detroit
- Recycling (Recycle Here! and Green Living Science)
- Robotics, Science Fair
- Science Fair
- You Be the Chemist

High School Science enrichment opportunities:

- Farm 2 School Centers (School gardens & Nutrition education)

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- DAPCEP Saturday programs
  - Internships
  - Junior Science and Humanities Symposium
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  - Robotics
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  - SMaRT (Science Mathematics Architecture and Technology)
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### Science, Technology, Engineering, and Mathematics (STEM) Related Programs

The District is placing added emphasis on Science, Technology, Engineering and Mathematics subjects by strengthening the academic curriculum and increasing student access to and participation with STEM related activities and programs. The Office of Science and the Office of Mathematics Education, in collaboration with the Detroit Mathematics and Science Center, provided over \$30,000 in mini grants to Science and Mathematics teachers in the District during the 2011-2012 school year. Teachers were awarded materials for their classroom related to Mathematics or Science, buses for field trips, admission to museums, and many other items that provided enriching experiences for students.

Detroit Public Schools is in a partnership with the Woodrow Wilson Teaching Fellowship, a highly competitive program that recruits people with STEM degrees or backgrounds into the teaching field. The District currently has 37 Woodrow Wilson Fellows in 15 schools working under the mentorship and direction of Detroit Public Schools teachers. Our students truly benefit from the real world STEM expertise these fellows bring to the classroom, and the fellows are at a great advantage because they are under some of our best teachers.

This partnership runs through 2014 and involves Eastern Michigan University, Michigan State University, University of Michigan, and Wayne State University.

Office of Science Innovative Programs (moving forward)

- —Scientist at Every School (or some other creative name)
- Arts and Scraps/Science application (K-8)
- District-wide recycling
- Family Engineering, Family Math, or Family Science Events at every school

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- School gardens
  - Science enriching activities at every school

Office of Mathematics Education innovative STEM related programs are:

- Detroit Area Pre-College Engineering Program (DAPCEP)
- Robotics
- Project SEED
- Science Engineering Fair in Metropolitan Detroit
- Transportation and Civil Engineering (T.R.A.C.)
- University of Detroit Mercy (UDM), Georgia Tech and DPS Collaborative
- Summer Engineering Experience for Kids (SEEK)

### Department of Multilingual/Multicultural Education

An essential function of the Department of Multilingual/Multicultural Education is to ensure that diversity is respected and appreciated throughout the district. *The Detroit Public Schools' Multicultural Guide for Selecting Instructional Materials* is used by all departments as a template for ensuring diverse perspectives and images are represented in instructional materials. It also helps to ensure that bias, stereotypes, misconceptions, over representations, under representations or glossing over of issues are avoided. Detroit Public Schools endeavors to provide a truthful and accurate curriculum to all students. Although this department influences the curriculum in every department, the *Offices of Social Studies, Bilingual Education and Global Languages* uniquely comprise the Department of Multilingual/Multicultural Education.

Recognizing the need for students of the 21st century to successfully maneuver in an increasingly global society, the Department of Multilingual/Multicultural Education promotes diversity and learning about people around the world through the Office of Social Studies. Additional instructional time is devoted to students using inquiry strategies to learn about people and cultures around the world. Through our Social Studies cultural heritage programs and International Education Week programs every classroom in every school is encouraged to engage in in-depth study of cultures, regions and countries as they relate to the Michigan Department of Education content expectations for social studies. Students also learn about international careers and educational opportunities. The schools' in-depth study culminates in demonstration of the knowledge gained in *Around the World in a Day* programs that are intended to inform others and to celebrate the similarities and uniqueness of humanity.

The Office of Bilingual Education addresses the need for a growing competency in multilingual skills. A high priority is placed on the needs of English Language Learners and addressing their language acquisition challenges. The District has aggressively implemented dual-

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language programs at all grade levels. This is an educational approach that provides literacy instruction and content instruction to all students in English and another language. The major goals of this program are (1) to increase the number of bilingual and bi-literate students; (2) to provide opportunities and experiences to meet the needs of a diverse student population; (3) to prepare students to meet the demands for a multilingual workforce. The Department of Multilingual/Multicultural Education also provides interpretive services to any stakeholder as needed.

Recognizing how educational models of the 21st century must provide opportunities for all students to acquire the multilingual and multicultural skills that will empower them to meet the challenges of an increasingly borderless and interdependent world. To this end, the Office of Global Languages provides novice and advanced level instruction in numerous languages and cultures. New initiatives building on successful practices and the most current research are utilized to increase students' proficiency in world languages. Learning a second language, starting in kindergarten and continuing with a sequential program through grade 12, is an essential part of preparing students academically and socially to compete in a global economy.

### Social Studies Curriculum

The social studies curriculum for Detroit Public Schools is designed to teach students the content knowledge, intellectual skills and civic values necessary for fulfilling the duties of citizenry in a participatory democracy and to also effectively engage in the global society. The curriculum takes into consideration the developmental stages of children by beginning in Kindergarten with the course entitled, *Myself and Others*. This course is used as a foundation from which to expand students' learning about the world. The social studies curriculum culminates with the final required course offered in eleventh grade, *World History and Geography*. The elementary and middle school curriculum shows the students an ever broadening view of the world while each high school course has a disciplinary focus. All courses are integrative using as pillars the core social studies disciplines of: economics, civics, history and geography. The curriculum also integrates across the other social science disciplines and other content areas with an emphasis on literacy and using current technology. Service Learning and personal finance are essential components of social studies and are included in each course to varying degrees.

The sequence of study is as follows:

<b>Grade</b>	<b>Course</b>
Kindergarten	<i>Myself and Others</i>
First Grade	<i>Families</i>
Second Grade	<i>The Local Community</i>
Third Grade	<i>Michigan Studies</i>
Fourth Grade	<i>United States Studies</i>
Fifth Grade	<i>Integrated United States History</i>
Sixth Grade	<i>Western Hemisphere Studies</i>
Seventh Grade	<i>Eastern Hemisphere Studies</i>
Eight Grade	<i>United States History and Geography to Beginnings to 1865</i>



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Ninth Grade

United States History and Geography  
1865 to Present

Tenth Grade

Economics (1semester)

Civics (1 semester)

Eleventh Grade

World History and Geography

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## CORE CONTENT

### English Language Arts Curriculum

Consistent with Detroit Public Schools' commitment to excellence in education, DPS seeks to instill lifelong literacy skills in our students, staff, parents, and community through a comprehensive K-12 English Language Arts curriculum. Our curriculum is aligned with the Common Core State Standards which are standards adopted by many states across our nation. The mission statement for the development of these standards state:

*The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. (National Governors Association Center for Best Practices, 2010)*

Our experienced teaching staff uses frequent analysis of data, high-caliber instruction, current research-based strategies, and engages in ongoing professional development to positively impact student academic achievement.

Literacy instruction begins in the early elementary years with teaching students the essential concepts needed for reading success. These skills have been identified by the National Reading Panel as skills that all students must know and be able to do to become proficient readers. Beginner readers are taught the alphabetic principle which teaches students how letters work together in a systematic way to connect spoken language to written words. Students are also taught the concept of print awareness which helps students recognize the nature of written language, such as print goes left to right and top to bottom. Students are also taught phonemic awareness which is the ability to hear and understand the sounds from which words are made. Systematic and explicit phonics instruction incorporates knowledge about the association between the sounds of the language and the written symbols or spellings that have been chosen to represent sounds.

Additionally, students are taught vocabulary and comprehension skills that propel them toward becoming competent readers. Students are also taught writing skills, which are intricately woven into the process of learning to read.

The Detroit Public Schools' approach to reading instruction begins with a serious commitment to ensuring that all students master these skills before exiting third grade. To accomplish this endeavor, the District provides 120 minutes of daily literacy instruction and provides all students with support systems to help them meet reading goals. Among these supports, the District provides students with access to *Accelerated Reader*<sup>™</sup>, a suite of reading services known as *mClass*, after-school tutoring, *Destination Reading*, *Learning A-Z*, the support of the District's *Volunteer Reading Corps*, and the *Reading Recovery* program. *Reading Recovery* teachers teach the

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lowest achieving first-grade students one-to-one to bring them to the average reading level of their classmates. Additionally, six schools have adopted the *Success for All* reading model which uses research-based reading strategies to ensure student success. Each support system provides opportunities for children needing intensive support and provides challenges and enrichment to those students who are at or above grade level.

As students progress to middle-school, the adolescent reader is impacted by the shift in reading focus. Students become engaged with reading much more informational text. Teachers continue to build on the skills introduced at the elementary level, but also begin to introduce the students to different and more complex reading strategies needed to master the increasingly more challenging text. Supports for the adolescent reader include: *Accelerated Reader*<sup>™</sup>, *Bridges* reading intervention materials, and after-school tutoring.

High school students continue along the spectrum of literacy learning and engage in the use of literacy strategies that impact all content areas. Students at this level must be prepared to read rigorous content area materials and continue to receive instruction in literacy strategies that support reading and writing. High school students must complete four years of instruction in the English Language Arts and have opportunities to use their skills through a variety of venues. Students enroll in *Advanced Placement* courses, register for dual enrollment courses, participate in the Debate League, and enter a wide variety of contests. High school students also explore the world of art, literature, and life's big questions through the curriculum. The texts which are organized around clusters of standards allow for the teaching of major literary concepts across genres. Students analyze fiction, non-fiction, poetry, drama, and media across the clusters of standards thereby allowing them to study information in-depth.

As DPS students graduate from high school and matriculate to college or enter the workplace, they will be equipped with literacy skills that ensure that they are able to function successfully in all endeavors.

## Mathematics Curriculum

The PreK-12 Comprehensive Mathematics Plan provides a curriculum and instructional guide for mathematics teachers. The mathematics curriculum is designed to focus mathematics instruction. High but attainable curriculum standards are required to produce a society that has both the capability to think and reason mathematically and have a useful base of mathematical knowledge and skills needed in life. The mathematics curriculum is designed to enrich the mathematical experiences of both teachers and students. It builds on fundamental mathematical strands and integrates mathematics into other subject areas. The curriculum is based upon an extensive body of research related to how students learn mathematics and provides opportunities for all students to develop mathematical proficiency. The mathematics curriculum outlined in curriculum guides and pacing charts are aligned to the Common Core State Standards for Mathematics and multiple literacies i.e., numeric, graphic, financial, textual, graphic, visual, multimedia, and digital. The curriculum guides represent a scope and sequence

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of instruction. Guides and pacing charts delineate what mathematics students need to know and be able to do. These documents provide the blueprint for rigorous content in mathematics curriculum.

The early years in mathematics provides a foundation for future mathematics learning through hands-on and real world activities. *K-8 mathematics classrooms exceed state standards by requiring 90-minutes of uninterrupted, daily mathematics instruction. In an effort to provide rigorous and relevant instruction, the District assigns a mathematics teacher for every grade level beginning with kindergarten. All mathematics courses including at the elementary level allows gifted and talented students to advance.* For instance, a third grade student who excels in mathematics can be found in the fourth grade math class while remaining in all other third grade classes with his peers. The District has instituted Algebra in grades 8. The goal is to support students based on whatever their readiness level is. These opportunities exist throughout the mathematics pipeline from kindergarten to grade 12.

K-12 students who struggle in mathematics will be identified based on test results from state assessments and course grades to receive additional support through all inclusive support services. In addition, ninth grade students who have been identified as needing additional support will receive a double dose of algebra in grade 9. High school students complete Algebra I, Geometry, Algebra II, and one additional higher level mathematics course. Those who take Algebra I prior to high school can begin with Geometry. All high school students must complete four years of mathematics to meet graduation requirements regardless of where they begin. Students interested in challenging themselves are encouraged to enroll in Pre-AP/honors and Advanced Placement courses in mathematics.

Technology plays an integral role in the conceptual development of strong mathematical ideas with understanding. Technology helps to support student investigations into every area of mathematics and facilitates a focus on decision making, reflection, reasoning, and problem solving. Whether the technology is a graphing calculator, a motion detector (Calculator Based Ranger), or video on real news; it will play an essential role in our classrooms to bring the mathematics to life.

The instructional framework for teaching mathematics includes explicit instruction, whole group instruction, small group instruction centered on rigorous tasks, small group differentiated instruction, higher-order questioning strategies, multiple literacy strategies, and more. Mathematics learning requires actively engaged students. Teachers focus instruction on meaningful development of essential mathematical ideas outlined in curriculum guides and state standards. New concepts and skills are developed through real world problem solving opportunities to support a relevant education. Cooperative learning enables small groups of students to discuss, explore, discover, make conjectures, and use appropriate technology to develop conceptual meaning. Whole group collaboration follows with discussion of the specific concepts, connections, and predictions. As students develop numeracy skills and concepts, they become more confident and motivated in the expression of their mathematical abilities. They learn to enjoy and value mathematics, think analytically, and understand the role of mathematics in everyday life.

DPS mathematics curriculum is supported in building student capacity through the inclusion of the following departmental programs and projects:

- District-wide K-12 Mathematics Professional Development
- District-wide K-12 Mathematics Instructional Specialists and Coaches Meetings
- Common Core State Standards for Mathematics Transition
- Mathematics-Focused Coaching Training

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- DPS-Wayne State University Partnerships
  - Michigan State University Measurement Project
  - Woodrow Wilson Teacher Fellows
  - Eighth Grade Algebra
  - Academic Games™
  - Chess League
  - Summer Mathematics Teacher Institute
  - K-12 Mathematics Newsletter

## Science Curriculum

The K-12 Comprehensive Science Plan provides a curriculum and instructional guide for Science teachers. The intention of the Science curriculum structure is to create consistent, cohesive, and comprehensive instruction in Science across the District. This is significant in order to enable better collaboration between colleagues, less disruption for transient students, and focused instructional outcomes. Additionally, the use of Driving Questions, Scientific Explanations, hands on investigations, and technology integration throughout the curriculum provides an inquiry based and literacy laced environment. The Science curriculum also encourages partnerships with local non-profits, institutions of higher education, businesses, and educationally enriching environments, to allow students to experience Science connections in the real world.

The vertical (K-12) and horizontal (across the grade level) alignment of the Science curriculum are constantly being reviewed to address issues related to the cyclical learning cycle. The K-12 Science curriculum has instructional units that cover multiple Grade Level Content Expectations, include a pre and post test, and are organized by a Driving Question that students investigate throughout the unit. At the end of each unit, students should be able to construct a Scientific Explanation that answers the Driving Question with a claim and multiple pieces of evidence gained either through text, experience, investigation, or instruction. There are between 4-6 units during an academic school year. Additionally, at the middle school level, grade level themes were developed that encompassed all units for the entire year. Finally, ancillary programs that best support and enhance Science instruction are encouraged.

High school graduation requirements demand three credits of Science (Biology is mandated, then students can take either Physics or Chemistry, and one additional Science elective). Some of the electives offered at the high school level are Forensics, Robotics, Environmental Science, and Earth Science. Many high schools have had guest speakers and outreach programs from our local universities such as Eastern Michigan University, Michigan State University, Oakland University, University of Michigan, and Wayne State University. Advanced Placement (AP) Science courses are also offered at some high schools.

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The Office of Bilingual Education addresses the need for a growing competency in multilingual skills. A high priority is placed on the needs of English Language Learners and addressing their language acquisition challenges. The District has aggressively implemented dual-language programs at all grade levels. This is an educational approach that provides literacy instruction and content instruction to all students in English and another language. The major goals of this program are (1) to increase the number of bilingual and bi-literate students; (2) to provide opportunities and experiences to meet the needs of a diverse student population; (3) to prepare students to meet the demands for a multilingual workforce. The Department of Multilingual/Multicultural Education also provides interpretive services to any stakeholder as needed.

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The sequence of study is as follows:

<b>Grade</b>	<b>Course</b>
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Third Grade	Michigan Studies
Fourth Grade	United States Studies
Fifth Grade	Integrated United States History
Sixth Grade	Western Hemisphere Studies
Seventh Grade	Eastern Hemisphere Studies
Eight Grade	United States History and Geography to Beginnings to 1865
Ninth Grade	United States History and Geography 1865 to Present
Tenth Grade	Economics (1 semester) Civics (1 semester)
Eleventh Grade	World History and Geography

Social studies electives available to high school students include: African American History, African Civilizations, Anthropology, Asian Studies, African Studies, Basic Law, Criminal Law, Ethnic Studies, Latin American Studies, Living Skills, Native American Studies, Psychology, Sociology, Social Responsibility, Student Government and Test Taking Skills.

To provide increased rigor and college readiness, the following Advanced Placement courses are offered: European History, Macroeconomics, Government and Politics: Comparative, Microeconomics, Psychology, Government and Politics: United States, United States History and World History. Teachers are encouraged to use the Powerful and Authentic Social Studies (PASS) model for instruction. This inquiry based model involves the in-depth study of meaningful concepts that require the use of primary sources and higher order thinking skills as outlined in Bloom's Taxonomy along with using strategies and activities that replicate tasks performed in life beyond the classroom. This model also requires integration across content areas and across social studies' disciplines.

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In developing curriculum, selecting materials and in instruction: the tenets of African-centered education and multicultural education are followed. Particular respect is given to the diversity and equality of mankind and how culture influences learning, behavior and perspectives. Core Democratic Values; which are common beliefs essential to our society, are infused throughout the curriculum.

The Office of Social Studies supports many enrichment programs and activities that enhance learning and application of social studies content including:

**African Heritage Cultural Center:** The African Heritage Cultural Center is an interactive museum that highlights ancient and contemporary African history.

**Anti-Bullying: Creating Good Citizen Programs:** Includes a curriculum and programs to assist staff and parents in combating bullying. In the context of the social studies curriculum, teachers promote anti-bullying while fostering good citizenship. Annual conferences and workshops are held to promote anti-bullying and good citizenship.

**Cranbrook Institute of Science/DPS Educational Programs:** This program is designed to enhance social studies and science instruction. It includes private access to the museum, training for staff, internship opportunities and field trips for students and their families.

**Cultural Heritage Activities:** Includes a curriculum that helps students to conduct in-depth study of cultures using the core social studies' disciplines, as a culminating activity students are invited to submit samples of their study and participate in a cultural heritage gala.

**Culturally Influenced Social Studies:** Includes technology based units built in collaboration with teachers and community that focus on providing perspectives of peoples that are often omitted unintentionally or by design.

**Detroit Public Schools' Social Studies Olympiad:** The Social Studies Olympiad is a fun and challenging competition that encourages students to learn and apply essential concepts.

**Financial Literacy Programs:** Money Wise programs are offered to all high school economics students. Money Smart Week activities are available to students of all grade levels.

**Mock Elections:** Students learn the importance of democracy through mock elections held during every major city, state and national election season.

**Service Learning Showcase:** Students showcase service learning projects that have a curriculum connection, address a community need, involve research, and include community partnerships and action.

**Teen Court:** In partnership with the Wayne County Prosecutor's Office, The Teen Court experience is designed to reduce the likelihood of incarceration for juvenile misdemeanor offenders and to foster interest in careers in the legal profession. This program is connected to basic law and criminal justice courses. Teen Court also promotes positive behavior in the youthful offenders and in the students involved in the program.

**Teen Leadership Institute:** The Teen Leadership Institute is a citywide organization that gives students experience in governance. The Institute brings together high school students from across

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the city to engage in Service Learning Projects, Bill Writing, Mock Jury Trials, Parliamentary Procedures, Fundraising, Michigan Youth in Government Conferences and other activities that strengthen their leadership and communication skills, and prepare them for college and beyond.

Camp Africa: A Summer day camp experience conducted in partnership with the Charles H. Wright Museum of African American History for students grades K-8. This unique 2 day camp provides a rich educational experience for students. Students use social studies, literacy, mathematics, science and fine and performing arts content to learn about African and African American cultures and civilizations. Students also apply concepts learned to contemporary issues.

Passport to Africa: In partnership with Wayne County Community College District, annually students experience Africa through the eyes of native Africans.

International Education Week: This program provides students with information about global educational and career opportunities as well about various cultures.

## Bilingual Education Curriculum

The PK-12 Comprehensive Curriculum Plan for Bilingual/English as Second Language (ESL) students is established by the Michigan English Language Proficiency Standards (MELPS), which is aligned to the Michigan (English Language Arts (ELA) Standards. The goal of these standards is to establish criteria to support students who are learning English as an additional language. The implementation of MELP Standards is essential for educators and learners and ensures English Language Learners (ELLs) access to the full content area curriculum. The MELP Standards support this vision by providing standards and benchmarks for local school districts, administrators, curriculum specialists, and teachers in K-12 schools as they develop effective and equitable education, inclusive of English Language Learners. Current research shows that language proficiency is further developed through academic application, core curriculum subjects, such as social studies, science, and mathematics. The ultimate goal for all English language learners is personal, social, occupational, and civic literacy.

Current linguistic, psychological, and educational research offers insight into the process of learning additional languages and the pedagogy that supports second language learning. Language learning takes place in the community and in the classrooms. In the school setting several general principles underlie successful language teaching and learning for all students. The *TESOL ESL Standards for Pre-K-12 Students* provide an understanding of these principles of language acquisition: language is functional, language processes develop interdependently, language acquisition occurs through meaningful use and interaction, language acquisition is a long-term process, language learning is cultural learning, and native language proficiency contributes to second language acquisition.

In Bilingual/ESL classrooms, emphasis is placed on the four domains of language acquisition: Listening, Speaking, Reading, and Writing. Students are tested every spring, using the English Language Proficiency Achievement test (ELPA), to measure their proficiency in these domains. Teachers use the core curriculum materials provided by the District, along with supplementary materials in classrooms with Bilingual/ELL students to expedite the learning process for all ELL students across the content areas. Integration of English language arts occurs in multiple ways. First, English language arts curriculum, instruction, and assessment reflect the integration of all components. The English language arts are not perceived as individual content areas, but as one unified subject in which each of the areas supports the others and enhances thinking and learning. Secondly, there is integration of the teaching and learning of content and process within the English language arts.

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Upon availability of staff, and considering the needs of each school's population, supplementary materials may be used as a suitable means to teach the curriculum. Materials used in the elementary grades have a focus on academic vocabulary development, accessible reading, and differentiated instruction. At the middle school level, English Language Learners who are striving to become high achievers can do so by using materials that combine writing and language instruction to increase the acquisition of the English Language. Students in grades 9-12 have access to a program is designed to provide students with resources to accelerate their language skills and bring them up to grade level. However, teachers who use the core ELA materials must do so according to the pacing charts provided by the District.

In order to assist ELL students in accelerated acquisition of the English language, bilingual teachers have received professional development in the implementation of the Sheltered Instruction Observation Protocol (SIOP), among other strategies. This research project was developed through the Center for Research on Education, Diversity & Excellence (CREDE). It provided an opportunity to work closely with a group of teachers on the east coast and a group on the west coast to engage in intensive refinement process and to use the sheltered model in sustained professional development effort. This work was supported under the Education Research and Development Program (Echevarria, Vogt, Short, 2000). This model allows teachers to support their students in an effective manner. They will continue to receive additional training and support as necessary by the Bilingual Literacy Coaches, and consultants.

Many of the strategies used to differentiate instruction for all learners, also work well for students whose first language is not English. Additional strategies include:

- flow charts
- maps/charts/graphs/semantic webbing
- technology (talking pens, interactive white boards, SMART tables)
- artifacts and video clips
- music, songs and chants
- literacy centers in all the content areas
- games
- learning logs
- modeled talk
- vocabulary role play

## Global Languages Curriculum

The Office of Global Languages is committed to providing all students World Language instruction and developing effective communication skills in at least one World Language other than English. Our main objective is to equip our students linguistically and culturally to communicate successfully in a pluralistic American society and in the global communities. In 2011, we created and implemented the Global Language Standards-Based Curriculum in alignment with the National and State Standards for Foreign Language Learning in the 21st Century, which describes what students, "can do" with the language rather than what they, "can say about" the language. This shift includes: the "5 C's": Communication, Culture, Connections, Comparison, and Communities.

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It also includes three modes of communication: interpersonal, interpretative, and presentational. Our students: gain greater insight into the cultural aspects of people who speak the target language, see the connection between the study of language and other disciplines, develop a better understanding of the nature of their own language, and engage in language interactions within and beyond the classroom. The focus of instruction is no longer on teaching the how (grammar) and what (vocabulary) of languages, but on teaching the why, whom, and when (the socio-linguistic and cultural aspects of language) in order to develop the learners' communicative skills in the target language and to promote genuine interaction (Standards for Foreign Language Learning: Preparing for the 21st Century, American Council on the Teaching of Foreign Languages, 1999). This approach provides a new lens through which our students build meaningful connections and access to the global community from a multicultural and multilingual perspective in all the languages taught: Spanish, French, German, Chinese, Arabic, Japanese, Russian, Latin, and American Sign Language. The Global Language handbook (2011) offers a comprehensive guide to principals and Global Language teachers to successfully implement the new Global Language Standards-Based Curriculum. Models of Learning Scenarios (thematic units) as well as the scope and sequence of instruction can be found on these pages.

The Michigan Merit Curriculum considers World Languages as a core class requiring the graduating class of 2016 and those following, to have completed two credits of a World Language other than English prior to graduation, or demonstrate a two-year equivalent proficiency at the Novice High level on the American Council of the Teaching of Foreign Language Proficiency Scale. This new World Language Graduation Requirement offers students the option to demonstrate their proficiency in another language and, if successful, a. continue developing their native (non-English) language by registering for more advanced courses, b. register for another Global language course; c. opt out of a World Language by passing the Language Proficiency Exam. As indicated in the ACFTL Proficiency Guidelines, to reach an Intermediate level of language proficiency in a Foreign Language, students need to begin World Language instruction at an early age and continue developing their skills for many years. Examination and application high schools in DPS require students to complete 4 years of a Global Language. Our goal is to expand Global Language education to all the comprehensive schools as well as K-8 schools. Research indicates that it is essential to begin second language instruction at an early age in order to stimulate brain development at a critical stage, which leads to higher academic achievement in all areas. Additionally, we strive to integrate multilingual, multicultural education in our schools so that all our students become more international-minded.

Quality Global Language instruction requires that teachers to be facilitators of instruction. They actively engage their students in dynamic language experiences and as they address all their students' needs, learning styles, and levels of language proficiency. The use of the target language in the classroom and beyond, collaborative learning, authentic resources, and effective use of technology are important elements of the new Global Language curriculum. Assessment is directly related to instruction. Teachers assess their students' language proficiency in multiple ways, such as formal and informal as well as formative and summative assessment to measure learning. The emphasis is on assessing our students' language through task-based projects that integrate all the language learned over time. Providing effective professional development for all our Global Language teachers in all these areas is crucial to the successful implementation of the new Global Language Curriculum.

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Additionally, the District is incorporating Distance Learning Global Language education into our elementary, middle, and high school curriculum. Live instructors, who are located in far-away places, provide live, interactive instruction and assessment to our local schools via Skype. Virtual Learning can be used both as a supplement to the existing GL teacher or in lieu of when a GL teacher is absent. Moreover, we added several Advanced Placement (AP) courses in different languages to challenge our students to reach higher levels of language proficiency. Furthermore, the District has plans to implement International Baccalaureate (IB) Programs at elementary, middle and high Schools.

In compliance with the State mandate related to World Language Graduation Requirements, the District has implemented online world language proficiency exams to verify the language proficiency of incoming 8<sup>th</sup> grade students who claim they understand, speak, read, and write at the novice high level in Spanish, French, German, Italian, Chinese, Japanese, and Arabic. This Office is working to make this language proficiency exam available for all Global Language students, starting with the incoming 9<sup>th</sup> graders at the end of the year so that we can objectively measure each student's level of language proficiency at the end of a course through a reliable tool and identify areas of improvement for each student.

## Special Education K-12 Programs

A variety of programs and services to meet the diverse needs of students with disabilities are offered in schools throughout the district. The instructional program for students with disabilities is aligned to the district's curriculum, Michigan Standards, and the Individual Education Plan (IEP) thus providing opportunities to learn and achieve individual outcomes. Instruction with accommodations/modifications that supports the pathways delineated in the IEP with annual yearly assessment in either the Michigan Educational Assessment Program (MEAP) or alternate assessment (MI-Access). There are a variety of programs available to serve students with disabilities such as Autism Spectrum Disorders (ASD), Emotional Impairments (EI), Cognitive Impairments (CI), Physically Impaired (PI), Other Health Impaired (OHI), Early Childhood Developmental Delay (ECDD), Traumatic Brain Injury (TBI), Specific Learning Disability (SLD), Speech and Language impaired (SLI), Hearing Impaired (HI), Visually Impaired (VI), Severe Cognitive Impaired (SCI), and Severe Multiple Impaired (SXI). Students may also receive related services such as physical and occupational therapy, counseling, nursing services, school social work services and assistive technology to access a free and appropriate public education. The goals of the division of special education is to provide all students the support necessary to achieve at their maximum potential towards attaining the standards required for graduation to become productive members of the community and workforce. Providing a spectrum of services with a strong focus on least restrictive environment we have made strides in expanding inclusive practices that allow students to be educated in their neighborhood school. Students in high school have opportunities to attend career tech centers for vocational training. Those students with moderate to severe disabilities have the opportunity to receive vocational and life skills training through the ACT 18 Workskills program up to age 26.

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## Electives

### Curriculum for the Arts

Curriculum in the Arts: The arts curricula include planning, developing, and implementing the fine arts curriculum. Music and Visual Art are required subjects in grades K – 5. At the secondary level, *Theatre Arts, Dance, Visual Arts, Music, and a myriad of arts-related courses* are offered on an elective level. Authentic assessment is one of the focal points of the curriculum. This assessment is offered through a series of festivals, art exhibitions, and performances such as the District's Evening of Fine Arts.

### Music Curriculum

The K -12 Comprehensive Music Plan is a curriculum and instructional guide for instrumental and vocal music teachers. The instrumental and vocal music programs are designed to implement a balanced and sequential instructional program for students and teachers. The curriculum is designed to introduce students to music at the elementary school level, to foster and further develop their musical abilities and interest at the middle school level and to skillfully refine their listening, analyzing, playing, singing and composition writing skills at the high school level. Through the use of instrumental and vocal music pacing charts, the alignment to the Common Core State Standards and the No Child Left Behind mandate, the music curriculum defines what instrumental and vocal music students need to know and should be able to demonstrate at every level of development in four category groupings: Historical, Cultural and Social contexts for Music, Performing and Producing Music, Analyzing and Evaluating Music and Aesthetic Sensitivity to Music. These documents provide the model for a rigorous training program to help every student reach their full academic and creative potential students.

The introduction of elementary students to music is very important to laying the foundation for the development of the whole child. The exposure to music at an early age provides a firm foundation to tap into creativity which leads to the development of problem solving, higher order thinking skills, rapid data processing, increased memorization, speed reading, grouping and deciphering skills. In an effort to establish and develop this creative environment, schools that have music programs at the elementary level are assigned a skilled and qualified teacher to meet with students a minimum of two fifty five minutes periods per week. Students at the middle school level receive instructions a minimum of three days per week and high school students receive a minimum of 4 fifty five minute classes per week. All music classes including those at the elementary level allow gifted and talented students to advance while being grouped with students of the same grade level and/or a different level. The curriculum is set up to allow and support students who excel at a rate faster than the class with his peers while still remaining in the same class. The curriculum allows for the usage of tracks testing as a means of supporting students based on what level of readiness the student portrays from 4<sup>th</sup> through 12<sup>th</sup> grade.

Music students in grades 6 – 12 are exposed to different levels of testing on various instruments and ensembles that help to identify students that are performing at, above or below state level. DPS are participants in District and State Level Michigan School Band and Orchestra Association, Michigan School Vocal Music Association, and the American String Teacher Association Solo and Ensemble Festival, Band and Orchestra, String, Choral and Jazz Band/Choir Festival. They are inclusive of the following instruments and/or voice groupings:  
Instrumental - music students on brass, woodwind, percussion and string instruments e.g., piano, music theory and harp.

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Vocal - Small and large ensemble (SSAA =Soprano, Soprano, Alto, Alto. SATB = Soprano, Alto, Tenor, Bass, TTBB = Tenor, Tenor Baritone, Bass).

All high school students must complete one year of the arts to meet graduation requirements. Students desiring to challenge themselves and prepare for music at the college level are encouraged to register and participate in AP and Honor classes in instrumental, vocal music, Music History and theory courses.

Technology is very important in the development of the music programs. Recorded materials via DVD, CD, Video digital and/or analogue, Smartboards™, Ipods and digital recording studios play a tremendous role in helping students to understand ideas. Students are able to explore and focus on design, creativity and problem solving through the usage of technology. Technology plays a tremendous role in the evolution of the music classroom.

## Visual Art

The Art Education Core Curriculum describes the specific art outcomes to be achieved at given grade levels by all students attending Detroit Public Schools. These competencies follow a sequential developmental matrix of visual art components: Art Production, Art History/Culture, Art Criticism/Assessment, and Art Aesthetics/Value. These components are aligned with the Michigan Essential Goals and Objectives for Art Education: Creating Art and the Art Production Process; Historical, Cultural and Social Contexts; Art Criticism/Analysis, Aesthetics: Philosophical Questions and the National Standards for Arts Education.

The Art Core Curriculum state overall competencies expected to be mastered by students as they complete the twelfth grade. Grade level outcomes are expected to be mastered at the completion of each grade level grouping: K-2; 3-5; 6-8, 9-12. Grade level outcomes are cumulative and are based on the assumption that the students have achieved the outcomes specified for each of the preceding grade levels. Achievement of outcomes is dependent upon several factors, including the amount of time allotted for art education instruction and the sequential continuity of that instruction according to prescribed guidelines of the curriculum. The Core Curriculum for Art Education also provides guidelines that will be utilized for the selection and development of instructional materials, procedures, and assessments that will help students achieve the knowledge, skills and values necessary for full and effective participation in our global community. By following the Core Curriculum, teachers will help students to increase their higher order thinking skills, enable them to participate in greater substantive conversation which considers relationships within their world and the world around them; and increase their deep knowledge so that they understand what they are learning and why they are receiving instruction in visual arts education.

This curriculum is responsive to the Detroit Public Schools Multicultural Curriculum Resolutions. It provides historical and contemporary multicultural perspectives that become a lens through which students see themselves and their cultural heritage within a global context.

Technology is very important in the development of the Visual Arts programs. Recorded materials via DVD, CD, Video digital and/or analogue, smart boards, I pods and digital recording studios play a tremendous role in helping students to understand ideas. Students are able to explore and focus on design, creativity and problem solving through the usage of technology. Technology plays a tremendous role in the evolution of the music classroom.

## Dance

The Dance curriculum is a guide for dance teachers and students. The curriculum is designed to introduce, make students aware of structured movement and to engage the whole self. Students



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are exposed to the concepts of dance in elementary school. The first exposure is in kindergarten. In kindergarten, students move and learn expression through engagement. It is here that students begin to learn and become literate in the language of dance (K-4<sup>th</sup> grade)

In grades (5-8) students expand learning to create, perform, develop their skills and knowledge that enhance their physical and mental abilities. Students learn the importance of collaboration and the proper care for the health of their bodies. Students learn details of style, choreography. The dance curriculum provides the students and teachers with a unique insight into culture and/or historical period of time from which the selection of work is taken from.

In grades (9-12) technical expertise and artist expression are enhanced through reflective practice, private study and evaluation of the student's own work. Students examine the role and meaning of dance in various social, cultural and historical contexts through many different dance forms.

In the 9<sup>th</sup> – 12<sup>th</sup> grade curriculum, students are given the opportunity to perform more in outside venues and events. Students create choreography for the ensemble as well as solo works.

Students experiment with many different type dances for many different performance occasions.

In the Dance Curriculum, students work to:

- Identify and demonstrate movement
- Understand choreographic principles
  
- Processes and structure
  
- Use dance as a means to create and communicate
- Apply and demonstrate critical and creative thinking skills through dance performance
- Demonstrate understanding of dance in various cultural and historical periods
- Make connections between dance and healthful living
- Make connections between dance and other disciplines

DPS Dance Curriculum is highlighted through:

- The All City Dance Concert (Elementary, Middle School and High School participants)
- The Detroit Public School's Evening of Fine Arts (Middle School and High School participants)
- The Michigan Youth Arts Festival (High school participants)
- Partnership with the Detroit Jazz Festival (High School participants)

Technology is very important in the development of the dance programs. Recorded materials via DVD, CD, Video digital and/or analogue, smart boards, I pods and digital recording studios play a tremendous role in helping students to understand ideas. Students are able to explore and focus on design, creativity and problem solving through the usage of technology. Technology plays a tremendous role in the evolution of the dance studio. At present, we have dance programs in five elementary middle schools and eight high schools.

## Theater

The Theater Curriculum is a guide for teachers and students to learn about life, actions, positive and negative consequences, customs and beliefs, about others and themselves. The curriculum is designed to help students learn through pretend, role play, imitation, creative thinking and

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collaboration. The curriculum identifies and utilizes student skills as playwrights, actors, designers, directors, set builders, audio and video operators.

The curriculum serves as a guide to develop group and individual skills through planning, playing and teaches how to evaluate content. Students learn to work as a complete team and to utilize the contributions from the other disciplines on a daily basis. Students learn the art of public speaking, voice inflections, wave forms, pitch frequencies, distances, vocabulary, historical research, creativity and the calculation of mathematical properties throughout each production. The curriculum affords students the opportunity to explore personalities and geography while expressing understanding of their immediate world and broaden their knowledge and understanding of other cultures. The curriculum afford students the opportunity to develop theatre literacy through the use of vocabulary, imagined places people, and things.

The curriculum allows students through performance, self and group critiques to develop a deeper understanding of local, national and global issues through metaphoric and representative drama. In the Theatre Curriculum, students learn:

- Script writing through improvising, writing and refining scripts based on personal experience, heritage, imagination, literature and history
- Acting by developing, communicating and sustaining characters, in improvisations in formal and/or informal sets
- Design and produce by conceptualizing and realizing artistic interpretations for formal and/or informal productions
- Directing by interpretation of dramatic texts, reorganizing and conducting rehearsals for formal and/or informal sets/productions
- Research, evaluate and synthesize cultural and historical information to support artistic choices
- Compare and integrate art forms by analyzing traditional theatre, dance, music visual arts and new art forms
- Analyze, critique and construct meaning from formal and informal theatre, film, television, and electronic media productions
- Understand context by analyzing the role of theatre, film, television, and electronic media

Technology is very important in the development of the Theatre programs. Recorded materials via DVD, CD, Video digital and/or analogue, smart boards, I pods and digital recording studios play a tremendous role in helping students to understand ideas. Students are able to explore and focus on design, creativity and problem solving through the usage of technology. Technology plays a tremendous role in the evolution of the Theatre program.

At present, there are two full time Theatre Programs in DPS Cass Technical and DSA High Schools.

The Fine Arts curriculum contributes in important way to the quality of every student's life. Every musical *work is a product of its time and place. Some works transcend their original setting and continue to appeal to society through their timeless and universal attraction.* Because the arts are an integral part of our history, the ability to listen to music and view art with understanding is essential if students are to gain a broad cultural and historical perspective. The adult life of every student is enriched by the skills, knowledge, and habits acquired in the study of the arts. Detroit Public Schools Fine Arts students benefit from partnerships and additional educational support with state universities and colleges as well as:

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- Detroit Institute of Arts
  - Detroit Symphony Orchestra
  - Center for Creative Studies
  - DPS Foundation
  - Detroit International Jazz Festival**
  - Sphinx program
  - Wayne State University Weekend School of Music
  - Michigan State University Community School Program
  - Detroit Symphony Orchestra (DSO) Power Dream Program
  - Detroit Symphony Orchestra (DSO) Civic Ensembles
  - Blue Lake Fine Arts Camp
  - Blue Lake Fine Arts International Program**
  - Larry and Elizabeth Schrock/Interlochen Arts Camp
  - Detroit Chamber Music Society
  - American Federation of Musicians Local 5 In school Jazz Program
  - University Of Michigan School of Music (Jazz program) Summer Camp
  - Michigan State University School of Music (Jazz Program) Summer Camp
  - Detroit Opera House
  - James Tatum Foundation for the Arts
  - Perfect Cleaners
  - The Parade Company

## Physical Education Curriculum

The Pre-K-12 Comprehensive Physical Education Plan is designed to provide a researched based curriculum for physical education educators. The curriculum is designed with both the physical and cognitive development of the students in mind. It focuses on the development of motor skills, muscular strength, cardio-vascular fitness, aerobic fitness, and flexibility while the student is involved in activities that develop creative thinking, problem solving and appropriate social behavior. Physical education serves a unique purpose in providing students with knowledge, skills, and fitness that will empower them to develop and maintain a healthy productive lifestyle.

The Physical Education Curriculum Instructional Sequence and Pacing Chart is designed to provide the guidelines for physical education teachers in planning a well-rounded, quality physical education program for students. The pacing chart is to be used as a basis to make decisions regarding the selection, structuring, and sequencing of educational activities. The combination of quality planning, instruction and experiences supports our District's mission as an integral part in

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the development of student-centered learning environment in which students are motivated to become productive citizens and life-long learners. The Physical Education Curriculum Instructional Sequence and Pacing Chart is to be used in conjunction with the Physical Education Curriculum, which provides a complete plan of physical education for grades pre-kindergarten through twelve. The goals and content standards included in the Physical Education Curriculum Instructional Sequence and Pacing Chart are consistent with content standards and benchmarks proposed by both the National Association for Sports and Physical Education and the Michigan Department of Education. These goals and content standards provide a comprehensive framework for describing content that is appropriate for inclusion in a physical education program. The content standards specify what students should know and be able to do.

Research indicates that regular physical education, included in children's school curricula, produces physical, psychological, and intellectual benefits. Physical education may help prevent degenerative disease, improve overall physical condition, maintain emotional balance, promote a sense of social effectiveness, contribute to academic performance, and establish positive recreation habits. Therefore, physical education must not be considered a curricular frill; rather, it must be supported as an integral part of comprehensive education (American Alliance for Health, Physical Education, Recreation and Dance).

Detroit Public Schools recommended the following time allotment for elementary school physical education instruction is as follows: Kindergarten-50 minutes, First Grade through Third Grade-100 minutes, Fourth Grade through Fifth grade-150 minutes. Middle Schools recommended time allotment for physical education instruction is as follows: Sixth Grade through Eighth Grade-150 minutes. The minimum requirement for graduation from high school is one semester of physical education.

All students, from pre-kindergarten through grade 12, should participate in quality physical education classes every school day. A high-quality physical education program should include four components:

1. **Opportunity to Learn:** Instructional periods totaling 150 minutes per week (elementary) and 225 minutes per week (middle and high school). Physical education class size should be consistent with that of other subject areas.

2. **Meaningful Content:** Written, sequential curriculum based on state and national standards for physical education.

3. **Appropriate Instruction:** Full inclusion of all students. Well-designed lessons that facilitate student learning.

4. **Student and Program Assessment:** Assessment is an ongoing, vital part of the physical education program. Formative and summative assessment of student progress. Stakeholders periodically evaluate the total physical education program effectiveness.

Quality physical education programs provide learning experiences that improve mental alertness, academic performance, and readiness and enthusiasm for learning in our students.

## Health Education Curriculum

The goal of the Detroit Public Schools Health Education curriculum is to have students who have the capacity to obtain, interpret, and understand basic health information and services, to use for enhancing their lives for a lifetime. Students are challenged to become health literate students

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who are critical thinkers, problem solvers, responsible and productive citizens. The K-12 Comprehensive Health Education Curriculum (Michigan Model) is the instructional tool to provide students with critical health information and skills that will encourage positive health behaviors. The Michigan Model curriculum is used by Detroit Public Schools teaching staff for Health Education. The Health Education Curriculum provides developmentally appropriate, sequential, comprehensive health education lessons at each grade level. It addresses all of the critical health areas that put children and youth most at risk. The areas of growth and development include the following: sexuality education, nutrition education, prevention of substance use and abuse, violence prevention, family health, community and environmental health, mental-emotional health, safety and first aid-injury prevention, character education, physical activity, gambling prevention, disease prevention and HIV/AIDS education.

The Health Education Curriculum provides support service to classroom teachers and families on health-related issues highlighting the link between health and academic performance for students. Students are afforded opportunities through classroom instruction in health to build knowledge and develop skills essential to positive health. Students must be taught information and skills at an early age. The body of health knowledge and skills must be reinforced from preschool through graduation; if we are to fully educate our youth on the many ills which can adversely affect them and many of which are preventable. The Michigan Model curriculum is correlated with the Michigan Department of Education Standards and Benchmarks. The State standards and benchmarks are aligned with the National Standards and performance indicators for health education.

The goals for Health Education is to prepare students through offering a comprehensive health education program, including sex education that develops knowledge, skills, and self efficacy to help ensure healthy relationships and safety. Michigan Law and State board policy requires that Districts employ teachers of health education who are highly qualified and certified to teach Health Education. Schools are mandated by Michigan Law to provide instruction that focuses on the best methods for the restriction and prevention of communicable diseases, including HIV/AIDS at least *once a year at every building level*. Instruction of Sexuality and HIV/AIDS Education must be in compliance with State Laws and District Policy and Guidelines. DPS Health Education Curriculum is *abstinence-based*. Materials and instruction in sex education must be age appropriate, medically accurate as defined by law. Parent notification for HIV/AIDS and Sexuality Education must be in advance of instruction with the District notification form. All guest speakers must follow DPS protocol as stated in the District Guidelines for Sexuality Education.

Ongoing professional development is offered to staff and administrators to keep on the cutting edge of technology, social issues, and cultural trends. The curriculum provides professional development to help teachers stay current on legislation, health content, curriculum, and teaching strategies. Families of the community are engaged in professional development through the school year with community partners from: Detroit Health & Wellness Department, Wayne State University, medical agencies, hospitals, and private institutions.

#### NEW INITIATIVES-

1. Build professional partnerships with Health Education allies, working with advocates for our DPS students' best interest through integration of STEM-related content.
2. Increase the awareness of HIV data in Detroit through community programming to show civic engagement.
3. Expand partnerships health education trainers to assist the Health Education Program in providing supplemental instruction to schools which do not have a certified Health Education teacher in their building.

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4. Institute after-school Health Education programming and/or Summer School Health Education course for students who need the course to graduate.
  5. Purchase Health Education textbooks for schools where they are needed to support high quality Health Education curriculum.

Detroit Public School students deserve to be equipped with knowledge and skills that will allow them to grow into healthy responsible adults. The health education curriculum is robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. The health education curriculum focuses on students using decision making skills, reasoning, and problem –solving skills to be healthy individuals. The Comprehensive Health Education curriculum takes away confusion and myths with research based knowledge, best practices, and legal obligations in social, emotional, mental and physical content areas of health through a systematic delivery system. The American public agrees that health education is critical (Mid-Continent Research for Education and Learning Survey 1998). With DPS students fully prepared for the future our communities will be best positioned to compete successfully in the global economy.

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## ET Performance Framework

Detroit Public Schools ET Vision and Vision Themes, and select Michigan Department of Education (MDE) ETP goals and objectives and National Education Technology Plan (NETP) Major Action Steps, and ET goals form the “*Educational Technology Performance Framework*” for the 2012-2015 planning period.

### Detroit Public Schools Educational Technology (ET) Vision

Detroit Public Schools (DPS) equips students with 21<sup>st</sup> Century skills, skills developed through the integration of Educational Technology in the curriculum, resulting in students being adequately prepared for higher education, entrepreneurship or employment, in both the current and emerging economic climate.

#### The Vision is that:

- **Curricula and instruction** for all content areas, at all grade levels, has seamlessly integrated technology
- **Learning and work environments** are equipped with a vast complement of telecommunications and information technology
- **High school graduates** are adequately prepared, in terms of their technology literacy, for employment or enrollment in a 4-year college or university, a community college, or a postsecondary trade, technical, or vocational institution
- **Students in grades K-8** are developing technological literacy in technology rich learning environments
- **Students in the eighth grade and above** are technologically literate and are learning in technology rich environments
- **Classroom teachers** who are at the heart of instructional excellence are technologically literate, meeting the NCLB Highly Qualified Teacher requirements, are adequately resourced, and are facilitators of learning in technology rich environments
- **School-based staff** who support implementation of educational technology, (i.e. clerical, support staff, test coordinators, data specialists, local area network administrators, library media specialist, teacher/technology consultants, etc.) are technologically literate, adequately resourced and work in technology rich environments
- **School-based Administrators** are technologically literate, are facilitators of systematic change at the school level and are working in and managing technology rich environments
- **Central Office-based Administrators** who are directly impacting student achievement are technologically literate, are facilitators of district-wide systematic change and are working in technology rich environments
- **Central Office-based Staff** who are directly impacting student achievement are technologically literate, adequately resourced and are working in technology rich environments
- **Parents** are well informed about how Education Technology is used to enhance student achievement, are active participants in the learning community and have access to information and school staff via the Internet and other technology enabled resources
- **Business Partners, Grant Funders and Donors** are aware of the District’s Educational Technology goals, standards and related business processes and work compliantly and collaboratively with DPS staff to support student achievement by meeting the needs of DPS students

## ET Vision Themes

Detroit Public Schools' ET Vision has three reoccurring themes threaded throughout – competency, environment and role. These themes or pillars are the strength on which all Educational Technology initiatives rely.

	Theme	Theme description
1	<b>Competency</b>	<b>Technologically literate</b> – 21 <sup>st</sup> Century based
2	<b>Learning and Work Environment</b>	<b>Technology rich</b> – seamless, integrated, adequate, vast
3	<b>Learning Community Members roles</b>	<p><b>Students</b> – Engaged learners preparing for employment or higher education</p> <p><b>Parents</b> – Well informed, active participants in learning and teaching processes</p> <p><b>Teachers</b> – Highly qualified facilitators of teaching and learning processes</p> <p><b>School and Central Office Administrators</b> – Managers of educational technology implementation and change</p> <p><b>Business Partners, Grant Funders, and Donors</b> – Collaborators with DPS staff, strategically supporting DPS students in becoming technologically literate and ready for 21<sup>st</sup> century work and higher learning experiences</p>

## National and State goals and objectives

- **MDE Goal:** Prepare Michigan students to become productive citizens in a global society
- **MDE 2012-2015 Strategic Goal:** Attain substantial and meaningful improvement in academic achievement for all students/children with primary emphasis on high priority schools and students
- **MDE ETP Objectives:** 2) Digital Citizenship, 3) Student Learning, 4) Data-Driven Decisions, 5) Professional Learning, and 6) Broadband Access
- **NETP Major Action Steps:** 2) Consider Innovative Budgeting, 3) Improve Teacher Training, 4) Support E-Learning and Virtual Schools, 5) Encourage Broadband Access, 6) Move Toward Digital Content, and 7) Integrate Data Systems

## ET Goals

The ET goals reflect what DPS is targeting to achieve during this planning period. Each goal either directly or indirectly relates to improving student achievement. In addition to the thirty goals related to the required elements of the plan, ten goals describe aims to strengthen the organizational infrastructure within which ET initiatives are managed and implemented.



## Educational Technology (ET) Standards

To ensure that ALL Detroit Public School students are technologically literate, the District has adopted National Education Technology Standards (NETS) and the Michigan Educational Technology Standards (METS) as its ET standards without modification.

<b>International Society for Technology in Education (ISTE)</b>	
<b>National Education Technology Standards (NETS)</b>	
	<ul style="list-style-type: none"> <li>• NETS-Student</li> <li>• NETS-Teacher</li> <li>• NETS-Administrator</li> <li>• NETS Facilitator</li> <li>• NETS Leader</li> </ul>
<b>Michigan Department of Education</b>	
<b>Educational Technology Standards and Expectations</b>	
	<ul style="list-style-type: none"> <li>• METS K-2</li> <li>• METS 3-5</li> <li>• METS 6-8</li> <li>• METS 9-12</li> </ul>

The State Educational Technology Directors Association (SETDA) define technological literacy as “The ability to responsibly use appropriate technology to communicate, solve problems and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21<sup>st</sup> century”.

## Educational Technology Management (ETM) Process

DPS’ Educational Technology Management (ETM) process is designed to provide the organizational infrastructure to support implementation of educational technology. It is comprised of five components:

	<b>PHASE</b>
<b>1.0</b>	School Improvement Planning Process
<b>2.0</b>	Organization Structure
<b>3.0</b>	Authority and Scope of Work
<b>4.0</b>	Implementation Support Process
<b>5.0</b>	Implementation Strategy

### 1.0 School Improvement Planning Process

Detroit Public Schools uses the School Improvement Planning Process to align all district initiatives for the purpose of increasing student achievement. Every decision and expenditure is evaluated based on the following question, “How does this effort promote and support student achievement?”

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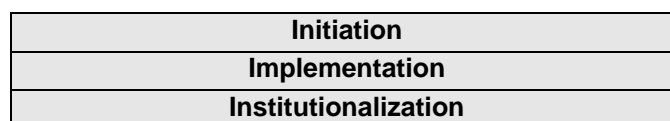
The Educational Technology Management process will support the integration of technology in the School Improvement Planning Process in the following areas:

- Integration of Educational Technology standards and expectations into the
  - Curriculum Framework
  - Building Level Actions Plan (BLAP)
  - Unit Level Action Plans (ULAP/DLAP)(grade/department)
  - Building level technology plans
- Modification of tools to build, support and report on the development of technological literacy and on technology utilization
  - Technology Needs Assessment and Resources
  - Student individual learning plans
  - Assessments
    - Education Yes or the proposed Michigan School Accreditation System(MI-SAS) Self Assessment
    - NCLB 8<sup>th</sup> grade Technology Literacy Assessment customized for use at all grade levels
    - MIP benchmark assessment
  - School Profiles
  - School Development Profiles: Adequate Yearly Progress Plan and Report
  - Mobile Student Profiles
  - Classroom Staffing Profiles
- Increased utilization of standard and ad hoc reporting capability to support data-driven decision making
  - Available Technology: Cognos
- Increased utilization of integrated data that correlates information to support performance analysis
  - Available Technology: Data warehouse, Cognos
- Develop, nurture and sustain effective technology-enabled parent-school collaboration model to support daily classroom instruction

## 4.0 Educational Technology (ET) Implementation Support Process

The ET Implementation Support Process helps to increase the application and integration of technology in teaching, learning and support processes, keeping pace with advances in Educational Technology. The process provides support, facilitates organizational capacity building, establishes a framework for managing the changes required to implement Educational Technology flawlessly, without gaps in progress. The ETC Leadership and Work Teams execute the ET Implementation Support Process within the context of existing business processes using an integrated project-change management model.

The process promotes and ensures accountability at all levels of the District. The desired outcome is significant return on investments (ROI) on Educational Technology. The driving measure of ET ROI is student achievement which is demonstrated over time through increases in successful completion of technology-enabled curriculum. The process consists of three phases:



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The roles and responsibilities assigned to DPS job positions guide who performs the tasks specific to carrying out the ETC's scope of work. ETC members, however will not be prohibited from voluntarily supporting the completion of tasks that fall outside of the realm of their normal areas of responsibility or accountability when doing so serves to move the work forward.

A brief description of the ET Implementation Support Process phases follows.

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## Initiation

**Initiation consist of conducting a needs assessment, developing the student achievement improvement ET plan; authorizing, initiating and planning the project; planning how changes will be managed**

- **ET Needs Assessment**

- Current Status:
  - Student data
  - ET and school improvement plans
  - Educational goals, needs, requirements (internal and external), and standards
  - Technology integration and rate of utilization in operations, curriculum delivery, parental involvement and student learning experiences
  - Policies, goals/objectives; processes, procedures, and practices governing or impacting ET implementation
  - Staffing models for school-based staff, central administration-based staff and liaisons, and technical support staff
  - ET resources (i.e. hardware, software, on-line resources, peripherals, infrastructure, services, budget, funding and funding sources, etc.)
  - Compliance evaluations and student achievement assessments
- Future Goal:
  - Vision of what District looks and performs like with ET fully integrated and functional
- Plan/DO
  - Specific changes required to move from current status to future goal as identified by performing challenges and gap analysis
  - What the District looks and performs like at milestones during the transition from current status to future goal

- **Student Achievement Improvement ET plan**

- Rationale supporting the ET strategy and implementation plan
- Expected student achievement ROL and ROI on ET investments

- **Project Authorization**

- **Project Initiation**

- **Project Planning**

- **Change Management Planning**

- Curriculum Development
- Professional Development
- School Improvement Planning Process
- Information Systems
- Administration, school and community climate change (The people side)
  - Leadership Engagement and Involvement (Sponsorship)
  - Educational Technology initiative overview
  - Educational Technology strategy map
  - Educational Technology sponsor and leadership roadmaps
  - See section 5A for the strategy details

*Note 1: See description of the Project Management process facilitated by DTIS PMO (project management office) in Section 11.7 of this plan*  
*Note 2: The District has not developed, adopted and institutionalized a formal Organizational Change Management process. Benchmark research findings support the importance of managing the people side of change. The use of a structured approach change management is the #2 contributor to success. The #1 contributor is active and visible executive sponsorship.*

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## Implementation

**Implementation includes managing the project, the organizational change and closing out the project.**

- **Project Management**
- **Organizational Change Management\* – tools and phases**

<b>TOOLS</b>
Communications
Sponsor roadmap
Coaching
Resistance Management
Training

<b>PHASES</b>
Awareness
Desire
Knowledge
Ability
Reinforcement

*\* Prosci change management methodology*

- **Project Closing**

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## Institutionalization

**Institutionalization consists of adopting and transferring the best practices throughout the ET stakeholder base**

- **Document Lessons Learned (including common barriers and challenges)**
- **Review, adapt and adopt best practices**
- **Develop Best Practices Toolkits**
- **Facilitate ET Staff and Student Showcases; including securing sponsorship**
- **Facilitate communicates to promote replication of proven methods**
  - ET Web Site
  - e-mail/voicemail blasts
  - newsletters
  - new articles (local, state, national publications)
  - other appropriate and available communication methods
- **Facilitate lunch and learn forums for students, parents, staff, administrators**
- **Facilitate workshops for parents, staff and administrators – classroom, on-line, on-demand**

Strategy		ET Goals
1.0	Rank, prioritize, and implement initiatives in schools based on “ <i>The Educational Technology Critical Path</i> ” criteria	1,11
<p><b>The Educational Technology Critical Path criteria includes (partial listing):</b></p> <p><b>1.1 Curriculum Delivery</b></p> <ul style="list-style-type: none"> <li>• Compliance with MDE curriculum course and graduation requirements <ul style="list-style-type: none"> <li>• On-line courses or learning experiences for High School students</li> <li>• World Language</li> </ul> </li> <li>• Compliance with content specific requirements <ul style="list-style-type: none"> <li>• Career Technical Education – software requirements</li> <li>• Bilingual Education – service requirements</li> <li>• Special Education – service requirements</li> </ul> </li> <li>• Integration of Educational Technology and Curriculum Standards <ul style="list-style-type: none"> <li>• MDE Grade Level Standards and Expectations</li> <li>• DETS, NETS AND METS</li> </ul> </li> <li>• Consistency in technology-enabled course offerings and learning environments by grade level</li> </ul> <p><b>1.2 School closure</b></p> <ul style="list-style-type: none"> <li>• Repurpose (if allowable) and redeployment of technology assets from closed schools or schools targeted for closure</li> </ul> <p><b>1.3 Assessment</b></p> <ul style="list-style-type: none"> <li>• Student achievement below national and state averages</li> <li>• MEAP</li> <li>• MME</li> <li>• 8th Grade Technological Literacy Assessment</li> <li>• CTE Mandated Assessment</li> <li>• CTE workplace skills assessment</li> <li>• English Language Learners MDE on-line assessment</li> <li>• Blackboard Learning Systems</li> <li>• Science Common METS Assessment</li> <li>• Adult Education Assessment tools (Testmate, Topspiro)</li> </ul> <p><b>1.4 Accountability</b></p> <ul style="list-style-type: none"> <li>• AYP High Priority List</li> </ul> <p><b>1.5 Enterprise ET Initiatives</b></p> <ul style="list-style-type: none"> <li>• Accelerated Reader</li> <li>• Accelerated Math</li> <li>• Carnegie Learning</li> </ul> <p><b>1.6 Capacity to establish or sustain a technology rich learning environment based on state of:</b></p> <ul style="list-style-type: none"> <li>• Security infrastructure: systems, storage capacity, lock-down devices, access control</li> <li>• Electrical infrastructure: supply and distribution</li> <li>• Voice/Data infrastructure</li> <li>• Computing devices and peripherals</li> </ul>		

Strategy		ET Goals
2.0	<b>Strengthen the “foundation” of Educational Technology by focusing on leveraging existing and easily accessible resources, increasing access to technology, identifying challenges and closing gaps that hinder access to and/or delivery of equitable, inclusive, technology enabled learning experiences to ALL DPS students</b>	2,5,8,11, 12,13,17, 18,24,25, 26,27,29, 34,35,38
<b>Strategic tactics:</b>		
<p>2.1 Current Educational Technology initiatives will be assessed and policies, processes, procedures and resource allocations impacting implementations analyzed to identify challenges and gaps</p> <p>2.2 Identified challenges and gaps will be weighted, rated and prioritized</p> <p>2.3 Resources (i.e. people, time, funds, materials, etc.) required to remove challenges and close gaps will be identified and improvement opportunities prioritized according to the District’s capacity to seize them</p> <p>2.4 Standards will be established for all critical ET implements (i.e. hardware, software, services, asset protection, inventory management, etc.) to provide equitable and inclusive learning experiences for all DPS students, to lower total costs of ownership and to improve operational efficiencies</p> <ul style="list-style-type: none"> <li>• The standardization of classroom ET configurations will include generic standards applicable to all types of classrooms, as well as, content area specifications to provide the type of customization needed to ensure the best “fit” for specific types of learning environments (i.e. special education, career technical education, early childhood education, etc.)</li> </ul>		

Strategy		ET Goals
3.0	<b>Strategically expand existing Enterprise, Intrapreneurial and Collaborative Educational Technology Initiatives</b>	11,17,18, 25,26
<b>Strategic tactics:</b>		
<p>3.1 Existing technology and support resources used in current initiatives will be optimized</p> <ul style="list-style-type: none"> <li>• Standardize equipment configurations (i.e. labs, resource centers, classrooms, carts, etc.)</li> <li>• Standardize software configuration (i.e. desktop, server-based, web-based, etc.)</li> <li>• Textbook Publisher supplemental resources <ul style="list-style-type: none"> <li>• Student resources <ul style="list-style-type: none"> <li>• Textbook e-Edition</li> <li>• Hands-on, Multimodal learning (Audio CD, DVD, Tape)</li> <li>• Activity Bank</li> <li>• On-line coaching</li> </ul> </li> <li>• Teacher planning and instruction resources <ul style="list-style-type: none"> <li>• On-line lesson plans</li> <li>• Interactive on-line Assessments <ul style="list-style-type: none"> <li>• Test Bank</li> <li>• Placement &amp; Gains</li> <li>• Progress Monitoring</li> <li>• Summative &amp; Metacognitive</li> <li>• Reteaching</li> </ul> </li> </ul> </li> </ul> </li> </ul>		

Strategy	ET Goals
<ul style="list-style-type: none"> <li>• Retesting</li> <li>• Interactive on-line and on-demand Professional Development</li> <li>• On-line resources</li> <li>• Other on-line resources</li> </ul> <p>3.2 Infrastructures will be improved to support technology rich learning environments – security, facility &amp; power, voice/data, WAN/Internet bandwidths</p> <p>3.3 Staffing model will be standardized (i.e. school-based, technical assistance, liaisons, etc.)</p> <p>3.4 Equipment operability will be enhanced (i.e. memory, storage, maintenance, repair, wireless cards, etc.)</p> <p>3.5 Initiatives with significant measurable impact on student achievement will be replicated in schools on the “The Educational Technology Critical Path”</p> <p><b>Enterprise Initiatives</b></p> <ul style="list-style-type: none"> <li>• Accelerated Reader</li> <li>• Accelerated Math</li> <li>• Carnegie Learning</li> <li>• NovaNet (AE)</li> <li>• Classroom Performance Systems (eInstruction, TI Navigator)</li> <li>• Adult Education service providers</li> </ul> <p><b>Intrapreneurial Initiatives</b></p> <ul style="list-style-type: none"> <li>• Digital Learning Communities (D-DLC)</li> <li>• Studywiz – D-DLC pilot</li> <li>• Accelerated Learning Through Technology (ALTT) – Transition schools to D-DLC</li> <li>• Freedom to Learn (FTL) – Sustain only – Transition schools to D-DLC</li> <li>• Compass Learning</li> </ul> <p><b>Collaborative Initiatives (Partial List)</b></p> <ul style="list-style-type: none"> <li>• WCCCD Health Alliance Middle College (Virtual)(Dual Enrollment)</li> <li>• Digital Learning Community (D-DLC) School Plan</li> <li>• Piston Partners’ Library Media Center Collaborative</li> <li>• City of Detroit Public Library LMC Collaborative</li> <li>• Geographic Information Systems Program (CTE)</li> <li>• 8th Grade Math MI Virtual University Collaborative</li> </ul> <p>3.6 Efforts district-wide will be coordinated to implement Grade Level Specific rollouts to ensure that the horizontal and vertical articulation of Educational Technology creates and sustains learning experiences upstream and downstream</p>	

Strategy	ET Goals
<p><b>4.0 Institutionalize a structured, sustainable organizational infrastructure and management processes for Educational Technology – collaborative leadership, work teams, scope of authority and work, policies, services, staffing, processes, procedures, and implementation tools</b></p> <p><b>Focus areas:</b></p> <p>4.1 Educational Technology collaborative leadership, planning and decision-making</p>	<p>2,3,4, 6,7,8, 9,10,23, 29,38,39, 40</p>



Strategy		ET Goals
4.2 Staffing model (i.e. school-based, technical assistance, liaisons, etc.) 4.3 Professional Development 4.4 Curriculum Development 4.5 Assessment and Evaluation 4.6 Accountability 4.7 Asset Management and Protection (Central and School-based) 4.8 Facility 4.9 Information Technology		

Strategy		ET Goals
5.0	<b>Manage the <i>total cost of ownership</i> for Educational Technology by developing an integrated budget/fund management process</b>	30,31,32, 33,36,37
<b>Strategic Tactics:</b>		
5.1 Develop ET total cost of ownership model 5.2 Coordination execution of budget, fund development, fund receipt, and fund disbursement processes 5.3 Assess fundability and sustainability of current initiatives 5.4 Develop integrated Educational Technology budget and funding plan 5.5 Implement budget and funding driven Educational Technology decision-making		

Strategy		ET Goals
6.0	<b>Adopt and use a suite of “ET Productivity Tools” to help promote and foster the technological literacy of ALL DPS staff, students, and parents/guardians; develop competency models using NETS and METS, and facilitate parental workshops, staff professional development and student learning experiences</b>	11,14,15, 16,19,20
<b>Productivity tools by the District:</b>		
6.1 Via the intranet: <ul style="list-style-type: none"> <li>• Microsoft Sharepoint and Identity Manager will replace               <ul style="list-style-type: none"> <li>• Document sharing</li> <li>• HelpDesk password reset</li> </ul> </li> </ul>		
6.2 Via District issued workstations: Microsoft Windows Machines <ul style="list-style-type: none"> <li>• Existing equipment Microsoft XP SP3, Microsoft Office 2007</li> <li>• New order equipment Microsoft Windows 7 SP1, Microsoft Office 2010</li> <li>• Symantec Endpoint Protection 11.0.5</li> <li>• Adobe Acrobat Reader 10</li> <li>• Microsoft Silverlight</li> <li>• Adobe Flash Player</li> <li>• Adobe Shockwave</li> <li>• Microsoft Internet Explorer 8</li> <li>• Quicktime Player</li> </ul>		

Strategy	ET Goals
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- PDFCreator
- Roxio Creator 6

Apple Mac Machines

- Existing Machines OSX 10.6.8 Snow Leopard
- New order equipment OSX 10.7.3 Lion
- Safari
- Firefox
- iLife '11
- Office for Mac 2011
- iWorks '09
- iBooks Quthor
- Adobe Flash Player
- Adobe Shockwave
- iTunes
- Microsoft Silverlight
- Adobe Reader 10

Mastering the use of the district issued applications will enhance the effectiveness and efficiency of DPS staff. Development of common technical competencies will result in increased performance of the processes that support delivery of instruction to students, directly and indirectly impacting student achievement.

The NETS (National Educational Technology Standards) are standards and performance indicators defining the fundamental concepts, knowledge, skills, and attitudes for applying technology in instructional settings. A subset of these standards and performance standards has been adapted for application in non-instructional settings. Building on this modified subset of standards and performance indicators, combined with standardization on “The Productivity Tools of Choice” creates alignment throughout the District in terms of an approach to developing technological competency.

The result -- a culture and environment poised for higher levels of collaboration, as information and documents of varying levels of complexity are created and more easily shared and understood.

**EXAMPLE**

NETS Administrator Standard	NETS-T Teacher Standard	NETS-S Student Standard	DETS DPS Technology Standard	Microsoft Office	Microsoft Project	eMail	Calendar
Educational leaders apply technology to enhance their professional practice and to increase their productivity and that of others.	Teachers apply technology to increase productivity; Teachers use technology to enhance their productivity and professional practice.		DPS staff use technology to enhance their productivity and professional practice	X	X	X	X
Educational leaders create and	Teachers use technology to		DPS staff use technology to	X	X	X	X

Strategy							ET Goals	
participate in learning communities that stimulate, nurture, and support faculty and staff in using technology for improved productivity	communicate and collaborate with peers, parents, and the larger community in order to nurture student learning		communicate and collaborate with peers, parents, and the greater learning community					
		Students use technology resources for solving problems and making informed decisions; Students employ technology in the development of strategies for solving problems in the real world	DPS staff use technology resources to develop strategies for solving problems and making informed decisions at DPS to promote student achievement	X		X	X	

Strategy		ET Goals
<b>7.0</b>	<b>Aggressively increase the rigor of Professional Development courses, delivery and support to ensure “No Administrator or Teacher Left Behind”</b>	19,20,21, 22,34,35
<p><b>Strategic tactics:</b></p> <p><b>7.1</b> Develop department and school specific professional development plans and budgets</p> <ul style="list-style-type: none"> <li>• Customize plans based on the Educational competency gaps of staff</li> <li>• Individual plans based on skills required to implement and sustain current initiatives</li> </ul> <p><b>7.2</b> Develop high quality professional hybrid and online courses and e-communities to support technology infusion</p> <ul style="list-style-type: none"> <li>• Integrate DETS, METS, and NETS standards to intensive the rigor of technology literacy development</li> <li>• Research models of effective and successful professional development programs</li> </ul> <p><b>7.3</b> Develop strategies and processes for transferring learning to work and school environments</p> <ul style="list-style-type: none"> <li>• Integrate skills practice in actual work environment pre- and post-course delivery</li> </ul> <p><b>7.4</b> Develop a system for collecting and analyzing data to measure the progress of employees in mastering established technology standards</p> <ul style="list-style-type: none"> <li>• Develop evaluation criteria and standards-based tools that can be used in observations to evaluate technology competencies related to specific standards</li> </ul> <p><b>7.5</b> Develop field support processes provided to schools by Program Associates and Professional Development/IT Liaisons</p> <ul style="list-style-type: none"> <li>• Measurement of instructional and non-instruction staff proficiency</li> </ul>		

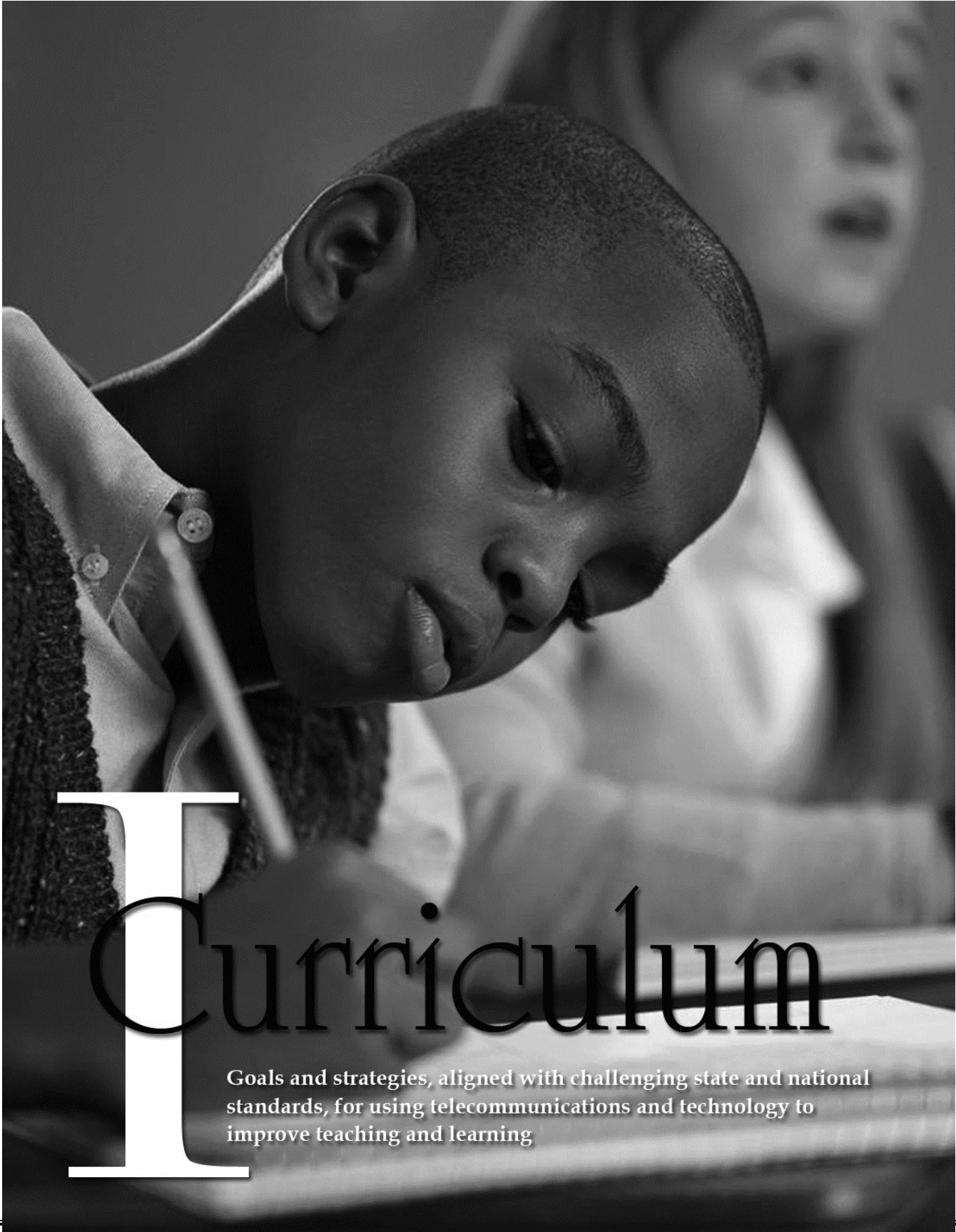
Strategy	ET Goals
<ul style="list-style-type: none"> <li>• Measurement of ET utilization rate</li> <li>• Reinforcement and transfer of learning to work and school environments</li> </ul> <p><b>7.6</b> Evaluate the effectiveness of instructional technology instruction and support</p> <p><b>7.7</b> Identify ways to streamline the administrative processes to increase both the effectiveness and efficiency in delivering ET related courses, particularly those that require technology rich environments</p> <ul style="list-style-type: none"> <li>• Develop process to coordinate delivery of ET professional development district-wide <ul style="list-style-type: none"> <li>• Define roles/responsibilities and scope of authority</li> <li>• Decision-making process</li> <li>• Problem solving process</li> </ul> </li> <li>• Identify and configure training facilities for ET course delivery <ul style="list-style-type: none"> <li>• Classrooms</li> <li>• Meeting rooms</li> <li>• Labs and Resource Centers</li> </ul> </li> <li>• Registering course participants and generating attendance reports</li> <li>• Identifying alternative delivery methods <ul style="list-style-type: none"> <li>• On- demand</li> <li>• Instructor-led</li> <li>• Train-the-trainer</li> <li>• On-line</li> </ul> </li> </ul> <p><b>7.8</b> Share models of effective implementation of technology in the management and delivery of instruction</p>	

Strategy	ET Goals
<p><b>8.0</b>     <b>Strategically expand or establish capability and capacity of the <i>data/voice infrastructure</i></b></p>	27
<p><b>Planned services and applications changes:</b></p> <p><b>8.1</b> Wireless <b>connectivity</b> infrastructure in ALL schools during the 2012-2013 school year</p> <ul style="list-style-type: none"> <li>• The cost of enabling existing school-based technology with wireless capacity will determine the rate of utilization and increased Internet access</li> </ul> <p><b>8.2</b> <b>Gaggle.net</b> e-mail for students</p> <ul style="list-style-type: none"> <li>• Acquisition of the subscription service was included in the 2012 E-Rate application</li> <li>• The Board of Education approved the 16% matching funds which addresses infrastructure implementation costs only</li> <li>• An integrated plan must be developed to fund, budget and support full implementation <ul style="list-style-type: none"> <li>• <b>Roles and responsibilities</b> <ul style="list-style-type: none"> <li>• Administrators</li> <li>• Instructional staff</li> <li>• Non-instructional staff</li> </ul> </li> <li>• <b>Control policies and procedures</b> <ul style="list-style-type: none"> <li>• Message review (auto-system review, teacher review)</li> <li>• Blocked words (inappropriate words list)</li> <li>• Student usage granted or denied</li> <li>• Incoming message control (i.e. SPAM, pornographic mail, etc.)</li> <li>• Email archiving</li> </ul> </li> <li>• <b>Management processes</b> <ul style="list-style-type: none"> <li>• On-line calendars, Email pen pals, Homework centers, Online video conferences,</li> </ul> </li> </ul> </li> </ul>	

Strategy	ET Goals
<p>Blogging, Polling, Chat rooms, Profile pages, Message boards, Digital lockers, Wikipedia system, Email archiving</p> <ul style="list-style-type: none"> <li>• Student <b>internet security protocols in compliance with</b> <ul style="list-style-type: none"> <li>• Children’s Internet Protection Act</li> <li>• No Child Left Behind</li> <li>• DPS Acceptable Use Policy #13.01</li> </ul> </li> </ul> <p><b>8.3</b> Energy efficient desktops  <b>8.4</b> Web-based Student Information System  <b>8.5</b> Identity Management System  <b>8.6</b> Digitized student records and transcripts  <b>8.7</b> Integrated voice/data backbone  <b>8.8</b> Centralized data storage capacity  <b>8.9</b> Document Management System (Includes Curriculum resources repositories)  <b>8.10</b> Web-based communication and conferencing system to facilitate collaboration <ul style="list-style-type: none"> <li>• Collaboration brings people and information together to reduce time required to make decisions</li> <li>• A strategy to enable open, secure, adaptable interactions among District stakeholders will improve district operations and delivery of instruction</li> <li>• Collaboration will benefit the District by removing time and distance barriers, lowering costs, boosting productivity and improving communications</li> </ul> </p>	

## ET Action Plan

The ET Action Plan outlines the specific action steps for implementing the selected strategies, goals, and objectives of the Educational Technology Plan. It also identifies the Divisions, Departments and Offices with primary and secondary responsibilities and accountability for executing each action. Finally, the actions are aligned to one or more ET goals which are key elements of the *Educational Technology Performance Framework*. It can be found on pages TBD???



# T Curriculum

Goals and strategies, aligned with challenging state and national standards, for using telecommunications and technology to improve teaching and learning

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## I. CURRICULUM

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## Section 4. Curriculum Integration

### Section 4. Curriculum Integration

#### 1.0 Introduction and Vision

The Division of Curriculum and Instruction is empowered by this education technology plan to integrate technology into the instructional practice of teachers and the academic achievement of students. The division consists of curriculum offices with a director, supervisors and curriculum specialists. Everyone is involved in promoting the use of education technology for accelerating the improvement of student achievement.

Detroit has made great strides over the past three years with respect to adopting and embracing teaching and learning technologies to support student academic achievement. Although the journey has met with mixed results, there are still many challenges facing the district in the areas of ongoing updates, maintenance, access to, and equity of teaching and learning technologies. This section of the *Education Technology Plan* provides guidance to district leadership, teachers and the parent community.

Specific guidelines are included for selecting instructional software applications to meet the unique developmental needs and interests of six learning communities that are defined. These learning communities are grouped in the following manner: primary (grades pre-K-2), elementary (grades 3-5), middle school (grades 6-8), high school (grades 9-12), career and technical education (grades 9-12), and adult education (beyond grade 12). The issues of access and equity are also analyzed from the perspective of technology-based solutions to provide equitable access to teaching and learning resources for all Detroit Public Schools students. The integration of teaching and learning resources to meet the unique needs of special learning populations, including those students not currently attaining adequate yearly progress (AYP), are presented for future decision making and planning. The role of the Information and Technology Resource Centers and the staff who work there is the final topic presented in this section.

The teaching and learning technologies described enable teachers and principals to address more effectively the learning needs of all students to increase student achievement. An understanding regarding the concepts of access, equity, and critical mass will allow schools to provide equal access to teaching and learning resources while allowing them the creativity to design learning environments that meet the unique needs of their school population. The development of Information and Technology Resource Centers as the hub of the schools information resources provides access to students and community members. School-based leadership and teachers will use this resource to:

- Expand their vision and increase their understanding of the diverse array of teaching and learning resources
- Develop a plan of action enabling each student within the district to have equitable access to rich collections of teaching and learning technologies
- Guide the discussions about the role of the Information and Technology Resource Centers and staff for improving student achievement
- Expand the availability of technology-based resources to the community

#### 1.1 Current Status

A comprehensive technology assessment must be conducted in early in this plan to accurately predict the needs analysis for each school building and detailed key findings documented for review. This assessment must include a survey of inventory, teachers, students and principals.

#### 1.2 Curriculum and Technology Integration



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The way teachers and students think about the Internet in relation to school tasks is closely tied to the daily tasks and activities that make up their 21st century lives. In this regard, teachers employed five different metaphors to explain how they use the Internet or on-line for instruction:

- **The Internet and on-line resources as virtual textbooks and reference libraries.** Much like a school-issued textbook or a traditional library, students think of the Internet as the place to find primary and secondary source material for their reports, presentations, and projects. This is perhaps the most commonly used metaphor of the Internet for school—held by both students and many of their teachers alike.
- **The Internet and on-line resources as virtual tutors and study guides.** Students think of the Internet as one way to receive instruction about material that interests them or about which they're confused. Others view the Internet as a way to complete their schoolwork as quickly and painlessly as possible, with minimal effort and minimal engagement. For some, this includes viewing the Internet as a mechanism to plagiarize material or otherwise cheat.
- **The Internet and on-line resources as virtual study groups.** Students think of the Internet as an important way to collaborate on project work with classmates, study for tests and quizzes, and trade class notes and observations.
- **The Internet and on-line resources as virtual guidance counselors.** Students look to the Internet for guidance about life decisions as they relate to school, careers, and postsecondary education.
- **The Internet and on-line resources as virtual lockers, backpacks, and notebooks.** Many students think of the Internet as a place to store their important school-related materials and as a way to transport their e-books and documents from place to place. Online tools allow them to keep track of their class schedule, syllabi, assignments, notes, and papers.

Many Detroit schools and teachers have recognized the new ways students communicate and access information over the Internet. The entire curriculum of Detroit Public Schools integrates the use of technology in the classroom. In recent years the term “technology” has been synonymous with “computers”. Today technology interconnects Intranet/Internet, e-mail, voice mail, satellite downlinks, MP3 Players, video, multimedia, iPods, cell-phones, pocket-sized personal computers (PPC), graphical calculators, personal digital assistants (PDAs) and a variety of other peripheral and portable devices. Advancing technology is creating an atmosphere requiring fresh visions to shift from Industrial Age instruction to Digital Age instruction.

The curriculum section of DPS Education Technology Plan includes an introduction and discussion of current status, strategy, goals and objectives, standards, performance indicators, and implementation action steps for the components listed below:

- Curriculum Integration
- Student Achievement
- Technology Delivery
- Parental Communications and Community Involvement
- Collaboration

### 1.3 GOALS

The District has identified four major goals that guide the transformation of the district and all major initiatives. These goals, clearly stated and well-communicated District-wide, are:

- To improve student performance
- To create a clean and safe school environment

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- To enhance parental and community involvement
  - To transform the District into an effective and efficient organization

Support of these goals is paramount in the 2012-2015 Education Technology Plan.

This Education Technology plan provides for the effective integration of technology into the curriculum of the Detroit Public Schools. It evolves from the previous Information Technology Plan. As we continue with the evolutionary shift from the Post-Industrial Age to the Electro-Information Digital Age, teaching and learning environments will become “ecologically green” with technology. Accordingly, teachers and schools are realigning their practices, policies and procedures with Digital Age standards. These standards include both the National and State Technology standards for administrators, students and teachers.

Those who lag behind in meeting these standards around technology, technology capacity, infrastructure, technology education, and establishment of support structures will be unable to fulfill their mission of preparing students for their 21<sup>st</sup> century future.

### **A Technology Enabled Curriculum**

A vision is presented in this education technology plan to create expanded communication strategies, explore different paradigms for financing, develop new models for assessing success, and new models for educating. The Detroit Public Schools (DPS) has already begun much of this process, including work on learning outcomes, infrastructure development, alliances with businesses and universities, and the recognition of the need for long range technology planning.

#### **1.4 Recommendations for Instructional Applications**

Detroit Public Schools places emphasis on data driven decision-making. This means there is a mixed set of expectations regarding student mastery of technology competencies and the integration of technology into the curriculum at the school level. However, schools that are active participants in the EETT grant (Title IID) and other grants are using technology effectively in teaching and learning.

Through the Enhancing Education through Technology (EETT) grant (Title II-D) and other grants, a training model has been developed in the curriculum and implemented in all schools, centered on grade level school cohorts with the principal and a designated content mentor as the technology leadership. The goal of this model was for teachers to become technology literate, with content-based lessons addressing NCLB requirements. The program has demonstrated success through student work and digital portfolios. An outside evaluation of the program has reported that this training model was highly effective for participating administrators, mentors, and teachers in the cohorts. In fact, mentors “diffused technology training beyond the teachers in the cohorts in various ways.” The mentors expanded technology to others by serving as models for 21<sup>st</sup> century facilitators of student learning.

#### **A) Establish Selection and Acquisition Guidelines**

All Detroit schools must use the instructional software that is currently available in the school district and adhere to a standard software configuration to be available in each classroom. The district has developed and adopted guidelines for purchasing instructional software that will ensure consistency and economies of scale.

#### **B) Attain and Maintain Critical Mass to Achieve Equity**

Research, select, and implement a model that defines and sustains a minimum level of non-discretionary technology resources to attain equity of access, use and support to teaching and learning technology for all students, teachers, and administrators across the district.

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### **C) Expand Outreach and Expanded Communication**

Expand community outreach/communication and attain equity of access, use, and support of technology by maintaining standard technology configurations for classrooms, offices, and common spaces. These configurations will define and assist the district with sustaining a critical mass of technology resources for all students, teachers, administrators, and community members across the district.

### **D) Embrace Adaptive/Assistive Technologies in Support of AYP**

Expand technology-based adaptive/assistive strategies, including the Universal Access/Universal Design Principles model in support of adequate yearly progress (AYP) for all special need populations.

### **E) Establish Information and Technology Resource Centers**

Expand the current library/media center in each school into an Information and Technology Resource Center (TRC) in order to make the school district's information and technology resources seamlessly available to administrators, teachers, students, parents, and community members. The TRC must be managed by professional and technical experts with a concern focused on student achievement with technology. These resource centers will capture information on the professional development and utilization of technologies by teachers, students and district partners.

### **F) Implement Web-based Curriculum Asset Management System**

Implement an online, integrated curriculum materials and textbook management system that enables the tracking of tools and textbooks from any district computer with Internet access, easy district reporting, and the efficient management of all book assets across the district. This management system will keep an electronic directory of all textbook-related intellectual property that has been acquired by the school district or individual schools. This project should include establishing and maintaining procedures for the security, and management of instructional equipment and materials to minimize loss and damage and ensures accurate inventory control.

### **G) Expand Virtual/Online Learning Opportunities for All Students**

Expand virtual and online opportunities to extend learning alternatives that enable any place, any time education for all students. Identify engaging and challenging options for students that enhance and/or expand the course offerings of schools.

### **H) Establish and Maintain Standard Classroom Configurations**

Define standard classroom configurations (technology enhanced learning environments) prototypes for each school facility type (early learning, elementary, middle, high school). These configurations must address student and teacher workstations, software, and peripherals (digital cameras, printers, scanners, video cameras, projection capacity, etc.). The standards should incorporate "models of flexibility" for the technology in each configuration. Budgets and implementation plans support the IT foundation projects to improve/enhance instructional learning environments and delivery of curriculum content over the school district network:

- Replace obsolete computers
- Improve instructional software procurement
- Develop a professional development strategy to ensure 100% computer literacy for teachers
- Develop a single-portal strategy for curriculum access by students, teachers and administrators

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Our changing society and workplace requires that Detroit students take responsibility for their own learning and well being on a life-long basis. In addition we need Detroit student citizens to be able to work collaboratively, innovatively, and creatively. Educational technology reforms that help develop our students require a dramatic retooling of education to leverage the power of technology in creating new and different learning environments. This ETP allows us to think and plan strategically to further enhance a comprehensive technology use in all facets of our curriculum delivery.

In response to mandates for improved teaching and learning and Michigan education reform efforts in core academic disciplines, the Detroit school district has developed learning pacing charts, School Improvement Plans, as well as outcomes and assessments for various disciplines. These reforms incorporate the need for Detroit's students and teachers to:

- Access, analyze, and communicate information
- Think critically and creatively with technology
- Work cooperatively and productively with others.

The effective integration of technology into the education programs of the Detroit Public Schools will both significantly increase student achievement and prepare students to enter and lead our technology centered society. We must maximize the benefits for students, with guidance from standards, and opportunities to become engaged in constructive learning activities by teachers and students. This will be done by designing and expanding technology-learning opportunities that mandate the establishment of 21<sup>st</sup> century connectivity for every classroom to influence the day-to-day behaviors of teachers, administrators, students and families.

The use of technology is stressed in the school district's core-content academic standards. Learning to use the technology standards is a requirement in core curriculum content areas. The requirement of high schools to meet the state of Michigan Merit Core Content standards is aligned with the curriculum of the school district.

## **2.0 Strategy**

Detroit Public Schools (DPS) has identified a variety of technology strategies to augment and transform teaching and learning and to promote 21<sup>st</sup> century teacher and student behaviors. These strategies include:

- Using existing and emerging technology as digital learning systems and tools in all instruction and reporting results to parents and the community
- Provide intensive, sustained professional development for administrators, teachers and parents
- Adapt technology focused on engaging students with new and current instructional materials
- Enable teachers to have access to district approved online electronic grade-books, planning books and additional virtual tools for data collection strategies
- Create a technology enhanced "green" space for informal after school student learning to meet the learning outcomes of diverse groups of individuals and students.
- Enhance teacher performance with the use of classroom management and curriculum software and other virtual learning assets
- Increase district-wide accountability by using technology to develop a school performance portfolio (data fact-book) for each school site for demonstrating best practices
- Construct a curriculum relevant web-site for ease of navigation for all stakeholders
- Develop teacher user groups to serve as lead teachers across all grade level configurations and content areas for specific technologies
- Embrace a new 21st century paradigm with technology that capitalizes on student talents and success
- Secure all school building technology sites with wireless detection and digital recording systems with IP access for internet viewing for key stakeholders
- Establish and allocate virtual memory storage for students and teachers

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- Conduct annual and semi annual audits of technology engagement in the classroom and allow for transparent status reporting to the community
  - Promote the creation of teacher recognition programs for those exemplary teachers using innovative lessons and projects that enable all students to be successful
  - Support the development and virtual publication of teacher created lessons that engage and demonstrate achievement across all content areas
  - Generate university and business alliances for the creation of graphic and video productions that will serve to promote curriculum relevance and preparation for real-world encounters
  - Provide 21st century tools and training for every classroom teacher
  - Provide students with a “Make-and-Take” computer system to own
  - Negotiate with internet providers a communication service to students with F/R status
  - Create and allow formative on-line assessments for all curriculum content areas.
  - Require all vendors to migrate to digital versions of curriculum texts and support materials
  - Provide balance in the allocation of technology funding and resources to all curriculum content areas
  - Promote a school climate that offers an inclusive “Digital Learning Community” for all students and teachers
  - Provide advanced preparation in honors and advanced courses with technology using online e-learning opportunities and assessments
  - Promote and certify schools and/or classrooms and Digital Learning Sites

## **2.1 Benchmarked Milestones**

The following indicators will serve as feedback in the development of this ETP:

- Technology and communications are used to accelerate, enrich and deepen basic skills
- Technology is being used as a tool for motivating and engaging students
- Technology in schools serves as a link between academics and emerging practices in a host of professional fields, taking science or mathematics out of the classroom and out into every day life
- Technology is used to dramatically increase the viability of students in the work force; the skills acquired making them more employable and professionally productive
- Technology is used to strengthen teaching, providing teachers with a powerful learning tool that also promotes individualized instruction
- Prompting teachers to rethink their classroom practice by redesigning their role in the classroom using technology as a catalyst for change in schools
- Teachers are the facilitators of learning in an information-rich online environment

## **2.2 Curriculum Strategies**

Successful technology integration depends upon practical implementation policies that address issues such as infrastructure, classroom and storage security systems, access, accounting and inventory. Working in conjunction with school administrators, experts in these areas will analyze existing conditions and present a recommended set of technology-related policies and procedures along with their budgetary implications. Teachers, for example, need to know what technology-based tools are available to them, how to access building technology, and where technical support can be found. Such practical procedures will be identified and disseminated throughout the district. In addition, they will be incorporated into the teacher professional development.

Since building principals, assistant principals and curriculum leaders are pivotal in setting the tone for technology use, online instruction for school administrators will be developed that addresses these policies, as well as the ways in which technology can be used in school administration. Such instruction will help interested parties meet the new standards for school administrators.

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## **A) Budget for Curriculum Needs**

- Determine the total costs for technology as a percentage of total spending
- Require textbook publishers to offer digital books in various formats. This will allow reallocations of expenditures on textbooks and instructional supplies
- Consider leasing technology with 3-5 year refresh cycles
- Create a technology innovation fund to carry funds over yearly budget cycles

## **B) The Classroom**

- Expand the education technology infrastructure of Detroit's classrooms for the necessary management of security, electrical and technology equipment to enable the strategic delivery of robust curricular elements.
- Expand the number of classrooms using current learning elements including desktops, laptops, projection systems, wireless connectivity, e-text (books and documents), graphic elements and curriculum relevant movie clips, Classroom Performance Systems (CPS), Internet sites, CD/DVDs, and VHS formats.

## **C) Aligning Infrastructure to Standards**

- Teachers must have the technology in the classroom to promote the Detroit Public Schools' Technology Plan in the curriculum as aligned with the state of Michigan Curriculum Framework standards and the National standards of English, Language Arts, Science and Social Studies.
- Teachers utilize the state and National standards as statements of what students should know and be able to do at the end of the elementary, middle and high school levels. The District's curriculum is formatted to show how district grade level standards are aligned to the state and National standards.
- Content Expectations (GLCE and HSCE) are achieved using the embedded technology found in schools and classrooms. We are moving towards replacing all older technology with the current digital tools for reaching greater achievement levels with students.

## **D) Expand Technology Assistance**

- Technical support will be available to teachers and classrooms support technology.
- Teachers of students with special needs will be equipped with the skills to use the appropriate assistive technology for learning.
- Bilingual students and other ethnic minorities will be provided with support systems to use technology designed to bridge cultural and language differences between family and school. World languages will benefit from increased technology assistance.
- Continue to expand the Local Network Administrator (LNA) initiative that provides a technology resource person resident at each school.

## **E) Expand Broadband Access to Classrooms**

- Evaluate existing technology infrastructure and access to broadband to every classroom
- Determine current capacities and explore ways to ensure its reliability
- Provide broadband to the classroom for students, data management for teachers, online and technology-based assessments, e-learning, and accessing high-quality multi-media digital content
- Increase technical support for each school site to manage and maintain computer network

## **F) Expanded Use of Digital Content**

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- Create teacher curriculum development teams to influence the creation, evaluation and revision of online content
  - Promote model sites of Technology in the Fine and Performing Arts Programs
  - Establish ubiquitous (school and community) access to computers
  - Align e-curriculum content with rigorous state academic standards
  - Provide credit recovery and remedial support to at-risk students with technology
  - Provide digital curriculum materials to students

### **G) Creation of E-Learning Curriculum and Virtual Schools**

- Provide every student access to an e-learning opportunity in all curricula
- Enable every teacher to participate in e-learning training
- Encourage the use of e-learning options to meet “No Child Left Behind” requirements for highly qualified teachers, supplemental services and parental choice
- Explore creative ways to fund virtual learning opportunities
- Develop a certification track for school district e-learning instruction (courses and teachers)
- Develop quality measures and accreditation standards for e-learning “learning academies” that mirror those required for course credits
- Provide and distribute curriculum servers for access to project based instructional applications and data archives for curriculum materials

### **H) Assign challenged schools (AYP not met) to curriculum experts (as transformation teams).**

- These teams are skilled in engaging technology based lessons, faculty or peers in continuous school improvement
- Reallocate mobile technology resources to critical grades (for example, the ninth or tenth grades) and attain a student to teacher ratio for these grade levels that are less than or equal to that for grade 12

### **I) Engage school faculty in aligning the use of technology with teacher practice, the curriculum and the SIP, including the academic and career/technical aspects.**

- Align teacher assignments, daily lesson plans and classroom assessments with technology
- Promote Theme Based Schools and education with technology

### **J) Provide curriculum-specific, on site technology training for language arts, social studies, mathematics, bilingual, special ed. and science teachers aligned to their disciplines.**

- Training for all teachers will require having students use technology and work in groups to solve real-world problems, use hands-on materials and other research-based strategies that advance their core content area achievement.
- The use of 21<sup>st</sup> century constructivist principles will become a common theme in the instruction of students in all curriculum areas.

### **K) Provide all teachers continuous in-depth training to engage students in reading and writing and mathematical literacy at grade level for learning and to use strategies that develop students as independent learners.**

- Have all teachers, especially those in grades 8, 9 and 10, plan semester timelines for weekly lessons that include at least one reading and writing strategy with technology and at least one study skill

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- strategy.
  - High School teachers must use technology to prepare students for the MME/ACT/PSAT-SAT assessment.

**L) Use technology for improving both achievement and high school completion rates and require schools to report annually on their progress to increase use.**

- Annual school reports would include what was attempted with technology, what worked, what did not work and what special initiatives are planned for the following year to improve achievement and completion rates of all students.
- These reports will be distributed by using appropriate technology formats. Discussion and presentation of these reports will be made to the parents at Board of Education meetings.

**M) Adopt scheduling that enables students to extend learning to DPS Technology Learning/Resource Centers.**

- All students must have equitable access to technology in learning centers for short and long term success in the curriculum. Certified teachers will be present to assist and facilitate learning. These learning centers will be located in schools that have appropriate infrastructure to accommodate students without home-based technology.

The major technology activities in the areas of curriculum directly support the first and fourth goals of the DPS School Improvement Plan:

- Goal One: Improve student achievement and performance.
- Goal Four: Transform the district into an effective and efficient organization.

Likewise, the major technology activities proposed in the areas of curriculum and address the first and fourth areas of major concern articulated in the Efficiency and Effectiveness Plan:

- Learning and Educational Accountability
- Information Services

### **2.3 Student Technology Competencies**

The district embraces a comprehensive collection of student technology competencies. The Michigan Department of Education has adopted a technology literacy mandate for all 8<sup>th</sup> grade students and technology content standards for Elementary, Middle and High School grades. These MDE competencies address what students at all grade levels should know and be able to do using technology. These include:

- Basic Operations And Concepts with technology
- Social, Ethical, And Human Issues with technology
- Technology as a Productivity Tool
- Technology as a Communications Tool
- Technology as a Research Tool
- Technology as a Problem-Solving And Decision-Making Tool

These standards will involve integrating performance outcomes in the curriculum which demonstrate that regardless of the curricular content area, students:

- Use and transfer technological knowledge and skills for life roles (family member, citizen, worker, consumer, lifelong learner)
- Use technologies to input, retrieve, organize, manipulate, evaluate, and communicate information
- Apply appropriate technologies to critical thinking, creative expression, and decision-making skills



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- Employ a systematic approach to technological solutions by using resources and processes to create, maintain, and improve products, systems, and environments
  - Apply ethical and legal standards in planning, using, and evaluating technology
  - Evaluate the societal and environmental impacts of technology and forecast alternative uses and possible consequences to make informed civic, social, and economic decisions

Detroit Public School's student technology competencies are being disseminated and implemented in the district as we add an education technology infrastructure to all classrooms. Teachers will have a technology scope and sequence as well as provision of the required resources to achieve these milestones.

It is critical to understand that although teachers have a clearly articulated scope and sequence, it is not suggested that technology competencies be achieved in isolation, but rather as a seamless component to enhance student achievement.

## **2.4 Curriculum and Education Technology Integration Framework**

All curriculum content areas are using technology in model programs. These model programs are being expanded throughout the district. Staff is being made aware of the district wide vision for curriculum and technology integration.

Obtaining technology resources occurs at the building and district levels out of the school district budget and from business partnerships with organizations. Thus, principals and district leadership teams play a critical role in technology acquisition. As a result, schools that view technology as an integral part of academic achievement are using it to support teaching and learning.

## **2.5 Curriculum Design Decisions**

The key design decisions for implementation of the DPS Education Technology Plan 2012 - 2015 includes the following, which were reviewed and approved by planning project participants.

- Education Technology systems and resources must have a significant positive impact on students in the classroom.
- Timely, extensive, high quality training for teachers, administrators, and other staff must accompany introduction of any new education technology. Implementation strategies will be highly flexible to meet the rapid rate of change in education technology.
- Students must have equal access to education technology and its benefits.
- The school district will seek the most cost-effective curricula as ways to meet the constantly changing economic conditions.
- Professional staff using technology must become stabilized for continuity of service to students and school based achievement measures.
- Networked, readily accessible classroom management information systems are necessary for efficient and effective classroom management practices.
- Investments in curriculum technologies must be sustainable.
- Technology staffing and funding at the district- and school-levels must be sufficient to ensure timely maintenance and effective use of resources.
- Curriculum design is guided by key operating assumptions and technology design decisions.

The curriculum is more engaging for students when all learning elements are extended with the currently available electronic, 21<sup>st</sup> century digital tools. Our strategy to improve student achievement is multi-dimensional, involving the preparation of the school and classroom, the teacher, and the existence of technology resources in various forms.

## 2.6 Curriculum Planning

The results of all curriculum content area planning will become available as virtual tools for teachers and community access. Curriculum teams comprised of district-level curriculum leaders in all content areas and teachers have aligned the Detroit Core Curriculum Outcomes with both Michigan and national standards. The documents created have been reviewed internally and by experts nationally renowned in their respective fields. The teams developed print-based curriculum documents to guide and support instruction. The curriculum leadership has sought to create curriculum documents that teachers in Detroit Public Schools will embrace and be easy to use. Curriculum improvement at the school level is focused on goals and objectives articulated in School Improvement Plans (SIPs). School leadership is expected to monitor the data quarterly and address problems and issues in the SIPs through a variety of strategies.

At the beginning of each school year, Detroit Public School leadership provides every teacher a curriculum instructional sequence and pacing charts. The pacing charts provide teachers the DPS Outcomes and Performance Indicators and Michigan Academic Core curriculum standards to be addressed in each instructional sequence. These guides are updated to include the emerging standards for technology. In addition to these standards, instructional activities and strategies, text and instructional materials and references to sample assessment items are available.

Teachers use these pacing charts in planning and implementing the district's curriculum. These guides were developed by committees of teachers, administrators and other instructional specialists charged with producing a user-friendly document that will help teachers design lessons that include technology which meet students' needs and lead to high achievement.

The 21<sup>st</sup> century learning skills required for the Detroit curriculum advances the cognitive sciences at an accelerated pace when students learn and become engaged in real world experiences. The curriculum is developed from an extensive body of research.

Table of 21<sup>st</sup> Century Digital Age Literacy Skills and Alignment with Curriculum

	DIGITAL AGE LITERACY	CURRICULUM AREA
1	Basic Literacy: Can students demonstrate language proficiency in English and numeracy at levels necessary for success on the job and in a Digital Age Society?	English Language Arts Mathematics
2	Scientific Literacy: Do students have the knowledge and understanding of scientific concepts and processes required for personal decision-making and participation in social systems?	Science Social Studies
3	Economic Literacy: Can students identify economic issues, examine consequences of changes in economic conditions and public policies, and weigh costs against benefits.	Career Technical Social Studies
4	Technological Literacy: Do students know what technology is and how it can be used efficiently and effectively to achieve specific goals.	All
5	Visual Literacy: Can students interpret, use, and create visual media in ways that advance thinking, decision-making, communication, and learning?	All
6	Information Literacy: Are students able to evaluate, locate, synthesize, and use information effectively, and accomplish these functions using technology?	All
7	Multicultural Literacy: Can students understand and appreciate the similarities and differences between the customs, values, and beliefs of their own cultures and the cultures of others?	Social Studies Bilingual English Language Arts

	DIGITAL AGE LITERACY	CURRICULUM AREA
8	Global Awareness: Do students recognize and understand relationships among various entities across the globe?	Social Studies

Technology literacy requirements are pervasive in the curriculum of Detroit Public Schools. This literacy is developed by each curricular component. Curriculum experts have come to agree that as technology becomes more pervasive in the lives of students, other cognitive skills (adaptability, self-direction, curiosity, creativity, risk taking, reasoning or higher order thinking) become increasingly critical to student achievement. This is the result of technology making simple tasks easier for all students and places a greater burden on the development on higher-level thinking skills. Students will use technology throughout the curriculum to support the development of 21<sup>st</sup> Century skills.

The required mandate for student enrollment in an online course for high school students will promote the development of these 21<sup>st</sup> century skills as students cope with an improved set of high school requirements to demonstrate their ability to work or move on to higher education.

### 3.0 Goals and Objectives

The Detroit Public Schools curriculum requires that we have instruction that improves student outcomes by motivating students and providing an enriched learning environment. Our goals include the following:

- By the year 2012, teaching and learning will involve the blending of powerful computing devices (i.e., multimedia and mobile workstations, handheld pocket personal computers (PPC/PDA), laptops with wireless connectivity, digital projection systems, and smart boards.
- Teachers will be deliver state-of-the-art educational support to students.
- All classroom and library/media/technology centers of the elementary and middle schools and will have access to wireless networks and resources.
- Fundamental infrastructure in classrooms (such as adequate power, wiring, and circuit protection) will be expanded.
- Student access to technology will approach “one learner per device” as needed to meet educational and curriculum objectives.
- Classroom learning environments in Detroit will change to accommodate new strategies for collaboration and investigation using existing and emerging technologies.

### 3.1 General Technology Goals:

**By the completion of elementary school (grade 5) students will be able to demonstrate competency in the following areas:**

- Identify technological sources of information
- Interpret, analyze and evaluate information with assistance of voice, video, graphics, and data
- Analyze, select and use appropriate applications for various learning situations
- Practice ethical and legal selection and use of technology resources
- Research and predict the consequences of the development of a new technology

**In addition to the skills listed in elementary section, by the completion of middle school (grade 8) students will be able to demonstrate competency in the following areas:**

- Use a variety of technologies to explore career paths and identify areas of interest
- Retrieve, communicate, and input information using a variety of technologies
- Use technology tools for creative expression and communication of ideas
- Compare and contrast how technology affects and impacts different groups, communities, and cultures

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**In addition to the skills listed in the elementary and middle school sections, by the completion of high school (grade 12) students to be able to demonstrate competency in the following areas:**

- Enroll and complete an online course in at least one core content area
- Given a scenario, develop multiple options and present the solutions with a variety of technologies
- Represent ideas using a combination of technologies aimed at reaching a diverse audience
- Analyze resources and processes to choose the best combination in solving problems with technology tools
- Research, present, and defend technological forecasts

### **Education Technology Objectives**

Efforts at developing the DPS Education Technology Plan yielded a set of over-arching technology objectives, affirmed by DPS planning participants, that will help guide and support learning at all levels. These include:

- Connect all DPS school district classrooms with a unified, reliable telecommunications system (voice and digital) that supports student learning and achievement
- Provide adequate access for all Detroit students to the Internet and to appropriate on-line learning resources
- Develop guidelines, policies, and strategies to promote effective e-Learning opportunities available to all of Detroit's learners
- Provide effective, competency-based professional development to all teachers and administrators in the use of technology and telecommunications in support of teaching and learning addressed to high standards
- Assist all Detroit schools in their development of effective school improvement plans that integrate technology into the curriculum

## **4.0 Standards**

The design and delivery of a standard technology-based curriculum will guide and facilitate student growth. Teachers must have subject level knowledge to:

- Have at least 85 percent of Detroit students complete a rigorous academic core. Provide all students with access to either an academic or career/technical concentration. The academic concentration could be with a humanities focus or with a career/technical focus with at least four courses using different technology tools in a planned career sequence.
- Provide all students access to the same rigorous academic core. Convey to all students that they are worthy by enrolling them in challenging courses, assisting them to set goals beyond high school, and providing them with mentors and the extra help they need to meet course standards.

Teachers in the Detroit Public Schools (DPS) require the following to facilitate technology integration throughout the curriculum:

- The ability to demonstrate the critical technology competencies
- Knowledge of technology integration principles and strategies that are compatible with their disciplinary objectives
- New and modified materials that exemplify the uses of technology in facilitating instruction and learning in the content areas
- Technology implementation policies and procedures, which address the practical issues of technology use

### **4.1 National Education Technology Standards (NETS) for Students and Teachers**

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The Education Technology Standards for all students are divided into six broad categories. Standards within each category will be introduced, reinforced, and mastered by students across the curriculum. These categories provide a framework for linking performance indicators within the curriculum with the profiles for technology literate students to the standards. Teachers can use these standards and profiles as guidelines for planning technology-based activities.

## **A) Students**

### **1 Basic operations and concepts**

- Students demonstrate a sound understanding of the nature and operation of technology systems.
- Students are proficient in the use of technology.

### **2 Social, ethical, and human issues**

- Students understand the ethical, cultural, and societal issues related to technology.
- Students practice responsible use of technology systems, information, and software.
- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

### **3 Technology productivity tools**

- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

### **4 Technology communications tools**

- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

### **5 Technology research tools**

- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results.
- Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

### **6 Technology problem-solving and decision-making tools**

- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems.

## **B) Teachers**

Building on the standards for students, the ISTE NETS for Teachers (NETS•T) focus on teacher education define the fundamental concepts, knowledge, skills, and attitudes for applying technology in educational settings. The six standards areas with performance indicators listed below are designed to be general enough to be customized to fit state, university, or district guidelines and yet specific enough to define the scope of the topic. Performance indicators for each standard provide specific outcomes to be measured when developing a set of assessment tools. The standards and the performance indicators also provide guidelines for teachers currently in the classroom.

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## **1. Technology, Operations and Concepts**

- Teachers demonstrate a sound understanding of technology operations and concepts.

## **2. Planning and Designing Learning Environments and Experiences**

- Teachers plan and design effective learning environments and experiences supported by technology.

## **3. Teaching, Learning, and the Curriculum**

- Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning.

## **4. Assessment and Evaluation**

- Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies.

## **5. Productivity and Professional Practice**

- Teachers use technology to enhance their productivity and professional practice. Teachers:

## **6. Social, Ethical, Legal and Human Issues**

- Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers:

### **5.0 Performance Indicators**

#### **A) Students**

- Demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for students and teachers)
- Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies such as flash drive technology
- Identify and locate technology-learning resources (web sites) and evaluate them for accuracy and suitability.
- Plan for the management of technology resources within the context of learning activities. Use of folders and directories, MS Office, digital cameras and images.
- Create performance portfolio for evaluation by teachers and other stakeholders.
- Demonstrate adequacy of their preparation for careers with technology

#### **B) Teachers:**

- Plan strategies to manage student learning in a technology-enhanced environment.
- Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- Use technology to support learner-centered strategies that address the diverse needs of students.
- Apply current research on teaching and learning with technology when planning learning environments and experiences.
- Facilitate technology-enhanced experiences that address content standards and student technology standards.

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- Apply technology to develop students' higher order skills and creativity.
  - Manage student-learning activities in a technology-enhanced environment.
  - Apply technology in assessing student learning of subject matter using a variety of assessment techniques.

## 6.0 Implementation Action Steps

We will survey every classroom to reflect readiness for technology-based instruction. Teachers who have both the skills and capacity to manage technology in the classroom should have a “learning space” that can support 21<sup>st</sup> century learning and equipment. This would give assurance that the classroom is capable of supporting high quality instruction with technology.

- Embed Technology Standards in Core Curriculum for Teachers and Students.
- Identify Technology Transformation Teams for schools
- Publish the results of Curriculum Fair as a “Handbook of Curriculum Projects” after judging by evaluators.
- Create specific web pages for all curriculum content
- Create “online e-registration” for teacher Professional Development
- Identify all active “On-line” Teachers professional development in core content and technology integration
- Establish annual Curriculum Fair for instructional staff to showcase teacher and student products
- Create Awards Program/Incentives for schools to acknowledge use and achievement with technology
- Expand teachers use of technology to communicate and collaborate with peers, parents, and the larger community.
- Expand Technology Resource Centers managed by certified staff and available during, and after-school hours for student, teacher and parental access
- Conduct on-line surveys of students, teachers, and principals and establish a time-line for enacting ETP recommendations
- Create technology budgets and supplies for teachers and the on-line inventory system for purchased technology assets and classroom technology
- Create on-line assessment system for classroom use
- Create a process to convert all district documents from analog to digital formats. Permit online completion and delivery of on-line digital documents
- Install automated system to support technology literacy and track student classroom performance and attendance

## 7.0 Appendice

None

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## **Section 5. Student Achievement**

### **Section 5. Student Achievement**

#### **1.0 Introduction**

Detroit Public Schools made significant improvements over the past three years with respect to adopting and embracing school district standards for teaching and learning to support student academic achievement. The existing global competition that exists for natural and economic resources requires that we embrace the notion of efficiency and parsimony when working with our diversified Detroit student population. Each student arrives to the classroom as a potential success story. Our collaboration, as professionals, demands that we allow student achievement to flourish.

Any attempt to improve student achievement requires a redefinition of success. This definition must include the ability to integrate technology into the process of learning and teaching and requires competent teachers certified to use technology. We will use technology to create hypermedia learning opportunities for all students. This plan will allow video streaming, hyper-texting and other 21<sup>st</sup> century learning assets to become increasingly popular 21<sup>st</sup> century replacements for the textbook formats that has been the hallmark of education. We will embrace an expanded definition of success that incorporates the appropriate use of all technology resources, including the importance of time on tasks. When given the opportunity, all students will learn at a rate determined by their ability and the resources in support of that ability.

The successful use of technology in Detroit classrooms involves the integration of technology into all curriculum content areas and supporting offices. All classrooms must have:

- Teacher presentation systems (includes printer, Laptop, and projector with whiteboard)
- Internet access for teacher and students along with an amplified audio system
- Student worktables for mobile (Laptop) workstations
- Network Storage space optimized for teacher and student
- On-line Management systems that includes e-gradebook

Our challenge becomes the acceleration in the use of technology to prepare students for a world that is continually demonstrating that “technology is key” to unlocking the door to the limited available resources and jobs. This is a world that uses high-tech devices in academic and career tasks.

#### **District Student Diversification**

The Detroit Public Schools seeks to empower its diverse student population by providing schools with the ability to configure and reconfigure exciting and engaging learning environments. The identification of research-based strategies should guide the selection, configuration, and integration of technology-enriched learning environments for each learning population. There are many technologies that have the potential to facilitate learning. Likewise, there are many ways of organizing and managing these technologies and many approaches for using technology resources at different school levels (primary, elementary, middle, and high school) in support of student achievement. This section of the ETP proposes strategies to align technology-enhanced learning environments effectively with curriculum and increase student academic achievement throughout the district.

The flexibility desired by Detroit Public Schools leadership to support student achievement with the configuration and reconfiguration of a wide variety of technology-enriched learning environments requires that district-wide standards exist for facilities technology infrastructure for new construction and retrofits. This section of the plan provides a comprehensive overview of the technology that need to be developed and deployed for support high student achievement and performance. This section, in conjunction with the complete ETP, is a dynamic living



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document that will be updated regularly in order to address emerging technologies, new technical standards and/or specifications, federal, state, and local regulations/legislations, best practice research both within the district and nationally, initiatives implemented within the district

Research has demonstrated that using technology in the schools and classrooms has a “payoff” among career oriented and college bound students. The results of this research have revealed that students who have access to computer-assisted learning show achievement gains on standardized tests. A technology rich school-classroom environment motivates students, strengthens their academic and career technical skills, and assists them in relating to the real world. We will continue to encourage students to actively use technology to improve their reading, writing and mathematical abilities.

## Technology Utilization

In an effort to respond to staff and student mobility within the district, both a change in the number of students and an increase in their diversity, Detroit leadership implemented a significant number of initiatives aimed at increasing access to instructional technologies. These initiatives ranged from new construction projects in an effort to eliminate a significant number of the older school structures to increasing bandwidth and improving Internet/network access. Many of these initiatives are building upon pockets of innovation that currently exist within the district that are planned for widespread replication.

One of the greatest challenges in the Detroit school district in the area of technology utilization concerns the long-term maintenance of the technologies within schools, offices, and administrative buildings. Generally, funding for technology is included in new school construction (and frequently renovations/retrofits), but there is a need to establish a standard funding strategy to repair/update hardware, operating systems, system utilities, and instructional applications.

Detroit students have many technology related accomplishments. Writing abilities are improving because technology reduces the time required for rewriting or correcting errors and checking syntactical styles. Mathematics classrooms have state-of-the-art technology resources for the delivery and assessment of student achievement. Science teachers have Learning Technologies in Urban Schools (LeTUS) curriculum materials developed with the collaboration with scholars from the University community. Our use of virtual learning materials in mathematics enhances the curriculum to support student achievement. Our teachers are using technology throughout the curriculum to assist students in using productivity software, online learning tools, printers, scanners, and digital cameras for challenging curriculum based projects and earning awards in local and state competitions.

Achievement by students is not a solo act. It requires the positive support of other students, teachers, parents and the community. We have an opportunity to develop a learning network of digital learning and management tools to form networks of *support for student achievement* and to *raise student achievement* based on the demands of the technology integrated curriculum of the Detroit Public Schools.

## 2.0 Strategy

Detroit Public Schools strategies for using Education Technology to improve student achievement include general strategies that apply to all content areas (Strategies A-D), enterprise initiative based strategies (Strategies E-F), and content area specific strategies (Strategies G-O).

- 5A Leadership engagement and involvement
- 5B Teaching Strategies
- 5C Achievement evaluation strategies
- 5D Strategies for all content areas
- 5E Digital Learning Community strategies
- 5F 8<sup>th</sup> grade technological literacy strategies
- 5G ELA
- 5H Math

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5I	Science
5J	Social Studies
5K	Early Childhood Education
5L	Career Technical Education
5M	Bilingual Education
5N	Music Education
5O	Art Education

## 5A Leadership engagement and involvement

Effective leadership is critical to successfully changing the management and delivery of instruction through the use of technology and in changing the administration, school and community climates impacted by ET initiatives.

Leaders help shape the prevailing opinions, attitudes, and conditions pertaining to the effort to improve student achievement through technology literacy and use of technology by students, parents, teachers, staff and administrators.

Each curriculum content area will seek to secure active, visible champions for the ET initiatives at the board and cabinet levels to help:

- Communicate the rationale, importance, and educational value of initiatives
- Build a coalition of leadership support – mobilizing and engaging other leaders
- Advocate for or allocate adequate resources to initiate and sustain initiatives
- Monitor and recognize progress
- Build and maintain focus on initiative goals, objectives and priorities
- Manage resistance and remove barriers to effective implementation

Each curriculum content area will seek to increase the level of board, administration or school leadership engagement and involvement in implementation of the ET initiatives

Each curriculum content area will develop and implement a leadership engagement strategy and plan

- **Develop Educational Technology initiative overview**
  - Student achievement goal statement
  - Statement of gap in student achievement
  - Contributing cause for gap in student achievement
  - Challenges identified during assessment of system processes and practices
  - Strategy statement
- **Develop Educational Technology strategy map**
  - A one page depiction of the strategy and action steps to eliminate challenges and close gap in student achievement
- **Develop Educational Technology sponsor and leadership roadmaps**
  - Sponsor and leadership roadmaps provide leaders the information they need to successfully fulfill their roles in leading the people side of change in ET initiatives
  - Research findings consistently identify the importance of leaders being present to demonstrate their own and the organization's commitment to initiatives
  - A sponsor/leader roadmap outlines the tasks to be performed
    - Dates and time of active and visible participation throughout the initiative
      - Attend initiative meetings regularly
      - Kick-off special events and professional development sessions
        - Hold Administrators and Educational Technology Collaborative accountable for results (defined objectives, conduct ongoing reviews)
        - Be involved in critical decision-making (at critical milestones, at ETC meetings, in one-on-one sessions)

- Ensure that the initiative has the right team members, budget and resources for success
  - Be accessible; ensure that other leaders are accessible too
- Build coalition of sponsorship with peers and next level leaders (above and below in the District)
  - Create awareness of the need for change with direct reports; build support; follow up
  - Establish clear expectations with other leaders
  - Managed resistance (deal with problem leaders)
  - Create sponsorship cascade with leaders; ensure that other leader build support with their direct reports
  - Listen to and address concerns
  - Hold direct, face-to-face meetings with front-line leaders to explain “what, why, and how” about the change
  - Provide leadership team frequent updates and status information
  - Sponsor the change upward
- Communicate to leaders and other staff
  - Be visible to staff; communicate effectively why the initiative is happening, the risks of not changing and the vision of the initiative and the District
  - Like key performance indicators and student achievement objectives to the initiative
  - Enable two-way communication (allow for feedback and question/answer sessions)
  - Speak face-to-face at staff and board meetings and key presentations
  - Communicate frequently throughout the initiative and with multiple media (not just during the kickoff)
  - Interact effectively with other leaders helping them create and communicate consistent messages to their direct reports

## **2012-2015 Implementation Actions**

- Develop and implement leadership engagement strategy, plan and toolkit

## **5B Teaching Strategies**

Training our Detroit Public Schools’ teachers to use technology is a major element in providing support to student learning. The following implementation strategy will promote student achievement with technology:

Teachers will increasingly have the opportunity to use technology in the classroom to improve student achievement and to measure the success of classroom instruction. The software applications resident on every computer distributed to classrooms will permit students to read and write across the curriculum with word processing, create spreadsheets to graph data, and use electronic presentation tools to showcase projects. The following strategic approaches will accelerate student achievement:

- Permit formative teacher assessments on-line
- Create achievement teams for each content area and grade level
- Require the creation of a performance e-portfolio by students
- Require the creation of a curriculum e-portfolio by teachers
- Provide teachers with training for using network based management systems to share student performance with parents and other stakeholders
- Require meetings by content/grade level teachers to share best practices with technology – showcase the exemplary practices
- Provide curriculum materials to teachers via technology
- Establish monthly achievement targets and share results via technology

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- Provide on-line professional development in all content areas
  - Develop real world connections with technology for students and teachers
  - Provide traditional and 21st century after-school informal learning opportunities for students
  - Establish a student motivational program on scholarly targets
  - Provide technology incentives for students
  - Establish college and corporate support for creating high performance students
  - Require honors and advanced placement courses to utilize 21st century online learning tools
  - Establish content based technology user teams for teachers
  - Create satellite technology learning centers for teachers and students
  - Establish informal summer learning opportunities for teachers and students
  - Provide annual district level curriculum fair for teachers to showcase success

Ideas will be shared among the technology users and demonstrated as proven tools for improving student outcomes, innovation and data collection will become hallmarks of technology utilization. Computer-integrated curricula has been demonstrated to yield significant benefits for students. This is recognized time and again in the hundreds of articles on this theme published every month in magazines and journals devoted to educational issues.

But innovation requires strategic planning and discipline. It does not just happen. Many of Detroit's teachers have attended seminars, workshops, conferences, even semester-long courses, where they have had the opportunity to learn how to use computer technology as a tool for teaching. A large proportion of these teachers have come away with a new enthusiasm for the methodologies involved.

## **5C Student achievement evaluation strategies**

Teachers must better understand student performance distributions. To describe these distributions requires that instructional staff become familiar with the statistical notions of mean and variance in academic performance. Technology will permit (with relative ease) the use of preformatted spreadsheets the calculation of standard deviation, arithmetic mean, skew and other key measurements of the population we serve. Improvements to assessing student achievement are facilitated by:

- **Bringing Detroit Assessment Outcomes Online:** District and within-classroom computer-based record keeping systems must be used by teachers using validated assessment systems. The development of an approved database of questions for classroom use. Training teachers and other district staff to embrace learning with education technology will be a challenge. The evolution of classroom assessment and performance systems are a key in moderating and capturing the information students generate in real and virtual classrooms. All raw data and analytical results are available to selected stakeholders via Secured login procedures. OREA will have a more prominent involvement in gauging the achievement of students before the high-stakes examinations are given to students.
- **Integrating Data Delivery-Collection Systems:** We must accelerate development of the Data Management System (Data Warehouse) that integrates the District's data systems so that administrators and educators have the information they need to monitor student learning. In addition we should:
  - Require the use of spreadsheet technology to increase the capacity of teachers to collect and analyze student performance data.
  - Provide teachers with "data-bots" and e-gradebooks to chart student performance for parents
  - Require teacher data presentations using classroom assessment data for evidence of practice to correlate classroom data with district data.

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## 5D Strategies for all curriculum content areas

All curriculum areas are focused on students being successful in the 21st century is being technology literate. This literacy requires students to meet the expectations as described in the National (NETS) and Michigan technology (METS) expectations and standards.

- Definition for Technology Literacy:

“Technology literacy is the ability to responsibly use appropriate technology to communicate; solve problems; and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21<sup>st</sup> century”

- Detroit Public Schools Student performance standards, performance indicators, benchmarks, core outcomes, scope & sequence charts and content are pacing guides are all aligned with the National Educational Technology Standards (NETS)/International Society for Technology in Education (ISTE) for students (NETS-S) and Michigan Department of Education’ Educational Technology Standards for students (METS). They also reflect the NCLB 8<sup>th</sup> grade technological literacy requirements
- The Content Performance Indicators, what Detroit Public students should know and be able to do in each subject area, and benchmarks, what student should know and be able to do at various developmental levels (i.e. early elementary, later elementary, middle school, high school), are available for teachers in the following content areas:
  - English/Language Arts
  - Mathematics
  - Social Studies
  - Science
  - Visual Arts
  - Health
  - Physical Education
  - Music

All areas will develop Learning Networks

We are changing the culture of Detroit schools (teachers and students) by developing a learning network of digital learning/assessment and management tools to form networks of support to raise student achievement based on the demands of the curriculum of the Detroit Public Schools. This permits the teacher/administrator to use utilize the high speed data lines of the classroom for obtaining curriculum materials in support of the curriculum content or collect data from student performance with online tests for evaluating student strength/weakness for the personalization of instruction.

Academic achievement can also be supported by using instructional materials produced by the College Board to prepare middle school students for high school, college or career technical opportunities. We anticipate that our students will be able to create web sites, write scripts for digitized videos (i.e. iMovie) enhancing their language arts skills. History classes will use word processing to write about the events of the past and the present. In mathematics the Accelerated Mathematics program allows all math teachers to assess student ability with technology and generate a “new” set of curricular challenges for students. The Office of Fine Arts has music composing software that permits students to write and compose music that is replayed on music synthesizers for evaluating student understanding.

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On-line service providers to the school district have the potential to become service providers of “On-Demand” instructional resources for promoting student or parent learning. This is a method to provide e-learning materials and assessment tools for families who need to support the learning of students:

- **Training student technology coaches:** Students can earn the rank of scholar with technology to assist other students on the use of technology. We have evidence that the coach can influence the assist teacher by providing assistance to others.
- **Mandating Portfolio Creation:** Permit students to have storage space on classroom servers for archiving the evidence of their completed projects.
- **Promoting Teaming and Collaboration:** Provide instruction to students in learning teams with a team leader and team roles for achievement.
- **Providing Student Authentication:** Give students access to their electronic classwork. Allow each student access to any work in progress.
- **Allowing A common Prep Time to Teacher Collaborators:** Communication between teachers is an important scaffold to student achievement.

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  - Provide teachers with “data-bots” and e-gradebooks to chart student performance for parents
  - Require teacher data presentations using classroom assessment data for evidence of practice to correlate classroom data with district data.

## **5E 8th Grade Technological Literacy Assessment**

### **Strategy**

- Engage district leadership to gain commitment and sponsorship of the 8th Grade Technological Literacy strategy and initiatives
- Increase rigor of assessment
- Identify best practice measures for assessing student technological proficiency
- Continue improvement of student and teacher resources

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### **Leadership engagement and sponsorship**

#### **Leadership Sponsorship**

- Curriculum Development will seek to secure active, visible champions for the 8<sup>th</sup> Grade Technological Literacy ET initiatives at the board and cabinet levels to help:
  - Communicate the rationale, importance, and educational value of initiatives
  - Build a coalition of leadership support – mobilizing and engaging other leaders
  - Advocate for or allocate adequate resources to initiate and sustain initiatives
  - Monitor and recognize progress
  - Build and maintain focus on initiative goals, objectives and priorities
  - Manage resistance and remove barriers to effective implementation

#### **Leadership Engagement and Involvement**

- Curriculum Development will seek to increase the level of board, administration or school leadership engagement and involvement in implementation of the 8<sup>th</sup> Grade Technological Literacy ET initiative

#### **2012-2015 Implementation Actions**

- Develop and implement leadership engagement strategy, plan and toolkit
  - 8th Grade Technological Literacy Educational Technology business case
  - 8th Grade Technological Literacy Educational Technology strategy map
  - 8th Grade Technological Literacy sponsor and leadership roadmaps

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### **8<sup>th</sup> Grade Technology Literacy Assessment**

#### **Implementation status and plan**

- The 8<sup>th</sup> Grade Technology Literacy Assessment has been administered for the last three years
- While test scores have improved, student performance has been impacted by internal and external operational processes
  - Staff changes in classrooms and labs due to workforce reductions and staff redeployment
  - Transfer of students from closing schools
  - Access to technology classes and resources
  - Late notification of test date
- Student's technology literacy is assessed as follows:
  - Teacher Observation
  - Portfolio Evidence
  - Written Assessment
  - Technology Literacy Class (Coursework)
    - Students resource: Practice tests on CD
    - Teachers resources: Curriculum Guide with pacing charts for PK-8 grades reflecting Michigan Educational Technology Standards (METS) on CD
- The assessment and curriculum guide were revised based on student performance, evaluation of test questions and staff feedback to increase focus on critical concepts and students areas of weakness

#### **2012-2015 Implementation Actions**

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### 8<sup>th</sup> Grade Technology Literacy Assessment

- Work collaboratively with School Administrators and staff to ensure students have adequate access to learning experiences and technology resources
- Work collaboratively with Parental Involvement to provide parent resources to support student home practice and to increase access to learning experiences and technology resources
- Review, revise and/or develop Educational Technology curriculum for all grade levels
- Includes integration and alignment of DPS, METS, and NETS technology standards
- Revise the Computer Application Program (CAP) curriculum (high school)

### Professional Development

#### Course Offering

- Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities
- 8th Grade **Technological Literacy Assessment**
  - Review of METS
  - Interpretation of previous years test results data
  - Reviewed areas where student mastery less than 70%
  - Review resources: practice tests, pacing charts, curriculum guides

#### Schedule

#### Audience (Principal designees):

- Teachers
- Curriculum leaders
- Test Coordinators

#### Curriculum Delivery:

- Workshop

#### Facilitators

- Curriculum Development Staff
- WRESA consultants

#### Costs

- Consultant fee (if not covered under textbook adoption agreement)
- Community use fee (Funding Source: Title IIA or applicable project)
- Teacher workshop stipend (Funding Source: Title IIA or applicable project)
- Materials production

#### Implementation Barriers

- ATTENDANCE: Reaching critical mass using live workshop delivery method

#### 2012-2015 Implementation Actions

- Work collaboratively with the Office of Research, Evaluation, and Assessment to:
  - Continue increasing the rigor of the assessment
  - Identify best practice measures for assessing student technological proficiency



- Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities
- Plan and implement workshop

**5F ELA ET Integration for Student Achievement**

**Strategy**

- Engage district leadership to gain commitment and sponsorship of the ELA Educational Technology strategy and initiatives
- Increase student access to technology rich learning environments
- Increase rate of utilization of Educational Technology by students and teachers
- Improve effectiveness of Accelerated Reader, My Access Vantage, and World Language implementations
- Increase student access to technology-enabled ELA learning experiences by ensuring adequate and equitable distribution of Educational Technology
  - Equip every Elementary classroom with a NEO2 mobile cart
  - Equip every Middle and K8 ELA classroom with a NEO2 mobile cart
  - Equip every school with a LMC
  - Equip every Middle, K8, and High School with a language lab
  - Equip every ELA classroom with internet access
  - Equip every ELA teacher with a laptop with wireless connectivity and internet access
- Increase use of on-line textbooks and supplemental teacher and student resources
- Enhance delivery of Professional Development
- Increase engagement of collaborative partners to support ET initiatives

<b>Leadership engagement and sponsorship</b>
<p><b>Leadership Sponsorship</b></p> <ul style="list-style-type: none"> <li>• ELA will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:               <ul style="list-style-type: none"> <li>• Communicate the rationale, importance, and educational value of initiatives</li> <li>• Build a coalition of leadership support – mobilizing and engaging other leaders</li> <li>• Advocate for or allocate adequate resources to initiate and sustain initiatives</li> <li>• Monitor and recognize progress</li> <li>• Build and maintain focus on initiative goals, objectives and priorities</li> <li>• Manage resistance and remove barriers to effective implementation</li> </ul> </li> </ul>
<p><b>Leadership Engagement and Involvement</b></p> <ul style="list-style-type: none"> <li>• ELA will seek to increase the level of board, administration and school leadership engagement and involvement in implementation of ET initiatives</li> </ul>
<p><b>2012-2015 Implementation Actions</b></p> <ul style="list-style-type: none"> <li>• Develop and implement leadership engagement strategy, plan and toolkit               <ul style="list-style-type: none"> <li>• ELA Educational Technology business case</li> <li>• ELA Educational Technology strategy map</li> <li>• ELA sponsor and leadership roadmaps</li> </ul> </li> </ul>

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## **Accelerated Reader Program**

### **Implementation status and plan**

- All schools K-12
- Schools have varying levels of implementation; some have low level implementations due to high number of barriers

### **Parental Engagement and Involvement**

- Level of engagement and involvement varies
- Implement Renaissance Learning which has functionality that increases parental engagement and involvement by providing ability to:
  - monitor student progress and assignments
  - monitor teacher performance in administering quizzes

### **Assessment**

- Using Renaissance Learning Star Norm Reference Test (diagnostic test) to assess student progress and achievement
- administered 3x annually to monitor progress
- start of school year, mid-year, end of school year
- Results used to differentiate and individualize instruction
- Accelerated Reader Quiz data captured in COGNOS for standard and ad hoc reports available
- Test results are a source of data for school improvement planning

### **Student achievement recognition**

- Intrinsic motivation is primary focus
- Methods that build intrinsic motivation, at minimal cost and with low administration required
- EXAMPLE:
  - Recognize students for the level of mastery achieved by posting their name and picture on charts displayed prominently in their school, giving verbal recognition and awarding certificates at strategic times like card markings

### **Implementation Barriers**

- High number of personnel changes due to reduction in teacher service
- Insufficient number of library books at the various reading levels
- Insufficient number of computers and printers
- Funding/Budget cuts for staffing – internal district consultant
- Field technical assistance
- Curriculum integration
- Reports, report analysis
- Staffing
- Professional Development

### **Funding Sources**

- General Fund unavailable
- Implementation of actions primarily dependent on availability of Title I, other grant funding and donations

### **2012-2015 Implementation Actions**

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### Accelerated Reader Program

- Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs
- Develop implementation plan for augmenting Accelerated Reader initiative with addition of netbooks and computers; includes
- Prioritization and ranking of schools
- Communication plan
- Professional development
- Validate and remove barriers impacting implementation and effectiveness of Accelerated Reader program
- Upgraded to Renaissance Learning to provide parents monitoring capabilities
- Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness
- Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding
- Coach Champions, School Administrators, Teachers (leaders)
- District personnel to visit schools with low implementation

### My Access Vantage

#### Implementation status and plan

- My Access Vantage is a web-based interactive instructional writing program that diagnoses and assess the writing abilities of students, scoring essays instantly and provides targeted feedback. Teachers have the information needed to develop differentiated, individualized instruction.
- The program was piloted in eleven (11) schools with seventy-five (75) students per school
  - 825 students
  - X teachers
  - X High Schools, X Middle Schools and 1 Elementary school
- The program will be expanded to all Middle and High Schools during 2012-2015 as a strategy to improve student achievement

#### Implementation Barriers

- Professional development of staff on program usage
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#### Funding Sources

- General Fund unavailability
- Implementation of actions primarily dependent on availability of Title I, other grant funding and donations

#### 2012-2015 Implementation Actions

- Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs
- Develop implementation plan for expanding program over the next three years
- High School grades 9 - 12 2012-2015
- Middle School grades 6, 7, and 8 2012-2015
- Determine the total cost of ownership for My Access Vantage program
- Ensure that all students and teachers have access to on-line textbooks and supplemental resources

- Work collaboratively with School Administrators to increase accessibility to technology in classrooms, library media centers and computer labs (i.e. computers, printers, Internet access, etc.)
- Work collaboratively with Fund and Grant development to develop campaign to secure increased grant funding and donations
- Software: per student license fee
- Services: Internet access
- Hardware: Netbooks, Printers (Standalone or Networked)
- Work collaboratively with the Office of Research, Evaluation, Assessment and Accountability to assess and evaluate program effectiveness

<b>Educational Technology Available by Grade Level</b>	
<p><b>Elementary Middle K8</b></p> <p><b>Classroom Performance System</b></p>	<p><b>K-5 students with individual netbooks in preparation for alignment with common core standards and assessments (Classroom Performance System)</b></p> <ul style="list-style-type: none"> <li>• Use to support all subjects</li> <li>• Reading, Writing , World Languages</li> <li>• Science, Math, Social Studies</li> </ul> <p><b>Implementation plan</b> 92 Schools</p> <p><b>Reduce theft risk</b></p> <ul style="list-style-type: none"> <li>• Equipment kept on secure carts and stored in secure rooms or cabinets</li> <li>• Limited PC capabilities makes less attractive</li> </ul>
<p><b>Standard classroom ET configuration</b></p> <p><b>Essential ET for ELA</b></p>	<p><b>Equip ELA classrooms with standard configuration of Educational Technology</b></p> <ul style="list-style-type: none"> <li>• Four (4) student workstations</li> <li>• One (1) teacher workstation (laptop)</li> <li>• One (1) standalone or networked printer</li> <li>• One (1) LCD projector</li> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• One (1) Digital Video Camera</li> <li>•</li> </ul>
<p><b>Elementary Schools ET Resources</b></p>	<p><b>1 LMC per school</b></p> <ul style="list-style-type: none"> <li>• Accelerated Reader and Math testing site</li> <li>• Adequate inventory of books (based on student population and school grade configuration)</li> </ul> <p><b>Continue adding grade K-5 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources as they become available</b></p> <ul style="list-style-type: none"> <li>• Student and teacher e-Editions accessible on-line</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> <li>• Other complementary on-line supplemental resources</li> </ul> </li> </ul>

<b>Educational Technology Available by Grade Level</b>	
	<p><b>1 LMC per school</b></p> <ul style="list-style-type: none"> <li>Accelerated Reader and Math testing site</li> <li>Adequate inventory of books (based on student population and school grade configuration)</li> </ul> <p><b>Continue adding grade K-5 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources as they become available</b></p> <ul style="list-style-type: none"> <li>Student and teacher e-Editions accessible on-line</li> <li>Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>Ability to meet access requirements: <ul style="list-style-type: none"> <li>Administrative permission</li> <li>Internet access</li> <li>Student identification numbers</li> <li>Other complementary on-line supplemental resources</li> </ul> </li> </ul>
<b>Middle Schools &amp; K8 Schools ET Resources</b>	<p><b>1 LMC per school</b> <b>Access to a technology-rich computer lab</b></p> <p><b>Continue adding grade 6-8 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources as they become available</b></p> <ul style="list-style-type: none"> <li>Student and teacher e-Editions accessible on-line</li> <li>Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>Ability to meet access requirements: <ul style="list-style-type: none"> <li>Administrative permission</li> <li>Internet access</li> <li>Student identification numbers</li> <li>Supplemental textbook provides student and teacher editions</li> </ul> </li> </ul>
<b>High Schools ET Resources</b>	<p><b>1 LMC per school</b> <b>Access to technology-rich computer lab</b></p>
	<p><b>9<sup>th</sup> grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>Textbook publisher does not provide student and teacher e-Editions</li> <li>Publisher supplemental resources: CD</li> <li>Other on-line supplemental resources: Classzone.com</li> </ul>
	<p><b>10<sup>th</sup> Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>Textbook publisher does not provide student and teacher e-Editions</li> <li>Textbook publisher does not provide technology-based supplemental teacher and student resources</li> <li>Other complementary on-line supplemental resources</li> </ul>
	<p><b>11-12<sup>th</sup> Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>Student and teacher e-Editions accessible on-line</li> <li>Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>Ability to meet access requirements: <ul style="list-style-type: none"> <li>Administrative permission</li> <li>Internet access</li> </ul> </li> </ul>

<b>Educational Technology Available by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• Student identification numbers</li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Ensure that all students and teachers have access to on-line textbooks and supplemental resources</li> <li>• Purchase and/or install interactive whiteboards in every ELA classroom</li> <li>• Equip each ELA classroom with standard ET configuration</li> <li>• Apply for grants to secure funding for equipment and supplemental resource acquisitions</li> <li>• Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Performance Systems</li> <li>• eInstruction (Elementary and Middle schools)</li> <li>• TI Navigator (High Schools)</li> <li>•</li> </ul>

<b>NBC Learn</b>
<p><b>Implementation status and plan</b></p> <ul style="list-style-type: none"> <li>• Pilot in grade 11 during 2012 summer school</li> <li>• All Schools K-12 have access to NBC Learn</li> <li>• Provide a trainer-of-trainer model for Fall 2012.</li> <li>• All K-12 teachers will be provided the opportunity to be trained in the first semester of 2012.</li> </ul>
<p><b>Implementation Barriers</b></p> <ul style="list-style-type: none"> <li>• All computers must have Adobe Air installed on them.</li> <li>• Professional development of staff on program use.</li> <li>• Technological assistance</li> </ul>
<p><b>Funding Sources</b></p> <ul style="list-style-type: none"> <li>• Kellogg Foundation Grant through 2012-2014</li> </ul>
<p><b>Implementation Actions</b></p> <ul style="list-style-type: none"> <li>• Validate and remove barriers impacting implementation and effectiveness of NBC Learn.</li> </ul>

<b>Learning Village</b>
<p><b>Implementation status and plan</b></p> <ul style="list-style-type: none"> <li>• Continue to add new academic programs to the Learning Village.</li> <li>• Designate a web team to update Learning Village</li> <li>• Support provided to schools depending on the level of implementation based on usage reports.</li> <li>• Provide training to staff to develop a classroom page by the end of 2012-2013 school year.</li> <li>• Provide training to students and parents on accessing individual classroom pages by the end of the 2013-2014 school year.</li> </ul>
<p><b>Implementation Barriers</b></p> <ul style="list-style-type: none"> <li>• Creating a small group of individuals to ensure consistency within the site.</li> <li>• Provide training for timely implementation</li> <li>• Parent participation in workshops may affect implementation.</li> </ul>
<p><b>Funding Sources</b></p> <ul style="list-style-type: none"> <li>• Using Renaissance Learning Star Norm Reference Test (diagnostic test) to assess student progress and achievement</li> </ul>

<b>Learning Village</b>
<ul style="list-style-type: none"> <li>• General Fund unavailable</li> <li>• Implementation of actions primarily dependant on availability of Title I, other grant funding and donations.</li> </ul>
<b>Learning A -Z</b>
<p><b>Implementation status and plan</b></p> <ul style="list-style-type: none"> <li>• All teachers grades K-6 have access to Learning A-Z</li> <li>• Support is provided to schools depending on the level of implementation based on usage reports</li> <li>• Trainer-of-trainer model provided to Literacy Coaches during the 2011- 2012 school year.</li> </ul>
<p><b>Implementation Barriers</b></p> <ul style="list-style-type: none"> <li>• New staff require training</li> <li>• Availability of either printers or printing supplies to print material</li> <li>• Funding for specialist to support implementation.</li> </ul>
<p><b>Funding Sources</b></p> <ul style="list-style-type: none"> <li>• General Fund unavailable</li> <li>• Implementation of actions primarily dependant on availability of Title I, other grant funding and donations.</li> </ul>

<b>Destination Reading</b>
<p><b>Implementation status and plan</b></p> <p>Provide training to all new staff.  Support provided to schools depending on the level of implementation based on usage reports.  Destination Reading used to support differentiated instruction.  Equip ELA classrooms with standard configuration of Educational Technology.</p>
<p><b>Implementation Barriers</b></p> <ul style="list-style-type: none"> <li>• Provide training to teachers in a timely manner.</li> <li>• Adequate amount of technology in classrooms to fully implement program</li> <li>• Planning time for teachers to analyze data and plan lessons accordingly.</li> </ul>
<p><b>Funding Sources</b></p> <ul style="list-style-type: none"> <li>• General Fund unavailable</li> <li>• Implementation of actions primarily dependant on availability of Title I, other grant funding and donations.</li> <li>• Curriculum integration</li> <li>• Reports, report analysis</li> <li>• Staffing</li> <li>• Professional Development</li> </ul>

<b>MClass/Burst/TRC</b>
<p><b>Implementation Status and Plan</b></p> <ul style="list-style-type: none"> <li>• All teachers K-5 have access to DIBELS Next materials</li> <li>• Support is provided to schools depending on the level of implementation based on usage reports.</li> <li>• Provide training to all K-5 teachers on DIBELS Next.</li> <li>• Consistently use of data to differentiate instruction.</li> </ul>
<p><b>Implementation Barriers</b></p>

**MClass/Burst/TRC**

- Provide training to teachers in a timely manner in order to complete assessments within the assessment window.
- All new assessment material needs to be purchased for each K-5 teacher.
- Funding for material and training
- Planning time for teachers to analyze data and plan lessons accordingly.

**Funding Sources**

- Using Renaissance Learning Star Norm Reference Test (diagnostic test) to assess student progress and achievement.
- General Fund unavailable.
- Implementation of actins primarily dependant on availability of Title I, other grant funding and donations.

**LIBRARY MEDIA CENTER**

- The goal is to have a functioning LMC with Library Media Specialists assigned to each school
- Educational Technology is wireless
- Equipment quantities are based on student and teacher populations:
- Computers – desktops, laptops
- Printers – black/white, color
- LCD projectors
- Interactive whiteboards
- HDTVs
- DVD players
- Site for Accelerated Reader and Math testing
- Books are kept in media centers
  - Need about 15,000-16,000 books to adequately support program

**Implementation Barriers**

- High incidents of equipment theft
- Inoperable or obsolete equipment
- supply of books
- teacher service and funding for librarian position
- Expeditious technological support

**2012-2015 Actions**

- Increase the number of library media centers
- Increase teacher service and funding for librarian position
- Standardize library media center configuration
  - include internet access and video streaming capabilities
- Determine the total cost of ownership for LMCs
- Increase the number and variety of books available in every LMC

**World Language**

**World Languages Offered**

	Arabic*	Chinese*	French	German	Japanese*	Latin	American Sign	Spanish	Russian
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							Language (ASL)		
Elem			X					X	
Middle			X					X	
High	X	X	X	X	X	X	X	X	X
Immersion		X	X		X			X	

\*Strategic languages

**Grade levels**

- Elementary
- Middle Schools
- High Schools
- While all languages are offered, different languages are offered at different schools
- World Language course must be offered at 9-12 to comply with MDE curriculum requirement
- The Michigan State Board of Education requires the graduating class of 2016 and those following, to have completed two credits of a World Language other than English prior to graduation, or demonstrate a two-year equivalent proficiency at the Novice High level on the American Council of the Teaching of Foreign Language (ACTFL) Proficiency Scale. Students may demonstrate language proficiency at any point prior to high school graduation and may meet the two-credit world language graduation requirement via:

1. High School Grades 9-12: Students fulfill the requirement by successfully completing the two credits of study in the same language at the high school level.
2. Grades K-8 or Combination K-8 and High School: For students who successfully completed either or both credits of the two-credit requirement prior to high school, a formal assessment aligned to the Michigan World Language Standards and Benchmarks (2007), is required. Detroit Public School is evaluating the types of assessment to measure language proficiency. Information will be provided when a decision is made.

3. Alternative Equivalency:

Any student who chooses to fulfill the two-credit world language requirement through an alternative route must provide formal documentation of proficiency. In addition to the types of documentation listed in (2) Courses K-8 and High School above, the following documentation is also possible: A translated, official school transcript documenting continuous and successful school experiences of at least one academic semester (for 1 credit) or one academic year (for 2 credits) in which classes were conducted in the language for which credit is sought.

In compliance with the State mandate, the District has implemented online world language proficiency exams to verify the language proficiency of incoming 8<sup>th</sup> grade students who claim they understand, speak, read, and write at the novice high level in Spanish, French, German, Italian, Chinese, Japanese, and Arabic. More languages will be added as they become available.

After completing the two credits the students have three options:

- a. to continue developing their native (non-English) language by registering for more advanced courses,
- b. to register for another Global Language course;
- c. to opt out of a World Language by passing the Language Proficiency Exam.

**Availability of Highly Qualified Teachers**

- Most teachers are certified to teach world languages.

**Technology Resources**

- Labs serve as resources for teachers and students in some schools.
- Configuration of Education Technology varies widely

- Netbooks, Desktops and laptops
- Printers
- CDs, DVDs
- LCD Projectors
- Interactive whiteboards
- Document reader/camera
- Computer headsets
- Microphones
- Locations of Language labs
  - Foreign Language Immersion and Cultural Studies School (FLICS)
  - Cass Tech
  - Renaissance
  - The Detroit School of the Arts High School (DSA)

**2012--2015 Implementation Actions**

- Increase the number of Distance Learning opportunities available to World Language students, particularly K-8 and in lieu of a World Language teacher
- Configure World Language classrooms and language labs with capacity for video streaming and with internet access.
- Increase partnering with universities.
- Ensure that all students and teachers have access to on-line textbooks and supplemental resources
- Increase the number of World Language software applications available for classrooms
- Update the language lab configuration with new video capabilities
- Maintain the language labs so that they are used efficiently.
- Provide online options for students who would like to enroll in on-line courses
- Work collaboratively with the Office of Research, Evaluation and Assessment to develop process for assessing student language proficiency via online language proficiency tests prior to entering high school.
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**Professional Development**

**Course Offerings**

- Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities
- Effective integration of Technology into the World Language Curriculum.
- Computer literacy for instruction
- Microsoft Office suite – instructional and non-instructional use, as well as other programs and applications
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- Instruction strategies
- Podcasting

**Schedule**

- Conduct twice per year
  - Per funding availability
- 2.5 hour session after hours

**Audience:**

- Teachers
- Principals

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- 
- World Language Coaches

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**Facilitators**

- Textbook vendor consultants
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- Supervisor
- WRESA consultants

**Costs**

- Consultant fee (if not covered under textbook adoption agreement)
- Community use fee (Funding Source: General Fund, Title IIA)
- Teacher workshop stipend (Funding Source: Title IIA)
- Materials production

**Implementation Barriers**

- Locations adequately equipped with type and quantity of Educational Technology required to teach course
- ATTENDANCE: Reaching critical mass using live workshop delivery method

**2012-2015 Implementation Actions**

- Work collaboratively with the Office of Professional Development to
  - secure sites adequately equipped for sessions where Educational Technology must be used
  - develop alternate course delivery methods (i.e. video conferencing, podcasts , etc.)
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- Work collaboratively with the Office of Research, Evaluation, and Assessment to:
  - Identify best practices for integrating technology in the delivery of World Language curriculum
  - Transfer best practices from research to classroom application
  - Assess and evaluate effectiveness of World Language professional development
- Implement Professional Development as planned
- Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities

**5H Mathematics ET Integration for Student Achievement****Strategy**

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- Ensure that district administration has awareness and understanding of the Mathematics Educational Technology (ET) that exists to enhance mathematics instruction in order to engage all stakeholders in the support of the Mathematics Educational Technology strategy and initiatives.
- Increase student access to technology rich learning environments.
- Increase rate of utilization of Educational Technology by students and teachers.
- Increase awareness of Destination Math Initiative to provide additional educational options for students to engage in a blended learning environment.
- Improve effectiveness of Accelerated Math, Carnegie Math, and Classroom Performance System implementations.

- Create a Mathematics Educational Technology curriculum delivery model and implement district-wide.
  - Increase/Improve collaboration with other DPS offices/departments, higher learning institutions, parents, and service providers of textbooks, supplemental resources and technology.
  - Develop learning communities to enhance distance-learning offerings by partnering with University of Detroit Mercy, Wayne State University and University of Michigan (Dearborn, Ann Arbor).
  - Build and strengthen support to teachers.
  - Increase student access to technology-enabled Math learning experiences by ensuring adequate and equitable distribution of Educational Technology.
    - Equip every Math classroom with a fully functioning Classroom Performance System and internet access.
    - Equip every Math teacher with a laptop with wireless connectivity and internet access.
    - Equip every Math teacher with a LCD projector.
    - Provide the following resources to support mathematics lab, wireless carts (netbooks, laptops, etc.), document cameras, Mathematics software (Geometer Sketchpad, Tinkerplots, etc.) for the advancement of mathematical exploration and achievement.
- Increase use of on-line textbooks and supplemental teacher and student resources.
- Increase access to formative and summative on-line assessment options.
- Enhance delivery of Professional Development through online anytime any day options.
- Expand leadership development from monthly face-to-face meetings to include on-line meetings and webinar conferencing.
- Increase the opportunity to take on-line courses with multiple purposes in mind i.e., individualized instruction and providing more robust course options.

#### **Leadership engagement and sponsorship**

##### **Leadership Sponsorship**

- Mathematics will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:
  - Communicate the rationale, importance, and educational value of initiatives
  - Build a coalition of leadership support – mobilizing and engaging other leaders
  - Advocate for or allocate adequate resources to initiate and sustain initiatives
  - Monitor and recognize progress
  - Build and maintain focus on initiative goals, objectives and priorities
  - Manage resistance and remove barriers to effective implementation

##### **Leadership Engagement and Involvement**

- Mathematics will seek to increase the level of board, administration or school leadership engagement and involvement in implementation of ET initiatives

##### **2012-2015 Implementation Actions**

- Develop and implement leadership engagement strategy, plan and toolkit
  - Mathematics Educational Technology business case
  - Mathematics Educational Technology strategy map
  - Mathematics sponsor and leadership roadmaps

#### **Accelerated Math Program**

##### **Implementation status and plan**

- Upgrading from standalone version to web-based version
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### **Accelerated Math Program**

#### **Assessment**

- Continue to use Star Math (diagnostic test) to assess student progress and achievement
- Results used to differentiate and individualize instruction
- Capturing test data district-wide in Cognos
- Standard and ad hoc reports available
- Test results are a source of data for school improvement planning

#### **Implementation Barriers**

- High number of staff changes due to reduction in teacher service.
- Inadequate number of computers and printers.
- Volume of printing and printing supplies required.
- Funding/budget cuts for staffing – internal district consultant
  - Field technical assistance
  - Curriculum integration
  - Reports, report analysis
  - Staffing
  - Professional Development

#### **Funding Sources**

- General Fund unavailable
- Implementation of actions primarily dependent on availability of Title I and other grant funding

#### **2012-2015 Implementation Actions**

- Perform comprehensive program inventory to assess deployment of Educational Technology
- Validate and remove barriers impacting implementation and effectiveness of Accelerated Math program
- Develop implementation plan for augmenting Accelerated Math initiative with addition of netbooks and computers; includes
  - Prioritization and ranking of schools
  - Communication plan
  - Professional development
- Validate and remove barriers impacting implementation and effectiveness of Accelerated Reader program
- Upgrade to Renaissance Learning to provide parents monitoring capabilities
- Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness
- Work collaboratively with Funds and Grant Development to develop campaign to secure increased grant funding and donations
- Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding
  - Coach Champions, School Administrators, Teachers (leaders)
  - District personnel to visit schools with low implementation

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### **Carnegie Math**

#### **Implementation status and plan**

- Carnegie Learning Blended Math Curricula is comprised of Carnegie Learning Textbooks and Cognitive

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### **Carnegie Math**

Tutor Software. Middle and High School students spend designated days in collaborative learning in the classroom and other days in learning with adaptive technology.

- Cognitive Tutor uses artificial intelligence to identify weaknesses in a student's mastery of mathematical concepts and sends the student to new problems that address those specific concepts
- Teachers access student performance data to aid them in developing differentiated, individualized instruction and in developing assessments
- The program is currently used in some schools
- High Schools (Algebra I) and Middle Schools (Algebra Readiness)
- The program will be expanded during this planning period as a targeted strategy to improve student achievement
  - Student performance will be tracked and monitored
  - Support resources will be allocated to schools and teachers based on student results

#### **Implementation Barriers**

- High number of staff changes due to reduction in teacher service
- Inadequate number of computers and printers
- Funding/Budget cuts for staffing – internal district consultant
  - Field technical assistance
  - Curriculum integration
  - Reports, report analysis
  - Staffing
  - Professional Development

#### **Funding Sources**

- General Fund unavailable
- Implementation of actions primarily dependent on availability of Title I, other grant funding and donations

#### **2012-2015 Implementation Actions**

- Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs
- Develop implementation plan for expanding program over the next three years
  - Middle Schools Grade 8 Algebra I 2012-2013
  - High Schools Grade 9 Algebra I 2012-2013
  - High Schools Grade 10 Geometry 2013-2014
  - High Schools Grades 11 Algebra II 2014-2015
- The rate of program expansion will be determined by individual school's ability to schedule students to spend 40% of their time interfacing with the Cognitive Tutor program
- Determine the total cost of ownership for Carnegie Math program
- Validate and remove barriers impacting implementation and effectiveness of Carnegie Math program
- Ensure that all students and teachers have access to on-line textbooks and supplemental resources
- Work collaboratively with School Administrators to increase accessibility to technology in classrooms and computer labs (i.e. computers, netbooks, printers, Internet access, etc.)
- Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness



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### Destination Math

- Validate and remove barriers impacting implementation and effectiveness of Destination Math program
- Ensure that all students and teachers have access to on-line supplemental resources
- Work collaboratively with School Administrators to increase accessibility to technology in classrooms and computer labs (i.e. computers, netbooks, printers, Internet access, etc.)
- Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness
- Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding
  - Coach Champions, School Administrators, Teachers (leaders)

### NBC Learn

#### Implementation status and plan

- Pilot in grade 11 during 2012 summer school
- All schools K-12 have access to NBC Learn
- Provide a trainer of trainers model for Fall 2012
- All K-12 teachers will be provided the opportunity to be trained in the first semester of 2012

#### Implementation Barriers

- All computers must have Adobe Air installed on them
- Professional development of staff on program use
- Technological assistance

#### Funding Sources

- Kellogg Foundation Grant through 2012-2014

#### Implementation Actions

- Validate and remove barriers impacting implementation and effectiveness of NBC Learn

### Learning Village

#### Implementation status and plan

- Continue to add new academic programs to the Learning Village
- Designate a web team to update Learning Village
- Support provided to schools depending on the level of implementation based on usage reports
- Provide training to staff to develop a classroom page by the end of 2012-2013 school year
- Provide training to students and parents on accessing individual classroom pages by the end of the 2013-2014 school year

#### Implementation Barriers

- Creating a small group of individuals to ensure consistency within the site
- Providing training for timely implementation
- Parent participation in workshops may affect implementation



**Learning Village**

**Funding Sources**

- Using Renaissance Learning Star Norm Reference Test (diagnostic test) to assess student progress and achievement
- General Fund unavailable
- Implementation of actions primarily dependent on availability of Title I, other grant funding and donations

**Educational Technology Available by Grade Level**

<p><b>Standard classroom ET configuration</b></p> <p><b>Essential ET for Mathematics</b></p>	<p><b>Equip Math classrooms with standard configuration of Educational Technology</b></p> <ul style="list-style-type: none"> <li>• Four (4) student workstations</li> <li>• One (1) teacher workstation</li> <li>• One (1) standalone or networked printer</li> <li>• One (1) LCD projector</li> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• One (1) Digital Video Camera</li> <li>• Graphing calculators                             <ul style="list-style-type: none"> <li>• Elementary Schools     12 sets of 10     120 per school</li> <li>• Middle Schools</li> <li>• High Schools</li> </ul> </li> </ul>
<p><b>Standard Mobile Lab configuration</b></p>	<p><b>Equip schools with Mobile Labs</b></p> <p><b>Standard number of mobile labs</b></p> <ul style="list-style-type: none"> <li>• Elementary Schools     1 per grade level     5 per school</li> <li>• Middle Schools     1 per grade level     3 per school</li> <li>• High Schools     based on number of dedicated math classrooms</li> </ul> <p><b>Standard mobile lab configuration</b></p> <ul style="list-style-type: none"> <li>• Wireless laptop cart</li> <li>• Thirty (30) laptops</li> <li>• One (1) printer</li> <li>• One (1) printer</li> <li>• One (1) LDC projector</li> <li>• One (1) wireless access point</li> </ul>
<p><b>Elementary Middle K8</b></p> <p><b>eInstruction Classroom Performance</b></p>	<p><b>Equip elementary, middle and K8 schools with netbooks in preparation for Common Core State Standards for mathematics alignment, on-line assessments, eInstruction RI Classroom Performance Systems</b></p> <ul style="list-style-type: none"> <li>• Learning Management System e.g., Blackboard</li> <li>• Software to support online course offerings i.e., Blackboard Collaborate                             <ul style="list-style-type: none"> <li>• System can be used to support all subjects</li> </ul> </li> </ul>

<b>Educational Technology Available by Grade Level</b>	
<b>System</b>	<ul style="list-style-type: none"> <li>• Math</li> <li>• Reading, Writing, World Languages</li> <li>• Science, Social Studies</li> </ul> <ul style="list-style-type: none"> <li>• Hardware requirements <ul style="list-style-type: none"> <li>• Computer</li> <li>• LCD projector</li> <li>• Printer <ul style="list-style-type: none"> <li>▪ One pair of speakers</li> </ul> </li> <li>• Mind Paint Quiz Show      Grades 1-5</li> <li>• Digital Learning              Grades 1-5</li> <li>• Tinkerplots                    Grades 4-8</li> <li>• Geometer's Sketchpad      Grades 6-8</li> </ul> </li> <li>• Minimum of one system per grade per school</li> <li>• Rank and prioritize schools based on AYP status <ul style="list-style-type: none"> <li>• Install systems in schools with the greatest achievement gaps</li> </ul> </li> <li>• System can be used to support all subjects <ul style="list-style-type: none"> <li>• Math</li> <li>• Reading, Writing , World Languages</li> <li>• Science, Social Studies</li> </ul> </li> <li>• Note: Changing from IR system to RI system</li> </ul> <p>*If available, teacher or classroom ET is used to meet requirement</p> <p><b>Current status</b></p> <ul style="list-style-type: none"> <li>• The systems are underutilized and implementation has not generally expanded beyond the first system primarily due to inadequate funding to acquire the technology needed to support the application <ul style="list-style-type: none"> <li>• Computers</li> <li>• LCD projectors, replacement bulbs</li> <li>• Student response pads (Clickers)</li> </ul> </li> <li>• Initiative impacted by the high number of personnel changes due to reduction in teacher service <ul style="list-style-type: none"> <li>•</li> </ul> </li> </ul>
<b>Middle Schools</b>  <b>TI Navigator Classroom Performance System</b>	<p><b>Equip middle schools with TI Navigator Classroom Performance Systems</b></p> <p><b>Implementation plan</b></p> <ul style="list-style-type: none"> <li>• System connects to a teacher workstation and four (4) TI-84 PLUS graphing calculators</li> <li>• Minimum of 1 system per school</li> <li>•</li> </ul> <p><b>Current status</b></p> <ul style="list-style-type: none"> <li>• The system is not currently used in middle schools</li> </ul>
<b>High Schools</b>  <b>TI Navigator Classroom Performance System</b>	<p><b>Equip high schools with TI Navigator Classroom Performance Systems</b></p> <p>Implementation</p> <ul style="list-style-type: none"> <li>• System connects to a teacher workstation and five (5) workspaces</li> </ul> <p><b>Current status</b></p> <ul style="list-style-type: none"> <li>• High schools have systems installed in grade 9</li> </ul>

<b>Educational Technology Available by Grade Level</b>	
<b>Elementary Schools ET Resources</b>	<p><b>Grades 1- Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• Student and teacher e-Editions are accessible on-line</li> <li>• Publisher technology (CD, DVD) and on-line supplemental resources are provided</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources <ul style="list-style-type: none"> <li>○ Tinkerplots                      Grades 4-5</li> </ul> </li> </ul>
<b>Middle Schools And K8 Schools ET Resources</b>	<p><b>Access to a technology-rich computer lab</b></p> <p><b>6-8th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• Student and teacher e-Editions are accessible on-line</li> <li>• Publisher technology (CD, DVD) and on-line supplemental resources are provided <ul style="list-style-type: none"> <li>• Student, teacher, and parent resources <ul style="list-style-type: none"> <li>• Tutorials</li> <li>• Lesson planner</li> <li>• Differentiated learning materials</li> </ul> </li> <li>• IDEA compliant resources for students with disabilities</li> </ul> </li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> <li>• Tinkerplots                      Grades 6-8</li> <li>• Geometer's Sketchpad        Grades 6-8</li> </ul>
<b>High School ET Resources</b>	<p><b>9<sup>th</sup> Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> <li>• Geometer's Sketchpad    Grades 9-12</li> </ul>
	<p><b>10<sup>th</sup> Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>

<b>Educational Technology Available by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• Geometer's Sketchpad Grades 9-12</li> </ul>
	<p><b>11<sup>th</sup> Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> <li>• Geometer's Sketchpad Grades 9-12</li> </ul>
	<p><b>12<sup>th</sup> Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> <li>• Geometer's Sketchpad Grades 9-12</li> </ul>
<b>Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs</li> <li>• Develop implementation plan for augmenting Accelerated Math and Carnegie Math initiative with addition of the Classroom Performance System; includes <ul style="list-style-type: none"> <li>• Prioritization and ranking of schools</li> <li>• Communication plan</li> <li>• Professional development</li> </ul> </li> <li>• Provide Internet access in every Math classroom</li> <li>• Purchase and/or install interactive whiteboards in every Math classroom</li> <li>• Equip each Math classroom with standard ET configuration</li> <li>• Provide all students access to computers/netbooks for at home usage to complete homework, access tutorial support and other on-line resources anytime any day</li> <li>• Provide all students remote access to on-line textbooks and supplemental resources</li> <li>• Apply for grants to secure funding for equipment and supplemental resource acquisitions</li> <li>• Acquire essential Mathematics Educational Technology as funding is available (i.e. graphing calculators, document cameras)</li> <li>• Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Performance Systems <ul style="list-style-type: none"> <li>• eInstruction (Elementary and Middle schools)</li> <li>• TI Navigator (High Schools)</li> </ul> </li> </ul>

<b>Professional Development &amp; Professional Support Services</b>
<p><b>Professional development procedures</b></p> <ul style="list-style-type: none"> <li>• Document procedures for managing and supporting professional development</li> </ul>

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## Professional Development & Professional Support Services

### Professional support services

- Coach and support teachers in developing strategies to address critical areas where student performance is below expectations
- Strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers)
- Integrate use of non-technology and technology-based resources
  - Pacing charts
  - Interactive whiteboards
  - Blackboard
- Best practices research and transfer

### Course Offerings

- Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities
- Accelerated Math
- Carnegie Math
- Destination Math
- Using Interactive Whiteboards as instructional tool
- Using Blackboard
- Using Blackboard Collaborate to expand course options for students
- Instruction strategies
- Integration of Technology in Curriculum

### Schedule

- Ongoing
- 3.0-5.0 hour sessions

### Audience

- Teachers
- Administrators – Principals, Curriculum leaders
- Parents/Community

### Delivery methods

- Classroom
- Live Webinars (Video Streaming)
- On-line courses
- Just-in-time professional development
  - On-demand Webinars
  - Develop webcasts of lessons facilitated by master teachers
- Blogs (feedback tool)
- Study groups

### Facilitators

- Textbook vendor consultants
- WRESA consultants

### Costs

- Consultant fee (if not covered under textbook adoption agreement)
- Community use fee (Funding Source: Title IIA)
- Teacher workshop stipend (Funding Source: Title IIA)

<b>Professional Development &amp; Professional Support Services</b>
<ul style="list-style-type: none"> <li>Materials production</li> </ul>
<b>Implementation Barriers</b> <ul style="list-style-type: none"> <li>ATTENDANCE: Reaching critical mass using live workshop delivery method</li> </ul>
<b>2012-2015 Implementation Actions</b> <ul style="list-style-type: none"> <li>Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>Continue increasing rigor of the assessments</li> <li>Identify best practices for assessing student technological proficiency</li> </ul> </li> <li>Develop Mathematics Educational Technology curriculum delivery model and implement district-wide</li> <li>Plan and Implement Professional Development</li> <li>Access and analyze student and teacher performance data to identify critical areas where additional focus and support are needed</li> <li>Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li> </ul>

<b>Parental Engagement and Involvement</b>
<b>Strategy</b> <ul style="list-style-type: none"> <li>Engage parents with DPS Parent-Student Learning Village Website to increase engagement and involvement <ul style="list-style-type: none"> <li>Communications: Calendars, Announcements</li> <li>Access to: curriculum descriptions, student and parent resources, reference documents, etc.</li> </ul> </li> </ul>
<b>Implementation Barriers</b> <ul style="list-style-type: none"> <li>Parent engagement varies from school to school</li> </ul>
<b>Funding Sources</b> <ul style="list-style-type: none"> <li>General Fund unavailable</li> <li>Implementation of actions primarily dependent on availability of grant funding and donations</li> </ul>
<b>2012-2015 Implementation Actions</b> <ul style="list-style-type: none"> <li>Work collaboratively with Parental groups i.e., Parent Network, Office of Parent and Engagement and Citywide Bilingual-Multicultural Advisory Council to develop parent engagement strategies</li> </ul>

## **5I Science Integration for Student Achievement**

### **Strategy**

- Ensure that district administration has an awareness and understanding of the Science Educational Technology strategy and initiatives
- Increase student access to technology rich learning environments
- Increase rate of utilization of Educational Technology by students and teachers
- Improve effectiveness of Educational Technology implementations

- Increase student access to technology-enabled Science learning experiences by ensuring adequate and equitable distribution of Educational Technology
  - Equip every Science classroom with internet access
  - Equip every Science teacher with a laptop with wireless connectivity and internet access
  - Equip every Science teacher with a LCD projector
  - Provide adequate level of shared resources (i.e. labs, resource centers, ancillary Science Education Technology (probes, wireless microscopes, data collection tools, etc.) wireless carts (laptop carts, ipad carts, OR netbook carts, etc.) and/or document cameras to support student achievement in Science
- Increase use of on-line textbooks and supplemental teacher and student resources
- Increase rigor of assessments
- Increase the opportunity for online courses, assessments, and simulated lab activities
- Increase the use of Science Educational Technology Professional Development (both as a tool for presenting/experiencing professional development and sessions focusing on teachers learning how to effectively use and implement Science Educational Technology in their classrooms)
- Increase engagement of collaborative partners to support ET initiatives

### **Leadership engagement and sponsorship**

#### **Leadership Sponsorship**

- The Office of Science will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:
  - Communicate the rationale, importance, and educational value of initiatives
  - Build a coalition of leadership support – mobilizing and engaging other leaders
  - Advocate for or allocate adequate resources to initiate and sustain initiatives
  - Monitor and recognize progress
  - Build and maintain focus on initiative goals, objectives and priorities
  - Manage resistance and remove barriers to effective implementation

#### **Leadership Engagement and Involvement**

The Office of Science will seek to increase the level of board, administration or school leadership engagement and involvement in implementation of ET initiatives by creating an advisory board that represents leadership at various levels of the organization. This advisory board will meet to discuss the current trends in Science Education Technology, and explore the feasibility of implementation within the district. The advisory board will also review current implementation of Science Educational Technology, and make recommendations to the district regarding future support.

#### **Participate in the Software Review/Recommendation Process**

- The technology committee exists and has been meeting consistently with members of each subject area, including Science.
- The Office of Science will comply with district policy regarding the review/recommendation of software for the district.
- The Office of Science will actively research and bring items to the technology committee that have the potential to positively impact Science education through technology.
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#### **2012-2015 Implementation Actions**

- Create advisory board for Science Educational Technology
- Present the findings and recommendations of the Science Educational Technology Advisory Board to the senior level administration on a regular basis
- Actively pursue and/or respond to funding opportunities that would support successful implementation of Science Educational Technology in the classroom
- Actively participate in the district software review/implementation process

<b>Educational Technology Available by Grade Level</b>	
<p><b>Standard classroom ET configuration</b></p> <p><b>Essential ET for Mathematics</b></p>	<p><b>Equip Science classrooms with standard configuration of Educational Technology</b></p> <ul style="list-style-type: none"> <li>• At least four (4) student workstations</li> <li>• One (1) teacher workstation</li> <li>• One (1) networked printer</li> <li>• One (1) LCD projector</li> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• One (1) Digital Video Camera</li> <li>• Probes</li> <li>• Wireless internet acces</li> </ul> <p>Ratios:</p> <ul style="list-style-type: none"> <li>• 1 LCD projector per every 100 textbooks distributed</li> </ul>
<p><b>K-12</b></p> <p><b>Classroom Response Clicker System</b></p>	<p><b>Equip K-12 schools with Classroom Response Clicker Systems</b></p> <p><b>Implementation plan</b></p> <ul style="list-style-type: none"> <li>• Acquire X per year; X over three year period</li> <li>• Minimum of one system per grade per school <ul style="list-style-type: none"> <li>• Securable mobile cart required</li> </ul> </li> <li>• Use to support all subjects <ul style="list-style-type: none"> <li>• Science</li> <li>• Reading, Writing , World Languages</li> <li>• Math, Social Studies</li> </ul> </li> </ul>
<p><b>Elementary Schools ET Resources</b></p>	<p><b>Access to technology in their classroom or in a technology-rich computer lab.</b></p> <p><b>PK-5th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD's and DVD's) and on-line supplemental resources</li> <li>• Access to resources for students, teachers, and parents <ul style="list-style-type: none"> <li>• Tutorials</li> <li>• Lesson planner</li> <li>• Differentiated learning materials</li> </ul> </li> <li>• Access to probeware and data collection tools</li> <li>• Interactive Science websites</li> <li>• Access to Science tutorials and individual learning modules</li> <li>• Access to ancillary educational technology tools such as tablets, digital cameras, digital video, digital presentations, podcasts, etc.</li> <li>• Access to digital asset library through NBC Learn <ul style="list-style-type: none"> <li>•</li> </ul> </li> </ul>
<p><b>Middle Schools &amp; K8 Schools ET Resources</b></p>	<p><b>Access to a technology-rich computer lab</b></p> <p><b>6-8th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p>



<b>Educational Technology Available by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD's and DVD's) and on-line supplemental resources</li> <li>• Interactive Science websites</li> <li>• On-line courses</li> <li>• Access to digital asset library through NBC Learn</li> <li>• Access to resources for students, teachers, and parents               <ul style="list-style-type: none"> <li>• Student, teacher, and parent resources                   <ul style="list-style-type: none"> <li>• Tutorials</li> <li>• Lesson planner</li> <li>• Differentiated learning materials</li> </ul> </li> </ul> </li> </ul>
<b>High School ET Resources</b>	<b>Access to technology-rich computer lab(s)</b>
	<b>Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD's and DVD's) and on-line supplemental resources</li> <li>• Access to probeware and data collection tools (TI Nspire Science, Pasco, Vernier, etc.)</li> <li>• Interactive Whiteboards</li> <li>• Interactive Science websites</li> <li>• Access to digital asset library through NBC Learn</li> <li>• Access to ancillary educational technology such as tablets, digital cameras, digital video cameras, document cameras, etc.</li> <li>• Access to on-line courses, including AP courses</li> <li>• Access to current instructor's lessons using the "flipped classroom" approach</li> </ul>
<b>Barriers</b>	<ul style="list-style-type: none"> <li>• Inadequate memory and storage on workstations</li> <li>• Age of equipment varies widely from school to school; particularly between new and older schools</li> <li>• Maintenance of older equipment</li> <li>• Lack of adequate bandwidth and Internet access during "peak" school and business hours impacts teacher adoption and utilization of ET               <ul style="list-style-type: none"> <li>• Teachers get discouraged and stop trying to integrate technology in teaching and learning when they can't access ET at optimal times</li> </ul> </li> <li>• Vying for time on the computer lab schedule impacts teacher utilization of ET and students access to ET</li> <li>• Policy and infrastructure does not support use of student and teacher owned technology, including accessing services</li> <li>• Student technology access at home</li> </ul>
<b>Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs</li> <li>• Equip each Science classroom with standard ET configuration</li> <li>• Purchase and/or install interactive whiteboards in every Science classroom</li> <li>• Provide wireless Internet access in every Science classroom</li> <li>• Work collaboratively with Department of Information and Technology to               <ul style="list-style-type: none"> <li>• Identify ways to authorize use of student and teacher owned technology without compromising system security, data integrity, legal requirements, etc.</li> <li>• establish service level requirements and expectations for schools</li> </ul> </li> <li>• Work collaboratively with the Office of Procurement and the Department of</li> </ul>

<b>Educational Technology Available by Grade Level</b>	
	<p>Information and Technology to develop a naming convention for bundles of software that makes it easier to identify and locate instructional software</p> <ul style="list-style-type: none"> <li>• Present naming convention makes it difficult to know which individual applications are part of the bundle</li> <li>• Develop implementation plan for augmenting Science Educational Technologies available at school sites; includes <ul style="list-style-type: none"> <li>• Prioritization and ranking of schools</li> <li>• Communication plan</li> <li>• Professional development</li> </ul> </li> <li>• Provide all students remote access to on-line textbooks and supplemental resources</li> <li>• Apply for grants to secure funding for equipment and supplemental resource acquisitions</li> <li>• Acquire essential Science Educational Technology as funding is available (i.e. probes, etc.)</li> <li>• Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Response Clicker Systems</li> <li>•</li> </ul>

<b>Assessment of Student Achievement &amp; Data-driven decision-making</b>	
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Implement electronic common assessments</li> <li>• Support teachers in utilizing Data Director to inform Science instruction</li> <li>• Provide teachers with multiple resources related to vetted items for Science Assessments</li> <li>•</li> </ul>
<b>Implementation Barriers</b>	<ul style="list-style-type: none"> <li>• Development of the common assessment will take time.</li> <li>• Implementation of common assessments utilizing technology may prove challenging due to the different levels of technology proficiencies.</li> <li>• Communication of process; implementation of process.</li> </ul>
<b>Funding Sources</b>	<ul style="list-style-type: none"> <li>• General Fund unavailable</li> <li>• Implementation of actions primarily dependent on availability of grant funding and donations</li> </ul>
<b>2012-2015 Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Work collaboratively with Office of Research, Evaluation and Assessment: <ul style="list-style-type: none"> <li>• Develop Science Common assessment tools</li> <li>• Customize existing questions and develop additional questions for Data Director</li> <li>• Develop processes for monitoring and assessing the implementation of educational technology for the purpose of assessment.</li> <li>• Analyze data to identify opportunities for continuous improvement of student and teacher performance.</li> </ul> </li> </ul> <p>Leverage these initiatives to increase and enhance teacher accountability for student achievement</p>

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## Professional Development & Instructional Tools

### Course Offerings

- Utilize ET to create and/or offer Science professional development sessions via webinar, podcast, or online course.
- Sessions on the importance and educational value of ET initiatives that also, review educators implementation roles/responsibilities
- Course specific technology applications/implementations (K-5, 6-8, Biology, Chemistry, etc.)
- Computer basics (i.e. storing documents, determining storage capacity, system and file backups, Microsoft Office, etc.)
- Technology Tools for the Science Classroom (probes, tablets, electronic portfolios, presentation tools, websites, online courses & tutorials, simulated laboratory activities, etc.)
- Instruction strategies for effective use of Science Educational Technologies.
- Data Director
- “Flipped Classroom”
- Integrate use of non-technology and technology-based resources
  - Pacing charts
  - Interactive whiteboards
  - Blackboard

### Schedule

- Conduct two to three “Science Educational Technologies” series during the school year, with possible teacher learning groups/professional learning communities in between the instruction to provide support and peer tutoring.

### Audience:

- Teachers
- Administrators

### Curriculum Delivery:

- Course delivered to teachers across grade levels to demonstrate how same concept and activity is taught at each grade level
- A product is produced by teachers to demonstrate mastery

### Facilitators

Detroit Public Schools employees and outside consultants as needed

### Costs

- Consultant fee (if not covered under textbook adoption agreement)
- Community use fee (Funding Source: Title IIA)
- Teacher workshop stipend (Funding Source: Title IIA)
- Materials production
- Materials purchase (technology items may be required for certain demonstrations)

### Integrate instructional tools

- Within the pacing guides, explicitly identify Science Educational Technology tools that can be utilized during instruction.
- Provide a comprehensive listing of Science Educational Technology tools and resources for K-12 Science Classrooms.
- Utilize Science Educational Technology as frequently as possible within professional development sessions.
- Create or modify tools to include hyperlinks
  - Example: Link pacing charts in curriculum guides

### Implementation Barriers

- Lack of comfort with the tools
- Difficulty demonstrating skills and competencies after completion of course
- Process of developing materials using ET not valued
- Locations adequately equipped with type and quantity of Educational Technology required to teach course
- Traffic and travel conditions
- Reaching critical mass using live workshop delivery method
- Inadequate ET in schools for teachers to use the skills after completion of professional development; Limited practice and use opportunities
- ATTENDANCE: Reaching critical mass using live workshop delivery method

### **2012-2015 Implementation Actions**

- Work collaboratively with the Office of Professional Development to
  - Secure sites adequately equipped for sessions where Educational Technology must be used
  - Develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)
- Increase number of practice exercises and progress checks throughout course delivery (vs. at end) to improve skill acquisition and retention
- Develop post course assignments with staggered submission dates to demonstrate skill acquisition and retention
- Schedule post course follow-up by professional development liaisons to coach teachers and reinforce skills development
- Work collaboratively with Department of Information and Technology to
  - Develop ability to record professional development courses
  - Deliver live webinars; eliminate or reduce need to travel
  - Archive webinars for on-demand professional development
- Work collaboratively with the Office of Research, Evaluation, and Assessment to:
  - Identify best practices for integrating technology in the delivery of Science curriculum
  - Transfer best practices from research to classroom application
  - Assess and evaluate effectiveness of Science professional development
- Create a comprehensive document that identifies Science Educational Technologies that have been vetted and implemented successfully by Detroit Public Schools teachers
- Implement Professional Development as planned

## **5J Social Studies Integration for Student Achievement**

### **Strategy**

- Engage district leadership to gain commitment and sponsorship of the Social Studies Educational Technology strategy and initiatives
- Increase student access to technology rich learning environments
- Increase rate of utilization of Educational Technology by students and teachers
- Improve effectiveness of Educational Technology implementations
- Increase student access to technology-enabled Social Studies learning experiences by ensuring adequate and equitable distribution of Educational Technology
  - Equip every Social Studies classroom with internet access
  - Equip every Social Studies teacher with a laptop with wireless connectivity and internet access
  - Adequate level of shared resources (i.e. labs, resource centers, wireless carts, etc.) to support student and teacher population

- Increase use of on-line textbooks and supplemental teacher and student resources
- Increase rigor of assessments
- Enhance delivery of Professional Development
- Increase engagement of collaborative partners to support ET initiatives
- Promote use of Geographic Information Systems (GIS) in social studies courses
- Provide GIS courses to high school students
- Increase capacity of teachers to use ET in classroom instruction
- Increase capacity of teachers to use digital resources in teaching and learning
  - Provide access to various digital resources that promote social studies teaching and learning

<b>Leadership engagement and sponsorship</b>	
<b>Leadership Sponsorship</b>	
<ul style="list-style-type: none"> <li>• Social Studies will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:               <ul style="list-style-type: none"> <li>• Communicate the rationale, importance, and educational value of initiatives</li> <li>• Build a coalition of leadership support – mobilizing and engaging other leaders</li> <li>• Advocate for or allocate adequate resources to initiate and sustain initiatives</li> <li>• Monitor and recognize progress</li> <li>• Build and maintain focus on initiative goals, objectives and priorities</li> <li>• Manage resistance and remove barriers to effective implementation</li> </ul> </li> </ul>	
<b>Leadership Engagement and Involvement</b>	
<ul style="list-style-type: none"> <li>• Social Studies will seek to increase the level of board, administration or school leadership engagement and involvement in implementation of ET initiatives</li> </ul>	
<b>2012-2015 Implementation Actions</b>	
<ul style="list-style-type: none"> <li>• Develop and implement leadership engagement strategy, plan and toolkit               <ul style="list-style-type: none"> <li>• Social Studies Educational Technology business case</li> <li>• Social Studies Educational Technology strategy map</li> <li>• Social Studies sponsor and leadership roadmaps</li> </ul> </li> </ul>	

<b>Educational Technology Available by Grade Level</b>	
<b>Standard classroom ET configuration</b>	<b>Equip Social Studies classrooms with standard configuration of Educational Technology</b> <ul style="list-style-type: none"> <li>• Four (4) student workstations</li> <li>• One (1) teacher workstation</li> <li>• One (1) networked printer</li> <li>• One (1) LCD projector</li> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• One (1) Digital Video Camera</li> <li>• Probes</li> <li>• GIS software installed on all computers in classrooms, school computer labs and library/media centers</li> </ul>
<b>Essential ET for Social Studies</b>	

<b>Educational Technology Available by Grade Level</b>	
	<p>Ratios:</p> <ul style="list-style-type: none"> <li>• 1 LCD projector per every 100 textbooks distributed</li> </ul>
<p><b>Elementary Middle K8</b></p> <p><b>eInstruction Classroom Performance System</b></p>	<p><b>Equip elementary, middle, and K8 schools with eInstruction IR Classroom Performance Systems</b></p> <p><b>Implementation plan</b></p> <ul style="list-style-type: none"> <li>• Minimum of one system per grade per school <ul style="list-style-type: none"> <li>• Securable mobile cart required</li> </ul> </li> <li>• Use to support all subjects <ul style="list-style-type: none"> <li>• Social Studies</li> <li>• Reading, Writing, World Languages</li> <li>• Math, Social Studies</li> </ul> </li> </ul>
<p><b>High Schools</b></p> <p><b>TI Navigator Classroom Performance System</b></p>	<p><b>Equip high schools with TI Navigator Classroom Performance Systems</b></p> <p><b>Implementation Plan</b></p> <ul style="list-style-type: none"> <li>• Securable mobile cart required</li> </ul>
<p><b>Instructional software standardization</b></p>	<p><b>Standardize instructional software for Social Studies</b></p> <ul style="list-style-type: none"> <li>• To promote continuity in instruction and in the learning experience, all applications currently used have been reviewed and selections made of those which will be the standards for Social Studies</li> <li>• All future software acquisitions will be approved by the Office of Social Studies after bias and curriculum reviews are completed</li> </ul>
<p><b>Elementary Schools ET Resources</b></p>	<p><b>PK-5th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<p><b>Middle Schools &amp; K8 Schools ET Resources</b></p>	<p><b>Access to a technology-rich computer lab</b></p> <p><b>6-8th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources <ul style="list-style-type: none"> <li>• Student, teacher, and parent resources <ul style="list-style-type: none"> <li>• Tutorials</li> <li>• Lesson planner</li> <li>• Differentiated learning materials</li> </ul> </li> </ul> </li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> </ul> </li> </ul>

<b>Educational Technology Available by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• Student identification numbers</li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>High School ET Resources</b>	<b>Access to technology-rich computer lab(s)</b>
	<b>9th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• On-line GIS course offerings</li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<b>10th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• On-line GIS course offerings</li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<b>11th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• On-line GIS course offerings</li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<b>12th Grade and Elective Courses Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• On-line GIS course offerings</li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>Barriers</b>	<ul style="list-style-type: none"> <li>• Inadequate memory and storage on workstations</li> <li>• Age of equipment varies widely from school to school; particularly between new and older schools</li> </ul>

<b>Educational Technology Available by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• Maintenance of older equipment</li> <li>• Lack of adequate bandwidth and Internet access during “peak” school and business hours impacts teacher adoption and utilization of ET               <ul style="list-style-type: none"> <li>• Teachers get discouraged and stop trying to integrate technology in teaching and learning when they can’t access ET at optimal times</li> </ul> </li> <li>• Vying for time on the computer lab schedule impacts teacher utilization of ET and students access to ET</li> <li>• Policy and infrastructure does not support use of student and teacher owned technology, including accessing services</li> <li>• District firewalls block teacher access to some online resources</li> <li>• GIS software installation needed</li> </ul>
<b>Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs</li> <li>• Equip each Social Studies classroom with standard ET configuration</li> <li>• Purchase and/or install interactive whiteboards in every Social Studies classroom</li> <li>• Provide Internet access in every Social Studies classroom</li> <li>• Work collaboratively with Department of Information and Technology to               <ul style="list-style-type: none"> <li>• identify ways to authorize use of student and teacher owned technology without compromising system security, data integrity, legal requirements, etc.</li> <li>• establish service level requirements and expectations for schools</li> </ul> </li> <li>• Develop implementation plan for augmenting Social Studies curriculum with addition of the Classroom Performance System; includes               <ul style="list-style-type: none"> <li>• Prioritization and ranking of schools</li> <li>• Communication plan</li> <li>• Professional development</li> </ul> </li> <li>• Provide all students remote access to on-line textbooks and supplemental resources</li> <li>• Apply for grants to secure funding for equipment and supplemental resource acquisitions</li> <li>• Acquire essential Social Studies Educational Technology as funding is available (i.e. probes, etc.)</li> <li>• Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Performance Systems               <ul style="list-style-type: none"> <li>• eInstruction (Elementary and Middle schools)</li> <li>• TI Navigator (High Schools)</li> </ul> </li> </ul>

<b>Professional Development &amp; Instructional Tools</b>
<p><b>Course Offerings</b></p> <ul style="list-style-type: none"> <li>• Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li> <li>• Computer basics (i.e. storing documents, determining storage capacity, system and file backups, etc.)</li> <li>• Microsoft Office suite – instructional and non-instructional use</li> <li>• Computer literacy for instruction</li> <li>• Integration of Technology in Curriculum</li> <li>• Instruction strategies</li> </ul> <p><b>Schedule</b></p>



- Conduct intense series of workshops during school year and summer
- Offer interview/introductory workshops (two to three courses annually).
- Offer workshops on integrating technology into social studies
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**Audience:**

- Teachers
- Instructional Specialists
- School Service Assistants

**Facilitators**

- Textbook vendor consultants
- Hardware/Software vendor consultants
- WRESA consultants
- Teacher Consultants
- Outside Consultants
- Social Studies staff

**Costs**

- Consultant fee (if not covered under textbook adoption agreement)
- Community use fee (Funding Source: Title I)
- Teacher workshop stipend (Funding Source: Title I)
- Materials production

**Implementation Barriers**

- Lack of comfort with the tools
- Locations adequately equipped with type and quantity of Educational Technology required to teach course
- ATTENDANCE: Reaching critical mass using live workshop delivery method
- Informing entire intended audience of professional development offerings
- Many teachers lack training for using a variety of forms of ET effectively
- Teachers are unaware of digital resources available

**2012-2015 Implementation Actions**

- Work collaboratively with the Office of Professional Development to
  - Secure sites adequately equipped for sessions where Educational Technology must be used
  - Develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)
- Work collaboratively with the Office of Research, Evaluation, and Assessment to:
  - Identify best practices for integrating technology in the delivery of Social Studies curriculum
  - Transfer best practices from research to classroom application
  - Assess and evaluate effectiveness of Social Studies professional development
- Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities
- Implement Professional Development as planned
- Integrate more ET in district's pacing charts for Social Studies

**5K Early Childhood Education Integration for Student Achievement**

**Strategy**

- Engage district leadership to gain commitment and sponsorship of the Early Childhood Education Educational Technology strategy and initiatives
- Increase student access to technology rich learning environments
- Increase rate of utilization of Educational Technology by students and teachers
- Improve effectiveness of Educational Technology implementations
- Increase student access to technology-enabled Early Childhood Education learning experiences by ensuring adequate and equitable distribution of Educational Technology
  - Equip every Early Childhood Education classroom with internet access
  - Equip every Early Childhood Education teacher with a laptop with wireless connectivity and internet access
  - Adequate level of shared resources (i.e. labs, resource centers, wireless carts, etc.) to support student and teacher population
- Increase use of on-line textbooks and supplemental teacher and student resources
- Increase rigor of assessments
- Enhance delivery of Professional Development
- Increase engagement of collaborative partners to support ET initiatives

### **Leadership engagement and sponsorship**

#### **Leadership Sponsorship**

- The Office of Foundation for Early Learners will seek to secure active, visible champions for ET initiatives at the board and cabinet levels to help:
  - Communicate the rationale, importance, and educational value of initiatives
  - Build a coalition of leadership support – mobilizing and engaging other leaders
  - Advocate for or allocate adequate resources to initiate and sustain initiatives
  - Monitor and recognize progress
  - Build and maintain focus on initiative goals, objectives and priorities
  - Manage resistance and remove barriers to effective implementation

#### **Leadership Engagement and Involvement**

- The Office of Foundation for Early Learners will seek to increase the level of board, administration or school leadership engagement and involvement in implementation of ET initiatives

#### **2012-2015 Implementation Actions**

- Develop and implement leadership engagement strategy, plan and toolkit
  - Early Childhood Education Educational Technology business case
  - Early Childhood Education Educational Technology strategy map
  - Early Childhood Education sponsor and leadership roadmaps

### **PK Great Start Readiness**

#### **Implementation status and plan**

- The Great Start Readiness Program is a preschool program that serves four-year-old DPS students who may be “at risk” of school failure. The program includes strong family involvement, preschool education and parent education components.
- DPS currently has 132 Great Start Readiness classrooms
- During this planning period, The Office of Foundation for Early Learners will work aggressively to establish the building blocks and foundation for 21st century Educational Technology learning experiences for Great Start Readiness students

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**PK Great Start Readiness**

- Implementation of actions for PK-K are primarily dependent on availability of Head Start and Great Start Readiness Funding, other grant funding and donations

**2012-2015 Implementation Actions**

- Work collaboratively with School Administrators and staff, the Division of Curriculum Development, the Office of Parental Involvement, and the Office of Research, Assessment and Evaluation to
  - Integrate the DETS, METS, and NETS standards into PK-K Curriculum for Great Start Readiness classrooms
    - Large Group Time
    - Planning Time
    - Work Time
    - Recall Time
    - Small Group Time
    - Plan/Work/Recall Time
  - Develop parent involvement components
- Work collaboratively with Office of Professional Development to develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for Great Start Readiness classrooms
- Work collaboratively with Fund and Grant development to develop campaign to secure grant funding and donations for Educational Technology
  - Standard ECE ET classroom configuration
  - Voice/Data/Electrical/Security Infrastructure

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**PK Head Start****Implementation status and plan**

- The Head Start program is a child-focused program with the goal of increasing the school readiness of young children in low-income families through the delivery of individualized services in the area of early childhood development
- DPS currently has 51 Head Start classrooms
- During this planning period, The Office of Early Childhood Education will work aggressively to establish the building blocks and foundation for 21st century Educational Technology learning experiences for Head Start students
- Implementation of actions for PK-K are primarily dependent on availability of Head Start and Great Start Readiness Funding, other grant funding and donations

**2012-2015 Implementation Actions**

- Work collaboratively with School Administrators and staff, the Division of Curriculum Development, the Office of Parental Involvement and the Office of Research, Evaluation, Assessment and Accountability to
  - Integrate the DETS, METS, and NETS standards into PK-K Curriculum for Head Start classrooms
  - Develop parent involvement components
- Work collaboratively with Office of Professional Development to
  - Develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for Head Start classrooms

<b>PK Head Start</b>
<ul style="list-style-type: none"> <li>• Work collaboratively with Fund and Grant development to develop campaign to secure grant funding and donations for Educational Technology               <ul style="list-style-type: none"> <li>• Standard ECE ET classroom configuration</li> <li>• Voice/Data/Electrical/Security Infrastructure</li> </ul> </li> </ul>

<b>Kindergarten</b>
<p><b>Implementation status and plan</b></p> <ul style="list-style-type: none"> <li>• During this planning period, The Office of Early Childhood Education will work aggressively to establish the building blocks and foundation for 21st century Educational Technology learning experiences for Kindergarten students</li> <li>• DPS currently has 208 Kindergarten classrooms in 88 schools</li> <li>• Implementation of actions for K are primarily dependent on availability of grant funding and donations</li> </ul>
<p><b>2012-2015 Implementation Actions</b></p> <ul style="list-style-type: none"> <li>• Work collaboratively with School Administrators and staff, the Division of Curriculum Development, the Office Parental Involvement and the Office of Research, Evaluation, Assessment and Accountability to               <ul style="list-style-type: none"> <li>• Integrate the DETS, METS, and NETS standards into PK-K Curriculum for Kindergarten classrooms</li> <li>• Develop parent involvement components</li> </ul> </li> <li>• Work collaboratively with Office of Professional Development to develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for Kindergarten classrooms</li> <li>• Work collaboratively with Fund and Grant development to develop campaign to secure grant funding and donations for Educational Technology               <ul style="list-style-type: none"> <li>• Standard ECE ET classroom configuration</li> <li>• Voice/Data/Electrical/Security Infrastructure</li> </ul> </li> </ul>

<b>Educational Technology Available by Grade Level</b>	
<b>Pk &amp; K Classrooms</b>	<p><b>Current status</b></p> <ul style="list-style-type: none"> <li>• <b>Educational Technology</b> <ul style="list-style-type: none"> <li>• PK-K classrooms are minimally equipped with Educational Technology</li> </ul> </li> <li>• <b>Classrooms</b> <ul style="list-style-type: none"> <li>• 196 PK classrooms in 91 schools                   <ul style="list-style-type: none"> <li>• 57 PK Head Start classrooms</li> <li>• 132 PK Great Start Readiness classrooms</li> <li>• 7 Title I</li> </ul> </li> <li>• 208 K classrooms in 88 schools</li> </ul> </li> <li>• <b>Student population</b> <ul style="list-style-type: none"> <li>• 3195 PK students</li> <li>• 5824 K students</li> </ul> </li> <li>• <b>Teacher population</b> <ul style="list-style-type: none"> <li>• 404 PK-K Teachers</li> </ul> </li> </ul>

<b>Educational Technology Available by Grade Level</b>	
<p><b>Standard classroom ET configuration</b></p> <p><b>Essential ET for Early Childhood Education</b></p>	<p><b>Equip Early Childhood Education classrooms with standard configuration of Educational Technology</b></p> <ul style="list-style-type: none"> <li>• Four (4) student workstations</li> <li>• One (1) teacher workstation</li> <li>• One (1) networked printer</li> <li>• One (1) LCD projector</li> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• One (1) Digital Video Camera</li> <li>• Access to Online COR</li> </ul>
<p><b>Instructional software standardization</b></p>	<p><b>Standardize instructional software for Early Childhood Education</b></p> <ul style="list-style-type: none"> <li>• To promote continuity in instruction and in the learning experience, all applications currently used will be reviewed and selections made of those which will be the standards for Early Childhood Education</li> </ul>
<p><b>PK Grade</b></p> <p>Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</p>	<p><b>PK Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• Student and teacher e-Editions are/are not accessible on-line</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources are/are not provided</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<p><b>K Grade</b></p> <p>Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</p>	<p><b>K Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• Student and teacher e-Editions are/are not accessible on-line</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources are/are not provided</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<p><b>1<sup>st</sup> &amp; 2<sup>nd</sup> Grade ET Resources</b></p>	<p><b>1<sup>st</sup> and 2<sup>nd</sup> Grade ET Resources are detailed in Section 5 Student Achievement for the following content areas:</b></p> <ul style="list-style-type: none"> <li>• ELA</li> <li>• Mathematics</li> <li>• Social Studies</li> <li>• Science</li> <li>• Bilingual Education</li> </ul>

<b>Educational Technology Available by Grade Level</b>	
<b>Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Work collaboratively with Curriculum and Instruction, the Office of Information and Technology Systems, and the Office of Research, Evaluation and Assessment to               <ul style="list-style-type: none"> <li>• Develop strategy for establishing PK-K Educational Technology building blocks                   <ul style="list-style-type: none"> <li>• Hardware and software standards that enable use of age appropriate resources</li> </ul> </li> <li>• Develop strategies and campaign for advocating for eRate funding eligibility for DPS PK-K ET initiatives</li> </ul> </li> <li>• Equip each PK-K classroom with standard ET configuration</li> <li>• Ensure that all teachers have access to on-line textbooks and supplemental resources</li> <li>• Apply for grants to secure funding for equipment and supplemental resource acquisitions</li> <li>• ECE school leadership participate on Educational Technology Collaborative leadership and work teams</li> </ul>

<b>Professional Development &amp; Instructional Tools</b>
<p><b>Course Offerings</b></p> <ul style="list-style-type: none"> <li>• Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li> <li>• Computer basics (i.e. storing documents, determining storage capacity, system and file backups, etc.)</li> <li>• Microsoft Office suite – instructional and non-instructional use</li> <li>• Computer literacy for instruction</li> <li>• Integration of Technology in Curriculum – DETS, NETS, METS for PK-K students</li> <li>• Instruction strategies</li> <li>• Interactive white board instruction</li> <li>• I-pad instruction</li> <li>• Parent workshops</li> <li>• Strategies for technology usage</li> <li>•</li> </ul> <p><b>Schedule</b></p> <p><b>Audience:</b></p> <ul style="list-style-type: none"> <li>• Teachers</li> <li>• Curriculum leaders</li> <li>• Coordinators</li> </ul> <p><b>Facilitators</b></p> <ul style="list-style-type: none"> <li>• Textbook vendor consultants</li> <li>• Hardware/Software vendor consultants</li> <li>• WRESA consultants</li> </ul> <p><b>Costs</b></p> <ul style="list-style-type: none"> <li>• Consultant fee (if not covered under textbook adoption agreement)</li> <li>• Community use fee (Funding Source: Title IIA, General Fund)</li> <li>• Teacher workshop stipend (Funding Source: Title IIA)</li> <li>• Materials production</li> </ul>

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<b>Professional Development &amp; Instructional Tools</b>
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<b>Implementation Barriers</b>
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| <ul style="list-style-type: none"><li>• Lack of comfort with the tools</li><li>• Locations adequately equipped with type and quantity of Educational Technology required to teach course</li><li>• ATTENDANCE: Reaching critical mass using live workshop delivery method</li><li>• Cost</li></ul> |
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<b>2012-2015 Implementation Actions</b>
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| <ul style="list-style-type: none"><li>• Work collaboratively with Office of Professional Development to<ul style="list-style-type: none"><li>• Develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for all PK-K classrooms (i.e. Head Start, Great Start Readiness, etc.)</li></ul></li><li>• Work collaboratively with the Office of Research, Evaluation, Assessment, and Accountability to:<ul style="list-style-type: none"><li>• Identify best practices for integrating technology in the delivery of Early Childhood Education curriculum</li><li>• Transfer best practices from research to classroom application</li><li>• Assess and evaluate effectiveness of Early Childhood Education professional development</li></ul></li><li>• Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li><li>• Implement Professional Development as planned</li></ul> |
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<b>Funding Sources</b>
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|---|
| <ul style="list-style-type: none"><li>• Implementation of actions for PK-K are primarily dependent on availability of Head Start and Great Start Readiness Program Funding, Title I and other grant funding and donations</li></ul> |
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<b>2012-2015 Implementation Actions</b>
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| <ul style="list-style-type: none"><li>• Work collaboratively with Fund and Grant development and the Office of Information and Technology Systems to develop campaign to secure increased grant funding and donations<ul style="list-style-type: none"><li>• Standard ECE ET classroom configuration</li><li>• Voice/Data/Electrical/Security Infrastructure</li></ul></li></ul> |
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## **5L CTE ET Integration for Student Achievement**

### **Strategy Introduction**

Career-Technical Education's approach to Educational Technology is based on providing students access to cutting edge technology that is being used in post-secondary, business, and industry. Through the involvement of advisory committees inclusive of business and industry partners as well as higher education, it becomes increasingly clear how resources would be leveraged to support this objective.

This work is grounded in the mission that every CTE student will have an opportunity to experience optimal level of technical skill attainment. They will transition smoothly to college and careers, will apply academic integration, and receive training using the latest industry technology.

Further, our implementation actions help to motivate the learning process. More and more research on educational outcomes is reporting that technology benefits student learning. Empirical data reinforces beliefs held by many teachers and other educators that technology, when properly employed, enhances educational horizons and student performance. In his introduction to the Visions 2020 Report, Secretary of Education Dr. Rod Paige noted, "Indeed, education is the only business still debating the usefulness of technology."

Embodied in our approach are the basic fundamentals for technology compiled with intermediary and advanced concepts for grade levels six through twelve. We are convinced that technology training will benefit all Career-Technical Education students, especially the "neglected majority" at the middle school level. The success of this Educational Technology Plan is contingent, first, on the acquisition and availability of requisite classroom/laboratory, equipment/supplies and technical support. Secondly, that the goals and intent of the plan are articulated clearly to all stakeholders.

**Goals**

- Provide opportunities that prepare students to become productive citizens in a global technological society
- Use technology as an integral part of student learning in Career Technical Education
- Provide technology/work based experiences through partnerships with business and industry
- Infuse "best practices" in technology centered learning for requisite skills in post secondary education
- Provide equitable and sustained access to transform learning through educational technology
- Invest in additional technology, upgrades and/or training to provide work based skills
- Provide technology training based on best practices to improve CTE teaching

**Strategy**

- Engage district leadership to gain commitment and sponsorship of the Career Technical Education (CTE) Educational Technology strategy and initiatives
- Increase rate of utilization of Educational Technology by students and teachers
- Improve effectiveness of CTE Educational Technology implementations
- Apply content-based technology in delivery of instruction
- Increase student access to technology-enabled CTE learning experiences by ensuring adequate and equitable distribution of Educational Technology
  - Provide high quality equipment to facilitate technology centered learning
  - Use supplemental funding (Perkins) to support implementation of CTE ET for grades 9-12 and general funds (fund 11) for grades 6-9
- Provide focus trips to technology savvy businesses as a conduit to substantiate the usefulness of technology
- Enhance delivery of Professional Development
- Increase engagement of collaborative partners to support ET initiatives

<b>Leadership engagement and sponsorship</b>
<p><b>Leadership Sponsorship</b></p> <ul style="list-style-type: none"> <li>• CTE will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:               <ul style="list-style-type: none"> <li>• Communicate the rationale, importance, and educational value of initiatives</li> <li>• Build a coalition of leadership support – mobilizing and engaging other leaders</li> <li>• Advocate for or allocate adequate resources to initiate and sustain initiatives</li> <li>• Monitor and recognize progress</li> <li>• Build and maintain focus on initiative goals, objectives and priorities</li> </ul> </li> </ul>



<b>Leadership engagement and sponsorship</b>
<ul style="list-style-type: none"> <li>• Manage resistance and remove barriers to effective implementation</li> </ul> <p><b>Leadership Engagement and Involvement</b></p> <ul style="list-style-type: none"> <li>• CTE will seek to increase the level of board, administration and school leadership engagement and involvement in implementation of ET initiatives</li> </ul>
<p><b>2012-2015 Implementation Actions</b></p> <ul style="list-style-type: none"> <li>• Develop and implement leadership engagement strategy               <ul style="list-style-type: none"> <li>• CTE Educational Technology Evaluations</li> <li>• CTE Educational Technology Plan by each CTE Program</li> </ul> </li> </ul>

<b>Assessments</b>
<p><b>Implementation status and plan</b></p> <ul style="list-style-type: none"> <li>• CTE administers assessments to students to meet completion and industry certification requirements               <ul style="list-style-type: none"> <li>• CISCO's programs conclude with an on-line assessment for industry certification</li> <li>• The Michigan Department of Education currently mandates program completers to take an on-line state-wide assessment to receive certification for four CTE programs                   <ul style="list-style-type: none"> <li>• Therapeutic services</li> <li>• Finance academy</li> <li>• Business Management</li> <li>• Public Safety</li> </ul> </li> </ul> </li> </ul> <p>Use of Applied Academic Software to gauge academic foundation deficiencies among students and select lessons to aid student achievement</p>
<p><b>2012-2015 Implementation Action</b></p> <ul style="list-style-type: none"> <li>• Make computers with internet accessible to students to complete on-line assessments and lessons</li> <li>• Adding updated desktop computers to each CTE classroom               <ul style="list-style-type: none"> <li>• Teacher utilization of ET and students access to ET</li> <li>• Ability to expose students to the assessment experience prior to the actual test day</li> <li>• Ability to administer assessments to students in large groups at the conclusion of a course; must schedule testing over a number of days or transport students to Central Administration for single day administration</li> </ul> </li> <li>•</li> </ul>

<b>CTE Educational Technology</b>	
<p><b>Standard classroom ET configuration</b></p> <p><b>Essential ET for CTE</b></p>	<p><b>Equip classrooms with standard configuration of Educational Technology</b></p> <ul style="list-style-type: none"> <li>• Wireless Internet access</li> <li>• Four (4) student workstations</li> <li>• One (1) teacher workstation</li> <li>• One (1) standalone or networked printer</li> <li>• One (1) LCD projector</li> </ul>

<b>CTE Educational Technology</b>	
	<ul style="list-style-type: none"> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• Graphing calculators</li> <li>• USB drives or centralized storage</li> </ul>
<b>Classroom Performance System configuration</b>	<b>Equip classrooms with Classroom Performance Systems</b>
<b>Standard Mobile Lab Configuration</b>	<p><b>Equip schools with Mobile Labs</b></p> <p><b>Standard number of mobile labs</b></p> <p><b>Standard mobile lab configuration</b></p> <ul style="list-style-type: none"> <li>• Wireless laptop cart</li> <li>• Thirty (35) laptops</li> <li>• One (1) printer</li> <li>• One (1) LCD projector</li> <li>• One (1) wireless access point</li> </ul>
<b>10-12 Grade</b>  Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources	<p><b>Increase utilization of Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• Providers of resources are moving from hardcopy resources to downloadable resources</li> <li>• Student and teacher e-Editions are/are not accessible on-line</li> <li>• Publisher technology (CD, DVD) and on-line supplemental resources are/are not accessible on-line</li> <li>•</li> </ul>
<b>2012-2015 Implementation Actions</b>	
<ul style="list-style-type: none"> <li>• Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs <ul style="list-style-type: none"> <li>• Equipment inventory maintained to meet Perkins grant compliance requirements</li> <li>• Work collaborative with Facilities Services, the Office of Information and Technology, and the Office of State and Federal Programs to ensure CTE assets are captured in Active Directory and the District inventory management system</li> </ul> </li> <li>• Validate and remove barriers impacting implementation and effectiveness of Career Technical Education Programs</li> <li>• Increase accessibility to technology in classrooms and computer labs (i.e. computers, printers, Internet access, etc.) <ul style="list-style-type: none"> <li>• Equip each classroom with standard CTE ET essentials configuration</li> <li>• Equip each computer lab/resource lab with standard configuration</li> <li>• Acquire mobile labs meeting standard configuration</li> </ul> </li> <li>• Ensure that all students and teachers have access to on-line textbooks and supplemental resources</li> <li>• Increase the number of distance learning opportunities available to CTE students</li> <li>• Apply content-based technology in delivery of instruction <ul style="list-style-type: none"> <li>• Digitize existing curriculum to facilitate instruction</li> </ul> </li> </ul>	

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### **CTE Educational Technology**

- Increase use of on-line textbooks and supplemental teacher and student resources
- Invest in digital learning/instructional materials
- Delivery instruction through multimedia sources
- Provide focus trips to technology savvy businesses as a conduit to substantiate the usefulness of technology
- Work collaboratively with School Administrators and the Office of State and Federal Programs to identify funding sources to
  - secure equipment and supplemental resources
  - acquire and implement Classroom Performance Systems
  - Determine the total cost of ownership for CTE Education programs and computer/resource labs
  - Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding
- CTE staff support advancement of Educational Technology district-wide
- Work collaboratively with the Office of Research, Evaluation, Assessment and Accountability to
  - assess and evaluate program effectiveness
  - develop process for assessing student proficiency

### **CTE Computer/Resource Labs**

- Equipment quantities are based on student teacher populations and funding source requirements and limitations:
  - Computers – desktops, laptops
  - Printers – black/white, color
  - LCD projectors
  - Interactive whiteboards
  - Digital cameras
  - Digital video cameras
  - Document reader/camera

#### **Implementation Barriers**

- Adequate quantities of ET in Computer/Resource Labs

#### **2012-2015 Actions**

- Increase the number of computer/resource labs
- Standardize CTE computer/resource lab configuration
  - Wireless Internet access and video streaming capabilities mandatory
- Determine the total cost of ownership for CTE computer/resource labs

### **Professional Development**

#### **Course Offerings**

- Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities
- Integration of Technology in CTE Curriculum and instructional strategies

#### **Schedule**

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<b>Professional Development</b>
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<b>Audience:</b>
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- |  |
|--|
| <ul style="list-style-type: none"><li>• Teachers</li><li>• Administrators: Principals/Curriculum leaders</li></ul> |
|--|

<b>Facilitators</b>
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- |  |
|--|
| <ul style="list-style-type: none"><li>• Textbook vendor consultants</li><li>• Technology vendor consultants</li><li>• CTE Administrators</li><li>• WRESA consultants</li></ul> |
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<b>Costs</b>
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|---|
| <ul style="list-style-type: none"><li>• Consultant fee (if not covered under textbook adoption agreement or hardware/software vendor)</li><li>• Community use fee</li><li>• Teacher workshop stipend</li><li>• Materials production</li></ul> |
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<b>Implementation Barriers</b>
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- |   |
|---|
| <ul style="list-style-type: none"><li>• Locations adequately equipped with type and quantity of Educational Technology required to teach course</li><li>•</li></ul> |
|---|

<b>2012-2015 Implementation Actions</b>
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- |  |
|--|
| <ul style="list-style-type: none"><li>• Securing sites with adequately equipped ET</li><li>• Evaluate the professional development needs of teachers and administrators</li><li>• Involve teachers and school-based administrators in planning professional developments</li><li>• Implement Professional Development as planned</li><li>• Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li></ul> |
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<b>Advisory Councils</b>
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<b>Implementation status and plan</b>
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|---|
| <ul style="list-style-type: none"><li>• It is mandated that high schools have advisory councils</li><li>•</li></ul> |
|---|

<b>2012-5Implementation Actions</b>
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| <ul style="list-style-type: none"><li>• Continue to include industry, businesses, and high education in the process of selecting and implementing ET related to CTE programs</li></ul> |
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<b>Funding Sources</b>
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|---|
| <ul style="list-style-type: none"><li>• Implementation of actions for Grades 9-12 is dependent on the availability of three funding sources: The general fund, Carl D. Perkins, and Section 61(a) of State Aid.</li></ul> |
|---|

<b>2012-2015 Implementation Actions</b>
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- |  |
|--|
| <ul style="list-style-type: none"><li>• Priority ET needs for each program</li></ul> |
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<b>Funding Sources</b>
<ul style="list-style-type: none"><li>• Allocated funding to the needed ET based upon needs assessment and strategically leverage over the three year period</li></ul>



**5M**

**Bilingual Education/Office of English Language Learners (BE/OELL) ET Integration for Student Achievement**

**Strategy**

- Engage district leadership to gain commitment and sponsorship of the Bilingual Education Educational Technology strategy and initiatives
- Increase student access to technology rich learning environments
- Increase rate of utilization of Educational Technology by students and teachers to improve effectiveness of Bilingual Education ELA Curriculum and improve student achievement
- Increase student access to technology-enabled Bilingual Education learning experiences by ensuring adequate and equitable distribution of Educational Technology
  - Equip every Bilingual Education classroom with wireless Internet access
  - Equip every Bilingual Education teacher with a wireless laptop
- Increase use of on-line textbooks and supplemental teacher and student resources
- Assess student performance and progress to identify opportunities to differentiate instruction
- Enhance delivery of Professional Development
- Increase engagement of collaborative partners to support ET initiatives

<b>Leadership engagement and sponsorship</b>
<p><b>Leadership Sponsorship</b></p> <ul style="list-style-type: none"><li>• While ensuring supplementing not supplanting, Bilingual Education/OELL will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:<ul style="list-style-type: none"><li>• Communicate the rationale, importance, and educational value of initiatives</li><li>• Build a coalition of leadership support – mobilizing and engaging other leaders</li><li>• Advocate for or allocate adequate resources to initiate and sustain initiatives</li><li>• Monitor and recognize progress</li><li>• Build and maintain focus on initiative goals, objectives and priorities</li><li>• Manage resistance and remove barriers to effective implementation</li></ul></li></ul> <p><b>Leadership Engagement and Involvement</b></p> <ul style="list-style-type: none"><li>• Bilingual Education will seek to increase the level of board, administration and school leadership engagement and involvement in implementation of ET initiatives</li></ul> <p><b>2012-2015 Implementation Actions</b></p> <ul style="list-style-type: none"><li>• Develop and implement leadership engagement strategy, plan and toolkit<ul style="list-style-type: none"><li>• Bilingual Education Educational Technology business case</li><li>• Bilingual Education Educational Technology strategy map</li><li>• Bilingual Education sponsor and leadership roadmaps</li></ul></li></ul>

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**English Language Learners (ELLs) Programs  
Extended Learning Opportunities**

**English Language Learners Programs**

- DPS has 7,601 eligible English Language Learners (ELLs) represent 65 non-English language groups, speaking over 40 languages
  - Bilingual student population in a single school ranges from 9 to 639
- English Language Learners (ELLs) Programs
  - Foreign Language Immersion Program
  - English-as-a-Second Language (ESL) Program
  - Bilingual Dual Language Program
- Programs/services are delivered to ELLs by bilingual staff
  - Bilingual teachers
  - Bilingual educational technicians
  - Bilingual school service assistants
- Classrooms
  - Bilingual classrooms – 30% of bilingual students (L1, L2 performance)
    - 25 students in k-3
    - 30 students in 4-5
    - 35 students in 6-8
    - 40 students in 9-12
    - Daily up to one-half day
    - Bilingual teacher
  - Self-Contained Integrated bilingual classrooms
- DPS schools have bilingual programs:
  - 1 Early Childhood Center
  - 16 Elementary schools
  - 10 Elementary/Middle schools
  - 1 Middle schools
  - 8 High schools

**Assessment**

Internet access is required for assessment/test administration

- **The English Language Proficiency Assessment (ELPA) or ELPA screener**
    - The official Assessment of student's comprehension of the English language and eligibility for language services
  - **The Bilingual Verbal Ability Test (BVAT) is no longer used officially, but teachers may use it as supplementary teaching assessment**
- The Woodcock-Munoz Test** is no longer utilized officially, but teachers may use it as a supplementary teaching assessment

**Migrant Education Program**

- 7 DPS schools have Migrant Education programs
  - 3 Elementary schools
  - 2 Elementary/Middle school
  - 1 Middle school
- 1 High school

**Migrant Technology Education Program**

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**English Language Learners (ELLs) Programs  
Extended Learning Opportunities**

- Various services are offered migrant families to attain computer literacy
  - Ongoing computer literacy training
  - Ongoing group support sessions at school
  - Ongoing individual family computer support at home
  - Migrant Education Technology Program
  - Parent and community involvement
  - Bilingual Teacher Resource Center
  - Professional Development
  - Technology at the home
  - After-school tutoring for eligible students

**Parental Involvement in Educational Technology**

Parents, families and community are vital partners in the educational process. All parents and family members can contribute to a child's education regardless of their English language ability, provided the school facilitates this involvement.

- Engage and involve parents on Educational Technology Collaborative work teams through monthly City Wide Bilingual Multicultural Committee meetings facilitated by the Family Engagement Administrator.
  - Assess the needs and available resources
  - Assess parents as individuals to determine their gifts/talents
  - Specify and communicate parent roles
  - Recruit, select and assign parents
  - Train parents in ESL/Citizenship classes with computer application components
  - Develop a Resource Bank, Parent Educational Technology Handbook, Research Center
  - Provide parents curriculum guides and Educational Technology standards (i.e. DETS, NETS, METS)
  - Support on-going activities
  - Use of Web-based instructional technology (Rosetta Stone) for use in Parent Resource Centers in laptops and desktops.

**Implementation Barriers**

- Internet access in bilingual classrooms
- Sustained bandwidth
- Insufficient number of computers and printers

**2012-2015 Implementation Actions**

- Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs
- Determine the total cost of ownership for ELL and Migrant Educational Technology program
- Validate and remove barriers impacting implementation and effectiveness of ELL and Migrant Education programs
- Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness
- Work collaboratively with Fund and Grant development to develop campaign to secure increased grant funding and donations

<b>Educational Technology Available by Grade Level</b>	
<p><b>Standard classroom ET configuration for delivery of services to students at L1 and L2</b></p> <p><b>Essential ET for Bilingual Education</b></p>	<p><b>Equip Bilingual Education classrooms with standard configuration of Educational Technology</b></p> <ul style="list-style-type: none"> <li>• Wireless Internet access</li> <li>• Two (2) student workstations</li> <li>• One (1) teacher workstation (laptop)</li> <li>• One (1) standalone or networked printer</li> <li>• Headsets</li> <li>• I pod/radio listening stations</li> <li>• Smart Tables</li> <li>• Interactive boards</li> <li>• Tablets/I-pads</li> <li>• Multimedia projectors</li> <li>• Document cameras</li> <li>• Talking Pens</li> </ul> <p>Class size: 25-40 students</p>
<p><b>Bilingual Education</b></p> <p><b>Scantron data collection system</b></p>	<p><b>Each DPS school offering Bilingual Education is equipped with a system for collecting student performance data at the classroom and school level</b></p> <p>One (1) or Two (2) Scantron scanner, <b>and where available web based options as an alternative</b></p>
<p><b>Communications &amp; Collaboration System</b></p>	<p><b>Equip the Bilingual Education community with communication and collaboration capabilities</b></p> <p><b>Potential solution -- Adobe Acrobat Professional</b></p> <ul style="list-style-type: none"> <li>• Interactive presentation and conferencing</li> <li>• Multimedia learning resources integrated with real-time interactivity</li> <li>• Collaborative teaching and learning experiences</li> </ul>
<p><b>Elementary Schools ET Resources</b></p>	<p><b>K-5 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• Avenues – Grades PreK, K, 1, 2, 3, 4, 5</li> </ul>



<b>Educational Technology Available by Grade Level</b>	
<p>K-5 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</p>	<ul style="list-style-type: none"> <li>• Student and teacher e-Editions accessible on-line</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources               <ul style="list-style-type: none"> <li>• On-line resources, including lesson plans</li> <li>• CD-ROM, Song CDs, Reading selections CDs</li> <li>• Listen and Learn CD</li> <li>• Kidspiration vocabulary and writing software</li> </ul> </li> <li>• Open Court Reading Series               <ul style="list-style-type: none"> <li>• Student and teacher e-Editions are/are not accessible on-line</li> <li>• Publisher technology (CD-ROM, CD, DVD, audio tapes) and on-line supplemental resources</li> </ul> </li> <li>• Ability to meet access requirements:               <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<p><b>Middle Schools &amp; K8 Schools ET Resources</b></p> <p>6-8 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</p>	<p><b>6-8 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• High Point -- Grades 6, 7, 8/9</li> <li>• Student and teacher e-Editions accessible on-line</li> <li>• Publisher technology (CD, DVD) and on-line supplemental resources               <ul style="list-style-type: none"> <li>• Language Tape/CD</li> <li>• Reading selections Tapes/CDs</li> <li>• Inspiration Visual Learning Software: Graphic organizers, mind maps CD-ROM</li> </ul> </li> <li>• Ability to meet access requirements:               <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<p><b>High Schools ET Resources</b></p> <p>9-12 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</p>	<p><b>9-12 Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• Edge Student and teacher e-Editions accessible on-line</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources               <ul style="list-style-type: none"> <li>• Reading Selections &amp; Fluency Models Audio CD</li> <li>• Interactive e-Assessment</li> <li>• Language &amp; Grammar Lab: Audio CD</li> <li>• Online Coach</li> <li>• Online resources                   <ul style="list-style-type: none"> <li>• The Learning Edge</li> <li>• The Teaching Edge</li> <li>• The Teaching Edge Plus</li> <li>• The Teaching Edge in Action – Professional Dev.</li> </ul> </li> </ul> </li> <li>• Ability to meet access requirements:               <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>

<b>Educational Technology Available by Grade Level</b>	
<b>Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Equip each Bilingual Education classroom with standard ET configuration</li> <li>• Equip each Bilingual Education classroom with ScanTran for collecting student performance data</li> <li>• Provide Internet access in every Bilingual Education classroom</li> <li>• Ensure that all students and teachers have access to on-line textbooks and supplemental resources</li> <li>• Apply for grants to secure funding for equipment and supplemental resource acquisitions</li> <li>• Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to equip Bilingual Education classrooms with ET standard configuration</li> <li>• Implement collection of student performance data for Bilingual Education using the Scantron scanning system</li> <li>• Analyze student performance data collected with e-Assessments and Scantron system to measure student progress and to differentiate instruction</li> <li>• Work collaboratively with the Office of Information and Technology and the Office of Research, Evaluation and Assessment to conduct a preliminary evaluation of Adobe Acrobat as a potential communication/collaboration solution for the Bilingual Education learning community</li> </ul>

<b>Migrant Technology Education – Acosta Resource Center</b>
<p><b>Equip Migrant Technology Education resource center with standard configuration of Educational Technology</b></p> <ul style="list-style-type: none"> <li>• Computers – desktops, laptops</li> <li>• Printers – black/white, color</li> <li>• LCD projectors</li> <li>• Interactive whiteboards</li> <li>• Scanner</li> <li>• Digital Camera</li> <li>• Digital Video Camera</li> <li>• Media players: CD, DVD</li> </ul>

<b>Content-Focused Professional Development</b>
<p><b>In addition to teaching ELLs in the language they understand, appropriate instructional strategies and curriculum adaptations must be made to accelerate English language acquisition. Teachers must be equipped to effectively integrate technology in the delivery of curriculum to facilitate adjustments in curricular strategies and interventions.</b></p> <p><b>Course Offerings</b></p> <ul style="list-style-type: none"> <li>• Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li> <li>• Computer literacy for instruction</li> <li>• Microsoft Office suite – instructional and non-instructional use</li> <li>• Integration of Technology in Curriculum</li> <li>• Instruction strategies</li> <li>• e-Assessment</li> <li>• e-Assessment Scanning</li> </ul>

- Data-driven instruction

**Schedule:**

- 4 hour session after hours
- Stipend based

**Audience:**

- Bilingual Teachers
- Administrator/Curriculum Leaders
- Educational Technicians
- School Service Assistants

**Facilitators**

- Textbook vendor consultants
- Hardware/software vendor consultants
- Bilingual Education staff
- On-demand links available 24/7 already on Department website

**Costs**

- Consultant fee : free from Education Consultants
- Community use fee: Title III as needed
- Teacher workshop stipend (Funding Source: Title III)

**Implementation Barriers**

- Locations adequately equipped with type and quantity of Educational Technology required to teach course
- ATTENDANCE: Reaching critical mass using live workshop delivery method

**2012-2015 Implementation Actions**

- Work collaboratively with the Office of Professional Development to
  - secure sites adequately equipped for sessions where Educational Technology must be used
  - develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)
- Complete Accelerated Reader professional development for teachers
- Work collaboratively with the Office of Research, Evaluation Assessment and Accountability to:
  - Identify best practices for integrating technology in the delivery of Bilingual Education curriculum
  - Transfer best practices from research to classroom application
  - Assess and evaluate effectiveness of Bilingual Education professional development
- Implement Professional Development as planned
- Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities

**Funding Sources**

**General Funds**

- To supplement, and not to supplant, Assistant Superintendent and Supervisor of Office of English Language Learners to manage and develop

**Title I, Title II and Title III**

- Title I – Services for ELLs
  - District must provide adequate and equity of funding

<b>Funding Sources</b>
<ul style="list-style-type: none"> <li>• Title II – ELLS Student Performance Expectations <ul style="list-style-type: none"> <li>• District must provide adequate and equity of funding</li> </ul> </li> <li>• Title III – Accountability measures required <ul style="list-style-type: none"> <li>• Funding included in Consolidated application and approved by MDE</li> <li>•</li> </ul> </li> </ul>
<p><b>2012-2015 Implementation Actions</b></p> <ul style="list-style-type: none"> <li>• Work collaboratively with School Administrators and the Department of State and Federal Programs to identify funding sources to equip Bilingual Education classrooms with ET standard configuration</li> </ul>

**5N Music Education Strategies**

The Music Education National Conference (MENC) publication Opportunity-to-Learn Standards for Music Instruction and the Michigan Department of Education publication Michigan Educational Technology Standards and Expectations were used as prototypes in developing Detroit Public Schools' approach to Educational Technology in the music curriculum. The approach serves as a guide to what DPS will provide to assist students in achieving music education standards.

The writers of the Opportunity-to-Learn Standards were well aware that new technologies have an impact on the ways schools deliver music instruction. Throughout the text of those standards, there are references to computers, software, MIDI equipment, CD-ROMs, and other resources that are important to the world of the music teacher as well as essential to the world of music outside the classroom. This approach to Educational Technology in music does not call for resource beyond that seen as necessary in the Opportunity-to-learn standards; rather, it tells more specifically what equipment to buy and how to allocate those resources. For each level, specifications are listed for:

- Curriculum and Scheduling
- Staffing
- Equipment
- Materials/Software
- Facilities

It is important to note that each of these categories is important. It is, unfortunately, an all-too-common occurrence to find a school district that has invested in computer hardware without the appropriate software to run on it, without appropriate facilities in which to use it, and without the all-important teacher training and technical staff support that enables the school's faculty to bring the equipment's potential value to bear on the students' potential for learning.

It is essential that all schools provide a basic level of music technology equipment and software with the appropriate facilities for implementation. It is also essential that all schools provide a minimal level of training for their staff and teachers, and make an effort to effectively incorporate the technology into the music curriculum. Of course, some schools will have at their disposal sources of funding or other resources that make it possible for them to go beyond this basic level. This approach provides standards for both minimal and desirable technology programs. The minimal standards are intended to provide guidance for schools that are just beginning to incorporate technology into their music curriculum and have limited resources. It is recommended that all Detroit Public Schools music programs use the desirable standards as a long-range goal.

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This approach to technology in music curriculum also contains a strong, if implicit, message to decision makers connected with the Detroit Public Schools to find ways to use technology to serve the overall curriculum. That message is simply--***remember the music program***. Those who give music teachers the same level of access to technological resources as teachers in other disciplines will discover two things. First, they will discover that the music program is greatly enhanced by innovative applications of technology. Secondly, they will discover that music offers an exciting way for students and teachers alike to make technology come alive as an innovative instrument for creative expression.

## Strategy

- Engage district leadership to gain commitment and sponsorship of the Music Educational Technology strategy and initiatives
- Increase student access to technology-enabled Music learning experiences and technology rich learning environments by ensuring adequate and equitable distribution of Educational Technology
  - Equip fine arts classes with equal access to technology resources as found in core content areas
  - Students learning experiences include the use of technology for singing and playing instruments, creating music, responding to music, and understanding music
  - Offer a minimum of one music elective course in which students perform with digital keyboards and/or various MIDI controllers, multimedia authoring, composition, arranging, digital recording, producing, etc.
  - Adequate level of shared resources (i.e. practice rooms, labs, resource centers, wireless carts, etc.) to support student and teacher population
- Increase rate of utilization of Educational Technology by students and teachers
  - Provide formal and informal opportunities for technology professional development to sustain teacher growth
  - Provide teachers necessary development time to create new curriculum materials and instructional strategies that make effective use of music technology
  - Provide teachers ample time to consult with other colleagues about the use of technology
  - Provide teachers easy access to email and other web services for professional and curricular development, research, and other communication needs
  - Provide technical support and mentoring by those who are knowledgeable about the hardware and software used by music educators
  - In lab settings, maintain an appropriate student/teacher ratio
  - Provide teachers software: productivity tools (Microsoft Suite), gradebook, recordkeeping, inventory and equipment management control
- Improve effectiveness of Educational Technology implementations
  - Budget annually for the purchase of records, CDs, and audiotape and videotape; computer and electronic materials; and the other special supplies, materials, and equipment needed for the teaching of music.
  - Budget annually for new software and upgrading existing software
  - Make the following resources available in every school for use in music instruction: microcomputers and appropriate music software, including notation and sequencing software; printers; sufficient MIDI equipment; multiple electronic keyboards; synthesizers; CD-ROM-compatible computers; and music-related CD-ROMs; video cameras, color monitors, stereo VCRs, and multimedia equipment combining digitized sound and music with graphics and text.
  - Equip every room in which music is taught with a high-quality sound reproduction system capable of utilizing current recording technology.
  - Maintain equipment in good repair
- Increase use of on-line textbooks and supplemental teacher and student resources
- Enhance delivery of Professional Development

**Strategic tactics**

- 5N.1 Leadership engagement and sponsorship
- 5N.2 Applied Educational Technology – by grade level
- 5N.3 Professional Development and Instructional Tools

<b>Leadership engagement and sponsorship</b>
<p><b>Leadership Sponsorship</b></p> <ul style="list-style-type: none"> <li>• Music Education will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:               <ul style="list-style-type: none"> <li>• Communicate the rationale, importance, and educational value of initiatives</li> <li>• Build a coalition of leadership support – mobilizing and engaging other leaders</li> <li>• Advocate for or allocate adequate resources to initiate and sustain initiatives</li> <li>• Monitor and recognize progress</li> <li>• Build and maintain focus on initiative goals, objectives and priorities</li> <li>• Manage resistance and remove barriers to effective implementation</li> </ul> </li> </ul> <p><b>Leadership Engagement and Involvement</b></p> <ul style="list-style-type: none"> <li>• Music Education will seek to increase the level of board, administration and school leadership engagement and involvement in implementation of ET initiatives</li> </ul>
<p><b>2012-2015 Implementation Actions</b></p> <ul style="list-style-type: none"> <li>• Develop and implement leadership engagement strategy, plan and toolkit               <ul style="list-style-type: none"> <li>• Music Education Educational Technology business case</li> <li>• Music Education Educational Technology strategy map</li> <li>• Music Education sponsor and leadership roadmaps</li> </ul> </li> </ul>

<b>Applied Educational Technology – by Grade Level</b>	
<p><b>Standard classroom ET configuration for Music</b></p> <p><b>Essential ET for Music Education</b></p>	<p><b>Equip Music Education classrooms with standard configuration of Educational Technology</b></p> <p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>• Wireless Internet access</li> <li>• Four (4) student workstations</li> <li>• One (1) teacher workstation</li> <li>• One (1) standalone or networked printer</li> <li>• One (1) LCD projector</li> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• One (1) Digital Video Camera</li> <li>• Headsets</li> </ul> <p><b>Equip Music Education classrooms with a content specific supplement to the standard configuration of Educational Technology</b></p>

<b>Applied Educational Technology – by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• One (1) large screen video display for class presentations</li> <li>• Functionality of student and teacher workstations must include: <ul style="list-style-type: none"> <li>• Powered speakers</li> <li>• Audio in/out capability</li> <li>• MIDI sound generation</li> <li>• CD or DVD ROM</li> <li>• Touch pad, large trackball or other alternate pointing device suitable for the age of the student</li> </ul> </li> <li>• Two (2) or three (3) multimedia-ready computers with keyboard controllers (dual headphone capable)</li> <li>• Digital recording and CD-R capability</li> <li>• Alternative MIDI controllers, such as wind, guitar, string, and drum controllers</li> <li>• MIDI keyboard synthesizer or controller</li> <li>• Eight (8) portable digital keyboards with standard-size touch-responsive piano keys</li> <li>• Assistive technology for students with disabilities</li> </ul>
<b>Standardized software library</b>	<p><b>Equip Music department and classrooms with a standard configuration of instructional software</b></p> <p><b>All</b></p> <ul style="list-style-type: none"> <li>• Internet software for supervising access to Web resources</li> <li>• Update existing software regularly</li> <li>• Purchase new software annually</li> <li>• Basic sequencing/notation age appropriate software for recording, arranging, improvising, composing, printing music [list products in budget]</li> </ul> <p><b>PK-K</b></p> <ul style="list-style-type: none"> <li>• Three (3) Instructional software <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> <li>• Multimedia software for creating, improvising, composing, and performing music</li> </ul> <p><b>Middle (1-6)</b></p> <ul style="list-style-type: none"> <li>• Six (6) Instructional software <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> <li>• Six (6) Multimedia software for creating, improvising, composing, and performing music [list products in budget]</li> <li>• IntelligentO software licenses</li> <li>• Digital audio editing software for capturing, modifying, reproducing music [list products in budget]</li> <li>• Multimedia authoring software for Web</li> </ul> <p><b>High (7-12)</b></p> <ul style="list-style-type: none"> <li>• Six (6) Instructional software <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> <li>• Six (6) Multimedia software for creating, improvising, composing, and performing music [list products in budget]</li> <li>• Ten (10) Multimedia software for exploring the relationship between music and the other arts and/or explores music in relation to history and culture <ul style="list-style-type: none"> <li>• Purchase six (6) new applications annually</li> </ul> </li> </ul>

<b>Applied Educational Technology – by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• Intelligent software licenses</li> <li>• Digital audio editing software for capturing, modifying, reproducing music [list products in budget]</li> <li>• Multimedia authoring software for Web</li> </ul>
<b>MIDI or Digital keyboard lab</b>	<b>Equip MIDI or digital keyboard labs with standard configuration of Educational Technology</b>
<b>Computer music lab</b>	<b>Equip dedicated computer music labs with standard configuration of Educational Technology</b> <ul style="list-style-type: none"> <li>• Internet access</li> <li>• Adequate electrical infrastructure</li> <li>• Student computers with powered speakers <ul style="list-style-type: none"> <li>• Minimal 15</li> <li>• Elementary Schools</li> <li>• Middle schools</li> <li>• High schools</li> </ul> </li> <li>• One (1) projector</li> <li>• One (1) large capacity removable disk storage</li> </ul>
<b>Recording and composing studio</b>	<b>Equip dedicated recording and composing studio with standard configuration of Educational Technology</b>
<b>Supplemental resources in other school labs or resource centers</b>	<b>Equip non-music education school-based labs/resource centers with supplemental equipment to support Music Education</b> <ul style="list-style-type: none"> <li>• Dual headphones</li> <li>• MIDI controllers</li> </ul>
<b>Elementary Schools ET Resources</b>	<b>PK-5th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>Middle Schools &amp; K8 Schools ET Resources</b>	<b>Access to a technology-rich computer lab</b> <b>6-8th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b> <ul style="list-style-type: none"> <li>○ On-line Student and teacher e-Editions</li> <li>○ Publisher technology (CD, DVD, tapes) and on-line supplemental resources <ul style="list-style-type: none"> <li>• Student, teacher, and parent resources <ul style="list-style-type: none"> <li>• Tutorials</li> <li>• Lesson planner</li> <li>• Differentiated learning materials</li> </ul> </li> </ul> </li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> </ul> </li> </ul>



<b>Applied Educational Technology – by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• Internet access</li> <li>• Student identification numbers</li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>High School ET Resources</b>	<p><b>9th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<p><b>10th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<p><b>11th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<p><b>12th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>Implementation Actions</b>	<ul style="list-style-type: none"> <li>• Perform comprehensive program inventory to assess deployment of Educational Technology; identify gaps and needs</li> <li>• Equip each Music Education classrooms with <ul style="list-style-type: none"> <li>• standard configuration of Educational Technology</li> <li>• a content specific supplement to the standard configuration of Educational Technology</li> </ul> </li> </ul>

<b>Applied Educational Technology – by Grade Level</b>	
	<ul style="list-style-type: none"> <li>• Equip Music Education department and classrooms with a standard configuration of instructional software</li> <li>• Equip MIDI or digital keyboard labs with standard configuration of Educational Technology</li> <li>• Equip dedicated computer music labs with standard configuration of Educational Technology</li> <li>• Equip dedicated recording and composing studio with standard configuration of Educational Technology</li> <li>• Equip non-music education school-based labs/resource centers with supplemental equipment to support Music Education</li> <li>• Provide all teachers and students remote access to on-line textbooks and supplemental resources</li> </ul>

<b>Professional Development</b>
<p><b>Professional Development Strategies:</b></p> <ul style="list-style-type: none"> <li>• Technology training for teachers who provide music instruction is conducted by people who know the needs of music learners.</li> <li>• Plan ongoing staff development to provide teachers with training in applying technology in the curriculum in place; provide training in a variety of levels to match the varying backgrounds and proficiencies of teachers</li> <li>• A well-planned, long-term program of professional staff-development support is available to all music teachers.</li> <li>• Music educators receive at least one staff development day per year for technology training</li> <li>• Music educators have ready access to Internet-based professional development opportunities</li> </ul> <p><b>Course Offerings</b></p> <ul style="list-style-type: none"> <li>• Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li> <li>• Computer literacy for instruction</li> <li>• Microsoft Office suite – instructional and non-instructional use</li> <li>• Integration of Technology in Curriculum</li> <li>• Instruction strategies</li> </ul> <p><b>Schedule</b></p> <p><b>Audience:</b></p> <ul style="list-style-type: none"> <li>• Music Teachers</li> <li>• Administrator/Curriculum Leaders</li> <li>• Teachers</li> </ul> <p><b>Facilitators</b></p> <ul style="list-style-type: none"> <li>• Textbook vendor consultants</li> <li>• Hardware/software vendor consultants</li> <li>• Music Education staff</li> <li>• WRESA consultants</li> </ul> <p><b>Costs</b></p> <ul style="list-style-type: none"> <li>• Consultant fee (if not covered under textbook adoption agreement)</li> <li>• Community use fee</li> <li>• Teacher workshop stipend</li> </ul>

<b>Professional Development</b>
<ul style="list-style-type: none"> <li>• Materials production</li> </ul>
<p><b>Implementation Barriers</b></p> <ul style="list-style-type: none"> <li>• Locations adequately equipped with type and quantity of Educational Technology required for music instruction</li> </ul>
<p><b>2012-2015 Implementation Actions</b></p> <ul style="list-style-type: none"> <li>• Work collaboratively with the Office of Professional Development to <ul style="list-style-type: none"> <li>• secure sites adequately equipped for sessions where Music Educational Technology must be used</li> </ul> </li> <li>• Work collaboratively with the Office of Research, Evaluation, Assessment and Accountability to: <ul style="list-style-type: none"> <li>• Identify best practices for integrating technology in the delivery of Music Education curriculum</li> <li>• Transfer best practices from research to classroom application</li> <li>• Assess and evaluate effectiveness of Music Education professional development</li> </ul> </li> <li>• Implement Professional Development as planned</li> <li>• Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities</li> </ul>

## **50 Art Education Strategies**

The Michigan Department of Education publication *Michigan Educational Technology Standards and Expectations* has been used as a guide in the development of the Detroit Public Schools approach to Educational Technology in the art curriculum. The approach serves as guide as the Detroit Public Schools provide assistance and support for all students in achieving art education standards. It is the purpose of the district to be aligned with both the national and state standards for art education. These standards call for the utilization and integration of technology in the classroom as a necessary component in the learning process of students.

Content Standard I of the Michigan Benchmarks for art education states that students will use materials, techniques, media technology and processes to communicate ideas and experiences. The Michigan Educational Technology Standards and Expectations notes (No Child Left Behind Act) that schools will assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student completes eighth grade studies, regardless of the student's race, ethnicity, gender, family income, geographic location or disability.

This planning document will provide guidance to all art teachers, administrators, and other decision makers how to best plan for the new technologies in the ongoing effort to give every student a full, balanced curriculum based on the skills and knowledge outlined in the National Standards. In the section that follows, we cite what equipment to purchase and how to allocate those resources. As in the other Detroit Public Schools fine art areas, specifications are listed to support the following areas:

- Curriculum and Scheduling
- Staffing, Equipment
- Materials/ Software
- Facilities

Each item in this listing is to be considered as an integral part of the other. Training, materials, facilities are all necessary for a successful operation of Art Educational Technology. The teacher training and technical staff

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support enables each school's faculty to bring the equipment's potential value to bear upon the students' potential for learning.

In the same manner as art education text books, ancillary materials and equipment are placed in all schools within the district, technology for art education must also be placed. Often the missing links in the Curriculum Development Planning for art education is staffing and facilities. Execution of this approach relies on the essential standard that all schools provide a level of training for their staff and teachers and effectively incorporate the technology into the art curriculum.

Since some schools will have an opportunity for several sources of funding and others will have limited resources this approach provides standards for both minimal and desirable technology programs. The minimal standards are intended to provide guidance for schools that are just beginning to incorporate technology into their art curriculum and have few resources. It is recommended that all Detroit Public Schools art programs use the desirable standards as a long range goal.

Technology can create excited and motivated learners. Our students excel in art without the benefit of current technology. However, as they compete with students with technology resources, the appearance is that our students are failing. It is imperative that this approach to Art Education Technology be adopted and implemented.

### **Strategy**

- Engage district leadership to gain commitment and sponsorship of the Art Educational Technology strategy and initiatives
- Increase student access to technology-enabled Art learning experiences and technology rich learning environments by ensuring adequate and equitable distribution of Educational Technology
  - Equip fine arts classes with equal access to technology resources as found in core content areas
  - Students learning experiences include the use of technology for singing and playing instruments, creating music, responding to music, and understanding music
  - Offer a minimum of one music elective course in which students perform with digital keyboards and/or various MIDI controllers, multimedia authoring, composition, arranging, digital recording, producing, etc.
  - Adequate level of shared resources (i.e. practice rooms, labs, resource centers, wireless carts, etc.) to support student and teacher population
- Increase rate of utilization of Educational Technology by students and teachers
- Provide formal and informal opportunities for technology professional development to sustain teacher growth
- Provide teachers necessary development time to create new curriculum materials and instructional strategies that make effective use of music technology
- Provide teachers ample time to consult with other colleagues about the use of technology
- Provide teachers easy access to email and other web services for professional and curricular development, research, and other communication needs
- Provide technical support and mentoring by those who are knowledgeable about the hardware and software used by music educators
  - In lab settings, maintain an appropriate student/teacher ratio
  - Provide teachers software: productivity tools (Microsoft Suite), gradebook, recordkeeping, inventory and equipment management control
- Improve effectiveness of Educational Technology implementations
- Budget annually for the purchase of records, CDs, and audiotape and videotape; computer and electronic materials; and the other special supplies, materials, and equipment needed for the teaching of music.
- Budget annually for new software and upgrading existing software
- Make the following resources available in every school for use in music instruction: microcomputers and appropriate music software, including notation and sequencing software; printers; sufficient MIDI equipment; multiple electronic keyboards; synthesizers; CD-ROM-compatible computers; and music-related CD-ROMs; video cameras, color monitors, stereo VCRs, and multimedia equipment combining digitized sound and music with graphics and text.

- Equip every room in which music is taught with a high-quality sound reproduction system capable of utilizing current recording technology.
- Maintain equipment in good repair
- Increase use of on-line textbooks and supplemental teacher and student resources
- Enhance delivery of Professional Development

**Strategic tactics**

- 50.1 Leadership engagement and sponsorship
- 50.2 Applied Educational Technology – by grade level
- 50.3 Professional Development and Instructional Tools

<b>Leadership engagement and sponsorship</b>	
<b>Leadership Sponsorship</b>	
<ul style="list-style-type: none"> <li>• Art Education will seek to secure active, visible champions for its ET initiatives at the board and cabinet levels to help:               <ul style="list-style-type: none"> <li>• Communicate the rationale, importance, and educational value of initiatives</li> <li>• Build a coalition of leadership support – mobilizing and engaging other leaders</li> <li>• Advocate for or allocate adequate resources to initiate and sustain initiatives</li> <li>• Monitor and recognize progress</li> <li>• Build and maintain focus on initiative goals, objectives and priorities</li> <li>• Manage resistance and remove barriers to effective implementation</li> </ul> </li> </ul>	
<b>Leadership Engagement and Involvement</b>	
<ul style="list-style-type: none"> <li>• Art Education will seek to increase the level of board, administration and school leadership engagement and involvement in implementation of ET initiatives</li> </ul>	
<b>2012-2015 Implementation Actions</b>	
<ul style="list-style-type: none"> <li>• Develop and implement leadership engagement strategy, plan and toolkit               <ul style="list-style-type: none"> <li>• Art Education Educational Technology business case</li> <li>• Art Education Educational Technology strategy map</li> <li>• Art Education sponsor and leadership roadmaps</li> </ul> </li> </ul>	

<b>Applied Educational Technology – by Grade Level</b>	
<p><b>Standard classroom ET configuration for Art</b></p> <p><b>Essential ET for Art Education</b></p>	<p><b>Equip Art Education classrooms with standard configuration of Educational Technology</b></p> <p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>• Wireless Internet access</li> <li>• Four (4) student workstations</li> <li>• One (1) teacher workstation</li> <li>• One (1) standalone or networked printer</li> <li>• One (1) LCD projector</li> <li>• One (1) Document reader/camera</li> <li>• One (1) Interactive whiteboard</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• One (1) Digital Video Camera</li> <li>• Headsets</li> </ul> <p><b>Equip Art Education classrooms with a content specific supplement to the</b></p>

**Applied Educational Technology – by Grade Level**

	<p><b>standard configuration of Educational Technology</b></p> <p><b>All</b></p> <ul style="list-style-type: none"> <li>• One (1) large screen video display for class presentations</li> <li>• Functionality of student and teacher workstations must include:             <ul style="list-style-type: none"> <li>• Powered speakers</li> <li>• Audio in/out capability</li> <li>• Touch pad, large trackball or other alternate pointing device suitable for the age of the student</li> <li>• CD or DVD-ROM</li> </ul> </li> <li>• Keyboard synthesizer</li> <li>• Dual headphones</li> <li>• Assistive technology for students with disabilities</li> </ul> <p><b>Elementary (1-6)</b></p> <ul style="list-style-type: none"> <li>• Four (4) additional (total of 8) multimedia-ready PC computers with DVD +-RW/CD-RW</li> <li>• 1 (1) photo ink jet printer</li> <li>• One (1) overhead projector</li> </ul> <p><b>Middle/High (7-12)</b></p> <ul style="list-style-type: none"> <li>• Twenty-five (25) handle computers</li> <li>• One (1) Overhead projector</li> <li>• Four (4) additional (total of 8) multimedia-ready PC computers with DVD +-RW/CD-RW</li> <li>• Six (6) MAC computers with DVD+-RW/CD-RW</li> <li>• One (1) Scanner</li> <li>• One (1) Digital Camera</li> <li>• Graphics tablets</li> <li>• Digital airbrush</li> <li>• Three (3) mini flash drives</li> </ul>
<p><b>Standardized software library</b></p>	<p><b>Equip Art department and classrooms with a standard configuration of instructional software</b></p> <ul style="list-style-type: none"> <li>• Internet software for supervising access to Web resources</li> <li>• Update existing software regularly</li> <li>• Purchase new software annually</li> <li>• Basic sequencing/notation age appropriate software for creating works of art</li> </ul> <p><b>PK-K</b></p> <ul style="list-style-type: none"> <li>• Three (3) Instructional software             <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> <li>• Multimedia software for to create works of art</li> </ul> <p><b>Elementary (1-6)</b></p> <ul style="list-style-type: none"> <li>• Six (6) Instructional software             <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> <li>• Six (6) Multimedia software for to create works of art             <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> </ul>

<b>Applied Educational Technology – by Grade Level</b>	
	<p><b>Middle/High (7-12)</b></p> <ul style="list-style-type: none"> <li>• Six (6) Instructional software <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> <li>• Six (6) Multimedia software for to create works of art <ul style="list-style-type: none"> <li>• Purchase three (3) new applications annually</li> </ul> </li> <li>• Basic digital software for creating works of art</li> </ul>
<b>MIDI or Digital keyboard lab</b>	<b>Equip MIDI or digital keyboard labs with standard configuration of Educational Technology</b>
<b>Supplemental resources in other school labs or resource centers</b>	<p><b>Equip non-art education school-based labs/resource centers with supplemental equipment to support Art Education</b></p> <ul style="list-style-type: none"> <li>• Dual headphones</li> <li>• Keyboard synthesizer</li> </ul>
<b>Elementary Schools ET Resources</b>	<p><b>PK-5th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>Middle Schools &amp; K8 Schools ET Resources</b>	<p><b>Access to a technology-rich computer lab</b></p> <p><b>6-8th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources <ul style="list-style-type: none"> <li>• Student, teacher, and parent resources <ul style="list-style-type: none"> <li>• Tutorials</li> <li>• Lesson planner</li> <li>• Differentiated learning materials</li> </ul> </li> </ul> </li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<b>High School ET Resources</b>	<p><b>9th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements: <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>

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**Applied Educational Technology – by Grade Level**

	<p><b>10th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements:             <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<p><b>11th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements:             <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
	<p><b>12th Grade Interactive Textbooks, Technology-based Supplemental resources, Teaching Resources</b></p> <ul style="list-style-type: none"> <li>• On-line Student and teacher e-Editions</li> <li>• Publisher technology (CD, DVD, tapes) and on-line supplemental resources</li> <li>• Ability to meet access requirements:             <ul style="list-style-type: none"> <li>• Administrative permission</li> <li>• Internet access</li> <li>• Student identification numbers</li> </ul> </li> <li>• Other complementary on-line supplemental resources</li> </ul>
<p><b>Implementation Actions</b></p>	<ul style="list-style-type: none"> <li>• Perform comprehensive program inventory to assess deployment of Educational Technology; identify gaps and needs</li> <li>• Equip each Art Education classrooms with             <ul style="list-style-type: none"> <li>• standard configuration of Educational Technology</li> <li>• a content specific supplement to the standard configuration of Educational Technology</li> </ul> </li> <li>• Equip Art Education department and classrooms with a standard configuration of instructional software</li> <li>• Equip MIDI or digital keyboard labs with standard configuration of Educational Technology</li> <li>• Equip dedicated computer art labs with standard configuration of Educational Technology</li> <li>• Equip non-art education school-based labs/resource centers with supplemental equipment to support Art Education</li> <li>• Provide all teachers and students remote access to on-line textbooks and supplemental resources</li> </ul>

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**Professional Development**



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## Professional Development

### Professional Development Strategies:

- Technology training for teachers who provide music instruction is conducted by people who know the needs of music learners.
- Plan ongoing staff development to provide teachers with training in applying technology in the curriculum in place; provide training in a variety of levels to match the varying backgrounds and proficiencies of teachers
- A well-planned, long-term program of professional staff-development support is available to all music teachers.
- Art educators receive at least one staff development day per year for technology training
- Art educators have ready access to Internet-based professional development opportunities

### Course Offerings

- Standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities
- Computer literacy for instruction
- Microsoft Office suite – instructional and non-instructional use
- Integration of Technology in Curriculum
- Instruction strategies

### Schedule

#### Audience:

- Art Teachers
- Administrator/Curriculum Leaders
- Teachers

#### Facilitators

- Textbook vendor consultants
- Hardware/software vendor consultants
- Art Education staff
- WRESA consultants

#### Costs

- Consultant fee (if not covered under textbook adoption agreement)
- Community use fee
- Teacher workshop stipend
- Materials production

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### Implementation Barriers

- Locations adequately equipped with type and quantity of Educational Technology required for music instruction

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### 2012-2015

#### Implementation Actions

- Work collaboratively with the Office of Professional Development to
  - secure sites adequately equipped for sessions where Art Educational Technology must be used

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### **Professional Development**

- Work collaboratively with the Office of Research, Evaluation, Assessment and Accountability to:
  - Identify best practices for integrating technology in the delivery of Art Education curriculum
  - Transfer best practices from research to classroom application
  - Assess and evaluate effectiveness of Art Education professional development
- Implement Professional Development as planned
- Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities

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## **Section 6. Technology Delivery**

### **Section 6. Technology Delivery**

#### **1.0 Introduction**

Detroit Public Schools continues year over year to integrate technology into curriculum delivery, classroom learning, professional development, school management and operations management. This on-going integration is driven and guided by policies and standards designed to facilitate creation of teaching and learning environments in which every DPS student has equal opportunity to meet academic expectations while becoming technologically literate.

Like other school districts, DPS is working to increase the quality and quantity of e-Learning experiences available to students. e-Learning permits:

- A global learning community to include students and teachers from different local, national, and international schools
- Learning to occur anywhere, at any time
- Learning content in multiple media
- Learning that is more than a one-shot experience
- Learning that does not always require the physical presence of a teacher or other students
- Learning that incorporates interactions, discussions, team projects and collaborations

This section of the plan describes Educational Technologies policies and standards, as well as highlights the array of technology employed by the District.

#### **2.0 Strategy**

##### **POLICIES AND PROCESSES**

Policies exist to govern the use of district owned technology in academic settings to increase utilization of technology in learning and teaching. In keeping with it's vision as a "child-focused institution", DPS will review its Educational Technology policies and processes from the perspective of student achievement (vs. operations) to explore ways of making learning environments more conducive for 21<sup>st</sup> century experiences.

For example, policies do not currently exist to govern the use of student and staff owned technology on district premises before, during and after school hours. Though challenging to administrate and to manage, these two resources may hold one of the key to increasing student access with minimal direct costs to the district. Ways of leveraging teacher-owned technology resources will be evaluated this planning period, and student-owned technology in 2012 to 2015.

Many processes exist that directly impact implementation of the Educational Technology Plan initiatives. Select processes will be analyzed to identify ways of improving the effectiveness and efficiency of strategy and plan execution. Particular emphasis will be on seeing, understanding and changing based on the opportunity to improve the educational experiences of two key stakeholders – students and teachers.

##### **STANDARDS**

The District will continue its work to develop standard configuration specifications for educational technology and corresponding procurement plans for the hardware, software, infrastructure and services. This work helps to ensure consistency in the teaching and learning experiences district-wide. It is also critical to achieving District cost containment and control objectives.

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Faced with continual reductions of financial and human resources, the District must achieve economies in every phase of the Educational Technology life cycle. We must work strategically to offer a range of technological tools to support innovative and effective teaching and learning experiences, while simultaneously minimizing and eliminating variances in the infrastructure, equipment and services that negatively impact total cost of ownership.

**Standardized components of technology delivery; Also standardize by grade, by content area, by learning environment**

- Computing Devices
- Instructional and Assessment Software
- WAN
- Internet Access
- e-Learning
- On-line Learning
- Course Management System
- Classroom Performance System
- Asset management protection devices and systems

Minimum and recommended requirements to support existing and emerging Educational Technology infrastructure, hardware, software and services are taken into consideration when establishing or revising standards. For example, the specific needs and requirements of specialized content areas are addressed by “customizing” the standard configuration with functionality appropriate for the learning experience (i.e. career technical education, bilingual education, early childhood education, etc.). These content area specifications will also be standardized during this planning period.

**TECHNOLOGIES**

**CURRICULUM DEVELOPMENT AND LEARNING MANAGEMENT**

A Course Management System (aka, Learning Management System (LMS) or a Virtual Learning Environment (VLE)) is used to:

- augment face-to-face courses (blended learning)
- on-line courses
- provide activity modules (such as forums, wikis, databases, etc.)
- build richly collaborative communities of learning around subject matter
- deliver content to students and assess learning using assignments and quizzes

The predominant application in use currently is the Black Board Learning System which provides:

- Content management
- Community engagement
- Outcomes assessment
- Portfolio management

A cost/benefit analysis comparing internal support and external support via Blackboard's Managed Hosting services will be performed to help select the technical support method for this system. A key factor and consider is the fact that 71% of hosting costs may be eligible for an E-Rate grant, resulting in a reduction in direct support cost to the district.

The application used by Adult Education to support High School Completion curriculum is NovaNet:

- Computer-based, online courseware system that links educators with progressive technology and proven teaching methods
- Design strategies employs adaptive instruction techniques

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- Prescriptive lesson assignment
  - Dynamic questioning
  - Intelligent feedback

## **INSTRUCTIONAL AND SUPPLEMENTAL SOFTWARE**

The district evaluates, approves and uses a variety of instructional and supplemental software applications including drill and practice, simulations, quizzes, tests, demonstration, tutorial, instructional/reference and educational games. The software evaluation process is described in section 11.15, Appendix 11.15B and Appendix 11.15C of this plan. The list of approved software is in appendix 11.15A of this plan and is also published on the district's intranet.

Educators across the District use a number of instructional and supplement software applications. See section 11.15 for details on strategy to identify and evaluate both approved and unauthorized resources.

## **DIGITAL CONTENT**

Digital content provides the means to increase available teaching and learning resources. To optimize its use and effectiveness, policies, processes, practices and standards must consider both curriculum and technology factors. Currently, the primary and most readily available source of digital content is the textbook supplemental resources (i.e. DVD, CD, on-line resources) received as part of the textbook adoption process. Additional digital resources are also secured from the Internet. Today, those resources are used at the discretion of teachers in delivering curriculum and learning. Determining how to use the resources "strategically" to enhance student achievement district-wide is under exploration.

Developing effective ways to centrally store and maintain digital content, making them readily available and accessible district-wide is one of the initiatives that will be undertaken this planning period. The Department of Information and Technology systems will work collaboratively with Curriculum and Instruction to design the framework for establishing a curriculum educational technology repository.

## **COMMUNICATIONS AND MESSAGING**

The communication and messaging capabilities of the district will be enhanced during this planning period with the implementation of Gaggie and an integrated messaging and information sharing solution – Microsoft SharePoint and Microsoft Exchange. Together they create a comprehensive infrastructure for collaborative work. This platform facilitates sharing information and working together in teams, communities and people-driven processes.

- Gaggie Subscription Service will be used to enhance communications between students, teachers and parents
  - Students
    - Email
    - Blog
    - Chat Rooms
    - Profile Pages
    - Message Boards
    - Digital Lockers
  - E-Rate Application will cover 84% of the subscription service costs; the Board has already approved the infrastructure contract covering the remaining 16%

- A budget must be developed to cover all other costs (i.e. hardware, software, technical support, maintenance and repair, professional development, etc.)
- Roles and responsibilities of district teachers, administrators, other instructional staff, non-instructional support staff and IT staff must be defined and approved
  - If applicable, agreements must also be reached on these roles and responsibilities with the respective unions
- A comprehensive implementation plan must be developed to facilitate implementation of the service; including communications to the learning community, professional development, student training, hardware/software acquisitions and installations, etc.
- Making the service accessible to parents may or may not be considered at this time
- The Gagle system will be used to support a home use initiative around the district provided netbook student devices.
- All students will have access to a netbook device.
- Sturents from 8 to 12 grade will be prvided with a home use netbook in this initiative
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## ASSESSMENT SOFTWARE AND SYSTEMS

These applications and systems provide the practice component of curriculum by creating assignments and tests based on students current level, scoring results and providing feedback on students' daily practice. They are used to facilitate differentiation of instruction to meet individual students; needs.

- **Assessment software on the District's list of approved software include but is not limited to:**
  - Compass Learning
  - Accelerated Reader
  - Accelerated Math
  - Plato
  - Black Board Learning System
  - English Language Learners MDE on-line assessment
- **Classroom Performance System or Student Response System** currently available in elementary and middle schools
  - The elnstruction CPS IR system was acquired as a complementary supplemental resource during a District math (elementary) and science (middle) textbook adoption
    - System can be used to support all subjects
  - Each elementary and middle school was provided the software application, thirty-two (32) student response pads "or "clickers" and the right to attend a one day professional development course
  - The system requires a computer, LCD projector (w/bulb installed), AAA batteries and printer (standalone optional; networked)
    - Individual schools were responsible for acquiring the system hardware and supplies
  - To-date, the majority of schools have completed the professional development; additional training dates are available during this planning period
  - While a formal evaluation of the system and assessment of the effect on student learning has not yet been performed, teacher feedback indicates a significant increase in student engagement when the system is used in the delivery of instruction

- Curriculum and Instruction will work collaboratively with the Office of Research, Evaluation and Assessment to evaluate and assess the system return on learning (ROL) during this planning period
- Curriculum and Instruction will work collaboratively with IT and Budget to estimate the total cost of ownership for a single unit (clickers, projector, supplies, accessories, computer, technical support, maintenance and repair, supplemental software, Annual updates to MDE GLCE, professional development, asset protection equipment, etc.) and the cost of implementation either district-wide or strategically in designated schools
  - Grade configurations impact the number of required units per school
  - Elementary school classes are self-contained, taught by one teacher who provides instruction for all subjects
  - Middle school classes are taught by multiple teachers, by subject area
- **Classroom Performance System or Student Response System** currently available in high schools
  - TI Navigator system
- **Classroom Performance System or Student Response System** under consideration for **implementation** in elementary and middle schools
  - The system consistent of Accelerated Learning, 2Know! and AccelTest software
  - The system requires NEO2 laptops, a desktop or laptop computer, batteries, LCD projector (w/.bulb installed) and printer (standalone optional; networked)
  - Curriculum and Instruction will work collaboratively with the Office of Research, Evaluation and Assessment to design the evaluation and assessment process during this planning period
  - Curriculum and Instruction will work collaboratively with IT and Budget to estimate the total cost of ownership for a single unit (NEO2 laptop, projector, supplies, accessories, technical support, maintenance and repair, supplemental software, professional development, storage cart, anti-theft devices, asset protection equipment, etc.) and the cost of implementation either district-wide or strategically in designated schools
- **ExamView Assessment Suite**
- **Science Common METS Assessment**
  - Piloted in summer school; implement district-wide during this planning period
  - Administration to student is paper-based
  - Teacher resource is electronic but not accessible on-line
- **CTE Mandated Assessments**
  - CISCO certification assessment
  - Therapeutic services certification assessment
  - Finance academy certification assessment
- **Adult Education Assessment tools**
  - Testmate and Topspro are used to scan all state mandated assessments (Pre, Interim and Post testing)

## PRODUCTIVITY SOFTWARE

Strategy 6 of this planning period calls for the adoption and use of a suite of “ET Productivity Tools” to help promote and foster the technological literacy of ALL DPS staff, students, and parents/guardians; develop competency models using DETS, NETS and METS, and facilitate parental workshops, staff professional development and student learning experiences

Mastering the use of the district issued applications will enhance the effectiveness and efficiency of DPS staff. The Microsoft Office suite of applications is preloaded or imaged on every new and recently purchased workstation as part of the District's standard hardware configuration. In addition to use as a productivity tool, educators are encouraged to use the suite of applications as an instructional implement, leveraging the fact it does not require Internet access.

Development of common technical competencies will result in increased performance of the processes that support delivery of instruction to students, directly and indirectly impacting student achievement.

<b>NETS-A Administrator Standard</b>	<b>NETS-T Teacher Standard</b>	<b>NETS-S Student Standard</b>	<b>DETS DPS Technology Standard</b>	<b>Microsoft Office</b>	<b>Microsoft Project</b>	<b>eMail</b>	<b>Calendar</b>
Educational leaders apply technology to enhance their professional practice and to increase their productivity and that of others.	Teachers apply technology to increase productivity; Teachers use technology to enhance their productivity and professional practice.		DPS staff use technology to enhance their productivity and professional practice	X	X	X	X
Educational leaders create and participate in learning communities that stimulate, nurture, and support faculty and staff in using technology for improved productivity	Teachers use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning		DPS staff use technology to communicate and collaborate with peers, parents, and the greater learning community	X	X	X	X
		Students use technology resources for solving problems and making informed decisions; Students employ technology in the development of strategies for solving problems in the real world	DPS staff use technology resources to develop strategies for solving problems and making informed decisions at DPS to promote student achievement	X		X	X

## **COMPUTING AND PERIPHERAL DEVICES**

The types of computing devices available in the District are desktops, laptops, and handheld computers/PDA's. Schools select computing devices that best fit the needs of their students, teachers, specialists, Administrators,



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and support staff. They select computing devices from the standardized offerings specified by grade configuration and content or operational area.

Peripheral devices such as:

- Printers (inkjet, laser; color, black and white; stand alone, networked)
- Calculators
- Digital probes
- Sensors
- Meters
- Microscopes

## **AUDIO-VISUAL TECHNOLOGIES (AVT)**

During this planning period, the primary strategy of Audio Visual Support Services is to increase its capacity to support the use of AV equipment in the teaching process and the learning experience. See section 11.9 for strategy details.

Audio-visual offerings include:

- Stand alone electronic media players
- Monitors
- Projection Devices and Systems
- Video Capture Devices (i.e. digital cameras, digital video cameras, scanners)
- CD/DVD players

Current methods for deploying AVT equipment are:

- Equipment is centrally stored, equipment is deployed to classrooms as teachers and students require access
- Equipment centrally located, teachers and students come to location to access equipment as needed

Factors impacting AVT equipment deployment:

- Staffing levels (i.e. limited staff leads to centralized configurations)
- Mobility of equipment
- Quantity of available equipment
- Level and frequency of access required

## **INTERNET ACCESS**

All schools currently have high speed connectivity to the Internet. The infrastructure in each school determines the level of internet connectivity available (i.e. connectivity in all instructional areas, connectivity in specified instructional areas, etc.). Access to the Internet was improved in all schools during the 2012-2013 planning period through installation of Opt E Man. See Section 11.3 Network Services for strategy details.

## **WIRELESS CONNECTIVITY**

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Currently all schools with e-Rate complete status have some wireless connectivity. The plan is to configure all schools with wireless connectivity during the 2012-2013 school year. See Section 11.3 Network Services for strategy details.

### **WAN/LAN CONNECTIVITY**

Every school site and office located in the District is connected via the wide area network. Some sites have local area networks installed as well. See Section 11.3 Network Services for strategy details.

### **VOICE CONNECTIVITY**

VOIP will provide the means for voice mail messaging, homework hotlines, attendance notifications, school announcements, etc. See Section 11.3 Network Services for strategy details.

### **VIDEO CONNECTIVITY**

Video streaming enabling technology enhances delivery of instruction in the classroom. Videos are downloaded from the internet and integrated into lesson plans. The technology could also be used to support homebound students, as well as to improve the quality instructional materials provided to substitute teachers.

Schools with eRate complete data infrastructures can sustain the quality standards of modern day video transmissions. Schools with marginal data infrastructures are equipped with circuits which will not sustain today's quality standards. The current eRate application included upgrades of school infrastructures to optimize video streaming and other forms of Educational Technology. See Section 11.3 Network Services for strategy details.

### **WEB SERVICES**

The Office of Web Services maintains and supports a web environment comprised of an Internet website, and intranet site for staff, and a number of school websites dedicated to promoting and showcasing school academic programs. During this reporting period, a complete redesign of these services will be undertaken. See section 11.6 for strategy details.

### **SCHOOL DATA MANAGEMENT**

The SIS system and digitized student records and transcripts are sources of data to support curriculum delivery and individualized, differentiated instruction.

- **SIS System**
  - On-line progress reports
  - Gradebook for grade reporting
  - Demographic data
  - Attendance data
  - Schedule data
  - Web portals for staff, students and parents
  - See Section 11.5A for strategy details
- **Digitized Student Records and Transcripts**
  - See Section 11.5B for strategy details

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## **ON-LINE LEARNING PROFESSIONAL DEVELOPMENT**

During this planning period, the Office of Professional Development will work collaboratively with teachers, para-professionals, and administrators to identify alternate ways of delivering Educational Technology professional development courses. See Section 9 for strategy details.

- On-line
- On-demand
- Instructor-led
- Train-the-trainer

### **3.0 Goals and Objectives**

- Standardized classroom hardware and software configurations by content area and grade level
- Standardized teacher hardware and software configurations by content area and grade level
- Standardized Library/Media/Resource Center standard configurations (by grade level)
- Collaborative development of standards – involvement and engagement of all stakeholders (i.e. students, parents, teachers, academic specialists, Administrators, IT, etc.)

### **4.0 Standards**

- Hardware standards – generic, content area specific
- Software standards
- Maintenance standards
- Replacement standards
- WAN/LAN standards
- Internet standards

### **5.0 Performance Indicators**

- ET asset management system accurately reflects how Educational Technology is deployed
- New and existing ET initiatives adhere to the ET standards
- At grade level, the ET supporting learning experience of students is similar, equitable, and inclusive across the District

### **6.0 Implementation Action Steps**

- Develop a project plan for establishing ET standards
  - Standardized ET classroom – baseline/guideline for all DPS classrooms
  - Customized content area specifications (i.e. CTE, Bilingual Education, Early Childhood Education, etc.)
- Develop and implement ET standards; including bringing existing initiatives into compliance
- Identify, analyze, and improve policies, processes, and practices related to acquisition and replacement of Educational Technology hardware, software, and services to ensure that adherence to ET standards are embedded
- Publish ET standards on DPS website and intranet
- Conduct professional development and training on ET standards for impacted stakeholders
- Evaluate eInstruction Classroom Performance System and assess impact on student learning

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- Develop total cost of ownership for eInstruction Classroom Performance System
    - Curriculum and Instruction works collaboratively with IT and Budget to estimate the total cost of ownership for a single unit (clickers, projector, supplies, accessories, computer, technical support, maintenance and repair, supplemental software, Annual updates to MDE GLCE, professional development, asset protection equipment, etc.)
  - Estimate the cost of implementing the eInstruction Classroom Performance System either district-wide or strategically in designated schools
  - Develop process for evaluating NEO2 Classroom Performance System and assessing impact on student learning
  - Develop total cost of ownership for NEO2 Classroom Performance System
    - Curriculum and Instruction works collaboratively with IT and Budget to estimate the total cost of ownership for a single unit (NEO2 laptop, projector, supplies, accessories, technical support, maintenance and repair, supplemental software, professional development, storage cart, anti-theft devices, asset protection equipment, etc.) and the cost of implementation either district-wide or strategically in designated schools

## **7.0 List of Appendices**

- None

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## Section 7. Parental Communications & Community Relations

### Section 7. Parental Communications & Community Relations

#### 1.0 Introduction

Parent and community involvement in education is the hallmark to increasing student achievement across all levels. Research has demonstrated the positive effect it has on academic achievement. An actively involved and informed parent knows about the technology standards and provides support to the learning experiences a child has in the classrooms of Detroit schools.

Parent involvement can be effectuated in many ways: volunteering in the classroom and school, active participation in the school parent group, attending parent teacher conferences at the local school, attending local, regional and national conferences, and/or learning a new skill to support their child's achievement. It has been shown that when parents take an active role in their child's education, the child perceives the value of the education, works harder to achieve and as a result achievement levels rise.

It is of utmost importance that we devise and implement strategies to involve parents and the community in the education of our student population. The establishment of home/school electronic linkages will bring families and community resources into an effective partnership in the education of Detroit's students.

Families of school aged children want the best education for their children. We will offer all Detroit families' opportunities to increase the level of literacy of the family by creating learning time in the home and provide a means to obtain the necessary skills and materials to support the school based learning with technology. Safeguards assure everyone that young children and students are protected from unnecessary marketing and adult content.

The evidence is clear, that schools that allow access and training to parents and students in the area of technology increase academic achievement, parent involvement, and relationships between the stakeholders of the local schoolhouse. It is critical for our parents and schools to take action or else we will be heading to an even more inequitable society in our future. Parent classes appear to be a means to reach this vision.

#### 2.0 Strategy

Our strategies for families includes:

- **Establishing** Family Resource and Technology Centers to empower and involve families in the organization and delivery of technology literacy and learning in the home.
  - We will utilize family software that offers a variety of learning approaches to permit children to explore a number of topics on different levels; software will be selected that appeals to students and parents for enhancing learning
  - A procedure for evaluating, purchasing, and transferring family software will be developed
  - A list of DPS recommended family software will also be developed
  - We will work collaboratively with other stakeholders to develop the standard configuration (i.e. infrastructure, hardware, software, peripherals, Internet use policy, etc). for the centers
  - We will engage Bilingual Education to understand the needs of English Language Learners and non-English speaking parents and families and to help identify technology solutions

- 
- **Establishing a parental communication system**
    - Developing a parent website
    - Develop the “Liasion Link” radio broadcast
    - Develop the “Liaison Link” television broadcast
    - Implement parent email system to promote communication with technology between families (parents) and schools (teachers). The system will equip parents to exchange information with the schools.
      - We will lead the development of a business case for activating the parent email account on Gaggle.net which the Board approved for implementation (dependent on 2012 eRate application approval).
  
  - **Providing parental technology training, learning resources and education services**
    - Parental Curriculum
      - Using the Internet
      - Developing an Internet Use policy for your home
      - Use of educational technology in the home
      - How to evaluate family software for home use
      - How to access and use student performance information for schools on the “Priority Schools List”
      - Using educationally relevant tools in the home (i.e. digital camera, digital video recorders)
      - Using METS and other forms of data to gage student achievement
      - Job creation skills training
      - Access to Higher Education community
  
    - Resources
      - On demand learning resources
      - Translation technology and software for English Language Learners (ELL) and non-English speaking parents
  
    - We will work collaboratively with the Curriculum Department, the Office of Research, Evaluation and Assessment, and the Office of Professional Development to design parent learning experiences that align with the learning experiences designed for students and teachers to ensure continuity and effective support of student achievement
  
    - We will engage faith-based and community organizations to provide remote learning environments to facilitate e-learning and to deliver education services to families
  
  - **Using HEAT system to capture and track resolution of parent and community concerns**
  
  - **Providing a Homework Hotline system**
    - We will work collaboratively with the Curriculum Department and the Office of Technology and Information Systems to determine how to engage parents in supporting homework

### **Critical information enabling communication with parents**

Communication between the school and parents is one of the keys to effective parental involvement. To that end it is imperative that parents keep the contact information on their children’s school records current. Ideal times for parents to do so are the start of school at the enrollment rally or at the school, the end of the school year, the start of a new semester, during parent/teacher conferences, and any time a school or residence change occurs.

While parents hold primary responsibility to ensure the integrity of the student contact information that responsibility is shared with DPS staff. When interactions occur with parents and contact information is provided it is in the best interest of the District that staff forward updated contact information to the school the student is currently attending. School staff is responsible for entering the contact information data on the Student Information System (SIS). Timely performance of this task is one of the critical success factors in the quest to have effective parent communications.

Parent liaisons have the opportunity to take the lead in relaying the importance of updating student contact information to parents in the schools they support. Additionally, The Office of Communication will include a request for information updates during enrollment campaigns.

Critical contact information includes:

- Student’s first, middle and last name
- Student’s street address, city, state, zip
- Student’s home phone, cell phone
- Student’s email address
- Student’s transportation pick-up and drop off address and phone number (if different than residence)
- Parent/Guardian’s first, middle, last name
- Parent’s/Guardian’s street address, city, state, zip
- Parent’s/Guardian’s home phone, work phone, cell phone
- Parent’s/Guardian’s email address
- Emergency contact information, name, address, home phone

### Communicating with parents about the technology their children use in school

Parents are informed about how technology is used with students through various means of communication such as newsletters, broadcasts, websites, and automating reporting systems.

Communication medium	Description
<b>The Liaison Link</b>	<p>A communication system managed by the Department of Parent and Community Liaisons that includes a quarterly newsletter, radio broadcast and television broadcast</p> <p>The newsletter provides updates on various parent programs and opportunities available in the District; It is distributed on-line, at the local school and in district offices</p> <p>The radio and television broadcasts will be implemented during this planning period</p>
<b>The Superintendent’s Briefing</b>	<p>A quarterly newsletter disseminated to parents by the Superintendent’s Office. It is distributed on-line, at local schools and in district offices</p>
<b>DPS Website</b>	<p>Parents and community members can access information twenty-four hours a day, seven days a week. The site is updated regularly to keep parents abreast of programs and services and to provide vital information.</p>
<b>“District-wide Communications System” (aka “Big Mouth”)</b>	<p>An automated information reporting system that communicates with parents and the community utilizing multiple technologies including mass calling telephone system, cellular texting, instant messaging, the Internet, and email.</p> <p>The system calls all District parents in school databases to inform them of Board</p>

Communication medium	Description
	<p>of Education meetings, Board Community meetings, District initiatives, information and resources.</p> <p>The system is also used to report daily student attendance and to alert parents of student absences (single or multiple classes, full day</p>

### **Communicating with the Detroit Learning Community about the Educational Technology Plan**

Members of the Detroit Learning Community, which includes parents, will have access to the District’s Educational Technology Plan on the website at <http://www.detroitk12.org/technology/techplan.pdf>. Members of the Learning community also have opportunity to serve on the Educational Technology Collaborative (See Section 3: ETM Organizational Structure)

#### **The Internet: A Parent’s responsibility**

As communities change and global networks allow competition to erode resources once taken for granted, parents must develop the ability to address appropriate student use of the Internet, privacy protection, and mass media marketing to children. Children need consistent adult supervision, protection, and guidance.

It is also incumbent upon schools to adopt policies designed to protect students as they engage in online activity, complete traditional assignments with technology, and prepare for technology based performance assessments. Online risks are many, including: meeting someone dangerous online; loss of privacy; getting into online “fights”; making threats or breaking the law; viewing inappropriate material; putting people in jeopardy by disclosing confidential family information; and encouraging, enabling, or exposing children to information on drugs and other dangerous substances.

Parents may find it helpful to use the Districts “Acceptable Use Policy” (See Section 16) as a guide in developing their home policy for Internet use.

#### **Educational Technology and Professional Development resources for parents**

The Office of Parent Involvement is seeking funding to open four (4) Family Resource and Technology Centers to provide parents access to educational technology and to enhance the delivery of parent seminars. Presently, parent seminars are facilitated at a variety of venues. Enrichment seminars are hosted at the Welcome Center, neighborhood schools and community centers. Community Forums, conducted monthly, address topics such as life skills, curriculum, safety, etc. Once a week, seminars are offered in homeless shelters. On any given day, there is generally at least one seminar being hosted somewhere in the learning community. The addition of telecommunications technology will enable the same seminar to be offered at multiple locations simultaneously, reaching further into the learning community than is possible without technology.

Parents of students attending schools on the “Priority Schools Lists” (in Phase 4 or above AYP) will use technology to access detailed information about their child’s ongoing progress, equipping them to take an active role in their child’s education.

The expected result of these initiatives – more involved, technologically literate parents.

### **3.0 Goals and Objectives**



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As active agents for learning, computers extend children's abilities, helping them to accomplish goals and objectives. Constructing relationships between pictures and concrete objects helps children establish meaning. In order to promote effective computer learning, parents must monitor the quality of the software children use in the home, the amount of time children work with it, and the way in which they use it.

#### **Goals for Parents:**

- Become familiar with the Michigan Education Technology Standards (METS) for students
- Identify and control the technology for meaningful learning activities
- Recognize that technology can take different forms, as in calculators, telephones, and video players and recorders. Provide instruction to young children to do useful things in a variety of ways with technology.
- Discuss the rules that control how technology works. Technology tools must have a source of electrical power -- they have plugs or batteries; computers must have instructions -- either built-in or provided by the user. Younger children must always be supervised.
- Build a home library of programs that require young students to accept different ways of organizing and thinking. Some will ask you to match and rhyme, others will give you the freedom to draw or paint whatever you wish.

#### **4.0 Standards**

Parenting school aged children involves a process for building an engaged community of learners in schools and engaging parents in their children's learning. Integrating technology in the home and making parents aware of the Grade Level Content Expectations for mathematics, reading and writing and the Michigan Education Technology Standards (METS) as a way that important connections are made that enhance student achievement and learning. The proper and positive use of technology in the home builds this community of learners and engages parents around four central goals to support student achievement:

- **Improving Reading, Writing, and Mathematics Achievement with Technology.** Every student will learn to read and understand mathematical concepts well to meet "Grade Level Content Expectations". Parents will read often, and enjoy reading through a focused alliance of family support and powerful classroom instruction.
- **Studying and homework.** Every student will become a self-directed learner through technology instruction that incorporates study skills, and homework practices that build study habits, and involve parental guidance.
- **Respect & Responsibility.** Every student will develop a sense of responsibility and respect for self and others through consistent direction and support from the family and the school.
- **Building a Community of Learners.** The school will function as a community of its constituent stakeholders of parents, students, teachers, and other school personnel.

These four goals establish a standard for families' use of home based technologies for supporting school achievement. All students, regardless of age cultural background or interest, benefit from good reading skills and mathematical ability, good study skills and social habits, and an engrained sense of respect of responsibility. The school and all its constituent stakeholders benefit when the school functions as a community.

#### **5.0 Performance Indicators**

- Regularly scheduled Local School Community Organization (LSCO) meetings.
  - The face-to-face association with one another provides opportunities to get to know each other while also learning how to help all students succeed.
- Regularly scheduled parent/guardian training courses on using technology
  - Parents train other parents to use technology

- 
- Parents develop Internet Use policy for the home
  - Collaborative work with other stakeholders is performed to establish the standard configuration of the Family Resource and Technology Centers
  - Collaborative work with other stakeholders is performed to develop an integrated budget/fund development plan for the Family Resource and Technology Centers

## **6.0 Implementation Action Steps**

The LSCO and the Office of Parental Involvement are the prime vehicles for supporting all district parents. These organizations will collaborate with the Division of Curriculum and Instruction to determine how parents and teachers can work together to support student achievement. For students to do their best, teachers and parents must also do their best, and that means they, too, are always learning.

This educational technology plan provides the opportunity for parents and teachers to capitalize on a parent's ability to influence the learning process, and to develop tools for engaging and involving parents in ways that support classroom teachers in providing high quality learning experiences for all students.

### **The following actions will serve as support for student achievement:**

- Provide parents METS information and guidance on how to use it to gauge student achievement
- Disseminate newsletters to parents to provide valuable and timely information about ways to foster student learning
- Provide workshops to equip parents to facilitate learning with technology in the home, with a emphasis on developing reading, writing and technology literacy skills; also to provide parents job skills training and access to higher learning communities
- Provide learning resources for parents
- Use multiple strategies (newsletters, website, telephone, voice and text messaging, Internet, email) to communicate with parents and community, to improve communications, and to increase parent and community involvement in children's education
- Use technology to communicate with parents of students in schools on the "Priority Schools List"
- Create a parent web-site
- Develop a list of family software titles to encourage interaction with children
- Engage faith-based and community organizations to provide remote learning environments to facilitate e-learning and to deliver education services to families
- Secure funding to establish four (4) Technology Resource Centers located strategically in the District to provide parents access to educational technology
- Secure funding to implement a district-wide communications system.
- Secure funding to support implementation of a "Homework Hotline" system

## **7.0 List of Appendices**

None

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## **Section 8. Collaboration**

### **Section 8. Collaboration**

#### **8A. Adult Education and Adult Literacy Service Providers**

##### **1.0 Introduction**

Many adult clients seek Adult Education (literacy classes) to improve their lives using instructional materials and activities that reflect literacy practices in life outside of the classroom. These clients are adults who wish to develop their abilities to read and write. And many adult clients may need other services to assist them. These adult learners are parents of students and reading newspapers and books becomes important as they use various communication channels to inform themselves on issues critical to their lives, or filling out forms as they are actually needed or writing personal letters to actual acquaintances for authentic purposes, and so on. Technology is also used become available in more of our adult literacy services.

##### **Office of Adult Education**

###### **Mission:**

To ensure that all adult learners obtain the highest quality education, leading to the attainment of a secondary education, literacy and numeracy skills necessary to succeed in employment and post-secondary education.

To reduce/eliminate adult literacy in the City of Detroit by

- Providing equal access to all adults for life long learning within a collaborative educational structure that is learner-centered and promotes the development of fully functioning citizens
- Focusing on our client's needs and their expectations. African-Centered core values guide the delivery of instruction in all adult education programs

**Vision:** To help DPS students achieve their learning objectives by fostering an environment in which they can excel as part of a diverse community.

**Goals:** Two of six of the current goals align with Educational Technology vision, goals and strategies

- Ensure that data driven decisions for curriculum alignment, instruction, assessment and continuous improvement to promote student achievement
- Continue analyzing potential software, distance learning, and procedures for effective use of assessment materials for Pre-GED, GED and ESL classes

##### **ADULT EDUCATION CURRICULUM**

Instruction is provided in High School Completion, GED preparatory classes, ABE classes and English as a Second Language. If a license is required in a specialized field, this license must be obtained prior to employment and remain current during the period of employment. All adult education providers are requested to present an overview of their adult education program to include the following:

- The general philosophy of the institution
- The size and types of programs and related services offered

- 
- Best practices, unique/innovative and successful programs or procedure
  - Cooperative arrangements
  - Any needs or concerns they may have

## **ASSESSMENT**

The state Department of Energy Labor and Economic Growth (DELEG) assessment policy requires that all adult education providers assess and place all ABE, GED, HSC and ESL adult education participants into an educational functioning level at intake (pre-test), and at the end of the instructional period (post-test) using the same DELEG approved assessment to determine educational gain as defined by the National Reporting System (NRS). To ensure that data is consistent and reliable:

All adult education sites and programs are required to administer a state-approved test of record. (See DELEG-Approved Assessments by Learner Goal located within the Assessments section of the Adult Education Guidebook).

Programs are granted flexibility to administer other forms of assessment as a supplement to the test of record.

Only the tests of record will be used for reporting data through the Michigan Adult Education Reporting System (MAERS) as part of the National Reporting System (NRS).

## **SERVICES**

Detroit adults receive adult learning services in DPS service locations throughout Detroit. Adult learners can elect to receive services ranging from pre-GED instruction to job specific training experiences to qualify for promotions or as preparation for the career-technical track of structured activities to meet state requirements for licensing. Adults may seek their instruction and learning from at the following locations:

### **HSC, PRE-GED & GED SITES**

- Matrix Human Services Center
- International Institute
- Pershing High School
- Shoemaker Learning Center
- Spain School
- Southwestern High School
- Commission for the Blind
- Cody Academy
- Priest School
- Puritan Center
- Randolph Vocational/Career Center
- Trinity Community Development Center

### **ENGLISH AS A SECOND LANGUAGE (ESL)**

- International Institute
- Latino Family Services
- Priest School
- Western International High School

Adults are provided with free career and technical classes and many adults qualify for learning computer applications (word processing, spreadsheets and given or making video presentations), health care, the construction trades, in the following vocational education training sites.

- Randolph Career and Technical Center

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The global marketplace places the mature adult learner who has challenges with language, culture and general literacy skills in need of educational services to prepare self sufficiency. The most common motives for adults to develop their literacy are related to becoming a productive wage-earner or as a motivated worker in need of skills or a GED for expanded job opportunities. Adult literacy is a relatively new field that integrates knowledge from psychology, education, social work, and literacy and applies the information to improve the educational achievement and economic well-being of families. These families may have children who will depend on the improved literacy of parents to earn incomes in a rapidly changing job market.

Services provided to Detroit area adults are provided to individuals speaking many different world languages (Spanish, Romanian, Arabic, Bengali, etc) representing many cultural challenges for those wishing the success from having a basic education. Some individuals are in need of planned instruction to meet basic job requirement or skills in using computer tech and job related instruction to assist to bring the adult to a productive status in American society.

### **Lists of Services Provided:**

The services provided to adult residents are designed to prepare them for entry into the culture and jobs of the 21<sup>st</sup> century. Many adults are ill prepared to meet many of the demands of the current job marketplace. Sometimes the Adult will be a single parent needed to prepare for the GED with pre-GED courses designed to meet the Adult curriculum or apprenticeship program objectives. Detroit Public Schools offers a broad range of legal immigration services. Our priority is to serve low-income families from various ethnic backgrounds.

The primary services provided to adults include:

- Enhancing their ability to attain, maintain, and advance in a job.
- Obtaining lifelong learning through job training and post-secondary education.
- Becoming contributing (income producing) members of society.
- Enhancing the quality of life for themselves and their families.
- Identifying and remediating barriers, by providing support services such as, ESL, GED, ABE, HSC, high school diploma, transportation and childcare wherever it is available on site.

Additional services provided to adult learners enable them to fully participate in the course offerings and counseling opportunities. These include:

#### Family Based Services

##### Humanitarian Based Petitions

- Adult Education Counselors at program sites refer students to appropriate agencies for these services as needed. Assistance with scheduling appointments is offered. Bus passes may be provided as well.

#### Citizenship Services

- Citizenship questions are reviewed to develop vocabulary
- Immigration Services locations are provided

#### Consultation Referrals Services

- Referrals to other non profit agencies

#### Outreach Services

- International Institutes provides resources that assist foreign born students.

#### Other services Offered include:

- Fee Waiver Requests for GED students only

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Adult Education provides an opportunity for mature students to achieve education levels equivalent to those of high-school graduates. The Michigan (DELEG) has begun a new performance system to measure adult student learning. To meet the assessment demands, adult education instruction is tailored to meet the individual needs of adult students. Standardized tests identify existing skill levels, appropriate instruction, and academic gains due to instruction. The use of technology in the learning and teaching of adults requires an integration with instruction as required for jobs or employment-related mathematics, reading, and communication skills. Instruction may be “applied” to the community, the family, and the world of work.

## **2.0 Strategy**

### **EDUCATIONAL TECHNOLOGY CURRICULUM**

The Adult Education opportunities to “improve the adult literacy by promoting economic and workforce development, stimulating job creation and enhancing the quality of life in Detroit” is in alignment with the mission of the State of Michigan (DELEG) to ensure that “all adult learners obtain the highest quality education, leading to the attainment of a secondary education, literacy, and numeracy skills” necessary to succeed in employment and post-secondary education. This involves a strategy using the available technology to become informed and language ready for employment by having training in the standard applications has revolutionized the activities of adulthood. Our collective challenge is to assist a diverse group of individuals of many languages and cultures in improving their levels of literacy. The opportunity to propel our adult clients into the world of reading, speaking and writing and satisfying their language and culture with technology. The use of technology is the most compelling evidence to an adult that they are involved in learning new skills.

The Office of Adult Education’s goal to begin a continuous revision of its technology curriculum was first reported in our five year plan on file with the State of Michigan. During this reporting period for the DPS Educational Technology Plan, we will review courses where technology is used in instruction and learning. As part of that review, we will strengthen curriculum alignment with District, national and state educational technology standards. We also anticipate identifying distance learning best practices through our involvement on the Michigan Adult Education Professional Development practitioner’s curriculum taskforce.

Currently computer-based instruction are offered at several community-based sites:

- Cody Academy
- Puritan Center
- Shoemaker Learning Center
- Pershing High School
- Southwestern High School
- Spain School
- Randolph Vocational Center

Instruction is interactive and supplemented with computer software that enhances the classroom lessons. Nova Net, a comprehensive learning system, is used to transform the relationships between students, teachers and technology. The option to create sections for individual students offers flexibility in differentiating instruction. Educators are encouraged to engage and assist adult learners in leveraging technology in the learning process:

- Invite learners to research information online as a part of a class or individual project
- Introduce a website that is topically relevant and ask learners to explore
- Share their discoveries with the rest of the class
- Complete online activities to reinforce specific concepts and skills

- Use collection of topically related or opposed websites to illustrate a point or spark a debate -- provide students with a list of websites (created by different individuals or entities) that address the similar issues
- Students write and speak about the bias, perspective, the varying quality of online information, etc.
- Introduce software and invite learners to experiment with it on their own -- ask them to report their discoveries to the rest of the class
- Invite software company representatives to present a software program to the class.
- □ncourage adult learners to work alone on a particular software program
- Support pair or group work-NovaNET programs
- Create peer-mentoring activities that draw on the strengths of the more technologically savvy learners
- Permit learners to explore different aspects of a single piece of software and ask them to share their findings with the rest of the class
- Enlist learners to review software or websites
- Use productivity software (Word-processing, spreadsheets and presentation applications) to support the collection of data, the display of data, report writing to track students achievement.

### **3.0 Goals and Objectives**

The Detroit Public Schools provides services and adult basic education, workplace literacy, family literacy and English language/civics education to adult students. These learning opportunities are comprised of:

- High School Completion: Instruction designed to fulfill the requirements for a high school diploma (GED).
- GED Test Preparation: Instruction in language arts, math, social studies, science, and writing, to enable successful completion of a GED test.
- Adult Literacy: Instruction in reading, English, language arts, math and civics for adults without a high-school diploma. The most basic literacy courses teach adults to read.
- English as a Second Language (ESL): Instruction in reading, speaking, writing, and understanding the English language.

### **4.0 Standards**

The Detroit Public Schools Office of Adult Education assessment policy requires that all adult education providers assess and place all ABE, GED, HSC and ESL adult education participants into an educational functioning level at intake (pre-test), and at the end of the instructional period (post-test) using the same DELEG approved assessment to determine educational gain as defined by the National Reporting System (NRS).

Detroit Adult Education programs are encouraged to supplement the test of record with a variety of formal and informal instruments and procedures to obtain a more complete image of the participant and therefore assist him/her in achieving his/her goals. These supplemental assessments may include, but are not limited to, learning style inventories, word analysis and meaning tests, learning disabilities' screening, and criterion-referenced tests. Instruction in adult basic skills and literacy is provided in order to:

- Create and be informed of the Adult Education Learning plan
- Demonstrate growth in meeting in the Learning Plan
- Identify the core indicators for performance
- Provide counseling to all adult learners
- Chart progress in meeting requirements of the achievement plan

### **5.0 Performance Indicator**

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The Reporting System for Adult Education has established educational functioning levels for adult education participants. The State of Michigan (DELEG) have approved assessments by learner Goal, assessment scores and Educational Functioning Levels, and Outcome Measures Definitions charts within the Assessments section of the Adult Education Guidebook. These assessments assist in guiding the adult learner to success on the GED or enhanced job skills. These indicators include:

- Increasing the basic reading, writing, speaking and numeracy/math skills necessary for adults to obtain employment and self-sufficiency and to successfully advance in the workforce
- Assisting adults in the completion of a secondary school education (or it's equivalent) and the transition to postsecondary education
- Increasing the basic skills of parents to enable them to support the educational development of their children and make informed choices regarding their children's education, and
- Improving basic English proficiency and literacy skills for those whose native language is not English

## **6.0 Implementation Action Steps**

- Perform comprehensive program to assess deployment of Educational Technology; Identify gaps and needs for educational technology
- Determine the total cost of ownership for AE curriculum using Educational Technology
- Develop and implement DPS leadership AE Educational Technology engagement strategy, plan and toolkit
  - Seek to secure active, visible champions for AE Educational Technology at the board and cabinet levels to help
  - Seek to increase the level of board, administration and school leadership engagement and involvement in implementation of
- Work collaboratively with
  - Adult Education Units leaders and staff (i.e. Day, Evening, Community based program meetings) to continuously improve
    - Student and teachers awareness of technological literacy and Education Technology standards
    - Procedures (i.e. operational, academic, assessment) that impact delivery of AE Educational Technology
  - The Division of Curriculum and Instruction, the Office Professional Development, the Department of Information and Technology Services and the Office of Research, Assessment and Evaluation
    - Identify best practices for integrating technology in the delivery of AE curriculum
    - Increase distance learning opportunities available to adult learners
    - Transfer best practices from research to classroom practice
  - Colleagues and agencies to organize programs with colleges, universities, community groups to support achievement and job training of adult learners
    - ACCESS—United Way Southeast Michigan Program
    - Wayne State University
    - FAFSA/PELL grants
    - Detroit Voter Registration
    - Detroit Workforce Development Department, Michigan Works! Agency
    - Wayne County Community College District
    - Marygrove College
  - The Office of Research, Evaluation and Assessment
    - To monitor the community based programs through on-site visits to ensure that the climate is conducive to teaching and learning
    - To assess and evaluate the effectiveness of integration of technology in AE curriculum and delivery of instruction



- 
- Establish partnerships with the DPS Career Technical Centers, service centers and local businesses to link education and career training specific to partnership needs

**7.0 List of Appendices**

None

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## 8B. Detroit Allied Health Middle College

### Initiative Project Manager

DPS Associate Superintendent of Curriculum

### Initiative Partner(s)

Detroit Medical Center (DMC)  
Wayne County Community College District (WCCCD)

### Initiative Description

The Detroit Allied Health Middle College High School is designed prepare students to meet expanding employment opportunities in the health care field. The middle college experience helps to increase student achievement by engaging high school students in a college setting.

The course of study allows students to graduate at the end of their 13<sup>th</sup> year of schooling. DPS' high school requirements and WCCCD' degree requirements were integrated into a five year academic plan.

- 10<sup>th</sup> grade
  - Introduction to Allied Health Careers
  - Career Professional Development (CPD)
  - Required high school courses
- 11<sup>th</sup> grade
  - Introduction to Allied Health Careers
  - Career Professional Development (CPD)
  - Introduction to Psychology
  - Introduction to Sociology
  - Elementary Spanish
  - Introduction to Political Science
  - Public Speaking

### Implementation Timeline:

- 2007-2008 Planning
- 2009-2012 Implementation
  - High School Middle College Model on WCCCD Campus
  - High School Middle College Model on DPS HS Campus's

Project Sites: Kettering High School (DPS); WCCCD Campus (X projected)

Outcome Goals: At the end of the 13<sup>th</sup> year students will:

- Have a marketable skill in a health occupation
- Earn a high school diploma and an associate degree
- Earn a certificate of completion (Pharmacy Tech, Phlebotomy, Dental Lab Tech)
- Be eligible for admission in Program of Focus (i.e. Nursing, Surgical Tech, etc.)

### Targeted Population

8 <sup>th</sup> grade	Select	Career exploration; online; introductory health experiences
9 <sup>th</sup> grade		only
10 <sup>th</sup> grade	100	Kettering High School
10 <sup>th</sup> grade	50	Citywide applicants

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Application Contacts: Kettering High School (DPS); WCCCD, DMC

Program Evaluation Western Michigan's *SAMPI Center of School Reform*

### **Funding Source**

Michigan Department of Education planning and implementation grants

### **Technology currently utilized**

Technology is used in the teaching and learning experiences of the eleven career fields of the Allied Health Pathways

- Surgical Technology
- Technician Apprenticeship
- Staff Nurse
- Pre-Physician Assistant
- Respiratory Therapy Tech
- Occupational Therapy Assistant
- Pharmacy Tech
- Phlebotomist
- Dental Lab Tech
- Dental Assistant
- Dental Hygienist

### **Technology integration opportunities**

- Standardization on Educational Technology for classrooms and labs
  - Student and teacher workstations with Internet access
  - Digital projector and screen
  - TV/DVD/VCR Combo
  - Interactive Whiteboard
- Standardization of classroom design specifications to ensure technology rich learning environments (includes network connections and infrastructure)

### **Implementation Action Steps**

- Curriculum and Instruction will work collaboratively with
  - Department of State and Federal Programs to develop and implement a fund development plan to acquire new funding sources
  - Detroit Federation of Teachers (DFT) to define teacher role and responsibilities as peer coaches
  - WCCCD to define space utilization needs and class size to meet middle college mandates; also work to standardize the learning environments
  - Facilities Services and Department of Information and Technology Services to identify potential middle college sites on DPS high school campus'

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## **8C. Geographic Information Systems Program**

### **Initiative Project Manager(s)**

Division of Curriculum and Instruction  
Office of Career and Technical Education

### **Initiative Partner(s)**

Office of Career and Technical Education

Eastern Michigan University

City of Detroit, Homeland Security and Emergency Response Management

### **Initiative Schools**

- Breithaupt CTC
- Randolph CTC
- Cody HS

### **Initiative Description**

The Detroit iTEST Youth Project (DiTYP) offers a collaboration of resources, support, and opportunities for strengthening science, technology, engineering, and mathematics education. The information technology field is expanding at an exponential rate, and there is no better time for youth to be part of it. Career opportunities are virtually unlimited.

All students will have the opportunity to receive about 250 hours of IT and geographic information system and technology (GIS/T) training during a two-year period.

The 50 student technicians will also receive a 120 hours paid summer internship in a Detroit City Department, Detroit Public School Department or contractor. The focus will be to work on a real-world project, through which they practice the acquired Geographic Information Systems skill set.

### **Technology Currently Used**

- GIS Software
- ARCGIS
  - ARCVIEW
  - ARCMAP
  - ARC CATALOG
- MS Office
  - Powerpoint
  - Access
  - Publisher
  - Excel
  - Word

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## **Technology Integration Opportunities**

Geographic inquiry and geographic information systems (GIS) are important in assisting educators, students, and their institutions to answer personal and community questions with local to global implications. Students in this program will use a variety of technologies to investigate a problem affecting their community.

GIS in school administration improves planning and decision making in areas including demographic mapping, student transportation, school safety, and community information access.

GIS professionals use GIS to visualize, analyze, and model systems to help in the planning and decision-making processes of their organizations. They make geographic information accessible to scientists, planners, decision makers, and the public.

This project will allow students to interface with a wide array of community groups, Eastern Michigan Univ. staff and all levels of city government.

### **Implementation Action Steps**

- Students will complete online training modules on ESRI.com.
- EMU will provide training and support for students and staff
- Students will continue to interface on the Detroit ITEST Forum. This is an online community where students may ask questions, post comments and download data files necessary to complete the final CAPSTONE PROJECT.
- Partnership agreement must be signed by all parties and filed
- Staff will evaluate program progress and develop a plan to expand program to allow for greater student participation.
- Identify, evaluate, and acquire software for video conferencing and video streaming.
- Expand work based learning opportunities for students within City of Detroit Depts, Wayne County Agencies and business partners.
- Involve IT dept to ensure technical requirements for software and hardware are adequate to successfully implement and meet program objectives

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## 8E. City of Detroit Public Library LMC Collaborative

### Initiative Project Manager

Division of Leadership and Educational Accountability, Office of Literacy

### Initiative Partner(s)

City of Detroit Public Library

Dell Incorporated

### Initiative Description

Detroit Public Schools Office of Literacy in partnership with The City of Detroit Public Library and Renaissance Learning, implement an Accelerated Reader Summer Program called "Super Read". To date, eleven (11) neighborhood library branches have been equipped with two computers and a printer serving as student quiz stations. DPS students read books then have the opportunity to access over 60,000 quizzes.

The goal for the 2012-2015 planning period is to increase the number of locations annually until all 22 library branch locations are equipped. Each year sites will be selected based on creating the highest level of accessibility to the largest number of students, at highly trafficked locations near DPS schools. An innovative approach must be developed to both budget and fund development to achieve this goal.

### Technology currently utilized

- Desktop computers
- Printers
- Testing software

### Technology integration opportunities

- Update under development

### Implementation Action Steps

- Develop innovative approach to budget and fund development
- Develop campaign to increase number of business partners
- Fund full system:
  - Computer and printer workstation (hardware only) \$ 1,800
  - One (1) Workstation for eleven branches \$20,000
- Software licenses
  - Single student license \$ 18
  - 2009-2012 70,000 students \$1,260,000
  - 2009-2010 10,000 students \$ 180,000
  - 2010-2011 20,000 students \$ 360,000
  - 2011-2012 40,000 students \$ 320,000

- 
- Develop communication plan to inform DPS learning community about the impact on student
  - Analyze and streamline the business partnership process, reducing the time required to complete the process
    - Current process is time consuming and cumbersome and partners get discouraged electing to opt-out before completing the process

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## **8F. Piston Partner's LMC Collaborative**

### **Initiative Project Manager**

Division of Leadership and Educational Accountability, Office of Literacy

### **Initiative Partner(s)**

Piston Partner's: Rasheed Wallace Foundation, Richard Hamilton Foundation, The Pistons National Basketball Association

### **Initiative Description**

The Office of Literacy in partnership with the National Basketball Association, The Detroit Pistons (organization), and Detroit Piston's Rasheed Wallace and Richard Hamilton remodeled two (2) DPS library media centers.

The goal is to remodel as many library media centers during each year of the 2012-2015 planning period as funding will allow. Renovations include physical plant updates, furnishings, books and learning materials, career development resources, computing equipment, etc.

The District will seek additional funding to support the remodeling efforts through the "Improving literacy through school library grants" to increase the number of centers remodeled annually. Ten centers were previously remodeled when grant funding was awarded.

To provide students, parents and teachers greater access to these technology rich resources, the District will evaluate the possibility of modifying its community use process to incorporate a provision for dual use of the Library Media Centers by neighboring schools in the same constellation. Under this dual use provision, the centers would be open at designated times and the cost for after hours service would be shared equally by all schools in the constellation.

### **Technology currently utilized**

- Desktop and laptop computers delivered with Microsoft Office installed
- Leapfrog equipment
- Software

### **Technology integration opportunities**

- Establish workstations equipped specifically for parent/guardian access to student information and communication with DPS staff

### **Implementation Action Steps**

- Develop campaign to increase number of Pistons participating in the partnerships to impact number of new libraries remodeled annually
- Develop communication plan to inform DPS learning community about the impact on student achievement the Pistons Partners are having
- Work collaborative with Assistant Superintendents, school administrators, and the Office of Community Use to analyze community use process to evaluate addition of dual use of LMC by neighboring schools in the same constellation, allowing LMC to be open at designated times after school. Also evaluate a constellation community use fee cost sharing model.



- 
- Analyze and streamline the business partnership process, reducing the time required to complete the process
    - Current process is time consuming and cumbersome and partners get discouraged electing to opt-out before completing the process



# II Professional Development

Strategies for providing ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel to ensure that staff know how to use the new technologies to improve education or library services

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## II. PROFESSIONAL DEVELOPMENT

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## Section 9. Strategy

### Section 9. Strategy

#### 1.0 Introduction

The focus of professional development in Detroit Public Schools (DPS) is to design and implement staff development activities which support the mission and goals of the school system. The successful implementation of these integrated components necessitates a process of continuous development for teachers, administrators, parents and every staff person in DPS. Everyone in the DPS learning community must view student achievement and professional development as two interconnected processes with the goal of creating an environment where learning for students, staff and the community is viewed as a lifelong process.

#### 2.0 Strategy

##### PROFESSIONAL DEVELOPMENT DELIVERY SYSTEM

Detroit Public Schools uses a distributed system for delivering professional development. The Office of Professional Development and the Office of Financial Training and Technical Support deliver courses to a district-wide audience in two designated training facilities. Other offices, such as those listed below, deliver courses to departmental or job specific audiences using a variety of facilities (based on availability and suitability):

- Division of Information and Technology Systems
- Office of Budget
- Division of Curriculum
- Office of Development
- Office of Educational Technology
- Office of Federal, State, and Local Grants Development and Compliance
- Office of Food Service
- Office of Facilities Service
- Office of Research, Evaluation and Assessment
- Office of School Support and Intervention

Who	How	What
<b>Office of Professional Development</b>	Centralized	District-wide initiatives and programs <ul style="list-style-type: none"> <li>• Leadership Academy for Administrators and Aspiring Administrators</li> <li>• Teacher Development Programs</li> <li>• Support Staff Development Programs</li> <li>• Technology Integration Training</li> </ul>
<b>Office of Financial Training and Technical Support</b>	Centralized	Computer basics  District-wide applications <ul style="list-style-type: none"> <li>• PeopleSoft Enterprise Resource Planning modules</li> <li>• Cognos</li> </ul>
<b>Various Offices</b>	Decentralized	Training to maintain or increase the job specific skill level of departmental staff  Example: Curriculum – Professional Development Days <ul style="list-style-type: none"> <li>• Content area specific training</li> </ul>

Who	How	What

During this planning period, the Office of Professional Development will work collaboratively with Administrators to develop department and school specific professional development plans. Plans will be customized based on the Educational Technology gaps of leaders and staff, as well as based on competencies needed to effectively implement present or future technology initiatives.

- Customize plans based on the Educational Technology competency gaps of staff; also individualize plan based on support required for current initiatives
- Increase rigor of teacher and school administrator technological literacy development
- Develop strategies and processes for transferring learning to work and school environments
- Develop strategies and accountability processes to increase attendance
  - Define role and responsibilities of Administrators, Assistant Superintendents and School Administrators
  - Define support role and responsibilities of the Office of Profession Development

The Office of Professional Development will also work collaboratively with ET stakeholders to identify ways to streamline the following administrative processes to increase both the effectiveness and efficiency in delivering ET related courses, particularly those that require technology rich environments:

- Developing a process to coordinate delivery of ET professional development
  - Roles/Responsibilities and Scope of Authority
  - Decision-making process
  - Problem solving process
- Developing annual Technology Enhanced professional development plans and budgets
  - Needs and Curriculum
    - District-wide
    - Office or Department specific
    - Job or role specific
  - Developing external partnerships
- Identifying and configuring training facilities for ET course delivery
  - Classrooms
  - Meeting rooms
  - Labs and Resource Centers
- Selecting and scheduling course facilitators
  - DPS
  - Vendor
  - Consultants
- Selecting and scheduling training facilities
- Registering course participants
- Generating attendance reports
- Identifying alternative delivery methods
  - On-demand
  - Instructor-led
  - Train-the-trainer
  - On-line
- Processing community use requests

During this planning period, the Office of Professional Development will also restructure organizationally to support delivery of integrated field support to schools by Professional Development/IT Liaisons and Program Associates.

ROLE	RESPONSIBILITIES
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ROLE	RESPONSIBILITIES
PD/IT Liaison	<ul style="list-style-type: none"> <li>• Assessment of ET Inventory and Infrastructure</li> <li>• Assessment of staff proficiency and utilization rate of Educational Technology</li> <li>• Identification of instructional needs that could be met with application of Educational Technology</li> <li>• Identification of instructional strategies</li> <li>• Work collaboratively with IT, OREAA and Schools leadership to identify potential Educational Technology products and services to meet needs</li> <li>• Support implementation of approved instructional strategies for integration of Educational Technology in curriculum delivery</li> <li>• Review software and hardware, update, and maintain an approved list of software and hardware essential to integrating technology into the curriculum</li> <li>• Provide ongoing professional development to support implementation of approved Educational Technology products and services</li> </ul>
PD Program Associate	<ul style="list-style-type: none"> <li>• Facilitate training to instructional and non-instructional staff on the use of technology applications, software, and hardware to facilitate technology integration into curriculum programs</li> <li>• Assessment of Educational Technology Inventory and Infrastructure and make recommendations for necessary upgrades and purchases</li> <li>• Assessment of staff proficiency and utilization rate of Educational Technology</li> <li>• Identification of instructional needs that could be met with application of Educational Technology</li> <li>• Support implementation of approved instructional strategies for integration of Educational Technology in curriculum delivery</li> <li>• Provide on-going professional development to support implementation of approved Educational Technology products and services</li> <li>• Evaluate professional development offerings for effectiveness and maintain reports on the number of participants that have engaged in the training</li> <li>• Design online opportunities for participants to engage in professional development offerings</li> </ul>

## PROFESSIONAL DEVELOPMENT COURSES

The DPS Professional Development utilizes key research to guide the selection and development of courses that add value to teaching and learning. Course offering includes a wide range of technology training such as technology awareness training, training for end users, and focused technology integration training. Training on the use of various software and operational systems in the district is available to all employees. Specific training and the upgrading of skills in programs necessary to the daily operations of the school system are provided on an ongoing basis. More than 100 courses are offering including new courses that enhance the study of technology integration in the classroom, as well as courses for teaching and managing online courses. The integration of technology through the delivery of instructional strategies is in most cases subject specific.

District-wide Courses	Job/Role Specific Courses	Instruction-Focused Courses
Microsoft Suite 2007 Grant Compliance Use of Smart Boards Online Courses	PeopleSoft Access Excel Active Directory Local Area Network Administration	Open Court School Improvement ACT preparation Reading First Accelerated Math Accelerated Reader Carnegie Math My Access Vantage

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Employees voluntarily enroll in technology courses geared to their skill level. Diagnostic tests, modules that measure proficiency, multiple offerings during work hours, online tutorials and individual tutoring are instituted tools and processes used to assist employees in understanding their skills levels. This approach to participating in professional development activities fosters self-motivation for improvement.

### **COURSE EVALUATION AND REVISION**

Constant evaluation and revision of course offerings is essential to improvement in instructional and operational practices. Course offerings and workshops are continually evaluated and prioritized based on the identified instructional and non-instructional needs of the District. New and current offerings are evaluated based on formal and informal needs assessments completed by numerous stakeholders.

Revision of existing courses is generally correlated to the implementation of new instructional or administrative technology initiatives. The introduction of new software, technology tools, instructional practices, systems for retrieving, storing and analyzing data, and consideration of economic, as well as social trends dictate needed changes in delivery, format and selection of information.

Through collaboration with the Office of Research, Evaluation, Assessment and Accountability, the course evaluation and revision process will be enhanced to incorporate action research. This process change will enhance the ability to determine the extent to which professional development courses are contributing to improvements in teaching and increases in student achievement and performance.

### **3.0 Goals and Objectives**

The goal of the Office of Professional Development is to have all instructional and non-instructional staff meet District, state and national established standards for technology-related knowledge and skills.

The primary objective is to improve instructional and non-instructional staff knowledge and skills to integrate technology into instructional and organizational operations. Supporting objectives are to:

- Establish technology standards for all instructional and non-instructional staff
- Ensure one instructional technology support person will be available for every school to support integration of technology in teaching and learning
- Expand online course opportunities for staff and students
- Increase the coordination of departmental inservices and job specific training i.e., bus drivers, security personnel.
- Develop a professional development library housing teacher-made videotapes, examples of successful improvement models, training videos for specific departments.
- Build a technology competency model for all District employees
- Expand training delivery models i.e., video/teleconferencing, webcast

Progress to date:

- Courses and workshops are provided to all employees in operational systems: PeopleSoft, Microsoft Suite, Access, Excel
- Instructional staff i.e., school administrators, teachers, paraprofessionals, Substitutes have multiple opportunities to participate in workshops and conferences which provide strategies for integrating various technologies into the curriculum
- Development of diagnostic tools to assess technology skills for specific work groups
- Non-instructional staff must demonstrate appropriate levels of technology expertise in their work locations
- Microsoft Office Suite being updated from 2003 to 2007 district wide; central office staff trainings completed

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- Use of on-line professional development courses and workshops for clerical staff
  - Procedures developed to inventory worksite technology
  - Active partnerships with colleges and universities
  - Extensive use of train-the-trainer, teacher-to-teacher, facilitator models of delivery
  - Professional development/IT liaison position approved (but not filled)

#### **4.0 Standards**

- NETS Administrators
- NETS Teachers
- NETS Facilitators
- NETS Leaders

#### **5.0 Performance Indicators**

- Student achievement will show increase in all areas of measurement
- Employee productivity will show 80% increase
- An accessible database showing all employee participation in training activities, programs
- Online Profile Tool to measure staff technological literacy identified and use implemented
- Professional Development Models implemented and evaluated as effective
- Current technology fully utilized 95% districtwide
- Operational course offerings and communities—30% use in professional development
- Evaluation criteria and standards-based tool used in observations to evaluate technology competencies related to specific standards developed, piloted and implemented 95%
- Instructional Technology support course survey results of 95% or above
- Effective implementation of technology tools in delivery of instruction survey results of 95% or above

#### **6.0 Implementation Action Steps**

- Work collaboratively with Administrators of departments and schools to develop professional development plans
  - Customize plans based on the Educational Technology competency gaps of staff; also individualize plan based on support required for current initiatives
  - Increase rigor of teacher and school administrator technological literacy development
  - Develop strategies and accountability processes to increase attendance
    - Define role and responsibilities of Assistant Superintendents and School Administrators
    - Define support role and responsibilities of the Office of Profession Development
  - Develop strategies and processes for transferring learning to work and school environments
- Develop field support processes provided to schools by Program Associates and Professional Development/IT Liaisons
  - Assessment of ET inventory and infrastructure
  - Measurement of instructional and non-instructional staff proficiency
  - Measurement of ET utilization rate
  - Reinforcement and transfer of learning to work and school environments
- Work collaboratively with Curriculum and Instruction, and the Office of Research, Evaluation, Assessment and Accountability to:
  - Develop a system for collecting and analyzing data to measure the progress of employees in mastering established standards
  - Incorporate action and best practices research in the course evaluation and revision process
  - Develop an online Profile Tool to measure staff technology literacy



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- Research models of effective and successful professional development programs and field support (by liaisons and program associates)
    - Support in classroom during instruction
    - Skills practice integrated in actual work environment pre- and post- course delivery
  - Develop evaluation criteria and standards-based tools that can be used in observations to evaluate technology competencies related to specific standards
  - Evaluate the effectiveness of instructional technology support and professional development
  - Share models of effective implementation of technology tools in the delivery of instruction
  - Develop high quality professional hybrid and online courses and e-communities to support technology infusion
  - Seek funding and other strategic partnerships to provide opportunities for updating technology applications and revising professional development courses

## Section 10. Support Resources

### Section 10. Support Resources

#### 1.0 Introduction

A vast array of resources exists, both internally within Detroit Public Schools and external to the District, to support implementation of Educational Technology. While resources are helpful when used on an individual level to advance work efforts, they provide opportunities for significant leaps in progress when they are strategically integrated and used by an entire organization. This section of the plan describes the support resources currently available within DPS, as well as a sampling of the external resources used today to support the implementation of Educational Technology.

#### 2.0 Strategy

The strategy for providing services, software, electronic delivered learning materials and printed materials to ensure successful and effective uses of technology is achieved by integrating internal and external resources into a comprehensive “Support Resources Network”.

### DPS Resources

**Internal resources have been organized and classified in four categories:**

- Implementation & Institutionalization support
- Resource Centers
- Student Achievement Resources
- Parental Involvement Resources

#### IMPLEMENTATION & INSTITUTIONALIZATION RESOURCES

<b>Leadership Resources</b>	<p>Defining the strategic direction of Educational Technology and championing innovation and implementation is a critical role of DPS leadership</p> <p><b>Roles providing leadership include (but not limited to):</b></p> <ul style="list-style-type: none"> <li>• Superintendent</li> <li>• Deputy Superintendent</li> <li>• Assistant Superintendents for School Leadership</li> <li>• Curriculum and Instruction Executive Directors</li> <li>• Curriculum and Instruction Content Directors</li> <li>• Chief Information Officer</li> <li>• Research, Evaluation, Assessment and Accountability Executive Director</li> <li>• Research, Evaluation, Assessment and Accountability Program Supervisor</li> </ul>
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**IMPLEMENTATION & INSTITUTIONALIZATION RESOURCES**

	<ul style="list-style-type: none"> <li>• Technology Resource Center/D-DLC Program Director</li> </ul>
<p><b>Technical Assistance Support Network</b></p>	<p>Staff is strategically deployed throughout DPS, creating a technical assistance support network to facilitate implementation and institutionalization of Educational Technology. Actions will occur continually and annually through the duration of the planning period to increase staffing levels</p> <p><b>Roles include:</b></p> <ul style="list-style-type: none"> <li>• Data Specialist (1 per school)(1 per “strategic” work location/approval and self funding required)</li> <li>• Test Coordinators (1 per school)             <ul style="list-style-type: none"> <li>• Professional Development Instructional Specialists</li> </ul> </li> <li>• District Level Curriculum Instructional Specialists</li> <li>• Library Media Specialists (1 per school, if position funded)</li> <li>• Technology Resource Center (Northwestern High School) staff (2)</li> <li>• ATTIC staff (teachers, Therapists, Teacher/Consultant, etc.) See detailed description of services in Resource Centers section below</li> </ul>
<p><b>Curriculum Development – Educational Technology Field Support Services</b></p>	<p><b>Staffing &amp; staff credentials</b></p> <p><b>Professional development services</b></p> <ul style="list-style-type: none"> <li>• Delivery of needs-based professional development courses on a monthly basis or on-site, just-in-time</li> <li>• Topics include (but not limited to):             <ul style="list-style-type: none"> <li>• Basic computer literacy (Audience: School-based staff)</li> <li>• Assessment development and administration (Audience: Test Coordinators)</li> </ul> </li> <li>• Support workshop delivery by developing lesson plans demonstrating technology integration; also develop presentation materials</li> <li>• Setup hardware and software</li> </ul> <p><b>Technical support services</b></p> <ul style="list-style-type: none"> <li>• Install hardware and software</li> </ul> <p><b>Assessment services</b></p> <ul style="list-style-type: none"> <li>• Collaborate with the Office of Research, Evaluation and Assessment to develop assessment strategies</li> <li>• Support administration of 8<sup>th</sup> grade technological literacy assessment</li> </ul> <p><b>Educational program implementation, support and monitoring services</b></p> <ul style="list-style-type: none"> <li>• Provide technical support and professional development for district-wide implementations</li> <li>• Identify and resolve issues impacting implementations</li> <li>• Support integration of technology into curriculum delivery</li> <li>• Programs supported include (but not limited to):             <ul style="list-style-type: none"> <li>• Accelerated math</li> <li>• DIBELS</li> <li>• BURST: Reading Intervention</li> <li>• Text Reading Comprehension (TRC)</li> <li>• Carnegie math</li> </ul> </li> </ul>

**IMPLEMENTATION & INSTITUTIONALIZATION RESOURCES**

	<ul style="list-style-type: none"> <li>• Renaissance Learning</li> <li>• Electronic Pen Pal</li> <li>• METS assessment</li> <li>• Data Director</li> <li>• Learning Village Curriculum Portal</li> </ul> <p><b>Curriculum development services</b>            Modify and Update Middle School (6-8) Technology Curriculum – goal oriented, performance-based process, task competencies, lesson plans</p> <p><b>Instructional software evaluation and implementation services</b></p> <ul style="list-style-type: none"> <li>• Represent all content areas on software evaluation sub-committee</li> <li>• Review and approve software for curriculum use</li> <li>• Advise schools on federal and state funding sources available for software acquisition (i.e. Title I and Title I-like grants)</li> <li>• Support district-wide software implementations</li> </ul> <p><b>Student support services</b></p> <ul style="list-style-type: none"> <li>• Netbooks for Students</li> <li>• NEO2 Carts for Renaissance Learning</li> <li>• Tablets for Enrichment and Curriculum Intervention Programs</li> </ul> <p><b>Educator evaluation services</b></p> <ul style="list-style-type: none"> <li>• Evaluate utilization of technology by teachers in curriculum delivery – how technology is implemented “from the wall to the curriculum”</li> <li>• METS standards are embedded in the two evaluation tools:               <ul style="list-style-type: none"> <li>• Employee Performance Appraisal</li> <li>• DPS Teacher Evaluation Tool</li> </ul> </li> </ul> <p><b>Inventory management services</b></p> <ul style="list-style-type: none"> <li>• Track and document distribution of Educational Technology (i.e. hardware, software, peripherals, supplemental materials)</li> </ul>
<b>Network Services</b>	Perform assessment of facility to support proposed Educational Technology infrastructure and hardware; Communicate Requirements; Make recommendations <ul style="list-style-type: none"> <li>• Capacity of voice and data infrastructure, hardware, software, services, technical support, inoperability, etc.</li> </ul>
<b>Facilities Services</b>	Perform assessment of facility to support proposed Educational Technology infrastructure and hardware; Communicate Requirements; Make recommendations <ul style="list-style-type: none"> <li>• Capacity of electrical power supply and distribution</li> <li>• Security capacity of doors, windows, walls, storage rooms, landscaping, interior/exterior lighting, etc. (See section 11.17 Asset protection for strategy details)</li> </ul>
<b>Asset Protection and Recovery</b>	The Office of Risk Management, Federal and State Programs , Accounting, and Information and Technology Systems support management of ET inventory. (See section 11.17 and section 11.19 for strategy details)  The Office of Public Safety along with the Deptment of Information and Technology

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## IMPLEMENTATION & INSTITUTIONALIZATION RESOURCES


	<p>Systems performs security assessments and makes recommendations on how to use security systems and devices to protect and secure Educational Technology (See section 11.18 for strategy details)</p>
<p><b>Professional Development Liaisons</b></p>	<p>Liaisons support administrators in planning and managing integrated delivery of ET professional development</p> <ul style="list-style-type: none"> <li>• Assessment of ET Inventory and Infrastructure</li> <li>• Assessment of staff proficiency and utilization rate of Educational Technology</li> <li>• Identification of instructional needs that could be met with application of Educational Technology</li> <li>• Identification of instructional strategies</li> <li>• Work collaboratively with IT, OREAA and Schools leadership to identify potential Educational Technology products and services to meet needs               <ul style="list-style-type: none"> <li>○ Provide technical assistance in developing and presenting business case for approval</li> </ul> </li> <li>• Support implementation of approved instructional strategies for integration of Educational Technology in curriculum delivery</li> <li>• Provide in-field professional development to support implementation of approved Educational Technology products and services</li> </ul> <p>(See section 9 for strategy and services)</p>
<p><b>Professional Development Program Associate</b></p>	<ul style="list-style-type: none"> <li>• Assessment of ET Inventory and Infrastructure</li> <li>• Assessment of staff proficiency and utilization rate of Educational Technology</li> <li>• Identification of instructional needs that could be met with application of Educational Technology</li> <li>• Support implementation of approved instructional strategies for integration of Educational Technology in curriculum delivery</li> <li>• Provide in-field professional development to support implementation of approved Educational Technology products and services</li> </ul> <p>(See section 9 for strategy and services)</p>

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## RESOURCE CENTERS

<p><b>Detroit Mathematics and Science Center</b></p>	<p><b>An authorized Michigan Mathematics and Science Center</b></p> <ul style="list-style-type: none"> <li>• Provides resources to enhance math and science teaching and learning, helping schools implement the Michigan Curriculum Framework, Education YES! And No Child Left Behind Act of 2002</li> <li>• Offers programs for students in grades K-12 including summer camp experiences, workshops, field studies, field trips, etc.</li> <li>• Provides professional development for teachers</li> <li>• Serves as a resource clearinghouse of equipment, classroom activities, literature, etc.</li> <li>• Provides leadership on key issues related to science and math education and educational technology</li> </ul>
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**RESOURCE CENTERS**

	<ul style="list-style-type: none"> <li>• Collaborates with the Division of Curriculum and Instruction and the Office of Research Evaluation, Assessment and Accountability in administering the 8<sup>th</sup> grade NCLB literacy survey and the assessment process</li> <li>•</li> </ul>
<p><b>Assistive Technology Training and Information Center (ATTIC)</b></p> <p><b>Office of Specialized Student Services</b></p> 	<p>Detroit Public Schools is committed to the needs of special students</p> <p>From adapted pencils to sophisticated microprocessors, technology is used to facilitate the achievement of educational goals</p> <p><b>ATTIC Mission Statement</b></p> <p>We believe that each child is an individual and learns in unique ways</p> <p>We will ensure opportunities to maximize learning for all special needs students by providing access to their educational environment, through the implementation of assistive technology</p> <p>We believe that by acting as technological support to the educational process, we will assist special needs students to become productive participants in a global society</p> <p><b>ATTIC Goal</b></p> <p>Increase, maintain, or improve the functional capabilities of all children with disabilities</p> <p><b>ATTIC is:</b></p> <ul style="list-style-type: none"> <li>• Detroit Public School's Assistive Technology Training &amp; Information Center</li> <li>• The best resource for teachers of struggling students</li> <li>• Mandated by Individuals with Disabilities Education Improvement Act (IDEIA) to help special needs students meet their goals and objectives</li> <li>• A free service, offered to teachers and parents of special needs students in eastern Wayne County including Detroit, Grosse Pointe, Hamtramck, Harper Woods, and Highland Park</li> </ul> <p><b>ATTIC has:</b></p> <ul style="list-style-type: none"> <li>• Helped hundreds of students each year by offering assistive technology solutions to overcome learning issues and access the learning environment</li> <li>• A proven record of helping students overcome disabilities and increase scores on testing; specialize in learning disabilities, autistic impaired, low vision/blind, cognitive and physical impairments, hearing impaired and communication needs</li> <li>• All the latest tools in the field of assistive technology with thousands of pieces of free equipment for loan to help students learn; Technical Assistance Lab includes devices and software</li> <li>• Strategies, accommodations and modifications that will assist students in inclusive settings to maintain their place in the general education population</li> <li>• Knowledgeable staff that goes to schools and makes recommendations for students</li> </ul> <p><b>ATTIC will:</b></p> <ul style="list-style-type: none"> <li>• Provide assistance in integration of technology within the curriculum</li> </ul>

**RESOURCE CENTERS**

- Provide devices and services to help special needs students academically
- Provide, on loan, free classroom kits that contain a wealth of tools and software to address math and language arts needs
- Provide in-services and training to teaching staff on strategies to meet the needs of all students by responding to their individual differences; Workshops offered, include (but not limited to):
  - Introduction to Assistive Technology for Principles, APs and Curriculum Leaders
  - Teachers as Leaders: Introduction to Assistive Technology
  - Assistive Technology (AT) Awareness, Parts I & II
  - Assistive Technology for Students with Autism
  - Assistive Technology for handwriting difficulties
  - Simple Machines to Teach Mathematics
  - Math Made Simple
  - Using Software to Teach Written Expression
  - Neo by AlphaSmart
  - Universal Design for Learning
  - Extreme Makeover: Classroom Edition
- Provide latest technology and material to “try before you buy”
- Provide teachers with State Board Continuing Education Units (SB-CEUs), necessary to maintain certification, as a part of the in-service package

**ATTIC staffing**

- AT Coordinator
- OT/AT Coordinator
- AT Specialist
- Speech Pathologist/AT Coordinator
- Administrative Assistant

**Library Media Centers**

The Library Media Unit of the Office of Reading and Literacy is responsible for providing leadership and services to enable the library media centers to serve as the technology hub for the instructional program of a school

As the center of the school’s learning environment, the library media center’s function is to select, gather, organize, coordinate and disseminate information resources, and assist in motivating students and teachers in the effective use of these resources

Three factors are significantly impacting the viability of LMC’s:

1. Allocation of teacher service to schools is insufficient in most cases to support the assignment of a teacher, as a librarian or solely to the LMC
2. Assignment of resources to the LMC competes with assignments to perceived mandatory core programs, often resulting in disparities in the levels of service from LMC to LMC
3. National shortage of library media specialists

**Strategic Plan**

A strategic plan will be developed to articulate a managed approach to rebuilding the LMC network. The governing objective is to give every DPS educator and student equitable and sustained access to resources necessary to transform learning and learning through educational technology. The sequence of priority is based on starting at the student and moving implementation into the learning community in

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## RESOURCE CENTERS

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stages if necessary to achieve the objective.

### Priorities

1. Update LMC's in every school; Schools serving K-8 students having 1<sup>st</sup> priority, followed by high schools
2. Form LMC Clusters by selecting and updating the LMC's in schools strategically located within each constellation that offer the greatest accessibility to students in the constellation; teachers, students, parents from neighboring schools would be granted access through "community use passes" usable during non-instruction hours, in communities where no Detroit Public Library branch is in close proximity; Community use expenses would be "shared" by the schools in the LMC cluster
3. Support the expansion of the Accelerated Reader program through the LMC Collaborative by allocating financial resources to pay for student licenses and for program coordinator salaries
4. Pursue collaborative relationships and innovative fund development with members of the DPS learning community to facilitate a strategic resurgence of the capacity of support resources

### Goals

- To provide intellectual and physical access to information and ideas for a diverse population whose needs are changing rapidly
- To ensure equity and freedom of access to information and ideas, unimpeded by social, cultural, economic, geographic or technological constraints
- To promote the love of learning and convey the importance of using and evaluating information and ideas throughout life
- To provide, through media and technology, a representation of the world's ideas and literature in a diverse and vast collection of information resources
- To provide information resources and technologies that successfully meet individual student's needs
- To provide instruction and guidance in information gathering and processing skills
- To foster interest in lifelong reading
- To encourage effective use of information resources and services through continuous planning with teachers
- To participate in curriculum and technology development activities on local, state and national levels

### Equipment

- During this planning period, the configuration of LMCs will be standardized and updated/upgraded to include:
  - 35 Desktop computers
  - 5 Laptops
  - 2 Color printers; 2 Black/white printers
  - 1 Scanner
  - 2 Digital cameras
  - 2 Digital video cameras
  - 1 LCD projector
  - 1 Document reader/camera
  - 1 Interactive whiteboard
  - 2 HDTVs



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## RESOURCE CENTERS

- 2 DVD players
- 15 e-Book Readers
- All schools with 8<sup>th</sup> grade students received additional equipment to support implementation of the 8<sup>th</sup> grade technology literacy assessment
- To-date eight LMC's have been updated, two by Piston's Partners (See Section 8 for details on LMC Collaboratives) and six using US Department of Education grants

### **Staff roles/responsibilities**

- Detroit Library Media Specialists serve as coaches and consultants to staff, students and their school community on library technologies; they provide instruction and assistance in the use of instructional technology

### **Professional Development**

- In-service workshops are sponsored throughout the school year providing professional development opportunities for library media specialists

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## STUDENT ACHIEVEMENT RESOURCES

### **Assessment and Research**

The Office of Research, Evaluation, Assessment and Accountability (OREAA) is responsible for administering district-wide assessments and conducting research. Schools in the District are required to participate in several assessments each year as well as numerous research gathering projects. OREA's ultimate goal is to rapidly and accurately gather, process and disseminate information. One of it's latest projects was working in collaboration with the Division of Curriculum and Instruction to develop a customized assessment tool for the 8<sup>th</sup> grade NCLB literacy assessment.

During this planning period OREAA will work collaboratively with IT to upgrade its technology to enhance the delivery of service to schools in the following ways:

- On-line research surveys
  - On-line survey capabilities will include electronic distribution of surveys, on-line completion of surveys, electronic data collection and technology-enabled data processing.
  - OREAA will design and publish surveys via the intranet. Survey participants would be notified via email alerting them to delivery of the survey. The email would also contain a hyperlink and a key granting the participant access to a specific survey form. The key would allow completion of the survey to span several sessions and to ensure that the participant completes only one survey. Once a survey form is submitted its data will be immediately available for offline analysis or report design.
- On-line assessments
  - OREAA staff will have authorization to write assessment code and publish assessments on a test server. They will work with school staff and test coordinators to administer the assessments.
  - The first assessment to come on line will be the Pre-K and K assessments. Teachers will be able to use an on-line assessment form to assess their students. Individual student reports will be available immediately online, with

## STUDENT ACHIEVEMENT RESOURCES

	<p>summary reports available as a classroom is completed.</p> <ul style="list-style-type: none"> <li>• Larger district-wide assessments would be completed by using existing vendor software (i.e. TerraNova, MIP), with test administered in school-based computer labs.</li> <li>• On-line reporting of assessments and research reports             <ul style="list-style-type: none"> <li>• OREAA will design and deliver assessment results and survey reports on-line over a secured system that allows only the intended recipients access to report results.</li> </ul> </li> <li>• Video and Web-based professional development             <ul style="list-style-type: none"> <li>• Technology will be used to deliver professional development on performing assessments and conducting research. The system will serve to quickly educate specific school and district staff on the guidelines for each assessment and research project. The guidelines usually include how the assessment or research is to be done, the project timeline, due date, and submission criteria. Currently these guidelines are delivered in writing or in large in-service sessions. In service sessions are repeated numerous times to facilitate reaching all staff. Often staff is unable to attend.</li> <li>• Video technology will be used to pre-record the training content. The content will be available to staff via the DPS intranet "On-demand". Related written materials will be available via internet download</li> <li>• The productivity gain desired is reaching all appropriate personnel with the information needed in a manner that fits their work schedule. Those who cannot attend classroom sessions, will have immediate alternatives for keeping pace with the work at hand using technology</li> </ul> </li> </ul> <p>(See Section 15 for detailed description of monitoring and evaluation capabilities)</p>
<b>Web Services</b>	<p>Capabilities and capacity exist to develop a number of curriculum based websites</p> <ul style="list-style-type: none"> <li>• Teacher and student web-sites to use to navigate through grade level expectations and standards required to meet the requirements of NCLB legislation</li> <li>• A web site to deliver information, movies and form virtual and physical realities</li> <li>• Parent's web-site to help develop and sustain connections between home and school</li> </ul> <p>(See Section 11.6 for detailed description of services and capabilities)</p>
<b>Data Warehouse</b>	<p>Staff of the Department of Information and Technology Systems support Curriculum and Instruction with the capacity to make data-driven decisions via the Data Warehouse</p> <p>(See Section 11.4 for detailed description of services and capabilities)</p>
<b>Decision Support Systems</b>	<p>Staff of the Department of Information and Technology Systems provide the following services and support:</p> <ul style="list-style-type: none"> <li>• Student Information System</li> <li>• Digitized student records and transcripts</li> </ul> <p>(See Sections 11.5A, 11.5B and 11.6 for detailed descriptions of services and capabilities)</p>

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**STUDENT ACHIEVEMENT RESOURCES**

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**PARENTAL INVOLVEMENT RESOURCES**

<b>Parent and Community Liaisons</b>	<p>Support implementation of the District Parental Involvement policy and ET initiatives</p> <ul style="list-style-type: none"> <li>• make parents aware of the policy</li> <li>• assist parents in using the policy</li> <li>• assist in updating policy via parent recommendations for improvement</li> <li>• assure school implementation of the policy</li> <li>• provide support to parents and staff</li> </ul> <p>(See section 7 for strategy and services)</p>
<b>District Communication System</b>	<p>Communicate with Parents and the Community more rapidly, effectively and efficiently by utilizing multiple technology based resources including a mass calling telephone system, cellular text messaging, instant messaging, internet and email. These technology based resources will improve communications, increase parent and community involvement, and ultimately student achievement and performance. (2012-2015)</p> <ul style="list-style-type: none"> <li>•</li> </ul>

**External Resources**

The table below is a partial listing of the multitude of external resources accessed and utilized by District educators. A survey will be conducted during the first year of this planning period to gather information about external resources. The information will provide insights on the type of resources that educators might want readily accessible in its own Educational Technology repository.

**EDUCATIONAL RESOURCE AGENCIES**

<b>Wayne County RESA</b>	<p>Provider of a broad spectrum of services and support aimed at improving student achievement which include curriculum consulting and staff development.</p> <p>The "Leading...Learning for all" website provides access to:</p> <ul style="list-style-type: none"> <li>• Student resources</li> <li>• Teacher resources</li> <li>• Staff development courses             <ul style="list-style-type: none"> <li>• Effective Instruction</li> <li>• Computer Technology</li> <li>• Instructional Technology</li> <li>• Assessment/Academic Testing</li> <li>• Using Research for More Effective Decision Making</li> <li>• Organizational Development</li> </ul> </li> </ul>
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**EDUCATIONAL RESOURCE AGENCIES**

<p><b>Blackboard Academic Suite – Educator Resources</b></p> <p>Available through Wayne RESA website</p>	<p>Online courses and resources for Educators include:</p> <ul style="list-style-type: none"> <li>• 21<sup>st</sup> century tools</li> <li>• Digital storytelling</li> <li>• Introduction to Blackboard</li> <li>• Introduction to PowerPoint</li> <li>• Meeting the HS Online Learning Requirement</li> <li>• Open Source Software</li> <li>• Photo Story</li> <li>• Smart Boards</li> </ul>
<p><b>Wayne County Assistive Technology Resource Center (ATRC)</b></p>	<p>Provider of support to school teams with assessment, classroom and applications and staff training upon request. Services provided include:</p> <ul style="list-style-type: none"> <li>• Assistive technology integration in curriculum</li> <li>• Literacy and curriculum support</li> <li>• Augmentative communication support</li> <li>• Environmental adaptations: switch selection, mounting, etc.</li> <li>• Source information pertaining to product availability and capabilities</li> <li>• Support to implement RESA’s Assistive Technology Guidelines</li> </ul> <p>Lending Library access: adaptive devices, software, curriculum support materials, books, and educational videos</p>

**SERVICE PROVIDERS**

<p><b>Educational Technology Vendors and Funders (providers of hardware, software, instructional materials, and services)</b></p>	<p>To ensure that hardware, software, instructional materials and services can successfully be used, DPS standards will be communicated to potential and existing vendors and funders. Video, Web and CD/DVD technologies will be employed to deliver presentations on DPS and Michigan standards. The technology will equip all members of the DPS learning community to be advocates and ambassadors for the expansion of Educational Technology. The technology ensures that standards information is communicated uniformly. These processes and tools will be piloted and implemented during year one of this planning period.</p>
<p><b>Dell Online eXchange</b></p>	<p>DPS staff work with Dell representatives annually to develop a toolkit of resources and services for use in Professional Development</p> <ul style="list-style-type: none"> <li>• Resources currently available include:             <ul style="list-style-type: none"> <li>• Online learning modules</li> <li>• Educator’s Tools</li> <li>• Quick Guides</li> <li>• Knowledge Bank</li> <li>• Exemplars</li> <li>• Lesson &amp; Project Builder and Library</li> </ul> </li> </ul>
<p><b>Cisco, Intel and Microsoft collaboration on improving Global</b></p>	<p>Cisco, Intel and Microsoft research results on new assessment approaches, methods and technologies for measuring success of 21<sup>st</sup> century teaching and learning in classrooms</p>

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## SERVICE PROVIDERS

### Education

Microsoft Education

Cisco Global  
Education Initiative &  
21<sup>st</sup> Century Schools

- Microsoft
  - The Innovative Teachers Network
    - MySite and MyProfile – stay connected and informed
    - Communities
    - Forum
    - Resources
    - Peer Coaching
  - Professional Development
  - Lesson Plans
  - Education competencies
  - Education solutions
  - Student Experience
  - Managing software licenses
- Cisco
  - Networking Academy
    - Global education initiative that delivers information and communication technology skills to help improve career and educational opportunities
  - 21<sup>st</sup> Century Schools (21S)
    - Train teachers and deploy converged voice, video, data, and classroom technologies to support delivery of more effective and engaging learning experiences in 21<sup>st</sup> Century Schools
    - \$80M investment in technology, training programs and Cisco Fellow expertise, aimed at creating a scalable model for education reform and community development
  - Global Education Initiative
    - Build innovative economies through 21<sup>st</sup> century education
    - Foundational thought leadership
    - Internal cross-functional education communities
    - Global development program for education leaders
    - Beachhead implementations in US, China, India, Africa, Singapore

### 3.0 Goals and Objectives

Establish and sustain a comprehensive, collaborative network of support resources consisting of internal and external resources

### 4.0 Standards

Michigan Education Technology Standards (METS)  
National Education Technology Standards (NETS)

### 5.0 Performance Indicators

- A support resources plan exists and is used during initiation, implementation and institutionalization of Educational Technology initiatives

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## 6.0 Implementation Action Steps

- Office of Professional Development will engage with DPS Administration Leadership semi-annually to review and update the strategic direction of Educational Technology
- Update technology and other resources in Library Media Centers at equal time intervals over the three year planning period, including facilitation of Professional Development; implementation will be accelerated as funding permits
- Office of Professional Development works collaboratively with the Office of Research, Evaluation, Assessment and Accountability to survey educators to gather and document information about Educational Technology services and resources used (past and present)
  - Analyze the data to identify the types and sources of ET resources; validate with educators via a focus group
  - Work collaboratively with IT to design and develop a Curriculum Educational Technology repository
- Office of Professional Development and IT will establish an ad hoc work team to draft an approach for developing a comprehensive “Support Resources Network”, and upon approval of the approach draft a support resources plan
- Develop strategy and process for developing ET partnerships; target Cisco, Intel and Microsoft based on commitment to education globally
- School based Administrators work collaboratively with the Office of Professional Development, Division of Curriculum and Instruction, the Division of Information and Technology and the Office of Facilities Services to update Educational Technology Inventory (i.e. Voice/Data/Electrical infrastructure, Hardware, Software, Peripherals, Supplemental Materials/CDs/DVDs/On-line resources)

## 7.0 List of Appendices

None

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# III Infrastructure, Hardware, Technical Support and Software

Strategies for deploying telecommunication services, hardware, software, and other services to improve education or library services; including interoperability among the components of the technologies

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## III. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT AND SOFTWARE

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## **Section 11A. Infrastructure Needs/Technical Specifications and Design**

### **Section 11A. Infrastructure Needs #**

#### **Technical Specifications and Design**

##### **11.1. Needs Assessment**

###### **Prioritization of Needs for the 2012-2015 planning period**

The needs and priorities of the District are best framed in the context of opportunities to improve academic achievement. The 8 Point Education Technology Implementation Strategy outlined in Section 3 of the plan describes approach for ranking, prioritizing and implementing proposed initiatives.

Projects will be evaluated using the “**The Educational Technology Critical Path**” criteria.

- Curriculum Delivery
- Professional Development
- School Closure
- Assessment
- Enterprise ET Initiatives
- Capacity to establish or sustain a technology rich learning environment

Projects will also be evaluated based on the state of the backbone of the teaching and learning environment – voice/data, electrical and security infrastructures of the proposed schools.

- **IT Infrastructure** E-Rate conditions (See section 11.2 for definitions):
  - Complete
  - Approved
  - Pending
- **Electrical infrastructure** supply and internal ratings (See section 11.3 for definitions):
  - Inadequate
  - Basic

- 
- Moderate
  - Superior
  
  - **Security infrastructure** is assessed based on the level of security risk:
    - High Security Risk
    - Moderate Security Risk
    - Low Security Risk

Several sections of the plan describe the technology needed to create an enhanced learning environment:

Section 6: Technology Delivery  
Section 11 Infrastructure, Hardware, Technical Support and Software  
Section 13 Budget  
Section 18 Asset Protection

Acquisition and application of these technologies, accompanied by visionary leadership, and professional development to equip teachers with highly effective instructional methods, will contribute to continuous improvements in student achievement.

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## **11.2. Network Services**

### **1.0 Introduction**

The Detroit Public Schools Technology Infrastructure is comprised of 131 schools networked to the main administrative building by dedicated Opt-e-man Metro Ethernet connections. This project was designed and completed within the previous technology plan period. It is in place and comprises the current wide area network connections for all schools in the District. In 2005-2006 the District received E-Rate funding for Priority 1 Service to implement a Wide Area Network (WAN) to replace the T1 connections. The WAN installation has been implemented by AT&T (formerly SBC). The service agreement covers the next 3 years with an option to extend the service period.

100 of the current schools have a High Tech LAN infrastructure and are referred to as 'E rate complete'. Implementation of the infrastructure was funded through the E-Rate program or through the capital improvement bond funding. Over the past 10 years the Capital Improvement Program facilitated the building of 8 elementary schools, 2 middle schools, 6 early child care centers, and 3 high schools. Two high schools were also completely renovated. All of these facilities have voice, data, and video capabilities throughout. The 5 high schools also have wireless connectivity. Plans are underway to complete additional E rate wiring projects in 7 schools under the year 8 (2005) applications. There were also projects from the same year to upgrade network switches and provide a wireless 802.11 implementation in all of the schools. These 2 projects have provided internet connections to all classrooms and enhanced the technology delivery in all of the district's schools. Their completion has made Detroit Public Schools a fully wireless district.

The network infrastructure and the electrical systems form the foundation upon which all other components of an Educational Technology system depend. Together they determine how pervasive the presence of technology is in learning environments. The electrical systems ability to support a technology infrastructure is based on the adequacy of the electricity supplied to the building (Supply) and the adequacy of the electrical wiring distribution and outlets within a building (Internal Distribution). A detailed description of these two critical variables is in Section 11.3 of this plan.

### **2.0 Strategy**

#### **WAN Connectivity**

The District's Wide Area Network (WAN) is funded through E-Rate Priority 1 Services and is currently under an 8 year service agreement with AT&T. The WAN has been upgraded to include Opt-E-Man circuits (a fiber-based connectivity system) to provide schools speeds of up to 1 Gigabit/Sec (Gbps) or 1000 Megabits per Sec (Mbps). The speed capability for Opt-E-Man starts at 10 Mbps and has a current maximum capability of 1 Gbps. It is the District's standard to provide 1 Gbps service at all High Schools/Vocational Schools, 400 Mbps at all Middle Schools, and 100 Mbps service at all elementary schools. These bandwidths will be reviewed every six months to determine if additional bandwidth is required at any individual school based on specific program requirements (i.e. distance learning, video conferencing, etc.).

The Opt-E-Man program was initiated during the 2005-2006 school year and took approximately 24 months to complete. Currently all schools, the DPS Police Department, and the main Administration building operate at 100 to 1000Mbps. By the end of the 2006-2007 school year all schools were equipped with Opt-E-Man connections.

#### **INTERNET Connectivity**

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The District currently maintains a connection to the Internet. Due to increases in technology capabilities, and usage at many schools the single T3 circuit to the Internet was proven to be inadequate. To meet the needs of these learning environments the connection speed was increased to 150 Mbps in 2007. In 2008 -2009 a further increase to 300 Mbps was implemented and currently a 600Mbps Opt-E-Man circuit is in place. The existing Internet contract has provisions to increase bandwidth to 2 Gbps if needed.

The goal of the Division of Technology and Information Systems is to provide internal connection (Local Area Network (LAN) speeds of at a minimum of 100 Megabits per second Ethernet speeds to the desktop while most connections are at 1 Gigabit per second. This speed has allowed for more active, simultaneous connections to the Internet and a faster response to internal and external services. These increased speeds have also allowed the District to partake in additional technologies such as video/web conferencing, video streaming and remote desktop management as the capacity of the schools has improved.

The underlying structure will be obtained through the use of network switching technology in each school, and an optimal connection to the Internet through the District's WAN. The bandwidth to the Internet must be reviewed on an annual basis to determine if connection speeds are adequate.

Based on current E-Rate discounting of 84%, the funds required to facilitate increasing available bandwidth will be approved in upcoming E-Rate applications.

### **Voice Connectivity**

Voice connectivity is one of the eligible E-Rate Priority 2 internal connections services. The service includes phone and fax technology. Presently, the District is utilizing cellular phones to allow our principals to maintain communications with their buildings, both within the building and when they are offsite. Also, all schools maintain fax capabilities in their administrative and counselors offices.

Over the course of this planning period, a Voice over IP (VoIP) system will be designed and planned for deployment to be installed in every school. This additional capability will allow communications to be maintained between teachers, students, and parents at a level unachievable before. The improved voice connectivity provides the means for Voice Mail Messaging, Homework Hotlines, Attendance notifications, and School Announcements. The required electrical service and the physical telephone sets to support the VoIP system are not E-Rate eligible services and must therefore be funded by an alternate source.

Due to the current state of the District's infrastructure we can now plan to switch from telephone lines to Voice over IP. The District is currently identifying the scope of work and technical specifications for a VOIP District wide convergence.

### **One-to-One Computing, Collaboration and Social Computing (Social Networking)**

Last year the district rolled-out 40,000 netbooks in 6<sup>th</sup> through 12 grade classrooms to create a one-to-one computing environment. In the fall of 2012, students in grades 8-12 will be assigned their own netbook to use throughout the school year. In addition, the district has worked with local internet provider Comcast to help households sign-up for low cost home internet service. The expansion of internet into additional student homes will allow for online homework assignments to be made and completed on a personal computer.

Next year, the District will implement an integrated messaging and communications system called Gaggle for student email messaging and sharing information. This hosted solution creates a CIPA compliant comprehensive infrastructure for collaborative work between students and teachers. This platform will also facilitate sharing information and working together in teams, communities and people-driven processes.

The District also plans to begin implementing SharePoint which provides a single, integrated location where DPS staff can efficiently collaborate with team members, find district resources, search the district website, manage

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content and workflow, and leverage insight to make better-informed decisions. This solution will enable district staff to easily create and manage custom team and project-focused sites for collaboration including document sharing, getting the flexibility needed to truly work efficiently across teams. It will also serve as a single access point for ERP, SIS and Cognos.

DPSmail was implemented in 2011 and provides unified messaging, a single inbox for DPS staff to access all important communications – including voice mail, fax, and e-mail – eliminating the cost and effort of maintaining separate systems. This solution improves collaboration and productivity by making it easier to find and share data, documents, and schedules anywhere, anytime.

Three key capabilities of Netbooks, Gaggles, SharePoint and DPSmail supporting the DPS ETP strategies include:

- **Empowering teams through collaborative workspaces** – providing DPS system users the tools to easily create their own workspaces and share assets across teams, departments, and organizations while maintaining control
- **Connect organizations and people through portals** – bringing insight and data within the district to the right people at the right time by making it easy to connect people with district data, experts, and work processes across the district
- **Enable communities with social computing tools** – to harness the collective intelligence of the district

## Infrastructure Security

The District maintains a firewall, integrated filtering software, reporting and virus protection as required under the Children's Internet Protection Act (CIPA) and No Child Left Behind (NCLB). The District is currently evaluating Unified Threat Management appliances (UTM) to further enhance the District's security and reduce the resources required to manage security. It also requires all of its users to abide by the Acceptable Use Policy (DPS Policy 13.01 Internet Usage) which is reviewed annually and updated as required. The review includes a public hearing during a board meeting for the purpose of informing the public of the District's Internet safety policy.

## Infrastructure Maintenance

To ensure network integrity, network infrastructure is serviced and maintained on a regular basis. Items serviced include the wiring infrastructure, network equipment, telephone equipment, and video head end equipment. Ongoing maintenance of the network is an eligible E-Rate Priority 2 Basic Maintenance service and is not impacted by the 2 for 5 ruling, and is therefore fundable each year. The service is limited to maintenance and does not cover the cost of equipment replacement. The district has selected a vendor to maintain service and MAC work in all school buildings.

## Replacement Plan

Technological improvements are occurring every 18-24 months. To keep pace with these changes network technologies used by the District should be refreshed on a 3-5 year cycle. This process would ensure that the District network is not unduly vulnerable and would serve to avoid costs related to maintenance of obsolete equipment. Refreshes include all network equipment at the schools, as well as network equipment in the data center which maintains the connectivity between the schools, the district, and the Internet.

A 20% replacement of technology (switches, servers, PBXs, etc.) every year is an ideal cycle, but with the addition of the 2 for 5 rule from the SLD, the replacement schedule must either be a 100% in a single year or 50% in two different years, depending on available funding. Currently the District plans to refresh technology every 4

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to 5 years. Refreshes will be coordinated with infrastructure changes or improvements funded by E-Rate unless alternate funding is available to pay for replacement equipment.

The replacement and upgrading of servers is an ongoing requirement of the district both at the school level and in the data center as part of the district's business operations. In the coming school year (2012-2013) over 100 Windows based file servers reached the end of their useful life and require replacement. These servers will be replaced in 2012-2013 to maintain the District's technology infrastructure.

## **INFRASTRUCTURE, TELECOMMUNICATIONS SERVICES, AND BASIC MAINTENANCE FUNDING**

### **Implications of E-Rate funding:**

When E-Rate funding is one of the funding sources to implement IT infrastructure, the District will now have to consider "The 2 out of 5 Rule" when developing the implementation plan. The District's current E-Rate discount is 84%, which leaves 16% of the cost for the IT infrastructure to be funded by the District or using alternative funding sources. In addition to the 16% for the infrastructure, the District, in most cases must also upgrade the Electrical System of the selected sites to meet the E rate audit requirements. These upgrades are generally necessary to meet the power requirements of the high tech infrastructure.

In recent designs the District has reduced the technology drop counts in selected classrooms to meet the existing electrical distribution in place. In other instances the IT and Facility department jointly design technology and electrical distribution additions to provide technology in classrooms.

Combined, these project and capital costs are substantial and will have an impact on the District's readiness to meet legislative mandates such as the requirement for High School students to take at least one on-line class.

### **3.0 Goals and Objectives**

- Optimize opportunities to upgrade infrastructures of schools using E-Rate funding
- Identify other funding sources for infrastructure upgrades
- Develop alternative, cost efficient IT infrastructure configurations to support directed curriculum department initiatives
- Establish District standards for the delivery of Internet Video and Audio Streaming

### **4.0 Standards**

USAC regulations  
DPS Contract and Procurement policy

### **5.0 Performance Indicator**

Successful completion of SLD Program Integrity Audit program for the 2009 471 E rate application

### **6.0 Network and Infrastructure Implementation Action Steps**

- Upgrade voice service systems
- Review and adjust WAN bandwidth provided to schools annually

- 
- Review and adjust Internet bandwidth for the District
  - Establish multiple year network equipment replacement schedule
  - Replace 100 windows-based servers (2012-2013)
  - Implement student email and web hosting
  - Upgrade data center switches and routers
  - Microsoft SharePoint implementation
    - 2012-2013 Pilot in DTIS
      - Implement document management and centralized storage
      - Expand to production functionality
    - 2013-2015 Full District implementation
      - Implement collaboration and social computing (networking)
      - Conduct professional development
  - Research multiple year plans for the following technology enhancements:
    - Distance learning
    - VoIP implementation
    - IPTV and Video Streaming

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## 11.3. Electrical Power Infrastructure

### 1.0 Introduction

This section of the plan will provide a summary of the current status of the District's progress toward upgrading the electrical service at each of its schools. It will also describe the challenges and plans for continuing this progress during the next three years.

### 2.0 Strategy

#### POWER SUPPLY AND INTERNAL DISTRIBUTION

Since the adoption of the District's Technology Plan for 2006-09, which detailed the major transformation of the District's electrical power infrastructure, one additional school was identified for a major power upgrade. Martin Luther King Jr. High School will receive electrical upgrades of over \$1 million to support the recently added low voltage wiring capacity. In the mean time the plans for power and data wiring upgrades at seven other schools were shelved due in part to the District's rapidly declining enrollment. The continuing decline in enrollment, and the subsequent school closures, has created challenges for determining which of the remaining buildings with insufficient power and data will be provided wiring upgrades.

During the implementation of the Capital Improvement Program, standards for power upgrades were developed. According to this standard, each school's future power needs were estimated and adequate power was determined based upon 125% of total capacity. This capacity was incorporated in the design of new schools as well as renovation project. Finally, the District developed electrical standards for classrooms of each new and updated school. Each classroom was designed to have at least six general-purpose duplex receptacles within each classroom, plus one duplex receptacle for each planned computer and printer in each instructional space. In addition, to guard against unexpected increases in power, building-wide surge protectors were installed. Most of the schools within the District that have been awarded E-Rate funding have been wired or are scheduled to be wired. Surveys need to be conducted to determine the specific requirements for the electrical upgrades for each of the remaining schools. Supply and internal distribution of schools will be assessed and schools classified. Ratings range from as high as 4A, which represents having both superior supply and internal distribution, to as low as 1D, which represents having both inadequate supply and internal distribution.

<b>SUPPLY</b>		
<b>The adequacy of the electricity supplied to the building</b>		
<b>4</b>	<b>Superior supply</b>	Sufficient for four computer stations per classroom
<b>3</b>	<b>Moderate supply</b>	Sufficient for two computer stations per classroom
<b>2</b>	<b>Basic supply</b>	Sufficient for one computer station per classroom
<b>1</b>	<b>Inadequate supply</b>	Insufficient for adding computers throughout the building

<b>INTERNAL DISTRIBUTION</b>		
<b>The adequacy of the electrical wiring distribution and outlets within a building</b>		
<b>A</b>	<b>Superior distribution</b>	Sufficient for head-end rooms and four computer stations per classroom
<b>B</b>	<b>Moderate distribution</b>	Sufficient for head-end rooms and two computer stations per classroom
<b>C</b>	<b>Basic distribution</b>	Sufficient for head-end rooms and one computer station per classroom
<b>D</b>	<b>Insufficient distribution</b>	Insufficient for adding either a head-end room or any computers throughout a building



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In terms of priority, the greatest need for electrical power upgrades is in the schools meeting one or more of the following conditions 1) have been awarded E-Rate funds, 2) are awaiting notification on the current E-Rate application, 3) are on the AYP Critical Schools list, or 4) have inadequate or basic supply and internal distribution.

## **POWER QUALITY**

The District continues to face a significant challenge with the reliability of the electricity it receives from the City of Detroit's Public Lighting Department ("PLD"). The voltage surges and wanes frequently, causing equipment burnouts. The power surge devices that were installed in the updated schools do not protect against sudden power declines. At other times, power on portions of the PLD grid suddenly shuts down and just as suddenly is restored. This causes significant equipment burnout as well as cost to the District in resetting or reprogramming equipment. The District has continued to meet with the PLD to upgrade its system to enable delivery of adequate, steady and continuous service. The PLD has made some progress in installing voltage regulators in its most trouble-prone areas. However, the PLD and the City of Detroit have not been able to devote sufficient resources to improving the PLD infrastructure. This area will continue to be a challenge, especially given the economic downturn of 2008-2011.

The District must develop a strategy for ensuring steady and uninterrupted power from the PLD. The expense incurred when equipment is shorted-out or must be reset/reprogrammed must be contained. The greater cost, loss of accessibility to the Educational Technology resources, could have a direct impact on student achievement which is a loss the District cannot afford.

While switching service to an alternative provider is not the most viable option, due to Michigan's electrical deregulation statute requiring the City of Detroit's approval, a business case will be developed to facilitate discussions with the PLD and the City of Detroit in light of the impact that poor power quality is having on the students of this community.

## **POWER COSTS**

As network and electrical power infrastructures of schools are improved and high tech environments established, an increase in power usage and cost will occur. During this planning period, the District will perform an analysis of the power usage of schools which have already received infrastructure upgrades. The results will be beneficial in helping to build models for projecting electrical power usage and cost for existing and future Educational Technology initiatives.

## **FUNDING SOURCES**

The District's strategy for providing low voltage wiring in the classrooms has been to leverage the services funded under the E-Rate program. Power was added on a parallel track to those schools receiving technology and wiring upgrades. Since the E-Rate program does not fund power upgrades, funding for the electrical system infrastructure came from the District's capital improvement program.

Today, nearly all of the capital improvement program funds have been spent or committed to other projects. Yet, there are schools which remain with Basic Level or Inadequate electrical service and/or distribution. Funding to meet the power infrastructure needs of these schools must be identified.

As of this writing, a \$500 million capital improvement bond program has provided for new school construction and renovations. This program has addressed the need for new power or buildings throughout the district. Over the next three years, the District will explore ways to utilize other funding mechanism to meet the needs of technology and electrical power in selected schools.

Ultimately, in order the dollars needed to provide sufficient power capacity at all of its schools, the District will need another capital improvement bond. While there is discussion within the Michigan legislature to provide state funding for capital improvements, it is unclear whether or when this will occur during the three year period of this

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plan. Another alternative is for the voters of the District to authorize additional bonds to be issued for capital improvements. Until a new bond is approved by voters within the District, or other funding is identified, there will be no funds available for the technology, wiring and power upgrades needed at the remaining schools.

**3.0 Goals and Objectives**

- Meet the power supply and distribution requirements of the District

**4.0 Standards**

None

**5.0 Performance Indicator**

- Electrical infrastructure cost projection models are complete and are used in developing the total cost of ownership of existing and proposed Educational Technology Initiatives

**6.0 Implementation Action Steps**

- Conduct electrical system requirements assessments on schools that have not received power upgrades
- Analyze the power usage of all schools and develop models for projecting power requirements and cost for the various configurations of technology-enabled learning environments
- Develop business case for discussions on improving the quality of power from PLD, including financial and academic impacts of power surges and declines (i.e. student inaccessibility to e-learning experiences, cost of equipment replacement, etc.)
- Develop proposal and seek Board approval for an allocation of the bond or Stimulus funds to complete electrical system upgrades

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## 11.4. Decision Support System: Data Warehouse

### 1.0 Introduction

The Data Warehouse of Detroit Public Schools centralizes K-12 educational performance data into one data repository. It is a longitudinal data system capable of linking student, teacher and financial information over multiple years, across multiple schools. It combines information from separate systems in one location. Because the information is stored together, it is easy to access.

The purposes of the data warehouse are to:

- Place the use of robust, timely performance data at the core of educational decision-making
- Reduce schools burden and streamline data practices
- Improve district data capabilities by providing resources and technical assistance
- Provide data for planning, policy and management at the district and school levels

Improving educational performance and accountability depends on understanding the relationships among areas such as curricula, assessments, special programs, teacher qualifications, program spending, discipline incidents and attendance. Without the ability to link data decision-makers the full potential of the information we collect and process cannot be leveraged.

Using the Data Warehouse, district decision-makers can take key metrics from multiple areas and analyze them in a single view. Detroit Public Schools uses the Cognos toolset for report writing, data analysis and decision support. The data warehouse is the PeopleSoft/Oracle's Enterprise Performance Management module using an Oracle data base management system. The extraction, transforming and loading of the data is done by Informatica software.

### 2.0 Strategy

Since No Child Left Behind (NCLB) has changed the landscape of accountability of K-12 education environments, Detroit Public Schools is using the data warehouse to quantify and report on measurable student achievement results over time. Also monitoring and analyzing the various assessments from subject level to a specific question level. Using the historical information departments have the opportunity to implement or change their strategies to improve student achievement.

We recognize the need for integrating the achievement data with the financial information. Our commitment is to develop "One Version of the Truth" for student information using a Data Management Analysis Road Map (see Appendix-11.4). This will be achieved over the next three years, enabling administrators and staff to perform correlative analysis to understand how budget allocations affect achievement. District leadership will be able to examine the spending on different district instructional programs and longitudinally compare student achievement between them. Administrators would have the data to make decisions on how to allocate limited funds to best leverage student achievement.

Another critical area of data integration is the requirement to link teacher with student achievement information which will enable the district to track and correlate teacher performance related with student achievement. Detroit Public School can then see how teachers are performing in relation to their peers within a school, the district, the state or nation.

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User participation is paramount to the success of this data warehouse initiative. User groups will be established to determine the future releases of the data warehouse reports and improve the adoption and utilization rate.

Data governance is essential for managing data as an asset that will be used to provide insight into student performance and the operation of the organization. Data governance practices establish repeatable, measurable business process and manageable policies for improving the quality of data which will result in a single consistent view of the district data.

### **3.0 Goals and Objectives**

Use all assessment data to track and report student achievement for driving academically rigorous instruction to improve the performance of every student

Integrate student achievement metrics and financial expenditure

Integrate student achievement metrics with teacher information

Create a Data Governance Task Force to improve the quality of departmental data and provide a single version of the district data

Acquire additional hardware and apply software upgrades to continue improvement in instruction and student learning

### **4.0 Standards**

#### **Service Level Standards:**

Currently the Data Warehouse delivers reports to Teachers, Principals, and Administrators using Cognos Business Intelligence solution. Some of the key reporting areas include Student Profiles, NCLB, Student Attendance, Student Discipline, Standardized Tests, and Student Performance.

If a report or analytic solution is not available from the Cognos portal, the Data Warehouse team will develop the required report or solution based on the request received. The solution delivery time will depend upon the magnitude of the requirement of the reporting solution. Simple report requests will be delivered within a business day. The Data Warehouse team will provide an estimate on magnitude of the project and scheduled delivery time within a day of request receipt. Solutions are developed in accordance to Data Warehouse Security Standards.

#### **Data Warehouse Security Standards:**

Data warehouse users must be authorized to access the Cognos Portal and the Data Warehouse application. Within the data warehouse access to confidential data is further restricted by security roles and the user's credentials.

The data warehouse contains both public and confidential information. According to federal law, a school or district may disclose personally identifiable information from a student's education record without consent to "other school officials, including teachers, within the [school or district] whom the [school or district] has determined to have legitimate educational interests." [FERPA](#) at 34 CFR § 99.31(a)(1).

Public information includes but is not limited to aggregated school, district and statewide test results that *do not contain* a list of student characteristics.

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Confidential information includes but is not limited to:

- Student home address and test results
- Aggregated school, district and statewide test results that contain a list of student characteristics that would make it possible to identify a student's test results
- Staff home address

Data warehouse pre-defined reports run against the full data warehouse which contains confidential student information for all schools in the district. Data warehouse security credentials (user's userid / password, school code, job title, and employee id) control which confidential information a user can access. When a user runs a pre-defined report, depending on the user's security credentials, only the authorized information for that user's school is accessible.

### **Data Warehouse Design Standards:**

The Detroit Public Schools Data Warehouse adheres to the Kimball dimensional data warehouse design methodology. Some of the direct benefits to the system are as follows:

- Slowly changing dimensions allow accurate tracking of changes to key attributes in any dimensional area of the data mart. For example, students can be accurately represented as they move from one school to another, or in and out of special population categories.
- Automated surrogate key generation allows tables to be joined by indexed integers, which dramatically improves performance of complex queries.
- Effective dated dimensions allow the expiration of record versions. This is especially valuable for seeing trends and the effectiveness of applied methodologies over time.
- Highly indexed fact tables contain only surrogate keys and measures. This allows faster summaries of key measures, and improves overall performance in terms of data retrieval.
- Conformed dimensions are tables that are common across multiple fact tables. This provides the flexibility to combine data from multiple subjects into a single report. For example, one student could be viewed in terms of discipline, grades, tests, and many other areas of the warehouse.

All reporting solution implementations follow a five (5) phase methodology:

- **Analyze:** Define what the solution needs to accomplish, both in terms of features and non-functional attributes (performance, usability, etc.) Obtain agreement between all parties about these requirements
- **Design:** Define all solution components and their dependencies Identify resources
- **Build:** Iterative development cycle which includes testing
- **Deploy:** Create a plan to run and maintain the solution Establish a support schedule  
Migrate solution to production environment Configure as necessary for a successful deployment (security, scheduling, and third party applications) Communicate the deployment to the business user audience

- 
- Operate: Maintenance checkpoints after roll out to facilitate a successful use of the system Back up and data restoration Managing problems, performing periodic cleanup, performing fine tuning Monitoring redeploying systems as necessary

#### **Technology Standards:**

- Cognos ReportNet Consumer: allows the entire enterprise access to managed reporting
- Cognos ReportNet Business Author: allows a limited number of users to developed queries
- Cognos ReportNet Business Professional Author: allows a limited number of users to develop queries and reports
- Cognos PowerPlay: allows a limited number user to access multidimensional cubes
- Cognos Framework Manager: allows a limited number of administrators to developed metadata models for information access.
- Oracle data base management system to store the data warehouse information
- PeopleSoft Enterprise Performance Management system to manage the data warehouse environment.
- Informatica software used to extract, transform and load data into the data warehouse from various source systems.

#### **5.0 Performance Indicators**

- Improved adoption and utilization rates of reports

#### **6.0 Implementation Action Steps**

- Establish support and maintenance contract from IBM Cognos and upgrade the software
- Integrate measured progress assessment data into data warehouse and develop reports
- Integrate and analyze Curriculum and Instruction programs' data with the student information
- Develop a reporting solution for trend analysis of Grade Level Content Expectations (GLCE) across multiple years
- Identify and engage all stakeholders in planning the data governance and data quality campaign
- Identify processes or components changes to improve data quality
- Integrate Human Capital Management (HCM) data with the student achievement data

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- Develop a reporting solution for the HCM and student data
  - Implement a reporting data mart for financial reporting

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## 11.5 Decision Support System: Student Information System

### 1.0 Introduction

Detroit Public Schools has entered into a deal with the Wayne County Regional Educational Authority (WRESA) to purchase a SIS system that has been customized to serve school districts within the state of Michigan. The system architecture has the system running on a server farm at WRESA being accessed via high speed communication lines by DPS users. The system is web-based, flexible and comprehensive. The primary modules of the WRESA SIS system are listed below:

- Student demographic data
- Enrollment
- Scheduling
- District/building records
- Attendance
- Grade reporting (Traditional and Standards based)
- Progress notification
- Test history
- Special Education
- Special Programs - Title I, At Risk, ELL designations
- Behavior (including positive behavior)
- Direct certification (free and reduced lunch)
- Food Service\* – this module includes a full point of sale process
- Teacher Grade Book – this module replaces the traditional “manual” grade book.
  - Tracking for homework, projects, quizzes, tests, etc.
  - Calculation of grades by averages, weighted values, etc.
  - Progress and class average reports
- Teacher Connect – this module provides teachers a dashboard for the students in their classes.
  - Attendance by class or by seating chart
  - End of term marks
  - Standards
  - Access (permission based) to student demographics in teachers class
  - Access (permission based) to student contacts, including emails to parents
- Parent Connect – provides parents/guardians a window into all system modules (permission based)
  - Parent access to student related data including demographics, attendance, teacher’s grade book, and food service.
  - Automatic creation of parent connect accounts available\*
  - Parent access to all school and classroom news
  - Auto email notification based on events
- Student Connect\* – provides students a window into the SIS (permission based)
  - View all of their own data, including transcripts, current grades and assignments, attendance, demographics, etc.

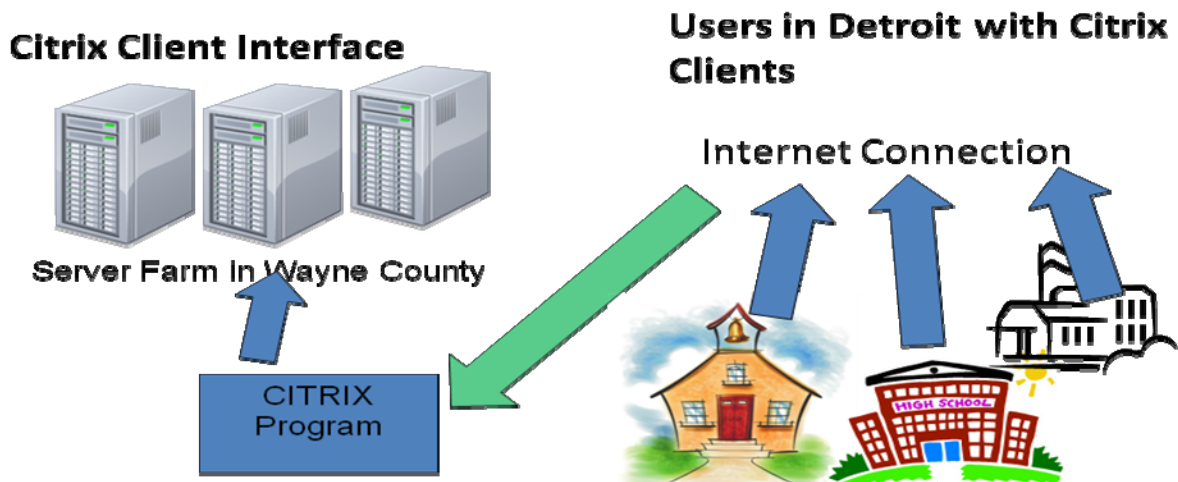


- Input course requests
- Special Education IEP– this component provides 22 forms related to creating and managing student IEPs, from “notice of meeting” to “transition”.
- Service Tracker – this component gives service providers a process to record their services. It includes:
  - Case loads
  - Recording and tracking of qualifying special education health-related services
  - Service note documentation, including monthly summaries
  - Management and provider reports
- Medicaid Billing – this collects the Medicaid eligible services from Service Tracker and organizes them for submission to the State. It also tracks and manages payments as well as provides the audit trail.
- Communication Tracking
- Visits
- Activities / Awards
- Notifications
- Pulse\* – At-risk students monitoring program

\* - These modules not implemented yet

### **System Architecture Diagram**

A diagram of the system architecture is provided below:



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## 11.6 Web Services

### 1.0 Introduction

The Detroit Public School's Office of Web Services maintains and supports a web environment comprised of an Internet web site, an Intranet site for staff and a number of school sites dedicated to the promotion and showcasing of individual schools and those programs unique to each school. The Office of Web Services strives to maintain a high-quality, service oriented World Wide Web presence at the root of which lies a coordinated presentation of accurate, timely and relevant information directed to a wide and diverse audience.

The Office of Web Services manages the day-to-day operations of the District's web resources, services, and overall web presence. Assisting in the content posting process from strategic planning through final production and back-end programming, the web team strives to bring together the online DPS community and to provide opportunity for involvement in various web initiatives. Increased collaboration among executive and administrative staff, school-based teaching staff, parents, and that segment of our community invested in quality public school education, is a primary goal. The Office of Web Services supports the continued growth of an engaged, dynamic staff working together on web-related projects.

The Office of Web Services will continue to work with and develop a DPS student Web Internship Program. Students will be tasked with learning Web Tools and Technology, given project assignments and shadow Web Team members.

#### Defined Role

- Provide assistance with academic improvement by providing environments to house and support tools and content.
- Add value to the learning community by providing training and resources to district employees and students.
- Support an internal web portal for parents to engage them in the academic achievements of their children.

### 2.0 Strategy

The Office of Web Services will undertake a complete redesign of the current DPS Internet and School sites to provide:

- An Internet portal that allows access to all school sites
- A school portal for each DPS School
- Student, parent, and teacher portals that provide access to student and school information
- A web site for each DPS School implemented in a phased approach (i.e. 20-25 school pilot)
- Content that is
  - user-developed and user-published
  - current, validated, and consistent across all sites

- visually appealing, easily and intuitively navigated
- easily and centrally managed with a reduction in the degree of technical effort and intervention required for web posting
- Content that
  - addresses the informational needs of both internal and external users
  - more readily lends itself to industry-standard search engine technologies
- Microsoft Sharepoint to aid educators in developing and publishing web sites which assist in:
  - Utilizing available technologies around the internet to disseminate and obtain useful information
  - Providing an effective way to communicate with stakeholders (co-educators, parents, community leaders, administrators) and to receive feedback from them.
  - Providing teachers and students interested in learning more about the Internet and webpage design an opportunity for direct involvement local webmasters and content providers.
  - Communicating individual and collective viewpoints and needs effectively to those in decision-making roles and those developing the laws that govern and directly impact public school education
- Training Materials for web site development and maintenance for each School.
- Support in acquiring, installing and integrating Educational Technology hardware and software into the DPS network.
- An administrative interface for the Division of Technology and Information Systems to manage a 200+ school web environment
- End-user guidelines for web posting & web site management

It is no longer enough for a school web site to simply be a presence on the web. Our schools must communicate effectively with relevant information about their programs and performance, with links to the best educational resources on the web.

### **3.0 Goals and Objectives**

- Continue and grow the DPS Student Web Internship Program
  - Interns gain experience in:
    - Customizing PCs - Install
    - Developing Software
    - WebTeam Systems / Applications
    - Using Web Tools & Technologies

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- Setup & Configuring Student Blogs
  - Business User Requests
  - Project Lifecycle
    - Requirements Gathering
    - Scope Documents
    - Project Plans
    - Change Control Board
    - Use Case Scenarios
  - Project management by completing two projects:
    - Daylight Savings Time Project
    - St. Patrick's Day Advertisement/Flyer
  - Improve web management processes
    - Eliminate paper data collection processes without increasing Web Services' workload.
    - Transition content ownership from Web Services staff to district employees and community members
    - Continuously improve processes with ISO Certification eligibility as the standard
  - Process improvement projects
    - Implement workflow management functionality of Microsoft Sharepoint
    - Implement the student, parent, and teacher portals
    - Implement district wide calendars for extra-curricular activities
    - Redesign Public Website
    - Redesign Intranet
    - Develop Telephone Directory

#### **4.0 Standards**

A steering committee will be formed to develop Web Standards and Best Practice Guidelines School and Administrative Office Web Page and Web Site Publishing Guidelines (See Attachment 11.6A) and Content Managers Agreement (See Attachment 11.6B)

- Packages
  - Freely Available, Open Source
    - Drupal
    - CMS Made Simple
    - Wordpress
- Development
  - W3C Compliance
    - XHTML

- Strict
- Transitional
- PHP
- Development Frameworks
  - CakePHP
  - JQuery
- Data Sources
  - Reduce Data Duplication
- Environment
  - PHP
  - MySQL

## 5.0 Performance Indicators

- Process conversion from paper to automated
- Data Duplication Reduction

## 6.0 Implementation Action Steps

- Setup a Steering Committee to discuss Standards and Best Practices Guidelines
- Develop Content Age Standards (on an annual basis, contact designated Content Managers to have them review information for their area and to keep information fresh and current)
- Integrate server environment and increased sharing of resources
- Enhance Content Management (CM) tools
- Implement a web-based site for every school in the District
- Develop Best Practices Guidelines
- Establish a Web Compliance Task Force for oversight of:
  - Web policies enforcement
  - Non-compliance issues
  - Copyright infringement, intellectual property, content-specific issues(in conjunction with Legal Department)
- Maintain a set of technical standards and accessibility guidelines
- Implement Streaming Media Hosting
  - Capacity to reflect live broadcasts generated by encoding programs which can then be archived for on-demand access using a variety of video formats including VHS, SVHS, DV/DVC Pro, or DVD
  - Acquire two servers to establish two environments, real media and QuickTime; content manager may securely transfer via SFTP encoded video files to a specific server directory that maps to a specific URL.; encoding at 1 Mbps or less

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- QuickTime Server
  - Real Media Server
  - Develop a comprehensive body of web publishing policies, procedures, and guidelines for those District users desiring a DPS web presence
  - Establish and document a body of web design standards, best practices, and requirements
  - Provide a standardized set of internet accessible tools for web content management; empowering schools and administrative offices to develop, maintain, and publish their own websites in accordance with an established content approval process

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## 11.7. Project Management Services

### 1.0 Introduction

The objective of the Detroit Public Schools' Division of Technology and Information Systems (DTIS) Project Management Office (PMO) is to achieve proficiency in the application of project management practices, processes, procedures, tools, and techniques. The goal is to infuse project management as a core capability that is integral part of our work environment.

Detroit Public Schools is one of the most technologically vibrant urban school districts in America. Computerized systems not only facilitate our business practices but we have also raised the bar in the implementation of cutting-edge instructional initiatives as well. In an effort to stay abreast of emerging technology driven efforts and to provide the technical support required, it is imperative that all business offices, divisions, and schools work collaboratively with DTIS when contemplating project implementation.

Whether a project directly or indirectly incorporates computerized systems or devices, our division needs to be involved so that we can assist with the project management process and subsequent implementation. DTIS strives to support the district's technology needs. In order to improve our quality of service and support, it is imperative to be included in all phases of the project management and implementation process. Through our coordinated efforts, we will help Detroit Public Schools maintain a position of leadership, improve support to business operations, and most importantly, support efforts to integrate technology related projects into the curriculum to ***positively impact student achievement.***

The Project Management Office (PMO) was established to:

- Support the DTIS organization, and other offices implementing Educational Technology initiatives, in the effort to manage projects more efficiently and effectively
- Develop, review and implement best practice project management processes and procedures
- Create a consistent, repeatable approach to managing projects and provide a common language for project participants within DPS. This includes templates, guidelines, project management processes, practices and guidelines.
- Demonstrate the monetary benefits resulting in operational or revenue improvements through the PMO process
- Support the district in its efforts to select and prioritize technology related investments for the organization
- Document the financial impact of project implementation
- Overcome the pitfalls of multi-phase, multi-departmental integrated projects by identifying and managing dependencies between the projects to evaluate and manage the impact of changes across the enterprise
- Create a framework for evaluating, selecting and prioritized new projects
- Create a framework for continuously updating and revising active projects; includes accelerating, discontinuing and/or de-prioritizing

- Communicate the DTIS PMO Governance model throughout the organization
- ***Be a catalyst for change***

## 2.0 Strategy

A main focus of the PMO will be to provide oversight to all technology-based **curriculum projects** to ensure that effective processes are in place to review and approve project budgets, schedules and scope of work. This approach will benefit the organization by increasing the possibility of successful implementation of the proposed project and will subsequently have a favorable impact upon student achievement. Benefits of this strategy include:

- The development of an analytical process to evaluate viability of proposed projects prior to committing human and financial resources, resulting in substantial savings for the participating stakeholders
- Improve delivery of technology-based curriculum projects
- Enable Project Managers to be proactive rather than reactive when managing projects
- Improve communication for all stakeholders on project status
- Foster interdepartmental collaboration and coordination

DTIS has established the PMO as a centrally administered function which has the purpose of assisting district offices in the design and development of projects that rely on DPS' technology services and infrastructure for support. From a DTIS perspective, the term "project" can best be defined as a plan for existing or future implementation of technology related initiatives that include the following elements:

- A goal with accompanying objectives
- A timeframe for the implementation of specifically designed activities to meet stated objectives;
- An impact on an identified population or computerized systems or devices;
- Specified software and hardware that is fundamental to the implementation process; and
- An associated cost, budget and funding source.

The goal of the project management process is to *add value* to the process of managing projects rather than providing administrative functions, the determination of which project management processes required will be scaled to fit projects of varying classifications.

The Project Management process is comprised of the following five phases in this sequential order:

Phases	Phase Descriptions
<b>Project Authorization</b>	Project Authorization includes authorization of new projects to insure that the use of human and financial resources are in alignment with the district's strategic planning goals and objectives.
<b>Project Initiation</b>	Project initiation is a process to facilitate a review and approval of the project



Phases	Phase Descriptions
	<p>Scope of Work, Preliminary Plan, and anticipated Budget before proceeding to the planning phase.</p> <p>Specific skill requirements for the project are also identified to help select the right project team members. These documents are reviewed and signed off by the by appropriate parties for their approval prior to proceeding to the planning phase.</p>
<b>Project Planning</b>	<p>Project planning insures that adequate planning has been completed for all projects before work begins. The project team will determine the project requirements, expectations, and objectives.</p>
<b>Project Execution</b>	<p>Project, timelines, and cost (if applicable).</p> <p>A process to measure and record project progress is established and executed.</p> <p>The progress of the project is monitored and tracked, and status reports are provided to the Project Team Members and key stakeholders.</p> <p>The work is done according to plan to meet deliverable requirements. Status is tracked and reported. Scope is carefully monitored. Processes are established to identify and resolve issues, and manage changes that affect deliverables.</p>
<b>Project Closing</b>	<p>Project closing will ensure an orderly, controlled completion of projects. The following activities will occur during this phase.</p> <ul style="list-style-type: none"> <li>• Obtain acceptance/approval of deliverables</li> <li>• Balance the project budget</li> <li>• Hold post project review meeting</li> <li>• Post project evaluations are created and reviewed; “lessons learned” are documented and best practices transferred.</li> </ul> <p>A post project review session will be held to facilitate a discussion on lessons learned, i.e. what worked and what could be improved upon. The lessons learned are documented for retrieval by future project teams. They will also be used as a basis for evaluation and implementation of process improvements.</p>

### 3.0 Goals and Objectives

Funding technology projects is imperative to increase the amount of technology related resources available to students. The PMO will work in tandem with the Department of State and Federal Programs throughout the length of the Educational Technology 2012-2015 planning period to insure that every possible identified funding source that is earmarked to support proposed technology related projects goes through the project management process.

The goal is to proactively address technical related issues to eliminate obstacles that might hamper/negate the donation or funding process and insure that the technical support issues have been addressed.

Maintain the Division of Information Systems' Project Management Office (PMO) to act in an advisory capacity assisting with the implementation of divisional and enterprise technology related projects.	
<b>Scope:</b>	<ul style="list-style-type: none"> <li>• Bring all projects through the IT Change Control Board (CCB) for discussion and approval</li> <li>• Complete projects on time and within budget</li> <li>• Obtain feedback of completed project for expected benefits</li> <li>• Increase team productivity, effectiveness and accountability</li> <li>• Realize significant time and resource savings</li> <li>• Align projects to support district mission, goals and objectives</li> </ul>
<b>Responsibilities:</b>	<ul style="list-style-type: none"> <li>• Guide Project Managers and provide support as necessary during the development of the goals, objectives, charters and project plans for proposed projects</li> <li>• Improve processes to work more efficiently and productively</li> <li>• Work with Steering Committee to obtain feedback on completed projects</li> <li>• Determine what tasks are to be done, by whom, and in what time frame</li> <li>• Determine measurable deliverables</li> <li>• Learn from past mistakes</li> </ul>

Expand the scope and responsibilities of the previous year to include the following:	
<b>Scope:</b>	<ul style="list-style-type: none"> <li>• Responsible for the <b>coordination and management</b> of divisional and enterprise technology related projects</li> <li>• Track project interdependencies</li> <li>• Document centralized administration of tasks associated with the management of the department/division projects.</li> </ul>
<b>Responsibilities:</b>	<ul style="list-style-type: none"> <li>• Support Project Managers who are given the responsibility to implement projects within the division, interdepartmental or district wide.</li> <li>• Identify and select Project Management templates to be completed</li> <li>• Meet monthly for updates, timelines, and request mandatory status reports for</li> </ul>

Expand the scope and responsibilities of the previous year to include the following:	
	<p>perusal/review by CTIO</p> <ul style="list-style-type: none"> <li>• Compile performance/status reports across all projects within the department and division</li> </ul>

Expand the scope and responsibilities of the previous year to include the following:	
<b>Scope:</b>	<ul style="list-style-type: none"> <li>• Ensure projects undertaken are in direct support of the district's strategic vision.</li> <li>• Set priorities, track resources and establish best practices.</li> <li>• Define and collect standardized data for analytical purposes</li> </ul>
<b>Responsibilities:</b>	<ul style="list-style-type: none"> <li>• Participate in defining the enterprise strategic vision and in selecting projects that support that vision.</li> <li>• Compile performance reports for projects spanning departments and divisions.</li> <li>• Establish Project Management best practices to be applied across the enterprise</li> <li>• Define and establish methods of collecting standardized data elements and analyze data to identify areas of strength and areas that need improvement.</li> </ul>

**4.0 Standards**

None

**5.0 Performance Indicator**

To ascertain potential success of proposed project for district/division/school implementation of technology related initiative the following will occur during initiation phase and prior to actual implementation:

Cross check projects to determine:

- Is there duplicity of objectives/projects; is there another project that is already accomplishing same objectives?
- Does project warrant monetary investment?
- Does project complement and/or detract from another existing project?
- Have project management issues (too many projects per school/district) been addressed?

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- Assessment issues, how will project be monitored evaluated?
  - Is project implementation prioritized according to curriculum goals & objectives?
  - What analytical process has been developed to evaluate proposed projects?
  - What technical capacity/support issues exist?

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## **11.8 Technical Support: Active Directory (AD) and System Center Configuration Manager (SCCM)**

### **1.0 Introduction**

AD and SCCM, 2 services running under the latest Microsoft Operating System, provide the foundation to enable greater flexibility of computer, user, and security management. They define policies associated with the management of assets on the network as well as software applications which may be reside on the assets. The AD service provides the means to manage the identities and relationships that make up network environments. The SCCM service empowers people to use the devices and applications they need to be productive, while maintaining corporate compliance and control. The consistent district-wide use of AD and SCCM will help maintain the integrity of school and administrative office based assets.

### **2.0 Strategy**

There are two phases the District must complete before it can fully realize the benefits of SCCM.

#### **Phase One (School Server Deployment)**

The first step is to upgrade the servers in the schools to act as control points for SCCM. This requires that all existing Windows servers be replaced with new hardware and operation systems. This is a manual process that must be done with physical access to each school. This process is made possible by the standardization of the District's computer images installed on each machine that have taken place over the past 7 years. Once all of the school servers are replaced, the first of the goals, efficient computer support and management can be realized.

#### **Phase Two (Continuous Maintenance and Support)**

After the school servers have been replaced, there are several on-going tasks that will be necessary for the continued success and realization of efficiency. These include on-going additions and deletions of computers from Active Directory; on-going user maintenance; and customization of install routines (MSI Packages) to allow for remote installation of applications through SCCM. There is a constant refresh of technology occurring at Detroit Public Schools. Efforts are underway to develop a process that will assure that all new systems purchased by DPS will automatically add themselves to Active Directory upon initial connection to the DPS network. Additionally, as computers are removed from the DPS environment, either thru attrition or other means, these computers must subsequently be purged from the Active Directory database. This is a process that must be developed. As the needs of the multitude of user groups evolves, Active Directory policies will be developed to provide each group with access to the technology resources that they require. This will be an on-going process as needs and users change frequently and are considered part of on-going User maintenance.

Finally, there is an ability to roll-out applications through the network, using SCCM that requires little if any physical involvement with the computers being installed, thus dispatch of a Field Technician would not be necessary. To make this possible, Group Policies must be written that tell SCCM the rules for deploying the application; and custom MSI packages must be created that allow for silent, unattended installation of each application. Generally speaking MSI packages would need to be created once for each application to be installed through SCCM, so standardization of software will enhance the efficiency of this process.

### **3.0 Goals and Objectives**

#### **Goal**

To have administrative, teaching and student populations identified and authorized through the PeopleSoft Human Resources and Student Information Systems with associated access to work /

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instructional software applications made available via roaming user profiles which may, depending on the software, allow for storage via the network.

Objectives are as follow:

- School Server Deployment (Phase One)
- Continuous Maintenance and Support (Phase Two)
- Manage the computing environment using standard Group Policies that will allow remote / automatic system changes deployed through the network
- Roll-out software remotely using Group Policy and custom Microsoft Installer (MSI) packages
- Manage Centralized and Individualized Login accounts for every user (Staff and Student), using Microsoft SCCM and Active Directory
- Provide “Single Sign-on” to users that would enable access to Email, Student Information System
- Renaissance Learning, Internet and other resources based on group membership by entering their user ID and password once.
- Utilize Audit Trails providing additional security and monitoring to comply with various regulations such as CIPA and HIPA
- Utilize Roaming Profiles, enabling an individual to log into any workstation in the district as if they are logging into their workstation at their own office / desk, having complete access to their files anywhere/anytime

#### **4.0 Standards**

Active Directory and SCCM require the following equipment standards to be effective at the workstation level:

- MS Windows 2008 Operating System server at every DPS locations
- A large MS Windows 2008 Operating System server at locations that desire remote installation of software via SCCM (for network storage of applications and user data files)
- Desktops and Laptops added into Active Directory
- MSI technology-driven software applications

#### **5.0 Performance Indicator**

A future initiative, scheduled to begin by Spring semester 2012, will involve the design and adherence to Service Level Agreements which will be used to measure the performance of DPS field services as related to existing and future implementations of Active Directory from the desktop support perspective.

#### **6.0 Implementation Action Steps**

- Phase I – Proposed Completion of adding new servers to the network: November 2012

- 
- Phase II – Continuous Maintenance and Support: Spring 2012 (started and then on-going)
  - Develop group policies to manage user access to DPS resources based on group and individual needs
  - Develop process for auto-adding new computers to Active Directory upon initial connection to the DPS network
  - Develop process for purging computers from Active Directory when they are removed from the DPS environment
  - Maintain efforts to write Active Directory processes as users need to access technology resources change
  - Establish adequate servers for rolling-out applications through the network
  - Develop group policies to tell SCCM the rules for deploying applications
  - Create custom MSI packages to facilitate silent, unattended installation of applications through SCCM

## **7.0 List of Appendices**

None

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## **11.9. Technical Support: Field Services**

### **1.0 Introduction**

Detroit Public Schools Field Services support team is a uniquely organized function that delivers technical support in the form of troubleshooting, maintenance and repair services as needed to computer equipment and related peripherals. Desktop technical issues that cannot be resolved via the Help Desk are delivered through the DPS Field Services. Field Service technicians primarily focus on computer equipment as needed to support administrative and instructional activities.

The support efforts often merge into areas pertaining to network administration when there are issues involving the Internet, the use of wireless technologies and/or networked hardware connectivity.

### **2.0 Strategy**

Requests for service are received on a daily basis via the Help Desk to Field Services technicians. Central administration offices have a dedicated technician who services the Fisher Campus. Other technicians support 141+ schools and other administrative locations. Requests for service are dispensed to Field Service technicians' via the Help Desk that receives requests via the telephone, email and the Self Service Portal. Occasionally support services are allocated differently during high demand periods or at times when special projects require additional resources..

Priority response levels are divided into two categories: administrative and instructional. The Division of Technology and Information Systems suggests schools and business offices enlist the services of the Project Management Office in the planning and development of technical projects that require several dedicated hours of technical attention.

Field Service issues have two classifications. The first classification is called 'Priority 1' and must be 'acknowledged' within 24 hours. Acknowledged is defined as calling the requestor and either talking directly to the individual and discussing the service request, or leaving a voice mail on the requestor's phone indicating the date and time of the return call, and detailing to the requestor what will be done. Other levels of Priority are as shown below:

### **3.0 Goals and Objectives**

The Field Services goal is to provide appropriate and timely service and repair to the end-users' computing experience while always seeking methods by which the customer's experience and service can be delivered in a more timely, less intrusive and improved manner.. Appropriate and timely service accompanied with a supportive attitude are critical to how the end-user responds to follow-up service questions asked after service has been rendered. Such responses are collected via a Customer Satisfaction Survey which is randomly generated to recent recipients of required technical support. The results of this survey are compiled and summarized on an monthly basis for internal administrative review.

Objectives to help achieve this goal include:

- Proper maintenance efforts that minimize the need for return visits to the same system or device
- Appropriately administered repair services based on the need to exercise maintenance agreements or provide requisite repair for continued use .



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### **3.0 Standards**

None

### **5.0 Performance Indicator**

The Division of Technology and Information Systems has created Service Level Objectives which establish terms by which service/support is measured. During the course of this Technology Plan, Service Level Objectives will be translated into Service Level Agreements to be contractually binding with DPS contractors responsible for Field Service delivery.

### **6.0 Implementation Action Steps**

None

### **7.0 List of Appendices**

None

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## **11.10. Technical Support: Audio Visual Services**

### **1.0 Introduction**

Detroit Public Schools Audio Visual Support Services (AVSS) is a uniquely organized function that delivers customer support in the form of equipment set-up, troubleshooting, maintenance and repair for audio visual equipment in administrative and school settings. The types of technology supported include public address systems, (photograph) identification badge creating systems, ID Card Server/Work station systems, video distribution systems, projection systems, audio systems, cameras and microphones.

AVSS receives requests for service daily via the IT Help Desk. Requestors access the Help Desk by phone, fax or on-line to complete a Help Desk Ticket Request form. Program supervisor assigns and deploys Audio Visual Technicians and vendors, as well as, School-based Technicians (16) in response to community use service requests. In recent years, the staffing and support levels have not kept pace with the expanded use of audio visual technology in the District.

Audio visual service calls are classified as either critical or non-critical. Critical calls must be 'acknowledged' within 2 hours. Acknowledging a call requires calling the requestor to discuss the service request. If the requestor is not reached, a voice mail message is left indicating the date and time of the return call and details about the next step in the service process. Calls are further prioritized based on the response category which indicates if the need is in an administrative or instructional area. Schools and business offices are encouraged to use the services of the Project Management Office when projects require dedicated technical support over a designated time period.

### **2.0 Strategy**

During this planning period, the primary strategy of Audio Visual Support Services is to increase its capacity to support the use of AV equipment in the teaching process and the learning experience. The approach includes establishing a base-level AV inventory at the AVSS Complex location, realigning the organizational structure, expanding roles and responsibilities, extending area of support to include learning environments (i.e. classrooms, labs, media centers, resource centers, etc.), and increasing professional development offerings. Implementation of these service capacity improvements will occur in three phases:

#### **Phase I – Organizational Changes (2012-2013)**

- Equip AVSS with the same types of AV Educational Technology (AV-ET) used in learning environments to increase staff competency and enhance remote technical support
- Continue use of AV vendors to perform technical repairs and upgrades
- Expand the role/responsibilities of AVSS to include supporting the use of AV equipment in learning environments
- Expand the role/responsibilities of AVSS to include being the first line of technical assistance for Teacher Technology Consultants
- Maintain AV Educational Technology inventory in a centralized application
- Provide professional development and tools to Teacher Technology Consultants for managing AV ET inventory

#### **Phase II – Expanding service coverage and Professional Development support (2013-2014)**

- 
- Develop and conduct professional development for Teacher Technology Consultants
  - Develop the total cost of ownership model of AV Educational Technology
  - Develop the business case for standardizing AV Educational Technology to reduce costs, improve competency, increase continuity for staff (particularly instructional staff), ensure equitable learning experiences for students
  - Develop standards for AV Educational Technology equipment for curriculum delivery and student learning

### **Phase III – Laying foundation for the next planning period (2014)**

- Evaluate systems for monitoring AV ET equipment remotely and providing remote technical support
- Develop the methodology for creating an integrated system of AV Educational Technology to support teaching and learning

### **3.0 Goals and Objectives**

The goal of Audio Visual Support Services is to provide appropriate and timely service and repair to users of AV equipment. Doing so with a supportive attitude is critical to ensuring that the experience of AV equipment users is satisfactory. The key objective for this reporting period is learning how to best provide service directly in learning environments (classrooms, labs, media centers, resource centers, etc).

### **4.0 Standards**

- Industry standards for each type of technology
- Hardware standardization for learning environments

### **5.0 Performance Indicator**

The asset management system currently in use by the District will be the primary tool for tracking acquisition, deployment and use of Audio Visual Educational Technology equipment. As equipment is acquired or reaches obsolescence, the related processes will be monitored to ensure that the purchase and disposition of equipment adhere to the Audio Visual Educational Technology standards.

Indicators of ET standardization:

- Increase in standard AV-ET equipment in inventory
- Decrease in number of non-standard AV-ET equipment in inventory
- Increase in percentage of AV-ET equipment acquisitions that meets standards
- Decrease in percentage of AV-ET equipment acquisitions that do not meet standards

### **6.0 Implementation Action Steps**

- 
- Secure funding and approval to purchase AV-ET for the Office of Audio Visual Support Services
  - Expand the role/responsibilities of AVSS to include supporting the use of AV equipment in learning environments (AV-ET)
  - Expand the role/responsibilities of AVSS to include being the first line of technical assistance for Teacher Technology Consultants
  - Translate service level objectives to service level agreements for AV contractors
  - Develop performance standards for AV contractors and staff
  - Maintain inventory of school-based AV-ET
  - Develop and conduct professional development for Teacher Technology Consultants
  - Develop the total cost of ownership model for AV-ET
  - Develop the business case for standardizing AV-ET to reduce costs, improve competency, increase continuity for staff (particularly instructional staff), ensure equitable learning experiences for students
  - Develop standards for AV-ET for curriculum delivery and student learning
  - Evaluate systems for monitoring AV-ET remotely and providing remote technical support
  - Develop the methodology for creating an integrated system of AV-ET to support teaching and learning

## **7.0 List of Appendices**

None

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## 11.11. Technical Support: Help Desk

### 1.0 Introduction

Service request tracking software provides the means for the Help Desk to log problems and track progress towards their resolution. It also provides management with information regarding support activities required to solve the service request.

### 2.0 Strategy

Help Desk technical support activities are categorized into four levels:

- **Priority 1**
  - Support – immediate resolution to callers request for service via the Help Desk agent over the telephone
- **Priority 2**
  - Support – immediate resolution that requires remote technical intervention
- **Priority 3**
  - Limited software applications support
- **Priority 4**
  - Support –support to projects that require technical intervention to computer equipment used throughout the district that meet the standard supported equipment descriptions as listed on the DPS Intranet

Service is provided by the DPS field service technicians assigned to schools and administrative offices district-wide.

### 3.0 Goals and Objectives

The goal of the DPS IT Help Desk is to offer a variety of repair and support services to DPS computer users requesting technical assistance in a customer-friendly, supportive manner. Service delivery may enlist both internal and external resources needed to respond to the caller's request.

Help Desk service delivery objectives:

- Consistent Level 1 support which consists of password resets, assistance with Email, , Windows, voice mail, network, and; printer troubleshooting/requests for installation assistance with the function and passwords for SubFinder; requests for audio visual, telecommunication, field service and wiring
- Assistance with repairs and warranty issues
- Consistent Level 2 support which includes remote access to the end-user's computer to affect software installations, network configurations, viruses, etc.
- Assistance with the implementation of Active Directory to all instructional and administrative sites

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## 4.0 Standards

Help Files available to Help Desk agents

## 5.0 Performance Indicator

The Division of Technology and Information Systems has created Service Level Objectives which establish terms by which service/support is measured. During the course of this Technology Plan, Service Level Objectives will be translated into Service Level Agreements to be contractually binding with DPS contractors responsible for technical service delivery.

The following indicators exist within the parameters of defined Service Level Objectives:

### ***Average Speed to Answer***

The average speed to answer measures the average number of seconds the end user waits on hold after his/her call has been processed by an automatic call director system to reach a Help Desk analyst by telephone. The customary reporting involves a monthly percent total for all calls. Besides meeting commitments to DPS end users, the details of the monthly totals provide insight into staffing levels by identifying peak volumes and time frames. With this information, DPS can adjust staff assignments to better serve timeframes that are known to be proven peaks. This measurement requires hardware and software to capture actual performance statistics. This measurement is typically used for an SLO and is one of the most frequently used metrics for environments where the telephone is the primary vehicle for contact.

### ***Abandon Rate (percent)***

This statistic measures the percentage of end users who hang up while waiting after being processed by an automatic call director system to reach the Help Desk. The customary reporting involves a monthly percent total for all calls. Besides meeting commitments to DPS end users, the details of the monthly totals provide insight into staffing levels by identifying peak volumes and time frames. This measurement requires appropriate telephony equipment and software to capture actual performance statistics. Equipment and software used to gather this data are installed at DPS today. This measurement is calculated by dividing the total number of Help Desk calls received in a month into the number of abandoned calls for that month.

## 6.0 Implementation Action Steps

- Improve average speed to answer experienced by Educational Technology users
  - Analysis the average speed to answer
  - Survey Educational Technology users to gain an understanding of their satisfaction or dissatisfaction with the current average speed to answer
  - Establish standard for average speed to answer
  - Improve delivery of service process(es) to achieve standard
- Improve level of service experienced by Educational Technology users
  - Identify and analyze the top ten types of support requests made by Educational Technology users

- 
- Work collaboratively with assigned Local Network Administrators who are responsible for communicating technical requests to the Help Desk
  - Survey Educational Technology users to gain an understanding of their satisfaction and dissatisfaction with the level of service they receive
  - Establish standards for delivery of these types of support
  - Improve delivery of service process(es) to achieve standard

## **7.0 List of Appendices**

None

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## 11.12. Technical Support: Hardware Standards

### 1.0 Introduction

Hardware standards play an essential role in the district's ability to facilitate the exchange of information, documents and resources that support the teaching and learning processes. The district's Educational Technology hardware standards are, and will continue to be, based on the current and emerging needs of the learning community. This section describes the strategy for establishing and leveraging hardware standardization to support achievement of the district's Educational Technology goals.

### 2.0 Strategy

Standardizing Educational Technology throughout the district requires the integration of academic, technical, and operational strategies.

#### ACADEMIC STRATEGIES

Standardization of Educational Technology hardware ensures consistency and continuity in the resources available to support the teaching and learning experiences. Students and teachers, regardless of where they are in the district, will have access to the same types of technology, technology they are competent and proficient in using while pursuing student achievement. Curriculum and academic standards are at the foundation of Educational Technology hardware standards. The types of technology that become "the standard" is based on how effective the technology is in supporting delivery of curriculum and learning. The types of technology for which standards are required include (but not limited to):

- Workstations (desktop, laptop, netbooks, tablets, smartphones) configurations
  - Internet access
  - Wireless
  - Multimedia capabilities
  - Assessment and word processing capabilities
  - Memory capacity
  - Storage capacity
  - External peripheral support capabilities (i.e. USB, CD, DVD, etc.)
- Speakers (PC, Ceiling)
- Printers
- Scanners
- Digital Probes
- Sensors
- Meters



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- Microscopes
  - Calculators (i.e. graphing, etc.)
  - Interactive whiteboards
  - Webcams
  - Audio Visual equipment
    - Monitors
    - Televisions
    - CD/DVD players
    - Projectors and Projection Systems
    - Digital cameras and camcorders
    - Document cameras
  - Assistive Technology
  - Career and Technical Education technology
  - Course Management systems hardware
  - Classroom performance system (CPS) (response system) hardware (i.e. remotes, base receiver stations)

During this planning period, current hardware standards for Educational Technology will be reviewed and revised. Standards for how hardware is configured in specific types of learning environments will also be revised, such as:

- Classrooms
- Labs
- Resource Centers for students, teachers, and parents/family
- Library Media Centers

Standards will also reflect the specific needs and requirements of specialized content areas by including guidelines for “customizing” the standard configuration with functionality appropriate for the various types of learning experiences (i.e. career technical education, bilingual education, early childhood education, etc.). These content area specifications will also be standardized during this planning period.

## **TECHNICAL STRATEGIES**

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Today, computers that do not meet the district's standards are not allowed on the district network, nor are they reconfigured to meet the standards. In most cases, the cost to configure a non-standard system exceeds the cost of purchasing a compliant system. In addition to district licensed software, all computers on the network are configured with anti-virus detecting software and operating system upgrades. Such practices ensure that the computers remain virus free and pose no threat to the DPS network and other computer systems.

The current criteria for hardware standardization ensures:

- ease of connectivity to the LAN/WAN
- ease of connectivity to external systems and organizations
- consistent performance of all integrated components in the networked environment
- serviceability of networked and non-networked equipment by internal and external service providers
- cost control and containment by replacing hardware before repair and maintenance become prohibitive

The process for evaluating hardware will be reviewed and revised during this planning period to support further standardization of hardware for Educational Technology purposes, particularly to ensure alignment with curriculum and academic standards.

## **OPERATIONAL STRATEGIES**

The policies, processes and practices governing the acquisition of Educational Technology hardware are critical factors in achievement of the goal of standardization. The level of success the district has in realizing the benefits of standardization is directly proportionate to the degree that the policies, processes and practices result in the purchase of equipment that meets the standards.

During this planning period, Educational Technology related procurement policies, processes, and practices will be reviewed and changes identified and implemented to support hardware standardization.

### **3.0 Goals and Objectives**

One of Detroit Public School's goals is to standardize the types of Educational Technology used in the district. Maintaining and improving hardware standards increases student access to equitable educational experiences, improves the end-user service experience, and controls and or reduces the total cost of ownership.

### **4.0 Standards**

- Industry standards for each type of technology
- Hardware standardization for learning environments

### **5.0 Performance Indicator**

The asset management system will be the primary tool for tracking acquisition, deployment and use of Educational Technology hardware. As equipment is acquired or reaches obsolescence, the related processes will

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be monitored to ensure that the purchase and disposition of equipment adhere to the Educational Technology hardware standards.

Indicators of ET standardization:

- Increase in standard ET hardware in inventory
- Decrease in number of non-standard ET hardware in inventory
- Increase in percentage of ET hardware acquisitions that meets standards
- Decrease in percentage of ET hardware acquisitions that do not meet standards

## **6.0 Implementation Action Steps**

- Review and revise ET hardware standards; Develop new standards if non-existing for particular types of technology
  - Responsibility of the ETC ET Architecture team
- Identify non-standard equipment in current ET inventory
  - Assess non-standard equipment to determine appropriate actions, 1)bring into compliance, 2) disposed of, or 3) redefine use of (i.e. use in curriculum teaching equipment repair, etc.)
- Create standardized computer images to ensure connectivity of only standard equipment to the DPS network
- Publish ET hardware standards; include
  - business case outlining rationale and demonstrating cost/benefits of standardization and non-standardization
  - reference to the district's Asset Recovery Program (ARP)
- Review and update district and school-level procurement policies, processes and practices to support standardization of Educational Technology hardware
- Develop process for monitoring compliance with ET hardware standards
- Monitor ET hardware acquisitions and deployment and take action to address/eliminate non-compliance to standards

## **7.0 List of Appendices**

None

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## 11.13. Technical Support: Software Standards

### 1.0 Introduction

Software standards play an essential role in the district's ability to facilitate the exchange of information, documents and resources that support the teaching and learning processes. The district's Educational Technology software standards are, and will continue to be based on the current and emerging needs of the learning community.

Detroit Public Schools has agreements with Microsoft and other software companies that provides for a comprehensive volume license program. This licensing allows the Division of Technology and Information Systems to install the following programs on any qualifying machine in the Detroit Public Schools District:

District Software Standards as of January 2012

#### **Operating system applications**

- Microsoft Windows – Current Standard is Windows 7 Professional
- Symantec Norton Anti-Virus Corporate Edition

#### **Instructional and productivity applications**

- Microsoft Office – Current Standard is Office 2010
- Microsoft Publisher
- Microsoft Visual Studio
- Adobe Acrobat Reader

#### **Instructional software applications**

- Renaissance Learning (Mathematics and Reading)
- Carnegie Math
- HMH Learning Village

In addition to the site licenses for the programs listed above, the Division of Technology and Information Systems has a "limited license" for select programs primarily used by District administrative professionals. Each DPS department is allowed up to two installations of limited license software. The DTIS help desk approves installations. The following list of currently approved "limited license" software applications:

#### **Instructional and productivity applications**

- Microsoft Project
- Microsoft Visio
- Adobe Acrobat Full Version

This section describes the strategy for establishing and leveraging software standardization to support achievement of the district's Educational Technology goals.

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## 2.0 Strategy

Standardizing instructional software throughout the district requires the integration of academic, technical, and operational strategies.

### ACADEMIC STRATEGIES

Standardization of instructional software ensures consistency and continuity in the resources available to support the teaching and learning experiences. Students and teachers, regardless of where they are in the district, will have access to the same types of instructional software, software they are competent and proficient in using while pursuing student achievement. Curriculum and academic standards are at the foundation of instructional software standards. The types of instructional software that become “the standard” is based on how effective the application is in supporting delivery of curriculum and learning. The types of instructional software applications for which standards are required include (but not limited to):

- General Education and STEM learning systems
  - Elementary
  - Middle School
  - High School
- Career Technical Education learning systems
- Adult Education learning systems
- Bilingual Education learning systems
- Early childhood education learning systems
- Course management
- Classroom performance
- Gradebook
- Assessments and data-driven personalized learning
- Evaluation
- Communications – email, blog,
- Calendar
- Teacher professional development (teaching)
- Administrator professional development (leadership)

### TECHNICAL STRATEGIES

Today, untested instructional software is not approved for installation on District issued computers. A detailed description of the procedure for testing instructional software is in section 11.14. During this reporting period,

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procurement policies, processes, and practices impacting testing of instructional software will be reviewed and changes identified and implemented to support software standardization.

## **OPERATIONAL STRATEGIES**

The policies, processes and practices governing the acquisition of instructional software are critical factors in achievement of the goal of standardization. The level of success the district has in realizing the benefits of standardization is directly proportionate to the degree that the policies, processes and practices result in the purchase of approved instructional software.

The procedure for purchasing instructional software is described in detail in section 11.14. During this reporting period, procurement policies, processes, and practices impacting the acquisition of instructional software will be reviewed and changes identified and implemented to support software standardization.

### **3.0 Goals and Objectives**

One of Detroit Public School's goals is to standardize the types of instructional software used in the district. Maintaining and improving software standards increases student access to equitable educational experiences, improves the end-user support experience, and controls and or reduces the total cost of ownership.

### **4.0 Standards**

- Industry standards for each type of software application
- Software standardization for learning environments (to be developed)

### **5.0 Performance Indicator**

Indicators of ET standardization:

- Increase in standard instructional software applications installed on District issued computers
- Decrease in unauthorized instructional software installed on District issued computers
- Increase in percentage of acquisitions of approved instructional software
- Decrease in percentage of acquisitions of unauthorized instructional software

### **6.0 Implementation Action Steps**

- Work collaboratively to establish instructional software applications standards to improve teaching and learning and to achieve greater operational efficiencies

### **7.0 List of Appendices**

None

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## **11.14. Procedures for Evaluating, Testing, Purchasing and Transferring Instructional Software**

### **1.0 Introduction**

The following procedures create a “win/win” situation for those using and supporting instructional software. The collaboration between Curriculum and Instruction and IT results in the selection of software prescribed by both academic and technology experts based on their respective criteria – academic effectiveness and operational feasibility and reliability.

The four procedures collectively contribute to improvement of District Educational Technology implementations:

- Curriculum management is effectively supplemented by instructional software applications
- Operability of Educational Technology is optimized
- Instructional software is “standardized”
- Fiscal integrity and cost savings results from the proactive measures taken prior to procurement

Failure to comply with these procedures may result in the purchase of products that do not perform adequately academically or technically.

### **2.0 Strategy**

#### **Procedure for Evaluating Instructional Software**

The software evaluation procedure helps the District to emphasize the need to prioritize purchase of instructional software applications that support student achievement in the most cost-effective and academically challenging manner possible. Fundamental to this prioritization are the objectives for establishing software evaluation as a standard means by which the following objectives can be met:

- Recognition that DPS is licensed to use an instructional assessment application which is resident on every computer ordered in the District to assess student reading and math capabilities across every grade level
- Encourage the use of supplemental instructional services that incorporate software to meet the instructional goals and objectives of the district and adhere to state instructional mandates

The primary intent of the software evaluation process is scrutiny of proposed instructional software by the academic group most closely aligned with the curriculum objectives and requirements for pacing the delivery of instruction to select student populations. Academicians ranging from classroom teachers, to content supervisors, to those responsible for specialized services on a prescriptive basis, are engaged in the decision-making process.

The process begins with the identification of potential instructional software solutions by those directly or indirectly responsible for the delivery of instruction. The discovery and selection phase may occur during a vendor led demonstration (conducted in person or via web-conferencing) or during a presentation at a professional meeting. Software products may be standalone or supplements to textbooks, and may have been considered during the adoption process.

Once identified, the potential software must be evaluated. Quite often products do not perform as anticipated and/or promised. Claims of academic improvement must be validated prior to purchase. The evaluation procedure is required for all instructional software applications whether they will be installed on a single workstation or on multiple workstations.

1	<p><b>Submit a completed Instructional Software Evaluation Form to the Division of Curriculum and Instruction</b></p> <p>The form is accessible electronically on the DPS intranet</p> <p>Required approvals must be secured prior to submitting the form (i.e. Site administrator, Assistant Superintendent, Deputy Superintendent, etc.)</p>
2	<p><b>Form a software evaluation team comprised of academic, technical, and research subject matter experts</b></p>
3	<p><b>Conduct an objective, analytical evaluation and rate the instructional software</b></p> <p>Review the following:</p> <ul style="list-style-type: none"> <li>• Software General Information</li> <li>• Type of Instructional Software</li> <li>• Alignment with district goals and objectives</li> <li>• Adherence to state mandates</li> <li>• System/Hardware Requirements and Curriculum Matching</li> <li>• Content</li> <li>• Instructional Design</li> <li>• Program Format</li> <li>• Ease of Use</li> <li>• Student Proof</li> <li>• Educational</li> <li>• Design Features</li> <li>• Entertaining</li> <li>• Support Materials</li> <li>• Technical Support</li> </ul>
4	<p><b>If the instructional software application rating is <u>acceptable</u></b></p> <ul style="list-style-type: none"> <li>• the team makes a recommendation to proceed to the software testing procedure</li> </ul>



	<ul style="list-style-type: none"> <li>the designated subject matter expert initiates the Software Testing Process by submitting a completed software testing application, along with software documentation, to the Division of Technology and Information Systems</li> <li>the requester is updated on the decision and the next step</li> </ul> <p><b>If the instructional software application rating is <u>unacceptable</u>,</b></p> <ul style="list-style-type: none"> <li>the team does not make a recommendation to proceed to the software testing procedure</li> <li>the requester is updated on the decision</li> </ul>
<b>5</b>	<b>Assemble and archive all documentation used in evaluating the instructional software application</b>

Currently, a procedure does not exist for reevaluating instructional software for continued use after initial approval. During this planning period, Curriculum and Instruction will work collaboratively with the Office of Research, Evaluation and Assessment to develop a procedure. An evaluation of all instructional software currently installed in the District will be conducted to determine things such as:

- identification of approved and unauthorized software
- learn functionality and technical support requirements of unauthorized software
- is application still meeting District needs
- learn the status of vendor technical support
- learn the status of applications and versions – current, outdated/obsolete, no longer sold
- technical support requirements and responsibilities for approved and unauthorized software
- opportunities to standardize when more than one application provides similar functionality
- highly effective applications that could be implemented strategically at select sites or district-wide

### Procedure for Testing Software

The Software Testing procedure is initiated upon successful completion of the software evaluation procedure. Testing determines if the instructional software application is compatible with DPS' systems.

<b>1</b>	<p><b>Test the instructional software application based on the configuration in which it will be installed (i.e. computer, printer, scanner, network, standalone, etc.)</b></p> <ul style="list-style-type: none"> <li><b>For on-line/web-based applications:</b></li> </ul>
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	<ul style="list-style-type: none"> <li>• Determine if the proposed installation sites are infrastructure ready (wiring and network equipment)</li> <li>• Determine if the web-based service can operate in the DPS network (i.e. adequate bandwidth and security)</li> <li>• Determine if the application will run on the network without affecting the efficiency of network operations (i.e. student information systems, payroll, procurement, etc.)</li> <li>• Determine if the application compromises privacy issues related to student data</li> <li>• Communicate implementation issues, such as bandwidth and security, to the site administrator and work to identify viable solutions (if decision is to proceed)</li> <li>• For instructional software applications that require transmission of student data to a portal outside of the DPS Intranet <ul style="list-style-type: none"> <li>• Secure approval from the legal department</li> </ul> </li> </ul>
2	<p><b>If the application <u>tests successfully</u>, and it is approved by the legal department (if applicable)</b></p> <ul style="list-style-type: none"> <li>• Add the application to “Approved Software List”, which is posted on the district’s intranet</li> <li>• Initiate the purchase procedure</li> </ul> <p><b>If the application <u>does not test successfully</u> and/or it is not approved by the legal department (if applicable)</b></p> <ul style="list-style-type: none"> <li>• Do not add the application to the list, it is not a validate purchase option</li> </ul>

**Procedure for Purchasing Instructional Software**

Purchasing software is as critical a consideration as purchasing hardware, textbooks, and other ancillary educational resources. This procedure guides and governs the purchase and installation of instructional software and/or access to online web-based applications. The procedure is implemented, and purchases authorized, after an application is successfully evaluated and tested. Purchase of unauthorized instructional software may led to technical and support issues.

1	<b>Consult the “Approved Software List” to determine if the software is approved for purchase</b>
2	<p><b>If the software is <u>on the “Approved Software List”</u></b></p> <ul style="list-style-type: none"> <li>• Determine if the software is associated with a specific project sanctioned by the Division of Curriculum and Instruction (i.e. Reading First, Accelerated Math, Carnegie Math, etc.)</li> <li>• If it is, before processing the requisition, contact the sponsoring Curriculum Office for</li> </ul>

	<p>additional information; there may be a district site license, special restrictions/stipulations, or a special buy price</p> <ul style="list-style-type: none"> <li>• If it is not, process the requisition</li> </ul> <p><b>If the software is <u>not on the “Approved Software List”</u></b></p> <ul style="list-style-type: none"> <li>• Return the requisition to the requestor indicating the reason</li> </ul>
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**Procedure for Transferring Software**

Only software licensed and legally installed on District issued computers is transferable between computers or locations. The type of license granted with the software determines how and where software is transferred. A graphic depiction of this procedure is available in appendix 11.15.

<b>Single user license</b>	The software may be used on any one computer without regard to where that computer is located
<b>Single site license</b>	<p>The software may be used at only one site within the District without regard to the physical location of that site within the District.</p> <p>Known exceptions to this site license usage are the “systemic projects” (or projects with district-wide licenses, such as the Accelerated Reader, Accelerated Math and Open Court).</p> <p>A number of other software products are related to systemic projects but are only licensed to individual school sites. These products require that only the site where the software was initially installed is allowed to use that particular named software.</p> <p>There are other products that may fit this category. Principals and administrators are urged to check the license granted with site specific software to determine if it only be used at a particular school.</p>

When problems occur because of software that is not related to a systemic project, the ability of a relocated computer to function properly is impacted. The machine must be re-imaged by designated Field Support Staff (i.e., the software removed and re-installed in accordance with the terms of the license agreement). In the event that software is requested for a re-imaged machine, and the software media or the license documentation is not physically available at the requesting site, then it cannot be legally re-installed.

**3.0 Goals and Objectives**

**4.0 Standards**

**5.0 Performance Indicators**

- DPS staff are knowledgeable of the evaluation, testing, purchasing, and transfer procedures

- 
- Reduction in purchase and use of unauthorized instructional software on District issued computers
  - Reduction in inoperability technical issues
  - Increase in understanding how an instructional software application will work academically and technically

## **6.0 Implementation Action Steps**

- Increase knowledge and proficiency of executing evaluation, testing, purchasing, and transfer procedures; methods include professional development, intranet, school web sites, coaching, technical support, etc.
- Develop process for reevaluating instructional software after initial purchase
- Reduce the time required to complete the evaluation, testing and purchasing procedures, individually and collectively
- Develop policy, process and procedures for unauthorized instructional software

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## 11.15. Technical Support: Computer Equipment Donations Process and Standards

### 1.0 Introduction

The business and industry community often considers opportunities to be of service to the local school community by offering donations of new and used computer equipment. Detroit Public Schools is no stranger to such generosity. We are fortunate to be the recipient of such donations via nationally-recognized businesses, local organizations and a multitude of other generous benefactors. To assure DPS donors that their computer equipment donations can be of service to the intended beneficiary school or instructional program, the Division of Technology and Information Systems established process definitions to guide acceptance or rejection of donated equipment. These processes serve to assure licensing compliance, network accessibility and an overall seamless installation of donated equipment into the selected location without creating issues relative to the district's acquired total cost of ownership.

### 2.0 Strategy

Educational Technology donations require collaboration between the potential donor, representative(s) from the selected school organization, the Office of Development, the Office of Procurement, and a member of the Division of Technology and Information Systems Project Management Office. The steps of the process for donating new equipment are outlined in appendix 11.16A and for donating used in appendix 11.16B. These processes assure the District that donated equipment meets the district's hardware standards and that a technically-ready environment exists to support the proposed donation.

### 3.0 Goals and Objectives

- Facilitate adherence to district standards for Educational Technology equipment, including facility readiness, technical readiness, hardware configurations, licensing compliance and network accessibility
- Guide potential donors through the donation process to ensure a match between the district's standards and the specifications and configurations of the equipment being donated
- Successfully integrate donated computer equipment adherence to district standards, while simultaneously considering the total cost of ownership and functionality in the selected location
- Acknowledge donations via communications sent by the Office of Development

### 4.0 Standards

- *New Computer Equipment Donations Process Definition for Detroit Public Schools*
- *Used Computer Equipment Donations Process Definition for Detroit Public Schools*

### 5.0 Performance Indicator

- Donations accepted due to compliance with the donation process definitions
- Donations rejected due to non-compliance with the donation process definitions
- Reduction or elimination of costs incurred to bring donated equipment up to DPS standards

- 
- Acknowledgement communication received by donor within 30 days of acceptance of the donation

## **6.0 Implementation Action Steps**

- Analyze the donation process definitions to identify ways to:
  - Reduce the number of days from receipt of potential donation notification and completion of the determine of whether the equipment meets district standards and specifications
  - Reduce the number of days from determine that equipment meets district standards and specifications and install of the equipment at the designated donation location
  - Determine the feasibility of using donated equipment that does not meet district standards to support curriculum programs designed to teach technology concepts such as identifying the main components of a computer, disassembly and assembly of a computer, etc.
  - Minimize the cost incurred by the district when equipment donations are accepted
- Develop and publish a guide on “How to donate Educational Technology equipment to DPS”
- Develop and launch a Educational Technology donation campaign, including distribution of the guide; align campaign with ETP strategies

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## **Section 11**

### **Asset Management, Protection & Recovery**

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## **Section 11. Asset Management, Protection & Recovery**

### **11.16. Asset Management**

#### **1.0 Introduction**

Educational Technology equipment, both portable and non-portable, is crucial to the attainment of the goal to improve student achievement. The loss of this equipment by way of fire, theft, or vandalism, especially in large numbers, significantly hampers the education of the students at the affected facility. As the use of Educational Technology has become more pervasive, so have the issues of management, protection and recovery of these assets. The DPS Asset Management program, as implemented by the Office of Risk Management, works to mitigate the impact of such losses.

This section covers the process of asset management, which addresses inventory management, insurance and collaborative accountability. The remaining two elements of asset management, asset protection and asset recovery, are covered in sections 11.18 and 11.19 respectively.

#### **2.0 Strategy**

##### **INVENTORY MANAGEMENT**

Risk Management working collaborative with, the Division of Technology and Information Systems, the Office of Procurement, the Office of Grant Compliance of the Department of State and Federal Programs, Administrators and other DPS staff, accounts for Educational Technology equipment from the date of purchase through its end of useful life and disposition. A shared asset management database houses the inventory of all DPS owned equipment includes instructional as well as administrative technology. The District must maintain an accurate, up-to-date inventory to ensure adequate coverage and to provide proof of ownership in the event of program audits or equipment losses due to theft, fire or vandalism. A risk management perspective of inventory management also ensures that District offices comply with external requirements imposed by grantors and federal and state regulations.

The effort to maintain the integrity of Educational Technology inventory includes communicating the importance of entering existing and new equipment in the Asset Management System whenever changes to ownership occur. This includes moving equipment from one location to another; assigning levels of access to the assigned user and/or equipment re-assignments based on user or location.

In addition to Risk Management maintaining the Educational Technology inventory, a host of other DPS staff retain inventory information, particularly if equipment was acquired using grant funds or is used to support a particular curriculum content area. These decentralized inventory management systems are designed and managed solely by the individual end-users. Uniformity is not currently mandated.

During this planning period, the District will complete evaluation of a replacement for its current Asset Management System. The evaluation will include assessing the impact and benefit of changing from multiple inventory systems to one centralized inventory system.

##### **INSURANCE COVERAGE**

The Detroit Public Schools is currently self-insured against losses of Educational Technology assets, which includes hardware, software and instructional materials. In recent years, the number of incidents of theft and vandalism and the value of equipment and material losses has escalated. During this planning period, the District will analyze the processes for funding replacements, prioritizing claims, and for clearing the claims backlog. Improvements to these processes will not only ensure efficient replacements of Educational Technology equipment, it will also ensure that breaks in the continuity of delivery of technology-enabled curriculum are minimized, thereby limiting the impact of Educational Technology losses on student learning and achievement.

## COLLABORATIVE ASSET MANAGEMENT & ACCOUNTABILITY

In addition to providing coverage for losses, the Office of Risk Management works collaboratively with other DPS staff to manage and protect of Educational Technology assets, thereby reducing the risk of losses.

<b>Areas</b>	<b>Collaborative Accountability</b>
School Leadership and Accountability	<ul style="list-style-type: none"> <li>• Support asset management at the school level by communicating Educational Technology asset protection policies, processes and procedures</li> <li>• Support asset management by holding administrators accountable</li> <li>• Lead effort to implement an asset inventory and tracking system</li> </ul>
Administrators	<ul style="list-style-type: none"> <li>• Develop and implement site or office specific policies, processes, procedures and practices for maintaining the physical security of Educational Technology assets</li> <li>• Hold staff accountable for security of Educational Technology assets and compliance with policies, processes, procedures and practices</li> <li>• Include the cost of initial and on-going security (systems, devices, services) in the total cost of Educational Technology ownership</li> <li>• Sustain funding for security systems, devices and asset tracking services for Educational Technology assets</li> <li>• Lead effort to implement an asset inventory and tracking system               <ul style="list-style-type: none"> <li>• Use Active Directory to capture or validate inventory and to support monitoring and tracking of redeployed assets</li> </ul> </li> </ul>
Curriculum and Instruction (Teacher Technology Consultants)	<ul style="list-style-type: none"> <li>• Support maintenance of Educational Technology asset inventory               <ul style="list-style-type: none"> <li>• Use Active Directory to capture or validate inventory and to support monitoring and tracking of redeployed assets</li> </ul> </li> <li>• Support implementation of asset recovery program</li> </ul>
Public Safety	<ul style="list-style-type: none"> <li>• Sustain up-to-date policies, processes, procedures and practices for maintaining security systems and for responding to theft and vandalism incidents</li> <li>• Advise administrators on site-appropriate physical security practices including (but not limited to)               <ul style="list-style-type: none"> <li>• Security and storage protocols</li> </ul> </li> </ul>



Areas	Collaborative Accountability
	<ul style="list-style-type: none"> <li>• Locking rooms when not in use</li> <li>• Confirming identity of visitors</li> <li>• Escorting visitors</li> <li>• Security detection equipment; intruder alarm system <ul style="list-style-type: none"> <li>• Securing and monitoring ground level access</li> <li>• Approach and room included in coverage by alarm system</li> </ul> </li> <li>• Creating secure areas <ul style="list-style-type: none"> <li>• window locks, latches, grilles or shutters</li> <li>• internal and external doors</li> <li>• door lock and frame reinforcements</li> <li>• access controls; managed master-keying systems</li> <li>• interior and exterior lighting</li> <li>• line of sight into areas where equipment is stored</li> <li>• fencing</li> </ul> </li> <li>• Property marking</li> <li>• Provide materials for staff professional development on security system related asset protection</li> <li>• Conduct investigations, recover stolen assets, and support efforts to prosecute perpetrators</li> <li>• Elicit engagement of all stakeholders in protecting and recovering stolen Educational Technology assets</li> </ul>
Technology and Information Systems	<ul style="list-style-type: none"> <li>• Support maintenance of Educational Technology asset inventory <ul style="list-style-type: none"> <li>• Use Active Directory to capture or validate inventory and to support monitoring and tracking of redeployed assets</li> </ul> </li> <li>• Support implementation of Asset Recovery Program</li> <li>• Support recovery of stolen Educational Technology assets using tracking and disabling technology</li> <li>• Equipping all equipment with DPS asset tags</li> <li>• Advise administrators on anti-theft devices to secure individual items <ul style="list-style-type: none"> <li>• Cable restraint/lock kits</li> <li>• Enclosure devices</li> <li>• Permanent mount brackets, anchoring devices</li> <li>• Locking storage cabinets and carts</li> </ul> </li> </ul>
Facility Services	<ul style="list-style-type: none"> <li>• Support maintenance of Educational Technology asset inventory; particularly as part of realignment and closure program <ul style="list-style-type: none"> <li>• Use Active Directory to capture or validate inventory and to support redeployment of assets</li> </ul> </li> <li>• Advise administrators on site-appropriate physical security practices including (but not limited to) <ul style="list-style-type: none"> <li>• Security and storage protocols <ul style="list-style-type: none"> <li>• Locking rooms when not in use</li> <li>• Confirming identity of visitors</li> </ul> </li> </ul> </li> </ul>

Areas	Collaborative Accountability
	<ul style="list-style-type: none"> <li>• Escorting visitors</li> <li>• Creating secure areas               <ul style="list-style-type: none"> <li>• window locks, latches, grilles or shutters</li> <li>• internal and external doors</li> <li>• door lock and frame reinforcements</li> <li>• access controls; managed master-keying systems</li> <li>• interior and exterior lighting</li> <li>• line of sight into areas where equipment is stored</li> <li>• fencing</li> </ul> </li> <li>• Property marking</li> </ul>
Department of State and Federal Programs	<ul style="list-style-type: none"> <li>• Support maintenance of Educational Technology asset inventory               <ul style="list-style-type: none"> <li>• Review for requirements of A-102 Common Rule and OBM Circular A-133 supplement regarding grant funded equipment to conduct physical inventory of equipment acquired under Federal grant awards every two years</li> <li>• Meet property records compliance requirements – description (including serial number or other identification number), source, title holder, acquisition date and cost, percentage of Federal participation in the cost, location, condition, funding source and tag number</li> </ul> </li> <li>• Support implementation of Asset Recovery Program               <ul style="list-style-type: none"> <li>• Review for requirements of A-102 Common Rule and OBM Circular A-133 supplement regarding grant funded equipment regarding redeployment (i.e. another school same program; different program eligible for federal funds) and disposition (i.e. sale, disposal) of equipment</li> <li>•</li> </ul> </li> </ul>
Procurement and Logistics; Accounting	<ul style="list-style-type: none"> <li>• Support maintenance of Educational Technology asset inventory</li> <li>• Support implementation of Asset Recovery Program               <ul style="list-style-type: none"> <li>• Development of annual ARP report by providing information from the asset inventory system</li> <li>• Support maintenance of Educational Technology asset inventory</li> <li>• Meet compliance requirement of A-102 Common Rule and OBM Circular A-133 supplement regarding grant funded equipment to conduct physical inventory of equipment acquired under Federal grant awards every two years</li> <li>• Meet property records compliance requirements – description (including serial number or other identification number), source, title holder, acquisition date and cost, percentage of Federal participation in the cost, location, condition, funding source and tage</li> </ul> </li> </ul>

Areas	Collaborative Accountability
	number <ul style="list-style-type: none"> <li>• Support implementation of Asset Recovery Program</li> <li>• Meet compliance requirements of A-102 Common Rule and OBM Circular A-133 supplement regarding grant funded equipment regarding redeployment (i.e. another school same program: different program eligible for federal funds) and disposition (i.e. sale disposal) of equipment</li> <li>• Meet property records compliance requirements for disposition – date of disposal, sales price or method used to determine current fair market value</li> <li>• Development of annual ARP report</li> </ul>
Human Resources	<ul style="list-style-type: none"> <li>• Develop or modify existing work rules, processes and procedures related to asset protection</li> </ul>
Professional Development	<ul style="list-style-type: none"> <li>• Support asset management via staff development using both communications and training based delivery methods</li> </ul>
Community Communications	<ul style="list-style-type: none"> <li>• Develop and deliver messages to the DPS Learning Community about DPS' commitment and strategies to protect and recover Educational Technology assets</li> </ul>
General Counsel Human Resources	<ul style="list-style-type: none"> <li>• Execute processes to discipline and prosecute DPS employees who initiate or assist with theft of Educational Technology assets</li> <li>• Execute processes to discipline DPS employees who conceal knowledge of theft, intended or attempted theft of Educational Technology assets</li> </ul>

### 3.0 Goals and Objectives

- Ensure that an accurate inventory of Educational Technology assets is retained; ensuring that appropriate insurance coverage is maintained; allowing for effective and efficient claims processing in the event that replacement is required
- Coordinate management of assets from acquisition to end of life cycle, including a uniform process for initiating the inventory management process by DPS Offices
- Seamlessly capture reallocation of equipment in the asset management system when schools close, consolidate, or relocate; Update of the inventory is an integrated part of the close/consolidation process
- Build a culture that manages, protects, and recovers DPS Educational Technology assets

### 4.0 Standards

Standards for asset management will be developed during this planning period

### 5.0 Performance Indicators

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- An up-to-date inventory of Educational Technology assets is maintained on the secured website
  - Accessibility to Educational Technology asset management policies, processes, procedures and work rules by all DPS employees
  - Accessibility to information about Educational Technology asset management by the DPS Learning Community
  - Active participation of DPS stakeholders in implementing asset management process and in decision-making and problem solving

## **6.0 Implementation Action Steps**

- Update the Educational Technology inventory; execute Asset Recovery Program (ARP) concurrently
- Work collaboratively with Information Technology, Facilities Services, and the Department of State and Federal Programs to implement a new asset inventory and tracking system
- Work collaboratively with various DPS stakeholders to improve and implement a seamless Asset Management process
  - Review, revise and develop policies, processes, procedures, and work rules to support the process including (but not limited to):
    - Sustaining funding for processing claims for loss of Educational Equipment assets
    - Streamlining claims processing
    - Making claims process documentation accessible to all DPS staff by posting it on the intranet (already on the intranet, however, needs to be updated)
    - Strengthening punitive consequences for employee initiated or assisted larceny of Educational Technology equipment
  - Conduct staff development and communication campaigns on asset management, protection and recovery
  - Estimate costs, identify funding sources, and secure funding to install identification tags, tracking and disabling equipment on designated, if not all, Educational Technology equipment
  - Sustain funding for equipment tracking and disabling services and to increase the recovery rate of stolen Educational Technology equipment
  - Engage the following departments/offices
    - School Leadership and Accountability
    - Curriculum and Instruction
    - Risk Management
    - Information and Technology Systems
    - Public Safety
    - Facilities Services
    - Procurement
    - Human Resources
    - Professional Development
    - General Council
    - Budget
    - Department of State and Federal Programs; Compliance

## **7.0 List of Appendices**

None

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## 11.17. Asset Protection

### 1.0 Introduction

The increased use of Educational Technology in the District has ushered in the need to rethink and upgrade the level of asset protection in the District. Securing and monitoring the assets used in the teaching and learning processes has become increasingly challenging and will remain a critical factor in our success. If students are to meet the learning objectives of being technologically literate by the eighth grade and successfully completing an on-line course to qualify for graduation, they must have consistent and significant access to the tools designed to help them do so. When students and teachers are provided a vast complement of technology based tools they must also be supported with the means to retain those valuable resources. Educational Technology initiatives are only successful when computers remain in the students' hands. A lost or stolen computer means a child gets left behind.

This section of the plan describes the asset protection strategy for Educational Technology assets and shares the current challenges in today's evolving climate.

### 2.0 Strategy

Technology rich school environments require a comprehensive asset protection strategy to ensure continued accessibility to the technology by students, teachers, other District staff and key stakeholders, such as parents. The strategy includes:

- 2.1 Asset protection standards
  - 2.1.1 Access control
  - 2.1.2 Security devices and asset identification markings
  - 2.1.3 Security system components
- 2.2 Asset protection assessments
- 2.3 Asset protection services
- 2.4 Security system maintenance, repair, and replacement
- 2.5 Asset protection funding
- 2.6 Recovery of stolen assets and prosecution of offenders
- 2.7 Asset protection and redeployment due to school closures

#### 2.1 Asset Protection Policy and Standards

Asset protection policy and standards will be reviewed and revised during this planning period.

- Asset Protection Policy requiring mandatory inclusion of asset management, protection and recovery services for Educational Technology assets in the total cost of ownership model and in the budget/funding process
- Standards for the exterior and interior of facilities to protect access to assets (includes protection on all floors with technology rich rooms, particularly on the ground floor):
  - window locks, latches, grilles or shutters
  - internal and external doors
  - door lock and frame reinforcements
  - access controls; managed master-keying systems
  - landscaping (bushes and trees) near windows and entrances (staff and students)
  - interior and exterior lighting
  - roof access

- 
- fencing
  - Standards for security devices and systems based on room types and location within the facility:
    - Classroom
    - Lab
    - Resource Center
    - Administrative office
    - Storage
  - Standards for adequately staffing Public Safety to facilitate remote observation, surveillance and patrolling services to ensure protection of Educational Technology assets district-wide; Review and revise staffing model and formula to allow adjustment of staffing levels based on inventory levels
  - Standards for role and responsibility specific access rights to District employee data for staff charged with executing processes to protect and recover Educational Technology assets; as well as to execute processes to prosecute perpetrators of theft or attempted theft

### **2.1.1 Access control**

Controlling access to educational technology assets means controlling who has access, how access is gained and monitoring areas where equipment is accessible.

- Staff access
  - Administrators
  - Instructional staff
  - Non-instructional staff
- Visitors access
  - Maintain visitors log; includes visiting employees and vendors
  - Confirming identity of visitors and vendors
  - Monitoring visitors and vendors while in technology rich environments
  - Limiting visitors and vendor access to specific environments and applications
- Room access
  - Master keying; Keyless entry
  - Securing technology rich rooms when not in use
  - Storing technology carts in secure rooms when not in use, particularly overnight
  - When charging portable devices (e.g. laptops, PDAs, digital cameras) ensure they are located in a secure location
  - Store inventory list and software in secure locations
- Security detection equipment; intruder alarm system used to monitor access
  - Ground level doors and windows
  - Approaches to technology rich rooms and the rooms themselves

### **2.1.2 Security Devices and Asset Identification Markings**

Additional protection of Educational Technology includes use of security devices and asset identification markings.

- Anti-theft devices: Cable restraint/lock kits, enclosure devices
- Permanent mount brackets (for equipment like digital projectors)
- Anchoring devices for desktop computers, printers, and scanners
- Locking storage cabinets and carts
- Asset tags and highly visible markings (engraving) in a prominent location on all equipment (especially monitors, CPU, keyboard, printers, scanners, etc.)

### 2.1.3 Security System Components

The majority of DPS' security systems currently include three or more of the following components: 1) burglary system, 2) camera system, 3) remote observation system, 4) remote surveillance system, 5) access control system, and 6) asset disarming and tracking devices. The functionality, age, and staffing support for these components dictate the degree to which Educational Technology assets are protected.

	<b>Protection</b>	<b>Maximum Protection</b>
<b>Camera, Fixed</b>	<b>X</b>	
<b>Camera, Zoom, Roving</b>		<b>X</b>
<b>DVR Production Capacity</b>		<b>X</b>
<b>Motion Detection, 1<sup>st</sup> floor, limited</b>	<b>X</b>	
<b>Motion Detection, 1<sup>st</sup> floor, pervasive</b>		<b>X</b>
<b>Observation, on-site, not technology enabled</b>	<b>X</b>	
<b>Observation, Remote, technology enabled, single manned</b>		<b>X</b>
<b>Observation, Remote, technology enabled, multi manned</b>		<b>X</b>
<b>Remote surveillance, technology</b>		<b>X</b>
<b>Entry, keyed</b>	<b>X</b>	
<b>Entry, keyless (Labs, Libraries, Libraries)</b>		<b>X</b>
<b>Burglary System Age, Greater than 5 years</b>	<b>X</b>	
<b>Burglary System Age, Less than 5 years</b>		<b>X</b>
<b>Metal detection, single manned</b>	<b>X</b>	
<b>Metal detection, multi manned</b>		<b>X</b>

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- **Burglary System**

- Consists of a system logic controller and communicator, an end user operation interface and appropriate, situation determined, detection devices which are triggered by activities in protected areas
- Challenges: 1) Aging equipment, 2) Equipment low tech functionality, 3) Limited funding available for alarm system upgrades, 4) The need to maintain parallel systems (i.e. old and new) in some locations results in an increase in the level of manpower and financial resources required, 5) Access control; access to codes and passwords not always limited to authorized personnel only

- **Camera Systems**

- Consists of wall-mounted cameras with capacity to zoom and rove or cover fixed areas and digital video recording which facilitates 24/7/365 coverage
- Cameras are effective follow-up investigative tools; contributing significantly to success in apprehending perpetrators based on the images captured of criminal incidents
- Challenges: 1) Equipment failures, 2) inadequate coverage due to inadequate number of cameras installed

- **Remote Observation System**

- Remote viewing capability from the Communication Center enables higher utilization of staff due to the ability to observe multiple facilities and to dispatch staff to locations only if they require investigation
- Video streaming technology allows “real time” observation and response
- Remotely observing activities occurring in the facility is the first level of investigation when burglar alarms are activated
- Challenges: 1) Inadequate staffing to facilitate uninterrupted coverage, particularly when incidents occur; 2) Timely response; 3) Response time; 4) Inadequate funding for staffing

- **Remote, Mobile Video Surveillance System**

- Use of remote video security technology further enhances security without increasing manpower; it also decreases the response time to potential or actual security incidents
- Mobile video surveillance (live video streaming) allows instant “real time” visual observation, confirmation and response to the security status of assets
- Video images are sent from existing cameras of the burglary system to a PDA/Cell phone of a Public Safety Supervisor or Officer, enabling security officers to monitor DPS Educational Technology assets any time, from any location
- A call or text message is received on the cell phone when designated rooms are entered; connections to security system components is simultaneous; images from every camera in the school are accessible
- The existing security system infrastructure can be easily integrated into a single, unified security structure
- Challenges: 1) Funding for initial and on-going cost of ownership, 2) Securing and sustaining funding and approval although cost savings gained by investing in Educational Technology asset protection have been proven to exceed or match the cost of paying for asset replacement, 3) Instilling a sense of confidence in the Detroit Learning community that assets are secure and will remain accessible to students
  - Upgrades to school security technology systems estimates during the last planning period ranged from \$35,000 to \$75,000, per site (pilot proposal)
  - In most incidents the costs to upgrade the security system technology is less than or equal to losses reported due to vandalism or theft of Educational Technology assets, such as:
    - \$55,800 – 60 computers, 4 printers
    - \$52,000 – 42 new dell computers



- \$43,680 – 48 computers (damaged, stolen)
  - \$40,500 – 29 laptops, 1 LCD projector, 6 walkie talkies
  - The costs of total losses (of all types of assets) in times past has reached as high as \$2 million dollars in a year, with the cost unsecured incident costs averaging \$50,000 to \$100,000 per incident
  - A significant and increasing percentage of losses are Educational Technology related, losses that the District can ill afford
- During this planning period Detroit Public Schools will seek funding to upgrade security technology to improve protection of Educational Technology assets and to increase its ROI financially and academically:
    - Phase I – Secure closing schools
      - Estimate cost of security risk assessments and security systems for schools designated for closure
      - Security systems will be installed for use during the transition period from the announcement of closures to the redeployment of the assets
        - Securing the facilities where assets presently reside (vs. moving the assets) could help to simplify and streamline the inventory and redeployment processes
        - Equipment could remain in the closed buildings, be inventoried, and a consolidated list generated; once redeployment decisions are made, equipment would be packed up and moved directly from the closed schools to the reassigned locations, eliminating the need to move equipment to a warehouse, unpacked, sort and pick, repacked then redeployed
        - Additional savings may be realized if there is a reduction in the cost of securing vandalized facilities
          - Once all assets have been redeployed, the Security Technology will be uninstalled, redeployed, and reinstalled in “high security risk” schools; defined as technology rich schools with low tech security technology and high environmental risk factors
    - Phase I – Improve protection at high security risk schools
      - Identify schools meeting criteria as high security risk
      - Upgrade security technology system
    - Phase II – Improve protection at remaining schools
      - Based on risk assessment results schools will be ranked and prioritized; consideration will be given to the quantity, quality and value of the current or proposed Educational Technology assets and identifiable security risks
- **Access Control Systems**
    - Keyed entrances are the norm for technology rich environments
      - Challenge: 1) inability to track unauthorized key distribution, 2) timely lock changes when staff changes
    - Under evaluation during this planning period is standardization on keyless entry with coverage of key access points:
      - Computer labs/resource centers/library media centers, Main entrances (front and back), Office, etc. at an average cost \$5000/per installation
      - Numeric key pad; electromagnetic swipe card
      - Benefits: Reduce number of unauthorized keys, special locks; Less expensive than making lock changes when personnel changes
      - Challenge: initial funding to cover conversion costs and on-going cost of ownership
    - Staffing two (2) metal detection units which are installed in each school
      - Challenge: adequate staffing (single-manned units)
- **Asset disarming and tracking devices**

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- The District hardware standard requires that computers be configured with tracking and disabling devices designed to deter theft, to aid in the recovery of stolen assets and to aid in persecution of perpetrators
  - Absolute Software's Computrace Complete is the comprehensive solution that enables Detroit Public Schools to:
    - Track and recover stolen computers with a secure embedded support in the BIOS
    - Track computer inventory from a single point of control
    - Maintain auditing capabilities and historical records of Educational Technology assets
    - Manage asset leasing information
    - Ensure regulatory compliance
    - Generate asset reports for upgrades, roll-outs and PC retirement
    - Work collaboratively with the Absolute recovery teams, and with other law enforcement agencies to track and recover stolen assets
    - Challenges: 1) Full utilization and optimization of Absolute's capabilities; 2) Meeting eligibility criteria service guarantee of up to \$1000 (per computer) if lost or stolen computers are not recovered

## **2.2 Asset Protection Assessments**

### **District Asset Protection Assessment**

To keep the risk of equipment losses low, security systems and staffing must keep pace with the deployment of Educational Technology. Starting this reporting period, a district-wide assessment will be performed annually to determine the gap between the current state of Educational Technology asset protection and the Security Standards. The assessment will focus on technology distribution, access control, security devices and system, staffing and facility capacity (condition of interior/exterior doors, condition of windows, roof; secure storage areas, interior/exterior lighting, etc). The assessment will identify the changes required to close the gap, providing the information needed to project the cost of implementing the changes. The assessment will also include a cost/benefits analysis that compares the cost of asset protection to the potential cost of asset replacement.

### **Site-based Asset Protection Assessment**

Starting this planning period, a site-based asset protection assessment will be a required component of each Educational Technology project proposal. The assessment will determine the current state of technology distribution, access control, security devices and system, staffing, and facility capacity (condition of interior/exterior doors, condition of windows, roof; secure storage areas, interior/exterior lighting, etc). The assessment will also determine the changes required to support the proposed future state of educational technology and aid in projecting the total cost of ownership.

## **2.3 Asset Protection Services**

The Office of Public Safety is the district's provider of on-site asset protection services. Its mission and duty is to protect District personnel and assets. This is a partial list of services provided:

- Govern the maintenance of security systems and methods of responding to theft and vandalism incidents via up-to-date departmental policies, processes, procedures and practices
- Work collaboratively with other DPS offices to provide comprehensive asset protection
  - Technology and Information Systems, Risk Management, Human Resources, Facilities, and General Counsel

- 
- Advise administrators on implementing site-appropriate physical security policies, processes, devices and systems for Educational Technology assets
    - Security assessment
    - Security protocols
    - Security checklist
    - Staff professional development materials on security system related asset protection
  
  - Install, man, maintain and repair security systems
    - Challenges: sustaining adequate staffing levels
  
  - Investigate thefts or attempted thefts, recover stolen assets, and support efforts to prosecute perpetrators
    - Challenges: sustaining adequate staffing levels; timely access to employee data during the investigation process
  
    - Work collaboratively with law enforcement agencies of all neighboring communities to develop and sustain interoperability of responses; also clarify roles, responsibilities and lines of authority
      - Detroit Police Department, Wayne County Police Department, WSU, HFHS
  
      - Challenges: Responding to DPS vandalism and theft incidents is a low priority; overlapping or gaps in understanding of roles, responsibilities and lines of authority

## **2.4 Security System Maintenance, repair and replacement**

The lack of ongoing maintenance and timely repair and replacement of security equipment frequently leads to system failures rendering systems components ineffective. Three maintenance/repair technicians service over 1000 systems comprised of well over 17,000 devices at 200+ sites. Consequently, the service model is reactive vs. proactive and preventative, with the primary focus of resolving urgent needs as they arise. External support is engaged sparingly when the work load demands it or when additional expertise is required.

## **2.5 Security Funding**

Today, responsibility for funding school-based security systems lies solely with school administrators. More times than desirable, Educational Technology initiatives do not include the installation or upgrade of a security technology system that adequately protects the assets. Additionally, the Office of Public Safety's budget has not kept pace with the increased costs of protecting the increased inventory of Educational Technology assets. Public Safety budget and funding are out of line with today's needs.

A total cost of ownership model that includes funding for security system acquisition, maintenance and repair is one step in ensuring that Education Technology assets are given the opportunity to deliver the desired return on investment both academically and financially. Consideration must also be given to shifting the responsibility for funding the protection of the District's Educational Technology assets to central administration.

## **2,7 Recovery of assets and prosecution of offenders**

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Collaboration between DPS Offices (i.e. Public Safety, Risk Management, LEA, HR, etc.), as well as with external law enforcement agencies, must occur if the investigative and prosecution processes are to be streamlined and improved.

Theft and vandalism of Educational Technology assets creates a setback in the effort to accelerate learning. All incidents must be treated seriously, particularly when members of the learning community initiates these acts. The impact on student achievement must drive decision making and be the impetus for immediate and forceful actions. Penalties must be established and enforced for staff thefts, staff aided external thefts; external theft aided by students, parents/guardians, or others engaged in the school community. Alleged burglary without forced entry and undetected theft (example: boxes empty when opened), particularly in environments with high levels of access to Educational Technology must be prevented. Expeditious recovery of assets and appropriate punishment of perpetrators will send a message that theft and vandalism of DPS assets will not be tolerated.

Policies and processes must be strengthened to control and restrict the distribution of security surveillance media and information about incidents under investigation. Requiring executive level security personnel authorization for the release of such security collaterals or information will serve to reduce the probability of inappropriate or unauthorized use.

## **2.7 Asset protection and redeployment due to school closure**

The District realignment and closures program facilitates the process for protection and redeployment of Educational Resources due to school closures. The process addresses all educational technology assets, including hardware (i.e. computers, printers, network delivery equipment, etc.), software, instructional materials, electrical equipment, and security devices and systems. It includes the security, uninstall, pack, move, and reinstall of assets. With the number of projected and potential school closures during this and future planning periods, effective and efficient management of the process to protect and redeploy Educational Technology assets is crucial to the continuity of the learning experience of impacted students.

Key tasks of the process are:

- Identification and engagement of all stakeholders impacted by the redeployment (i.e. Curriculum Executive Directors and Program Supervisors, IT, Grant Compliance, Facilities, Public Safety, School Leadership and Accountability, Administrators, PMT, contract vendors, etc.)
- Assignment of all tasks to either DPS or contracted staff
- Review and revision of vendor contract terms and conditions to reflect process roles and responsibilities based on current needs
- Timely inventory of Educational Technology assets in closing schools by the Division of Curriculum and Instruction (or their designees); including identification of equipment for the ARP program
- Structured decision-making on redeploying assets considering the original funding sources and requirements, reassignment of students, availability of space, programs and equipment in new school sites, etc.
- Storage and security of assets during the transition period; includes accountability for sustaining the condition of the assets and protecting against loss due to theft

## **3.0 Goals and Objectives**

- Reduce the disparities and lack of continuity in the level of protection of Educational Technology provided by security systems in the District
- Provide adequate protection of Educational Technology assets to minimize loss due to larceny
- Decrease time it takes to recover stolen assets and prosecute perpetrators
- Secure funding to facilitate establishment of regular, routine maintenance/repair service and scheduled replacement or upgrade of key security system components

## **4.0 Standards**

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Standard configurations for asset protection (to be developed)

#### **5.0 Performance Indicator**

- Increased communications about improved asset protection policy, processes and systems
- Increased communications about prosecution of perpetrators of theft or attempted theft
- Faster security staff and police response, more apprehensions and criminal prosecutions
- Reduction in burglaries and larceny of Educational Technology assets; particularly those committed or aided by students, staff, or other learning community stakeholders

#### **6.0 Implementation Action Steps**

- Implement employee training to reinforce compliance with the security technology policy
- Implement an employee discipline track to address cases of disregard and security technology device tampering
- Identify secure funding sources for the needed improvements in the technologies and the maintenance of those technologies and staffing
- Mandate the inclusion of security technology system upgrades in the total cost of ownership of all Educational Technology initiatives during this planning period
- DPS offices work collaboratively to identify and remove barriers and gaps in implementing asset management, protection and recovery policies, processes, and practices
- During the 2009-2010 planning year, estimate the costs and secure funding for security risks assessments and security technology system upgrades for Public Safety command center, schools designated for closure, and schools rated as high risk security
- During the 2010-2011 and 2011-2012 planning years, estimate costs and secure funding for security risks assessments and security technology system upgrades for the remaining schools
- Evaluate the costs, benefits and implications of centralizing responsibility and funding for protection of Educational Technology assets – shifting from school-based responsibility to system-based (central administration) responsibility

#### **7.0 List of Appendices**

None

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## **11.18. Asset Recovery Program (ARP)**

### **1.0 Introduction**

Detroit Public Schools implements its Asset Recovery Program through the collaborative efforts of several departments within the school district and the district's provider of computer technology equipment. The plan's genesis was discussions about environmental responsibility and how to provide DPS schools and business offices an environmentally friendly way to remove and dispose of electronic equipment. The ARP not only addresses the removal and disposition of equipment, it also provides for the redeployment of useable equipment back to the District and receipt of a monetary return (rebate) from the sale of assets in the open market or credit for future purchases of technology equipment. This benefit is available through the district's contractual relationship with the technology hardware provider.

### **2.0 Strategy**

Administrators are encouraged to eliminate the clutter and loss of useable real estate through participation in the Asset Recovery Program. Assigned staff in the Division of Technology and Information Services arranges for the pick up of items labeled for disposal or redeployment. The process culminates with a Certificate of Disposal that documents the recovery of materials, the destruction of all software and/or erasure of data from electronic storage devices (if applicable), or return to inventory. A settlement report and a certificate of disposal for asset recovery services provide line by line reporting of equipment received and its disposition. It also delineates the condition code and value recovered for each item. The certificate of disposal is evidence that the provider of service has disposed of recovered equipment in an environmentally approved manner -- according to Environmental Protection Agency (EPA), federal regulations (A-102 Common Rule and OBM Circular A-133), and state regulations. Also is evidence that equipment was redeployed based on DPS directives, in compliance with federal and state regulations. The certificate of disposal also certifies that all data residing on accompanying storage devices was overwritten or physically destroyed.

The DPS Asset Recovery Program (ARP):

- Clears much needed real estate by getting rid of old and obsolete equipment or redeploying usable equipment
- Manages disposition of obsolete equipment and non-working equipment in accordance with environmentally friendly standards
- Protects the environment by recycling and disposing of old systems in accordance with local, state and EPA guidelines
- Seeks to derive the most value for unwanted equipment on the open market returned in the form of credit to DPS
- Offers a cost-effective solution that provides end-to-end service, which includes packing and shipping
- Meets federal and state regulations regarding equipment acquired with grant funds

### **3.0 Goals and Objectives**

The goals of the Detroit Public Schools ARP are to:

- Exercise environmentally-sound practices relative to the pickup and safe disposal of unused, old computers and other electronic devices that contain various amounts of toxic metals such as lead, cadmium and mercury. Each of these elements poses some degree of environmental risk if not properly managed
- Make school real estate available that may have been lost due to the storage of obsolete, non-working equipment or unused equipment
- Derive value from equipment by redeployment within the district or disposal on the open market
- Maximize the useful life of equipment
- Optimize equipment ROI

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## 4.0 Standards

EPA Guidelines

## 5.0 Performance Indicator

- ARP annual campaign communications plan implemented at least 120 days prior to start of the budget development process
- Administrators submit requests for asset recovery when the equipment's end-of-life schedule as listed on the district's website under the Technology Support link has been met.
- Certificate of Disposal and Settlement Report are received within two weeks of equipment disposal
- Credit (toward future purchases) from disposed of computer equipment on the open market is received within two weeks of equipment disposal
- Computer inventory is updated to reflect the disposition and redeployment of computer technology upon confirmation of the Certificate of Disposal
- Disposal or redeployment of equipment is in compliance with federal and state regulations for equipment acquired with grant funds

## 6.0 Implementation Action Steps

- Develop annual ARP campaign process and campaign plan
- Implement annual ARP campaign 90 days prior to start of the budget development process to encourage redeployment of educational technology resources; this could contribute to the reduction of educational technology expenditures
- Analyze results and refine campaign to improve effectiveness for next campaign
- Work collaboratively to revise ARP process to include an annual ARP campaign and to reflect tasks to meet federal and state compliance requirements for equipment acquired with grant funds; engage:
  - Curriculum and Instruction
  - Department of State and Federal Programs
  - Procurement, Accounting
- Revise annual ARP report to include detailed reporting on the redeployment or disposal of educational technology equipment, particularly those acquired with grant funds
- Publish annual ARP report; include distribution to process owner of Educational Technology asset management process

## 7.0 List of Appendices

None



# IV Funding & Budget

Budget and funding to cover the acquisition, implementation, interoperability, maintenance, and professional development related to the use of technology to improve student academic achievement

Strategies for coordinating funding resources to implement activities and acquisitions prescribed in the technology plan



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## IV. FUNDING AND BUDGET

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## **Section 12. Increase Access**

### **Section 12. Increase Access**

#### **1.0 Introduction**

The proliferation of Educational Technology to support teaching and learning processes currently demands that users and system administrators face more complicated and often cumbersome interfaces to accomplish their job functions. As the environment continues to grow and multiple complex systems are deployed, processing and managing information about users – who they are, how they are authenticated and what they can access – becomes increasingly costly and ineffective. Educational Technology users typically have to sign-on to multiple systems, necessitating an equivalent number of sign-on dialogues, each of which may involve different usernames and authentication information. System administrators are faced with managing user accounts within each of the multiple systems to be accessed in a coordinated manner in order to maintain the integrity of security policy enforcement.

A comprehensive identity management strategy and system will allow the District to increase access to Educational Technology and resources, to increase security and productivity, and to decrease cost and redundant effort.

A system administrator assigns a credential, usually an identification number, that allows the user access to the network and determines what resources (i.e. files, databases, applications, etc.) can be accessed as well as what the user can do while accessing the resources. The system can also flag the administrator if the user somehow gains access to forbidden areas, or if the user is performing actions that may indicate an attempt to gain entry to prohibited areas.

Authentication is the process of determining whether someone or something is, in fact, who or what it is declared to be. In the DPS network (including the Internet), authentication is commonly done using logon passwords. Knowledge of the password is the assumed guarantee that the user is authentic. Each user registers initially (or is registered by someone else), using an assigned or self-declared password. On each subsequent use, the user must know and use the previously declared password. The weakness in this system is that passwords can often be stolen, accidentally revealed, or forgotten, often requiring the assistance and intervention of help desk or other personnel to reset and reissue the now valueless information. Identity management software automates the resetting user passwords. Enabling users to reset their own passwords can save significant money and resources, since a large percentage of help desk calls are password-related.

Identity management is more than assigning and resetting passwords. It is delivering custom services (such as training materials and e-mails) based on users' roles in the District. It also provides managers a custom view of the ET environment for each user, determined mostly by job function and security concerns. When managed well, identity management provides benefits beyond security, improving information sharing, and teaching and learning processes.

Identity management systems may include:

- Management of identities
  - Establishing and destroying identities
  - Provisioning/de-provisioning of accounts
  - Delegated administration

- 
- Password synchronization
  - Self-service password reset
  - Describes the identity
    - Assigns one or more attributes applicable to the particular subject or object to the identity
    - Re-describes the identity (i.e. changes one or more attributes applicable to the particular subject or object)
    - Follows the identity
      - Record and/or provide access to logs of identity activity
      - Optionally auto-analyze behavior patterns of the identity
  - Access control
    - Policy-based access control
    - Role-based access control (RBAC)
    - Enterprise/Legacy single sign-on (SSO)
    - Web single sign-on (WebSSO)
    - Reduced sign-on
  - Directory services
    - Identity repository (directory services for the administration of user account attributes)
    - Directory-enabled networking

Though the final objective is to empower people through access to information, considerations of both usability and security give rise to a need to coordinate and, to the greatest extent possible, integrate user sign-on functions and user account management functions for the numerous different domains now found within the DPS network.

## **2.0 Strategy**

The strategy for increasing access to Educational Technology resources consists of implementing identity management, single sign-on, and portals.

### **IDENTITY MANAGEMENT**

DPS will conduct an inventory of its systems to determine what information is stored, where it is stored and how the right to access that information is assigned for each application. A central database will be developed to maintain identities, manage the access rights for each user on the network and enforce a strict policy for how the database will be managed.

The most important element of the strategy is consolidation of access controls. Controls exist at the level of each software application, which creates a fragmented environment that is challenging to manage and opens doors for unauthorized users. A centralized approach to IDM will allow the District to automate and accelerate the process. Credentials can be maintained in a computer's directory service (Active Directory), providing a single place to create or modify accounts, and to approve or revoke access to instructional software applications. An automated process must be developed to remove access when users leave the District.

Prior to the transition to the IDM system communications and training must occur to ensure that users know the security policies, procedures and day to day operating instructions.

### **ENTERPRISE SINGLE SIGN-ON (E-SSO)**

Enterprise single sign-on (E-SSO), also called legacy single sign-on, after primary user authentication, intercepts login prompts presented by secondary applications, and automatically fills in fields such as a login ID or password. E-SSO systems allow for interoperability with applications that are unable to externalize user authentication. This approach is distinct from Web single sign-on (Web-SSO), also called Web access management (Web-AM), which works strictly with applications and resources accessed with a web browser.

Single signon enables synchronization across applications and across systems, giving users access to resources with a single password. It is a mechanism whereby a single action of user authentication and authorization can permit a user to access all computers and systems for which he/she has access permission, without the need to enter multiple passwords. Single sign-on reduces human error, a major component of systems failure and is therefore highly desirable but difficult to implement.

## PORTALS

Enterprise portals often serve as a single sign on (SSO) solution for accessing other resources and systems within the organization and are therefore wed in such a manner that only a simultaneous implementation of the two makes sense from both a cost and effectiveness perspective.

The term portal is used to describe a website that serves as a gateway to content or information. Portals allow accessing and publishing the content in an organized way and therefore they are often viewed as the starting point for information access. Commonly referred to as simply a *portal*, this web site must offer a broad array of resources and services, such as e-mail, calendaring, forums, search engines, and business applications. Additionally, it should typically provide personalized capability to each user.

Enterprise portals present the information and services available to its users in a single dashboard-like view that is targeted to the user's job functions and preferences. On the publishing end, portals allow system administrators to designate specific user groups to maintain the content.

With the widespread adoption of the Internet as a business tool, employees are exposed to huge amounts of public information in addition to existing corporate data. Although this information can provide invaluable insight for decision-making, the challenge is finding the right information in a timely manner, without searching through endless amounts of data and ending up unable to effectively use the available data. The net effect of this inefficiency could result in a loss of overall employee productivity. The ultimate goal of any portal implementation is to provide users with access to the systems and information they need to do their jobs more productively.

	<b>RESOURCES AND CAPABILITIES (Not limited to)</b>
<b>Learning Community Portal</b>	<ul style="list-style-type: none"> <li>• Access to web-based email</li> <li>• District Policies and Procedures</li> <li>• District Calendar</li> <li>• Central Curriculum and Instruction staff</li> <li>• Transportation &amp; Bus Schedules</li> <li>• Lunch Menus</li> <li>• Curriculum &amp; Instruction, which provides information about:               <ul style="list-style-type: none"> <li>• New curricula in reading, writing and mathematics</li> <li>• Standards for promotion</li> </ul> </li> <li>• Names/ Contact information for:               <ul style="list-style-type: none"> <li>• Regional Superintendents</li> </ul> </li> <li>• Learning support centers</li> <li>• Testing and Assessment, which provides information about:               <ul style="list-style-type: none"> <li>• Testing, assessment and accountability</li> <li>• Citywide and statewide assessment and accountability reports</li> <li>• Testing calendars</li> </ul> </li> <li>• Parent Liaison Information</li> <li>• Enrollment Information</li> </ul>

	<b>RESOURCES AND CAPABILITIES (Not limited to)</b>
	<ul style="list-style-type: none"> <li>• Boundary Maps</li> <li>• Uniform and Dress Code Standards</li> <li>• Parent &amp; Family Information and Forms</li> <li>• Graduation Requirements</li> <li>• School health/insurance information</li> <li>• Guidance Counselors</li> </ul>
<b>Student Portal</b>	<ul style="list-style-type: none"> <li>• Access web-based email</li> <li>• Homework Help</li> <li>• Educational Clubs and Organizations</li> <li>• College &amp; University Links</li> <li>• Study Aids</li> <li>• Personal Planner</li> <li>• Career Planning Tips</li> <li>• City-Wide Student Council</li> </ul>
<b>Parent Portal</b>	<p>A Web gateway dedicated to parents and other adult caregivers of school-aged children that will allow parents, among other topics, secure access to view their child's information via the web using an Internet browser such as Internet Explorer.</p> <ul style="list-style-type: none"> <li>• Access web-based email</li> <li>• Attendance</li> <li>• Semester grades</li> <li>• Transcripts</li> <li>• Course schedules</li> <li>• Registration, Admissions, Transfers</li> <li>• School report cards (information on specific school performance)</li> </ul>
<b>Teacher Portal</b>	<p>A gateway designed to facilitate instructor access to internet-based resources that can help strengthen teaching practices. Audiences for the portal teacher website could include both education policy-makers and teachers themselves.</p> <p>Delivered information should be organized around a series of topics that are central to teaching and the annotation for each site also informs users of the technology required to download its information.</p> <ul style="list-style-type: none"> <li>• Curriculum</li> <li>• Lesson Plans</li> <li>• Training &amp; Professional Development</li> <li>• General Education Sites</li> <li>• Multi-age Classroom Teaching and Learning</li> <li>• Pedagogical Research</li> <li>• Educational Research</li> <li>• Literacy</li> <li>• Virtual Libraries</li> <li>• Curriculum</li> <li>• International Organizations</li> <li>• Working with Communities and Parents</li> <li>• Classroom Grant Postings</li> </ul>

	<b>RESOURCES AND CAPABILITIES (Not limited to)</b>
	<ul style="list-style-type: none"> <li>• Tools</li> <li>• Educator's News Feeds</li> <li>• Media Center</li> <li>• Student Assessment</li> </ul> <p>Note: Assessment systems increasingly are being tied to curriculum standards, developed by state and local authorities, which all students are expected to master. Assessment is viewed as a way to hold schools accountable for achieving targeted standards. Educators also are coming to view assessment as a key tool for diagnosing student learning needs and for shaping classroom instructional practice.</p>
<b>Staff Portal</b>	<ul style="list-style-type: none"> <li>• Access Web-based E-mail</li> <li>• Human Resources</li> <li>• Internet Usage Tools</li> <li>• School Information</li> <li>• Budget/Finance</li> <li>• Employment</li> <li>• Technology</li> <li>• Access Web-based File Storage</li> <li>• Technology Request</li> <li>• Maintenance Request</li> <li>• Custodial Request</li> <li>• Locksmith Request</li> <li>• Spam Fighting Information and Tools</li> <li>• Download Forms</li> </ul>

### 3.0 Goals and Objectives

The goals addressed with implementation of the identity management system are:

- Educational Technology leadership engaged in creating the vision and providing leadership and sponsorship in this strategy to increase access to resources
- Establish a common view of data
- Provide adequate support to users during the transition via communications, professional development, and technical support
- Establish self-service user password reset to increase user access to Educational Technology resources

The two primary challenges are implementing a district-wide single sign-on technology and user portals supported by functionality that allows content owners to create, edit, and publish content to the portal without IT staff intervention.

1. The portal infrastructure must have a directory and single sign-on strategy that encompasses all the information sources and systems the portal must aggregate while at the same time allowing for the addition of future services and/or applications.
2. Keeping content up-to-date and pertinent increases the overall value of the portal and this requires giving the content owners the tools and processes they need to create, edit, review, and self-publish the content to the portal.

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3. Reduction in the time taken by users in sign-on operations to individual domains, including reducing the possibility of such sign-on operations failing.
  4. Improved security through the reduced need for a user to handle and remember multiple sets of authentication information.
  5. Reduction in the time taken, and improved response, by system administrators in adding and removing users to the system or modifying their access rights.
  6. Improved security through the enhanced ability of system administrators to maintain the integrity of user account configuration including the ability to inhibit or remove an individual user's access to all system resources in a coordinated and consistent manner.
  7. Reduced dependency on key personnel to act as password re-issuers or keepers.

#### **4.0 Standards**

Static Intranets allow the publishing of documents and information that can be made available to the whole organization. However, if not tightly managed and maintained, those documents are often not kept up-to-date resulting in a repository that is both overloaded and characterized by obsolescence. Also, because skilled IT staff has traditionally been needed to maintain and publish the content, the departmental users have very little input on how the information is presented, how it is maintained, and quickly it is updated.

The areas of standardization that best fit the District's needs and will therefore most likely ensure successful implementation will include:

- Integration of current existing directory strategies such as Lightweight Directory Access Protocol (LDAP) and Active Directory (AD)
- Assessment and monitoring of all those network services and applications, current and projected, that become the target of portal-based entry
- Utilization of a proscribed logon/authentication schema
- Specific, published guidelines that ensure a unified, cohesive environment of web-published content

#### **5.0 Performance Indicator**

- Correlation of key information held in different systems
- Elimination of niche developments of ad hoc applications that are uncontrolled and often unavailable to those who need them
- Immediacy of access for users who either want inquiry only or limited access
- Reduced training costs for new and remote users
- Improved external access for vendors, partners, staff and other stakeholders
- Increased productivity unhampered by rigid frameworks dictated by legacy systems
- Implementation of globally defined change management processes relative to content management
- Improved centralized administration as more data and files become enterprise managed and accessible eliminating the need for users to habitually store files locally in "personal" desktop environments.
- Technology innovations that are not hampered by the restraints of legacy application software

#### **6.0 Implementation Action Steps**

- 
- Document and communicate (to Learning community members) how identity management helps increase access to Educational Technology resources, thereby impacting the teaching and learning processes
  - Project the total cost of ownership of the Identity Management System and the percentage of utilization to support implementation of Educational Technology
  - Develop implementation plan for launching Identity Management System
  - Identify and acquire those tools and utilities necessary to create an environment driven by a combined initiative of single sign-on and portal strategy
  - Define and implement portal groups based on the needs of Educational Technology users

## **7.0 List of Appendices**

None



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## **Section 13. Funding**

### **Section 13. Funding**

#### **1.0 Introduction**

A critical success factor to implementation of Detroit Public Schools' Educational Technology Plan is budget management. The total cost of ownership must be sustainable through the entire life cycle of each initiative if the desired student achievement is to be attained year-over-year. While funds for initiatives may be acquired from a variety of sources, it is the integration of those funds into a seamless, gapless budget that establishes a solid financial foundation for advancing Education Technology.

#### **2.0 Strategy**

Office of Budget, and the Department of State and Federal Programs will assume responsibility for facilitating the process of reviewing and updating the Educational Technology Plan budget for this planning period. This is a departure from how the process has worked in past years but it is a strategic action designed to bring laser-like focus and precision to the budgeting process. These key stakeholders must work collaboratively to maintain a budget that adequately funds ET initiatives to ensure that equitable, technology enabled learning opportunities are available for all DPS students, while simultaneously fulfilling the District's financial obligation to "match" discounted or grant funds. With the guidance and counsel of these Offices.

During this planning period funds will be prioritized to strengthen the foundation on which Educational Technology is built and expanded. Such priorities include:

- Improving the infrastructures of schools to increase access – voice/data, WAN and internet bandwidths, facility & power, security systems and devices
- Enhancing equipment operability – computer: memory, storage, repairs
- Uninterrupted funding for supplies, repair, maintenance and services for core equipment (i.e. desktops, laptops, printers, scanners, etc.) and asset protection or recovery
- Replication of initiatives with significant measurable impact on student achievement; including articulation of technology enabled curriculum delivery at grade levels up and downstream to ensure a continuous progression in the learning experience

#### **BUDGET UPDATES AND REVIEWS**

The implementation action plan lists the specific action steps identified for implementing the strategies, goals, and objectives of the Educational Technology plan. The vast majority of the action steps have budget implications, many extending beyond the three years of the 2012-2015 planning period in terms of completion and funding. Additionally, regular budget reviews will occur and adjustments made as developments occur that significantly impact the availability of funding for Educational Technology initiatives.

#### **3.0 Goals and Objectives**

- Uninterrupted funding from the initiation to the institutionalization of Educational Technology initiatives
- Optimization of available funding for Educational Technology initiatives

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#### **4.0 Standards**

- DPS integrated budget/fund management process
- DPS DTIS Project management process

#### **5.0 Performance Indicator**

- Budgets are reviewed and approved for all initiatives prior to “implementation” in each year of the planning period
- Initiatives are managed and completed at or below the approved budget during each year of the planning period
- Total cost of ownership is funded for each approved initiative for each year of the planning period

#### **6.0 Implementation Action Steps**

- Develop model for determining the total cost of ownership for Educational Technology
  - Hardware, additional hardware
  - Software, additional software, upgrades
  - Cables and Accessories
  - Infrastructure and Facility retrofitting
  - Professional Development
  - Technical Support, warranty
  - Maintenance and Repair
  - Replacement costs

7.0 Adopted FY2012 Operating Budget

7.1 [http://detroitk12.org/data/finance/docs/FY2012\\_Adopted\\_Budget.pdf](http://detroitk12.org/data/finance/docs/FY2012_Adopted_Budget.pdf)

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### **Budget Narrative:**

- General funds will be allocated strategically to maintain critical resources to sustaining the foundation and backbone of Education Technology such as staffing, vendor services, network and electrical infrastructure (match requirement for eRate funding), facility retrofits, matching grant funds, etc.
- Public and private grant funds will be the primary funding sources for sustaining or expanding existing initiatives and adding new initiatives for this planning period; Stimulus funds will also be allocated
- Funds from school budgets may be required to supplement the costs for enterprise initiatives as they are rolled out to specific schools
- Costs projected for implementing standard ET classroom configurations district-wide is based on the total number of classrooms in the district; these costs must be adjusted as schools are closed and assets redeployed; Additional teacher laptops will be added if the number of teachers in a school exceeds the number of classrooms
- The standard ET classroom configuration is modifiable to fit specific needs of content areas for delivery of instruction (i.e. CD ROM type, processor speed, memory, printers, etc.); These content area specific specifications will be standardized during this planning period
- Costs projected for Classroom Performance Systems are based on the presence of standard ET configurations in classrooms district-wide; the costs per installation will vary based on the presence or absence of the requisite peripheral equipment (i.e. LDC projector, Interactive Whiteboard, printer, etc.)
- eRate application must be approved at the requested level of funding

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## **Section 14. Coordination of Resources**

### **Section 14. Coordination of Resources**

#### **1.0 Introduction**

Identifying funding sources and adequate funding are integral parts of the budget management process and for Educational Technology, poses the greatest challenge and greatest gateway to success. In an age of declining general funds and deficit elimination planning, "funding as usual" will not serve to advance the effort to give all DPS students equitable access to Educational Technology. New, innovative ways of reallocating old money and generating new must be the mantra if pervasive Education Technology is to become a reality for Detroit Public Schools students, teachers, staff, and parents.

#### **2.0 Strategy**

The Department of State and Federal Programs-Office of Development, and the Office of Budget will lead a collective effort to identify and coordinate funding sources to sustain Education Technology initiatives.

This collaborative work will establish:

- Alternate sources for hard to fund needs and operational costs (i.e. electrical system upgrades, security system maintenance, etc.)
- General fund allocations for years when external funding is not available (i.e. three years of a five year period E-Rate is not available for Priority 2 services based on the new 2 out of 5 year rule)
- Alternative, non-traditional sources for funding the cost of converting and upgrading facilities to accommodate a high tech learning environment (i.e. electrical system upgrades, heating/cooling system modifications, highly secured storage areas, etc.)

#### **Resources for Fund Development**

The Department of Funds and Development serves as the District's clearinghouse for obtaining all Federal, State & Local competitive and formula grants. The Department of State and Federal Programs-Office of Development notifies departments and offices of grant opportunities to supplement basic operations and programs. Staff provides technical assistance to building level staff in grant research and development, as well as guidance in writing grants, developing budgets, obtaining appropriate signatures and submitting to appropriate agencies. Additional department staff also serves in the same capacity for Private grants and donations.

Informational meetings are hosted periodically to communicate how funds from various grants can be spent to support school improvement and Educational Technology efforts.

#### **Strategic approach to Fund Development**

A strategic approach to funding Educational Technology initiatives is under development to ensure that the District functions efficiently and effectively in the use of available resources. The process will include the following tasks:

- Prior to the start of the budget development process, Educational Technology initiatives prioritized for implementation will be profiled, all required resources such as equipment, professional development, staff, supplies/materials, and technical assistance (i.e. implementation support, compliance monitoring, etc.) identified; Total cost of ownership estimated for each initiative and final determinations made on whether to proceed, delay or eliminate the initiative

- Appropriate initiative project managers are identified and work collaboratively with staff from the Department of State and Federal Programs to develop an “Integrated Budget/Fund Development Map” that captures all available funding sources (including internal sources like the general fund) and profiles the services fundable (by line item); the map also provides details on how and when funds can be used (i.e. start-up, implementation, improvement, etc.)
- A fund development campaign developed, with specified strategies, goals, targets, and actions for securing funds; Board members, executive leaders and administrators are encouraged to take personal responsibility for securing a designated percentage of the required funding through their own direct efforts
- Campaigns are launched using the DTIS PMO project management methodology using technology to maintain focus, productivity and record of progress and results (i.e. relationships established, funds raised, funds received, purchases made, etc.)
- Expenditures of Federal/State/Local grant funds are monitored; Strategic times are established throughout the year to transfer funds back to central account for redirection to projects in need of funding; the goal and intention is to maximize available funding to meet objectives in the current fiscal period

### Funding Map

Funding Source	Funding Source description
<i>District funded</i>  <i>General Fund</i>	<b>Managed at the District level</b> <ul style="list-style-type: none"> <li>• Standard (Baseline) Services funded by each Division</li> <li>• Integrated Budget/Fund development process</li> <li>• Weighted distribution of available funds to Divisions/Offices with greatest responsibility for delivery of direct services impacting Educational Technology implementation</li> <li>• Budget analysis to prioritize and redirect existing funds</li> <li>• Board mandated “cost sharing” to implement Educational Technology</li> <li>• Integrated Budget/Fund development process</li> <li>• General Fund Pool of non-discounted portion in E-Rate applications (16%)</li> <li>• Reallocate a designated percentage of E-Rate priority 1 fund reimbursements (i.e. 10%, 25%, etc.) to a “Educational Technology Innovation fund” or specified educational technology expenditures (i.e. technical assistance, services, etc.)</li> </ul>
<i>Division funded</i>  <i>General Fund</i>	<b>Managed at Division/Office level</b> <ul style="list-style-type: none"> <li>• Services above and beyond those funded by the enterprise</li> <li>• Non-discounted portion in E-Rate applications (16%)</li> </ul>
<i>E-Rate funded</i>	<b>Managed at District level</b> <ul style="list-style-type: none"> <li>• Priority 1 Services</li> <li>• Telecommunication services (services used to communicate information electronically between sites; basic telephone service and digital transmission services such as T-1, T-3 lines)</li> <li>• Internet Access (basic conduit access to the Internet including email)</li> <li>• Priority 2 Services</li> <li>• Internal Connections (wiring and components that expand data access within a school or library)</li> <li>• Basic maintenance of internal connections (Services necessary to enable the continued operation of eligible equipment; includes repair and upkeep of eligible equipment, wire and cable maintenance, basic technical support and configuration changes)</li> <li>• Recurring service</li> </ul>
<i>Title IA funded</i>	<b>Managed at District level</b>  <b>Managed at School level</b> <ul style="list-style-type: none"> <li>• 10% of funds received are allocated for professional development, for schools in non AYP phases 1 or 2 specifically to improve adequate yearly progress; technology is typically not available exclusively for Title I professional development, but may be used in conjunction with the implementation of other Title I initiatives.</li> </ul>

<i>Funding Source</i>	<b>Funding Source description</b>
	<ul style="list-style-type: none"> <li>• Educational Technology to Educate Title I students</li> <li>• School-wide</li> <li>• Targeted Assistance</li> </ul>
<i>Title IIA funded</i>	<b>Managed at District level</b> <ul style="list-style-type: none"> <li>• Grant used to acquire training supplies</li> </ul>
<i>Title IID funded</i>  (formerly known as Title III Technology Literacy Challenge Fund)	<b>Managed at District level</b> <ul style="list-style-type: none"> <li>• Technology grant used to enhance student achievement through the acquisition of training and the use of technology</li> <li>• Improve student academic achievement through the use of technology in elementary and secondary schools</li> <li>• Assist students in crossing the digital divide by ensuring every student is technologically literate by the end of 8<sup>th</sup> grade; student evaluation required</li> <li>• Support effective integration of technology through teacher training and curriculum development to establish successful research-based instructional methods</li> <li>• Professional development in the integration of advanced technologies, including merging technologies into curricula and instruction and using those technologies to create new learning environments</li> <li>• Using technology to offer professional development to a wider audience</li> </ul>
<i>Literacy and School Libraries Grant</i>	<b>Managed at District level</b> <ul style="list-style-type: none"> <li>• Federal grants used to provide libraries in schools</li> <li>• Funds are used to acquire books and other reading and research materials including computers</li> </ul>
<i>IDEA WRESA ATTIC Grant</i>	<b>Managed at District level</b> <ul style="list-style-type: none"> <li>• WRESA grant funds used to purchase assistive technology devices and other aids to special education students, their parents and teachers</li> <li>• Funds are also used to provide training on universal design for learning to increase the placement and participation of special education students in the least restrictive environment</li> <li>•</li> </ul>
<i>Homeland Security Grants</i>	<b>Managed at District level</b> <ul style="list-style-type: none"> <li>• Grants used to provide professional development and to acquire security technology systems for violence prevention, emergency management and critical incident management</li> </ul>
<i>U.S. Department of Education School Safety Grants</i>	<b>Managed at District level</b> <ul style="list-style-type: none"> <li>• Grants used to provide professional development and to acquire security technology systems for violence prevention and critical incident management</li> </ul>

### Strategy for Private Grants and Donors

Securing and sustaining private funding sources to support student learning and professional development are paramount to the success of the Educational Technology plan. Currently, private funding to support integration of technology in curriculum is of interest to funders. The Department of State and Federal Programs plans to increase funding in this area primarily through application to foundations in the metropolitan Detroit area and nation-wide, and through applications and solicitations to businesses and corporations.

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The Office of Development will increase support to school and district efforts to improve Educational Technology funding by focusing on developing efforts in three key areas:

1. Present funding opportunities to provide service upgrades, electrical upgrades, and electrical service upgrades
2. Incorporating costs for maintenance agreements into grant proposal budgets submitted to foundations, businesses, and corporations
3. Incorporating costs for the purchase, maintenance and replacement of security devices and systems into grant proposal budgets submitted to foundations, businesses, and corporations

### **Metropolitan Detroit and Statewide Emphasis**

Through its preliminary research, the Office of Development identified foundations in Metropolitan Detroit and Statewide that provide Computer and High Technology Grant Opportunities. Many of these sources support “brick and mortar” projects and may accept proposals for full-scale programs targeted at technology enhancements in schools. A thorough investigation of these possible funding resources is planned.

### **Private Emphasis**

Funds received from private grants from various foundations, agencies, and individual donors must increase significantly during this planning period. Without support from these funding sources sustainability of current initiatives will diminish and implementation of new initiatives delayed indefinitely.

### **Targeted Donations and Giving**

The needs for technology enhancements are substantial within district operations that support schools as well as at individual schools. To meet these needs, the Office of Development plans to sponsor Planned Giving and Donation campaigns using targeted letters of solicitation to prospective funders.

### **DPS Alumni sponsorships**

Particular emphasis will be given to conducting campaigns targeted at DPS alumni to secure sponsorships to support developing new and sustaining existing Library Media Centers district-wide.

### **Enhanced Partnership Development**

The Office of Development will continue to pursue partnerships to enhance technology related services for schools. Through partnerships with other fiduciaries, the District will strengthen its ability to increase technology services to students, as well as, sustain technology operations over the long term.

### **Capacity Building**

Careful planning and the use of existing and new funding sources will be necessary to ensure that the technology resources and training provided to district schools keeps pace with advancing and emerging technologies. Aggressively soliciting funding for DPS technology programs is a process of identifying and securing funding on a consistent basis.

The Department of State and Federal Programs must seek ways to improve its technology capabilities to facilitate this aggressive pursuit of funding. Currently, the Department has the following technology needs:

- Computerized project management, monitoring, and tracking software
- Computerized fund management, monitoring and tracking software
- Communications and back-up system.

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- Training to learn the latest technologies available in seeking grants, fundraising, fund development and philanthropy.

### **3.0 Goals and Objectives**

- Adequately fund Educational Technology initiatives for each year of the planning period, and ideally from initiation to institutionalization
- Optimize use of available funding
- Strategically target fund development efforts to increase funding sources and funding
- Engage Board members, executive leaders and administrators in securing funding for ET initiatives

### **4.0 Standards**

- DPS integrated budget/fund development process

### **5.0 Performance Indicator**

- Formal fund development plans developed and implemented for every Educational Technology initiative
- Uninterrupted funding of Educational Technology initiatives
- Increased number and types of funding sources
- Increased funding

### **6.0 Implementation Action Steps**

- Design and implement integrated Budget/Fund Development Process
- The Educational Technology Collaborative (ETC), DTIS PMO, Office of Budget, and the Office of Development work collaboratively to ensure that Educational Technology initiative project teams complete the budget/fund development process
- Secure software, professional development and technical assistance to support implementation of the fund management and project management processes
- Develop and implement strategic Educational Technology fund development campaigns
  - Infrastructure, technical support, and services
  - Security devices and systems
  - Compensatory curriculum and programs
  - Alternative Education curriculum and programs
  - Career Technical Education curriculum and programs
  - Adult Education curriculum and programs
  - SPED curriculum and programs
  - Bilingual curriculum and programs
  - Early childhood curriculum and programs

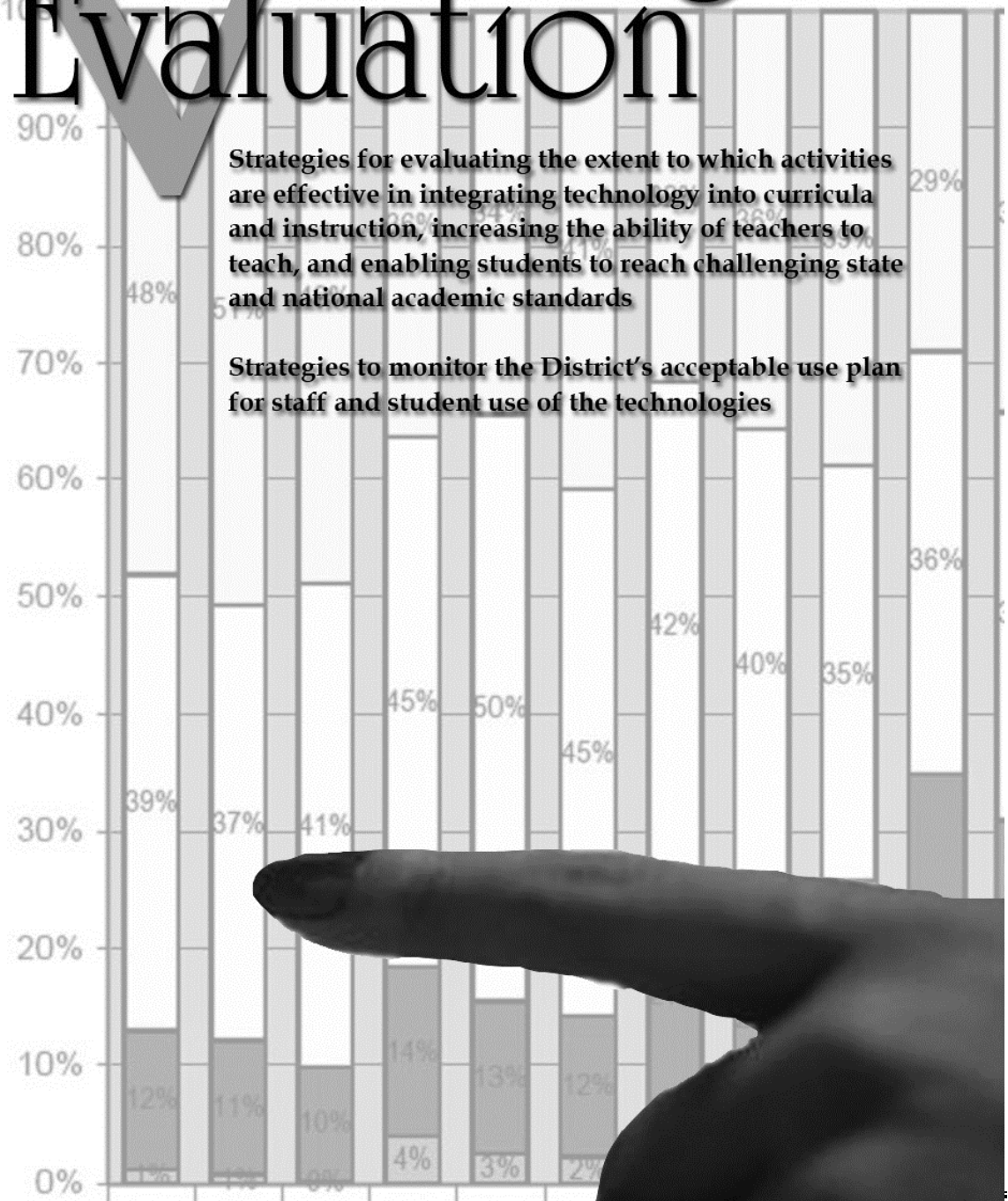
### **7.0 List of Appendices**

None



# Monitoring & Evaluation

Percent of Students



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## V. MONITORING AND EVALUATION

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## Section 15. Strategy

### Section 15. Monitoring and Evaluation Strategy

#### Introduction

Research suggests that successful technology integration involves a process for continuously incorporating research findings into instructional strategies and curriculum planning. *The Curriculum Technology Integration Plan* (Cradler & Cradler, 2000), describes an action research process that supports continuous assessment at the classroom, school, or district level and a link is made between improved student learning and the professional development and resources which are supported by schools and districts. The Curriculum Technology Integration Plan (CTIP) is both a results-driven staff development process and a technology integration planning strategy that is based on research. The CTIP action-research process supports continuous assessment at the classroom, school or district level followed by modifications of the instructional setting as needed. Aspects of the CTIP model incorporate the use of standards based objectives for learners; describing specific student assignments and the linking relationships between students, teachers and technology; describing the resources considered necessary, activity location(s) and timeline(s); selecting the best method of assessment to evaluate student work; and determining a method for informing all stakeholders of the learning outcomes. (CARET, Center for Applied Research in Educational Technology).

Both the [National Education Technology Plan](#) and the *State of Michigan Educational Technology Plan* are research-based, and are designed to improve student achievement in elementary and secondary schools using research-based systems and resources for professional development and the curriculum. In keeping with the *National Educational Technology Plan* and the *State of Michigan Educational Technology Plan*, the Detroit Public Schools will utilize key research through a knowledge-building process to develop models of technology integration and best practice that add value to teaching and learning.

*The Learning Return On Our Educational Technology Investment: A Review of Findings from Research, WestED* (Ringstaff and Kelley, June 2002) is an extensive report that examines many studies related to educational technology and school reform. In it, several key factors are identified as crucial elements for successfully using technology:

- Technology is best used as one component in a broad-based reform effort;
- Teachers must be adequately trained to use technology;
- Teachers may need to change their beliefs about teaching and learning;
- Technological resources must be sufficient and accessible;
- Effective technology use requires long-term planning and support;
- Technology should be integrated into the instructional framework.

In another report, *Summary of Current Research and Evaluation Findings on Technology in Education, Far West Laboratory* (Cradler, 1996), a listing of some of the major considerations for an expanded research and development agenda for educational technology includes:

- Before technology can have a long term impact on education it is necessary to have a strong Research and Development agenda that promotes development combined with the needed research to inform the education community and the education stakeholders about effective practices and products, and
- The research should help to determine the extent to which these new practices and products related to technology promote needed education reform.

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This section describes how DPS applied these and other research findings to develop and implement its Educational Technology monitoring and evaluation process.

## **Strategy**

The Detroit Public Schools 2012-2015 Educational Technology Plan incorporates many of the components of the CTIP model, including its focus on technology standards to create learning objectives for students. During this planning period, we will be mindful of the future by allowing for integration of new and promising practices and technologies. Because technology evolves and changes so rapidly, the technology of today may look completely different in three years. Detroit Public Schools will regularly research and initiate new technologies, programs and services, to encourage teachers to try new applications and determine what value, if any, these applications have for the improvement of student achievement and performance—prior to making purchases on a large-scale basis. The research will emphasize best practices for technology integration in the curriculum and important factors that contribute to successful staff development and student achievement.

There is research that confirms that the learning and supporting of new instructional methods are directly connected to the extent that teachers are engaged in planning and evaluating classroom instruction (Cradler, 2002; Calhoun, 2002). This model of on-going professional development focused on continuous improvement is sometimes referred to as Action Research and it will be one form of research initiated by the Detroit Public Schools to support technology integration and to determine the extent to which the efforts of Detroit Public School's integration of technology to improve student learning have been successful.

Current research will be incorporated, as appropriate, to ensure that the educational technology program in our district is consistent with current research regarding technology, teaching, and learning. Research and development will:

- Promote an in-depth emphasis on not only qualitatively and quantitatively evaluating selected existing Detroit Public Schools K-12 programs, but also gives attention to developing and validating district technology initiatives.
- Inform the district and district stakeholders of effective practices and products that are being considered for use and/or are being implemented within the district. The research will help to determine the extent to which these new practices and products related to technology promote improvement in student achievement and performance.

## **Monitoring and Evaluation Process**

Monitoring and Evaluation of the Technology Plan will be performed on two levels: 1). 2012-2015 Technology Plan Implementation and 2). Evaluation of Components of the 2012-2015 Technology Plan. Monitoring and evaluating implementation of the Educational Technology plan will keep the District on course and moving with deliberation toward its stated vision, goals and objectives. Strategies are being designed for measuring progress and evaluating the extent to which activities are effective in integrating technology into curricula and instruction, in increasing the ability of teachers to teach, and in enabling students to reach challenging State academic standards.

## **Evaluation of the Technology Plan Implementation**

DPS will, in collaboration with an external evaluator, create a system which both monitors key tasks, activities, and milestones as well as documents the quality, effectiveness and efficiency of the educational technology system. The system will require ongoing data collection regarding selected performance measures, timely communication of data and analyses to key decision makers, and periodic reports that address both

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implementation progress and impact assessment. The system will include an assignment of responsibilities, timely monitoring of all major implementation tasks and activities, ongoing communication, and adherence to a plan-carry out-plan-carry out sequence. The evaluation approach will address such areas and such questions as:

- Is the technology being used effectively?
- What elements are missing?
- What needs to be added?
- Assessment of the quality of the Educational Technology Plan to determine if there is a need for feasible changes—can we predict that things will be improved (improvement in academic achievement)—how can this plan contribute to improvement in academic achievement? What percentage are we looking for? Can this plan accomplish this? How can we predict this? How do we determine that the plan will produce a particular percentage increase in achievement and performance?
- Measurement of achievement levels by development of an instrument that is actually able to predict success in the next grade level (For example, by installing hardware in the classroom, from hands on experience—i.e. using the keyboard—we should be able to predict areas of success. How does using the keyboard help?—by improving fine motor and gross motor skills?).

Strategies will also measure and evaluate the extent to which activities are effective in completing the implementation and on-going update of the Educational Technology Plan. Monitoring will occur on an on-going basis and evaluation will be done annually at a predetermined time.

- Benchmarks for the Evaluation of the Educational Technology Plan Implementation will be developed
- Checklists that contain necessary components of the plan to determine if the plan has been successful
- Checklists to determine who contributed to the plan and if they had ideas for their area
- Checklists to assess any additions, deletions and/or revisions in terms of alignment with the original document (Was it on target? Was it off base?)
- Evaluation planning and instrument design and instrument development will be conducted collaboratively between the external evaluator and the district evaluation staff
- Data collection will be facilitated by the district evaluation staff
  
- Clarification
  - When opinions differ, clarification is needed: external evaluation highlights the strengths and weaknesses of the program/project and makes suggestions designed to promote mutual understanding and agreement.
- Impartiality and independence
  - Impartiality contributes to the credibility of evaluation and the avoidance of bias in findings, analyses and conclusions. Independence provides authenticity to evaluation and reduces the possibility for conflict of interest which could occur if district policymakers and program managers are entirely responsible for evaluating their own activities.
- Credibility
  - The credibility of evaluation depends on the expertise and independence of the evaluators and the degree of transparency of the evaluation process. Credibility requires that evaluation should report successes as well as failures.
- Better Use of Time/Relief of Valuable Staff Time
- The evaluation does not take staff away from program activities.
- More Personnel Available
  - More personnel available externally than internally.
- Faster turnaround time.
  - Staff time for the evaluation is limited.
  - All DPS evaluators are involved with other projects in the department which can cause them to be pulled in different directions.

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- Many of the evaluation tasks will be done by internal staff; however, staff capacity is limited.
  - More Objectivity
    - External evaluators provide a more objective view of the project.
    - They can collect some data that program/project staff could not collect without questions of bias being raised.
    - They can look at the project with a “fresh eye.”
  - Definition of Roles
    - Having an external evaluator can help keep staff and evaluator roles well-defined.
  - Expertise and Practicality
    - Having a combination of internal and external personnel creates a good mix of evaluation expertise and practical knowledge.

### **Evaluation Strategies for Evaluation of the Educational Technology Plan Implementation and the Components Within the Educational Technology Plan**

Each initiative of this DPS Plan includes strategies and benchmarks (performance indicators) to be used when monitoring and evaluating plan implementation. The Division of Technology and Information Systems, the Division of Curriculum and Instruction and the Office of Research Evaluation and Assessment will confer, prioritize and identify those most critical initiatives on which to conduct extended monitoring and evaluation activities.

- Action items will be reviewed to determine if they were completed at the time stated on the implementation timeline, by the appropriate person(s), following the prescribed process or procedure, achieving the intended results,
- Projects will be reviewed to determine if all three phases were executed (Initiation, Implementation, Institutionalization), if the prescribed processes were followed, and if the goals and objectives were achieved.

Strategies will measure progress and evaluate the extent to which activities are effective in completing the implementation and on-going update of the Educational Technology Plan. The Office of Research, Evaluation and Assessment Staff will work with individual component/site staff to develop tools for monitoring and evaluating technical application use in instruction in a variety of learning environments (classrooms, resource centers, libraries, home, etc.). Questions will address:

- How do we measure progress and evaluate the extent to which activities are effective in integrating technology into curricula and instruction?
- In increasing the ability of teachers to teach, and in enabling students to reach challenging State academic standards?
- How will the implementation process be reviewed?
- How will unmet goals and objectives be addressed?

Strategies for evaluation of both the Educational Technology Plan Implementation and Components within the Educational Technology Plan will include:

- Needs assessment;
- surveys (online, phone, hardcopy;)
- interviews;
- focus groups;
- observation;
- student records (including test results) and artifacts; and
- rubrics.

### **Dissemination Strategies**

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Data collection results will be disseminated to all interested parties/stakeholders in a variety of ways which may include (but is not limited to) written reports; PowerPoint presentations; informational meetings; web pages, and publications: best practices, case studies, white papers, newsletters, technology expositions and conferences.

### **Monitoring/Updating**

Implementation progress will be monitored and on-going decisions will be made on what to keep, stop, start or revise. The action items and corresponding content of the Educational Technology Plan will be updated continuously as a part of the meeting management and implementation support processes.

Once a year (and upon request), the Office of Research, Evaluation and Assessment, in collaboration with the external evaluator, will produce "The State of DPS Educational Technology Annual Report". All actions targeted to accomplish goals are reviewed to determine what worked and what didn't work, to determine if the goals are still the right goals, if they are still realistic, and practical. Goals and strategies will be revised or abandoned and new ones added where appropriate. Updates will be driven by changes in requirements of governing organizations such as the Michigan Department of Education.

Results will assist in determining what to retain, what to correct, what to abandon, and what new opportunities to pursue. The recommendations will be assessed to ensure alignment of the ET vision, strategies and actions is sustained and to determine the impact of proposed changes on subsequent planning years.

The revised plan and supporting implementation documents will be maintained as web-based resources available for review on the DPS web site at any time by all stakeholders or other interested parties. Additionally, the revised plan will be posted to the MDE web site.

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**Section 16.  
Technology Usage Policies**



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## Section 16. Technology Usage Policies

### 16A. District Technology Support Policies

In a continuing effort to provide high level technology support, attached are nine policies and, where appropriate, accompanying administrative regulations.

- 13.01 Internet Usage Policy (Acceptable Use)
- 13.02 Wireless Policy
- 13.03 Security Policy
- 13.04 Information Classification Policy
- 13.05 Password Policy
- 13.06 Remote Access Policy
- 13.07 Email Policy
- 13.08 Vendor Access Policy
- 13.09 Software Usage Policy
- 13.10 Telephone Repair Policy
- 13.11 Email Retention Policy
- 13.12 Student Transcript Storage and Transport
- 13.13 Student LDAP

The Employee Agreement and Signature page required for policies 13.01, 13.02, 13.03, 13.04, 13.05, 13.06, 13.07, and 13.09.

Policy 13.08 is intended for DPS vendors.

As a, it is the responsibility of Detroit Public School employees to read the policies and attached documents. The policies should then be printed, signed, and the Agreement Page dated and submitted it to the employee's administrator within two weeks of receipt of the email containing the policies. Administrators are requested to maintain the signature pages in their location's personnel files. It is crucial that the policy rules and regulations are abided by, as they are necessary to ensure fair, consistent, and professional operations.

Both the policies and the signature pages may be found by navigating to the following location:

<http://www.detroitk12.org/policies/>

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## 16B. Security Policy and Procedure

### 1.0 Introduction

Formal Data Security policies establish a foundation for information asset protection. New and existing security and privacy legislation mandates policy development as part of compliance requirements. Policies are administrative directives sometimes better known as “corporate law”. In the K12 public school setting, they provide the guidance for employees, students, and business partner behavior as it relates to the protection of informational assets. Inherent in the creation and maintenance of a security-conscious environment is the following basic framework about which DPS security policy is built:

- Unmitigated acceptance of and understanding that information is an asset
- Setting and monitoring of goals and strategy
- Assigning of responsibilities at every level of the District
- Sustained confidence that DPS protects its informational assets and respects the privacy of those for whom data is maintained
  - Internally – District Business Departments and Units
  - Internally – Students
  - Externally – Parents, Vendors, and other community stakeholders
- Informed and Proper Use of Powerful Information Handling Tools

Primary laws and regulations which may have applicability to Michigan K-12 school districts, including Detroit, are:

- Health Insurance Portability and Accountability Act (HIPAA)
- Sarbanes-Oxley Act (SOX)
- Family Educational Rights and Privacy Act (FERPA)
- Child Information Protection Act (CIPA)
- S.116 – The Privacy Act – Identity Theft Bill – *Pending*
  - A bill to require the consent of an individual prior to the sale and marketing of such individual's personally identifiable information, and for other purposes.
- S.29 – The Social Security Number Misuse Act – *Pending*
  - Enhance privacy protections and prevent fraudulent misuse of Social Security Numbers
- S.115 – The Notification of Risk to Personal Data Act – *Pending*
  - Legislation that would require data brokers and other holders of sensitive personal information to notify people whose personal information might have been stolen or compromised.

Security policies refer to a set of rules and practices applied to either the entire District, a defined subset (such as remote or wireless users), the applied scope being defined in the specific policy. Policies regulate security over the informational resources by providing broad direction and signifying the support and intent of management. DPS Policies (Attachment B) have been developed using the “SMART” rule. They are:

- Specific
- Measurable
- Agreeable
- Realistic
- Time-bound

When security policies are either not in place, are ill defined, or not clearly communicated to users, risks to information confidentiality, integrity and availability are significantly increased. It is through sustained training of the DPS workforce in the areas of both the value and protection of informational assets, that we build confidence in the District's ability and commitment to ensure the security of data associated with day-to-day business operations.

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Educating the District (students, staff, parents, and community stakeholders) about security related issues, assessing current policies and developing new policies, assisting in strengthening technical measures to protect district resources, and developing mechanisms to react to incidents and events that endanger the districts information assets are initiatives that must span every classroom and administrative office. Securing K-12 Information Systems for our students means keeping information private and schools safer.

The integration of security awareness into the curriculum means creating an enhanced learning environment in which the value of information is understood and the student role in it's safeguarding is a clearly communicated expectation.

A recent study by the Center for Education and Research in Information Assurance and Security (CERIAS) Outreach Program highlights the growing knowledge gap between children and their parents when it comes to the Internet. Thirty-eight percent of the respondents indicated that their parents had no rules of any sort governing their use of the computer. These responses are chilling, considering the fact that, of these same students, 55% have illegally downloaded copyright-protected music, 32% have been harassed online, 56% have been sent inappropriate material while online, and 47% chat regularly with strangers online. Whereas a typical parent imposes rules regarding ethical conduct and personal safety in the real world, there seems to be a gap concerning the world of the Internet. By educating staff and student alike it is the intention of Detroit Public Schools to educate parents about information security and privacy basics. Topics can include identity theft, computer security, cyber ethics, cyber crime, and more.

## **2.0 Strategy**

Detroit Public School's Data Security Strategy focuses on the cornerstones of information protection: integrity, confidentiality and availability. A comprehensive program is based on the following principles:

- Information is a vital district asset that must be protected
- The primary focus of information protection is the role of the information in educational processes rather than the information itself
- Information ownership and the accompanying responsibilities and accountability are the key to the acceptance and implementation of information protection controls
- An effective district information protection program must have centralized support and guidance with decentralized program implementation

Program objectives include:

- Protect the value of district information
- Protect the district from adverse legal and regulatory consequences resulting from improper information processing
- Provide the district with a list of components, both technical and administrative, that contribute to a comprehensive information protection program.
- Install flexibility for adaptation to changing educational and information technology environments.

## **2.1 Risk Management Program**

Through an ongoing structured approach to managing risks and the development of an acceptable action DPS plans to reduce informational risks to the lowest level. The Strategy will put into place mechanisms that will ensure the viability to educational needs. Risk Management will be integral to all areas of the district. Risk Management is a process of the identification, measurement, prioritization and control of informational risks (threat/vulnerability combinations) which threaten both tangible and intangible assets. The purpose of risk management is not to remove all risk but to ensure that risks are recognized and their potential to cause loss fully understood, and to allow DPS to spend its security dollars wisely.

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## **2.2 Risk Assessment**

To identify processes that represent significant emerging district risks is the first goal of the DPS Risk Assessment strategy. Processes may include production applications, Local area Networks, Data Centers or any information handling tools. The quality from performing numerous risk assessments is based on the following success factors:

- A proven and accepted methodology
- Information Owner (customer) involvement
- Centralized methodology implementation
- Process for control implementation
- Auditing involvement
- On-going methodology changes and/or improvement

## **2.3 Disaster Recovery for the District Data Center**

Prior to the formulation of a Data Center Disaster Recovery Plan the Business Impact Analysis (BIA) will quantify the effects of a disaster as much as possible. Determining lost dollar figures, lost educational services, affects on health and safety will inform DPS management of the consequences of not being able to process information in the District Data Center.

Compliance is about availability along with recovery. Additionally, it is about continuity of operations and having contingency plans to ensure continuous operations. The Data Center Recovery Plan that DPS will create has to start when you sense a problem not when you are moving your data processing operations. All of the functions or tasks listed below will be part of the plan.

- What events denote possible disasters
- What people in the organization have the authority to declare a disaster and thereby put the plan into effect
- The sequence of events necessary to prepare the backup site once a disaster has been declared
- The roles and responsibilities of all key personnel with respect to carrying out the plan
- An inventory of the necessary hardware and software required to restore production
- A schedule listing the personnel that will be staffing the backup site, including a rotation schedule to support ongoing operations without burning out the disaster team members
- The sequence of events necessary to move operations from the backup site to the restored/new data center

## **2.4 Business Unit Resumption Plan**

It is possible to loss one or numerous office functions and still have the district Data Center in operation. Detroit Public Schools needs to build Office Resumption Plans for all business units that contribute to the educational process. Using a process for identifying business functions a business unit director can identify and document which functions are most valuable to the district along with which process have a paper copy backup that can be utilized while hardware and software are being procured. Key personnel along with other necessary equipment can be identified along with determining "lead time" for their replacement. Centralized coordination of these plans will create common templates for which the plans can be crafted along with possible reciprocal agreements between business units.

## **2.5 Security Awareness Program**

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The district security awareness program aims to make all the employees understand and appreciate not only the value of the district's information assets but also the consequences in case these assets are compromised. Using a predefined "Information Protection Shopping List", DPS will establish a five year plan to cover Data Security issues all employees can contribute to or need to understand. The success of an awareness campaign would essentially hinge on the effectiveness of the district communication line. It is well documented that face-to-face communications serves to be the most personal and very effective for interaction. However, creating a "road show" to address all employees may be difficult. Analysis will be performed addressing face-to-face programs or utilizing Computer or Web Based training modules. What ever communications form is selected it is imperative that employee have an opportunity to express not only their concerns but ideas for improving the District Data Security Program. To show the level of "Due Diligence" the district is providing the developed program will also keep metrics on both attendance and the knowledge level of DPS employees.

## **2.6 Policy Dissemination Sign-Off and Tracking**

Policies which guide employee behavior normally have a clause for discipline if there is non-compliance. DPS will form a partnership between Information Technology, Human Resources and Legal when developing or modifying policies to protect informational assets. As technology, laws and the business of education changes it is important that existing policies be reviewed on an annual basis. For the same reason there are times when new policies have to be created. For a policy to be implemented or major changes proper implemented DPS must obtain either original signatures, signatures on updated statements of Understanding and Acceptance, or an electronic acknowledgement which signifies user receipt and acceptance.

## **3.0 Goals and Objectives**

### **3.1 Risk Management**

- Integrate Risk Management with a strategy
- Communicate the management of risks district wide
- Part of Upper management priority
- Responsibility for risk management must have escalation lines to upper management
- Adoption of a Risk Management policy
- District wide enforcement mechanism
- Program must be part of district auditing objective

### **3.2 Risk Analysis**

- Develop a tool that would create desired results
- Create an Acceptable Action Report
- Create partnerships in insure program success
- Implement adopted policy
- Create "Targets of Opportunity" that will support the program and tool
- Develop a generic "Risk List" and "Control List". Keep lists updated
- Insure control implementation

### **3.3 Disaster Recovery**

- Integrate Data Availability with a strategy
- Data Availability has upper management priority
- Meet Legal and Regulatory requirements
- Avoid public embarrassment and negative publicity
- Continued Productivity
- Avoid financial loss

- 
- Continue educational services
  - Business Unit Confidence
  - Parent/Student Confidence

### **3.4 Business Unit Resumption Plan**

- Integrate Data Availability with a strategy
- Data Availability has upper management priority
- Meet Legal and Regulatory requirements
- Avoid public embarrassment and negative publicity
- Continued Productivity
- Avoid financial loss
- Continue educational services
- Centralized recovery coordination
- Use of common tools and practices
- Firm wide enforcement

### **3.5 Security Awareness Program**

- Annually each DPS employee will attend a Data Security Awareness Session
- Data Security will be part of the “new employee” orientation program
- Awareness sessions will be created via attendee characteristics
- Partner with Human Resources and Legal when developing program content
- Conduct at least one Data Security Event
- Insure management participation and support
- Develop a system of metric to determine program success

### **3.6 Policy Dissemination Sign-Off and Tracking**

- Develop process to obtain initial signatures on document acknowledging Understanding and Agreement.
- Have Understand and Agreement document part of the new employee orientation program
- Develop process to obtain signatures on modified policies

## **4.0 Standards**

Because we recognize the critical dependence of many business processes on Information Technology, the need to comply with increasing regulatory compliance demands, and the benefits of managing risk effectively, industry standards and best practice models are invaluable. Among the frameworks and standards we recognize and seek to utilize as supporting policy requirements are:

COBIT: To aid organizations in successfully meeting many of today’s business challenges, the IT Governance Institute (ITGI) has published Control Objectives for Information and related Technology (COBIT®). COBIT is an IT governance toolset that allows managers to bridge the gap between control requirements, technical issues and business risks. COBIT enables clear policy development and good practice for IT control throughout organizations.

ITIL (IT Infrastructure Library) consists of 7 sets: Service Support; Service Delivery; Planning to Implement Service Management; ICT Infrastructure Management; Applications Management; Security Management; The Business Perspective. Although created by the United Kingdom Government, the ITIL is being rapidly adopted across the world as the standard for best practice in the provision of IT Service.

ISO/IEC 17799:2005 Information Security Standards

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## 5.0 Performance Indicators

- Assessment Completed
- Minimum regulatory requirements met
- Policies Written, Approved, Published
- Policy Acceptance obtained
- Security **Awareness Program in Place and Monitored**

## 6.0 Implementation Action Steps

None

## 7.0 List of Appendices

[16A Policy Checklist](#)

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## **16C. Acceptable Use Policy**

Policy 13.01 Internet Usage is Detroit Public Schools policy governing staff and student use of technologies.

The District's strategy for monitoring the Acceptable Use Policy is to use a Secure Compute SmartFilter content manager on a general proxy server for District access to the Internet. The application uses a database (updated daily) that blocks requests that fall into established categories (i.e. alcohol, chat, drugs, hacking, nudity, sex, etc.). Individuals visiting inappropriate sites receive a block page.



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## Appendix

## 11.6 A School and Administrative Office Web Page and Web Site Publishing Guidelines

### Detroit Public Schools Division of Technology and Information Services

#### School and Administrative Office Web Page and Web Site Publishing Guidelines

##### 1.0 Scope

It is the policy of the Detroit Public Schools to provide web environments for schools and offices to develop and maintain web pages that pertain to their individual locations. Responsibility for ensuring that the online environment is safe, of educational importance, and in compliance with applicable federal, state, and district regulations, is one that we must all share. These guidelines have been written to assist both school and administrative office users in understanding roles, responsibilities, regulations, and standards for acceptable use within the Detroit Public School web environment.

This policy applies to all users of web resources in the District including any adult, special educational, vocational, or other special programs administered by DPS.

It is required that users of web facilities at DPS consent to the provisions of this policy and agree to comply with all of its terms and conditions and with all applicable local, state and federal laws and regulations.

Any user violating this policy, or any other District policy or regulation, may be subject to limitations or elimination of web privileges as well as other disciplinary actions. [District policies](#) relevant to web, internet, and security issues should be reviewed. These guidelines are supplemental to those policies (013.01 through 13.13) and in no way supersede policy statement or procedure contained in these documents:

- 13.01 Internet Usage
- 13.02 Wireless
- 13.03 Security
- 13.04 Information Classification
- 13.05 Password
- 13.06 Remote Access
- 13.07 Email
- 13.08 Vendor Access
- 13.09 Software Usage
- 13.10 Telephone Repair
- 13.11 Email Retention
- 13.12 Student Transcript Storage and Transport
- 13.13 Student LDAP

The District reserves the right to summarily remove from its servers any Web sites that do not comply with District guidelines or the DPS Web Standards Guide.

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In particular, all information on Detroit Public Schools official web pages must:

- comply with those laws governing copyrights, intellectual property, libel and privacy,
- not violate any policy, rule or regulation of the District,
- not be used for non-DPS commercial activities,
- comply with Americans with Disabilities Act (ADA) minimal standard of providing text-only alternate content.

Official Web pages are considered DPS publications. Communications and IT are responsible for developing formatting style, standards and procedures for official District Web pages. The Office of Web Services will develop and maintain the official DPS Internet home page.

Administrative and academic offices are responsible for developing their own sites using the graphics, style guidelines or templates supplied by IT as part of its Content Management Suite. They may work under the direction of the IT Web team. Site developers must follow the procedures published in the DPS Web Standards Guide. Web sites developed by any District administrative or academic unit that do not use provided templates must be approved by the Director of Web Communications.

It is the responsibility of the designated representatives in academic and administrative units to ensure that all information posted on their page(s) is/are accurate, current and adheres to District policies.

## **2.0 Responsible Persons**

The publishing of district or school web pages is limited to authorized individuals. Any web page or published document including any page authored by school patrons such as PTA, booster clubs, etc., if published on district or school servers, must be sponsored by one of the following responsible persons:

### a) District Web Administrator

The District Web Administrator, reporting to the Web Manager under the direction of DPS IT Management is responsible for managing any File Transfer Protocol (FTP) accounts and related processes, evaluating and selecting those technologies, tools, and utilities best suited to maintaining the district's home page. In addition, the District Web Administrator is responsible to provide training and support to district departments, school administrators and school web managers.

### b) District Content Manager

Web content which does not specifically address the operation of a particular school or office but speaks to the broader operation of the District or has a community-wide impact, **must be submitted to the District Content Manager for approval prior to its being published on any District web page.** Among those items requiring approval prior to posting are:

- Community Events
- District-wide student population numbers
- District budgets/expenditures
- Student or staff demographic or statistical data
- School closings
- District-wide events or documents related to press releases, news, and announcements
- Information related to the School Board
- Information related to Executive Offices/Officers

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- Information related to Bids, Proposals, Procurements
  - Content received from or initiated by an external agency or source
  - Information/data used to populate School Information Pages
  - Information/data used to populate on-line database related to District-wide initiative

Content Management will be the responsibility of the Office of Community and Public Affairs and should be submitted through that office.

c) School Principal/Departmental Administrator

The Director or designated administrative lead in a District office which is not located in a school will be responsible for approval and submission of content for their department/office web page(s).

The school principal is responsible for the content of all pages sponsored by the school.

All content should meet the requirements and guidelines established here and comply with posting limitations outlined in 1.0 b above.

The principal or administrator may directly submit the content of their sponsored pages for publication.

d) School/Departmental Web Editor

If a school or office has designated a Web Editor, s/he will work under the direction of the school principal or office administrator to create and maintain their site-sponsored pages. It is the Web Editor's responsibility to keep information current, provide a consistent format for all pages published by the site, assist teacher publishers (where relevant) with training and support, and to verify that any posted links are current. Additionally, Web Editors will ensure that their pages/content meet the standards as set forth in the District's Internet Usage Policy (13.01).

e) Classroom Webmaster

Any assigned district teacher may create curriculum web pages that:

- support the local implementation of content standards of the state academic core curriculum for English language arts, mathematics, science, and social studies
- meet the guidelines set forth in this document
- are hosted on the school's or district's web server

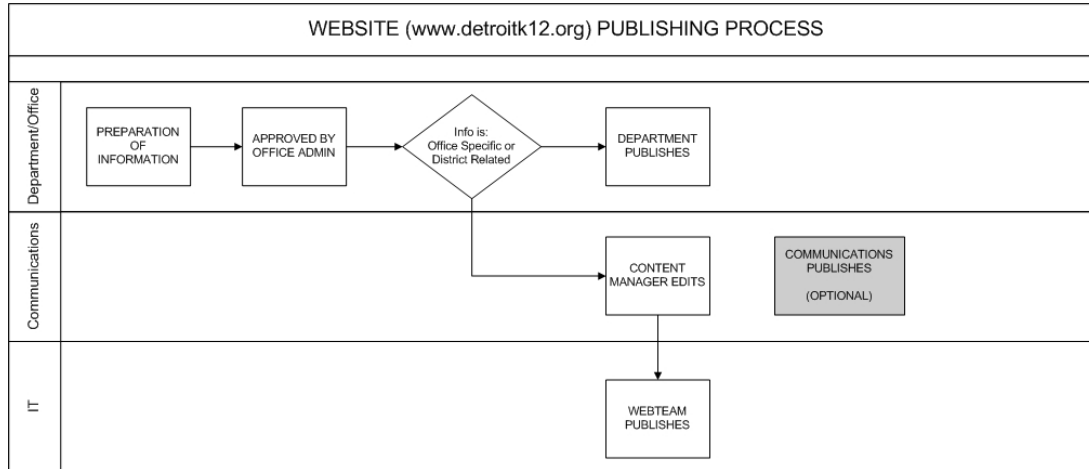
The Classroom Webmaster must receive approval for any such pages from the school's Web Editor and/or Principal prior to publication. S/he is responsible for the content of any pages s/he creates and for ensuring compliance with these guidelines. Included in their responsibilities are the following:

- edit all content for grammar and spelling
- edit for inaccuracies
- regularly check sites for broken links
- acquire proper permission for any photographs, copied, or copyrighted materials

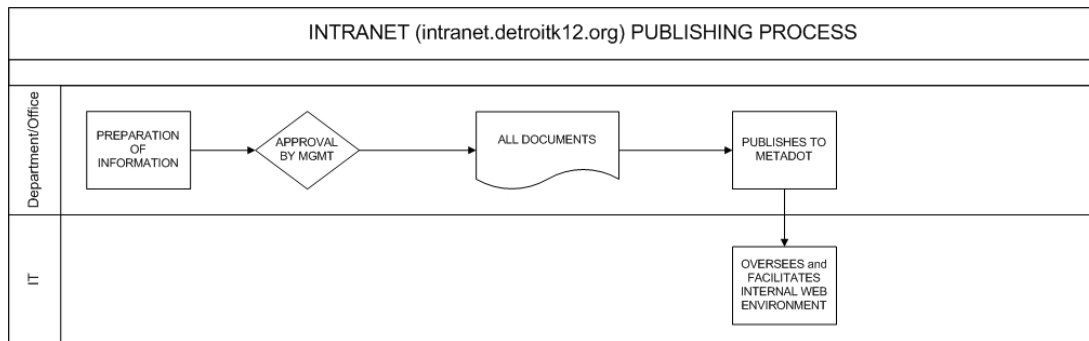
### 3.0 Web Publishing Process

The publishing of district or school web pages follows the processes illustrated below:

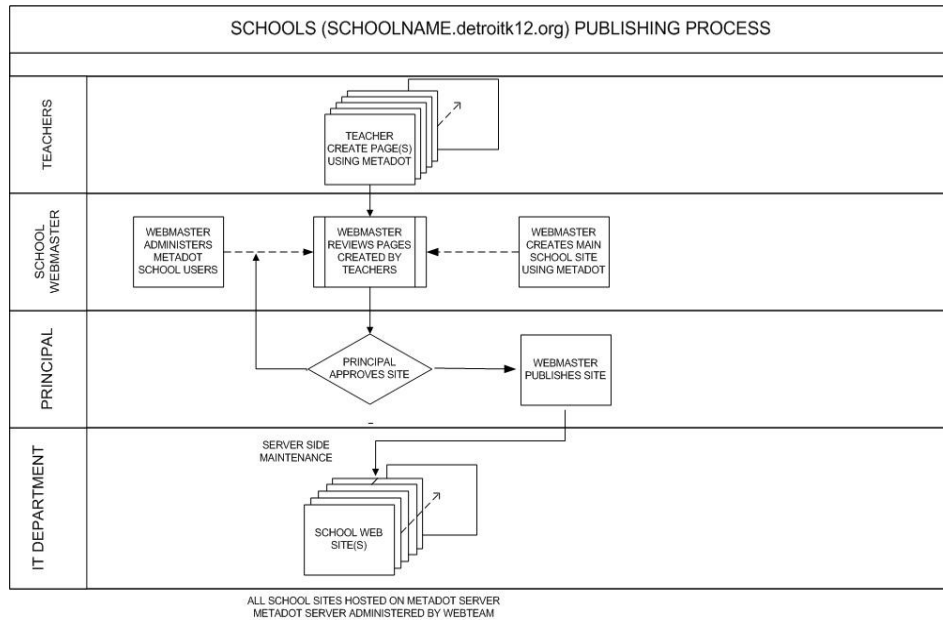
a) Main Internet Site – [www.detroitk12.org](http://www.detroitk12.org):



b) Intranet Website (internal) – [intranet.detroitk12.org](http://intranet.detroitk12.org)



c) School Websites – [schoolname.detroitk12.org](http://schoolname.detroitk12.org):



#### 4.0 Advertising, merchandising and commercial activity

Except for approved District-related items, sale of goods and services is prohibited on any DPS site. Non-DPS advertising, merchandising and any commercial activity is prohibited in the detroitk12.org domain.

#### 5.0 Required Elements

##### Required Content Specifications

It is important for administrative sites to contain specific elements of similarity, to present a unified look and feel to this core component of the District's web presence. **Administrative sites include the District's non-academic operations** that are not auxiliary (auxiliary sites include such entities as the DPS Children's Museum, the African Heritage Cultural Center, the WRCJ (DPS/DPT) radio station, and the Native American Educational Center).

- Department, School and Curriculum Pages
  - Pages must be identified as part of the Detroit Public School District at the top of every page.
  - Pages must be created using a DPS defined web template as provided by the District's Web Administrator unless otherwise approved in writing prior to publishing
  - Pages must display both a creation date and a modified date
  - Text documents (.txt, .rtf, .PDF, .doc) should include:

- 
- Contact telephone number
  - Contact email address
  - Owing school or office name
  - Introductory or explanatory statement
  - Embedded document title
  - Embedded keywords for searching (.PDF, .doc)
  - Bookmaking (.PDF file greater than 5 pages)
- All official sites must be **hosted on DPS servers**, with URLs in the detroitk12.org domain
  - Site **templates** should be used as provided, or modified minimally to accommodate specific needs. All modifications to the official site design must conform to the template concepts, so there is a consistent presentation to all DPS sites. On all pages of your site, the **title bar** (the very top of the browser window, above the web page itself) must include the District's name. It can be spelled out as Detroit Public Schools or abbreviated to DPS.
  - The District "footer" and "masthead" will be present on all pages along with links to DPS areas such as Business Support Services, Finance, HR, LEA, etc.
  - Other required elements include the following set of links: DPS Home, Contact DPS, Site Map, Directories, Calendars, My.DPS, and Search.
  - On your site's home page only, there must be a link to an **e-mail address for your current site content manager**. We recommend that you **not use the person's name**, but rather include a link such as this: [Contact the site administrator](#). This information must be kept current and accurate.
  - On your site's home page, there must be a clearly-labeled link to the **DPS home page**. This can be included as part of the footer / masthead.
  - On all pages of your site, there must be a link to **your site's home page** (designed or labeled so it is distinguishable from the front-page link to the DPS home page).
  - All pages of your site should reflect [basic accessibility standards](#).
  - As a site content manager designated by your Administrator, you are responsible for the following:
    - Ensuring that your site complies with applicable DPS standards, policies and guidelines (located on and linked from this web site).
    - Ensuring that the content (including text, graphics, all elements) of your site does not violate any copyright.
    - Keeping written permission on file for photos of staff or students.
    - Keeping written **parental** permission on file for any photos of children under age 16.
    - Gaining approval for your site's content from your Administrative Director.
    - Completing Content Manager's training seminar and providing a signed Content Manager's Agreement
    - Ensuring that your site remains current, accurate, and a positive reflection of the DPS mission and strategic objectives
    - Ensuring that your site, and all directories/subdirectories that comprise your site, remain free of any files or data of any kind that are not **directly** and **currently** a part of your **official** DPS web site.

## 6.0 **Elements NOT to include**

There are certain elements that detract from the user experience, and from the professionalism of your site's presentation. Please **do not include** the following on your web site:

- **Do not include:** Individual dates or other specifically **time-sensitive information** on web pages, unless you are thoroughly prepared to update them EVERY day, or unless you have an automated method for daily updates. It is important to maintain completely updated information.

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- **Do not include:** The site administrator's **name on every page** of your site. A reference to the site administrator (not recommended by name) is recommended on the front page only. At deeper site levels, it can be hard to maintain this information accurately, and it is also unnecessary.
  - **Do not include: Distracting design elements**, such as flashing .gifs, blinking text, background images, super-saturated (very bright) colors, huge or tiny text sizes, looped sound files, etc.
  - **Do not include:** any files or data of any kind that are not directly and currently a part of your official DPS web site (even if they are not linked on the site).
  - **Do not include:** Frames, Flash-only navigation.

## 7.0 General site standards:

### Organization

Begin with a **sustainable, platform-independent organizational structure** for your site:

- PLAN your site's **structure** before building the site. Establish directories, subdirectories, and navigational paths. If you require assistance with developing a layout, contact the Office of Web Services.
- Use **lowercase titles** for all your file names.
- Make sure that file names have **proper extensions**, such as .html or .htm, .jpg, .gif, .swf, etc.
- **Do not use spaces** or punctuation in file names, other than the underscore "\_" convention.
- Use **intuitive naming** for your files and directories--**keep file names** as **short** and descriptive as possible (less than 15 characters where possible).
- Place **all your images and graphics** in a subdirectory called "**images**." This subdirectory should be located within your site's top-level directory.
- Use the **District's name in the top (title) bar of the browser window for every page on your site**--even those in the lower tiers. You may abbreviate to DPS, but it is important to identify all official DPS web pages as such.

### Design

The DPS web site templates are established to help you set up official DPS sites according to the principles listed here. If you wish to use the templates with modifications, or to develop a customized site according to the template concepts, you must contact the director of Web Communications before doing so.

- Understand that the purpose of web design is to **enhance and support the user experience**. A site's design should not create distractions or confusion; it should emphasize the site's navigation and primary elements.
- Perhaps the most important element of user-centered design is **consistency**. The DPS templates contain the recommended navigation structures for DPS sites. In general, keep your **navigation** consistent; let the user know what to expect and where to find it. Use intuitive navigation so users do not have to spend time figuring out how to use your site.
- **Do not use background images**. In most cases, these repeating images add nothing to the design, and are distracting and unappealing. They frequently cause problems with readability, which is an essential component of usability.
- Use **background colors selectively and sparingly**. Avoid using background colors behind large amounts of text. The DPS templates are designed using specific background colors in certain areas (the navigation bar) only.
- **Avoid using visible tables**, unless there is a compelling reason for all those column-and-row lines. Tables are best used as invisible components of page layout. If you must use a visible table, keep the lines small (border size 1).



- 
- Use professional, legal graphics and images, and keep your **image file sizes small**, so the images will load quickly. This is particularly important for web pages with numerous images.
  - **Avoid using auto-loading sound files**, unless there is a compelling reason to do so (as in a multimedia presentation, where the sound is part of the information content). **Do not use looping audio files**--the kind that continually play in the background as the user views the site.

### **About Flash**

Many web designers are using Flash to add interest and interactivity to their web site designs. Flash may be used on official DPS sites, but only as an auxiliary element. The following regulations apply to the use of Flash on all official DPS web sites:

- Flash may **not be used as the site's primary / exclusive navigation** component or as a requirement to view the primary content of the site (i.e. no "all-Flash" sites).
- Flash site "introductions" or "splash pages" must be **optional** (i.e. provide a "skip intro" option).
- Audio components must be **optional** (provide an "off" option).
- A fully-functional and accessible **non-Flash** site or version of the site must be provided. Preferably, a detect script should be included for non-Flash-enabled browsers, in addition to the required "skip" option for Flash-enabled browsers.
- A direct link to the current download of the **free Flash player** must be provided on the site's main page. (i.e. "To view all the content on this site, you will need the Flash player, available as a [free download here.](#)")

The Flash components of the site **must be reviewed** by the Office of Web Services prior to launch.

### **About Frames (don't use them)**

The DPS templates, design and standards are structured **not** to use frames. Frames cause problems with accessibility, book marking, and inter-site navigation. The DPS web standards do not support the use of frames. Please do not use frames in official DPS web sites.

For ease of site maintenance, use the Dreamweaver (or GoLive, etc.) templating feature to create site elements (such as navigation bars) to retain and update common information for a variety of pages on your site.

### **Navigation**

Navigation is the anchor of your site's usability. Navigation can make the difference between a user-centered site and a poorly designed site. The DPS web site templates are designed with the recommended navigation structure for DPS web pages. Developers of official DPS sites should use this navigation structure or a similar one.

The most important dual principle of navigation is **clarity and consistency**. If a site visitor needs more than a moment or two to understand your site's primary navigation structure, the structure is probably not sufficiently intuitive. Navigation is **not the place on your site to experiment with unusual conventions**. Your site's navigation should meet the expectations of people who use the web--and even inexperienced users should be able to find their way around.

Wherever links are present on your site, make it visually clear that they are links. It is also helpful to users to distinguish between which links have been visited and which have not.

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The hierarchy of the site should be evident through your navigation--how to find information, and how the information is organized. Users should also find an easy way to search the site.

### **Some basic usability principles**

Most important: Keep your **audience** at the top of your mind during the entire site development process. Other principles:

- Make it **obvious**. Design your site and your navigation so it's immediately clear where things are and how to use the site.
- Make it **accurate**. Information should be correct and fresh. The site should be free of typographical and other errors.
- Make it **fast**. Your pages--especially your home page--should load very quickly in all browsers.
- Make it **valuable**. Give your users what they came for--and then some.
- Make it **searchable**. Provide a search function, and optimize your site for presentation on search engines.
- **Design** it professionally. Presentation matters.
- Keep it **up to date**. Refresh your content; give the visitor a reason to return.
- Keep your **promises**. Respond quickly to e-mail and comments. Keep links updated (NO "under construction" pages!).
- **Make yourself** (or someone else) **accessible** by e-mail and/or phone.

### **Some basic accessibility principles**

Rules of thumb to help you make your site accessible and compliant with DPS web standards (similar suggestions are found under the W3C Web Accessibility Initiative, etc.):

- If you are using images or graphics of any kind on your site, use **alt tags** to describe these elements.
- If your site has audio or video components, provide **captions and transcripts** of audio and written descriptions of video.
- For links in text, **describe the link** rather than using "click here."
- Use a **consistent structure** in organizing your pages.
- If you are using graphs or charts, provide a **summary**.
- If you are using scripts, applets or plug-ins, provide **alternative content** for all features that may not be accessible in every browser.
- Do not use frames.
- If you wish to use flash, do not use flash as the primary/exclusive navigation tool on your site. Use it only as an auxiliary component of your site. Also, create a mirror site that does NOT require flash.

## **8.0 Student Information and Safety**

Parent/guardian permission to publish a student's name, picture and/or work must have been obtained in writing in any of the following situations;

- If a student is clearly recognizable in an individual picture
- If a student is singled out in a group picture with accompanying text that identifies him/her
- If a work attributed to a student is posted on a web page

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If any student who is part of a group picture (e.g. athletic or team event) elects not to have his/her picture displayed and it is clearly recognizable on the picture, then reasonable photo editing techniques should be used to edit out the student's likeness. In the event that no such editing is possible, the picture cannot be used on the web page.

Permission may be obtained for all such situations using the Student Web Release form (13.01.01).

Groups of student names, as for awards, teams, etc., may be published without any identifying picture of the individuals provided none of these students have objected to the release of directory information under the Family Educational Rights and Privacy Act (FERPA).

No student's last name, e-mail address, personal web address, street address or telephone number shall be published.

## 9.0 Staff Information

The business address, business telephone number and business e-mail address of staff members may be published without prior permission of the staff member since these items are considered to be public information under state law. Any other personally identifiable information about a staff member should not be published without prior permission from the staff member (13.01.02).

## 10.0 Location of Web Pages

All web pages sponsored by the district or the school shall be stored on either the district's web server or the school's web server. Detroit Public Schools does not endorse the content of any external district related sites and reserves the right to remove or restrict any links to these sites.

## 11.0 File Types (Including but not limited to):

- Acceptable
  - BMP                      Bitmap
  - CSS                     Cascading Style Sheet
  - DOC                    Document
  - GIF                     Graphics Interchange Format
  - HTM, HTML            Hypertext
  - JIF, JPG, JPEG        Joint Photo Experts Group
  - JS                      JavaScript Source Code
  - MID                    MIDI music
  - MPG, MPEG            Movie Animation
  - PDF                    Portable Document Format
  - PNG                    Portable Network Graphics
  - RTF                    Rich Text Format
  - SWF                    Shockwave Flash
  - TIF, TIFF             Tag Image File Format bitmap
  - TXT                    ASCII Text
  - WAV                    Windows Waveform sound
  - WMF                    Windows Metafile
  
- Unacceptable
  - CAB                    Microsoft Compressed (Cabinet)
  - EXE                    Executable (machine code)
  - JAR                    Java Archive (compressed)
  - TAR                    Tape Archive (Unix)
  - ZIP                    Compressed

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It is recommended that any published image files be reasonably compressed, but not to the extent that clarity or resolution is compromised.

## 12.0 Updating Pages

All pages that contain current information such as calendars, event lists, etc., must be updated at least monthly. It is recommended that all links on every page be checked at least quarterly. Any page which has not been revised (based on the document's "last modified" date) during the preceding six months is subject to being removed from the district or school web server without notice by the Web Administrator.

## 13.0 Web Applications

Web sites developed for specific schools or offices may require database design, storage, and retrieval capability. In some cases, Dynamic HTML to enhance internet connectivity, interactivity, or on-demand serving of custom content, will be required. In such cases, both site development and technical construction will be the responsibility of the Web Support Team.

District data used to populate on-line databases (e.g. school information) requires the approval of the Office of Communications. Upon certification of data integrity by that office, maintenance of such data will be the responsibility of the submitting school or office.

## 14.0 District Internet Acceptable Usage Policy (13.01)

These guidelines do not supersede, amend, or modify the District's Internet Usage Policy. If anything in these guidelines is in conflict with policy 13.01, the policy will be the controlling document. All sponsors of pages must ensure that their pages and all links contained on their pages comply with the District Internet Acceptable Use policy.

## 15.0 Links and Advertising

Advertisements, commercial and non-profit, are prohibited on school and district sponsored web pages without the prior approval of the District Content Manager. Links to commercial web sites must have a clear educational purpose and require prior approval from the Content Manager.

**Disclaimer for External Links:** The appearance of hyperlinks on the Detroit Public Schools web site does not constitute endorsement by the Detroit Public Schools of linked web sites or the information, products or services contained there. The District does not exercise any editorial control over the information that may be found at linked locations. If available, external links are provided with the stated purpose of the Detroit Public Schools web site.

**Disclaimer for Linked Web Sites:** Detroit Public Schools does not endorse the contents of any linking sites and reserves the right to remove or restrict any links to sites containing inappropriate, obscene, sexually explicit, or other material outside the scope of permissible uses as described in the District Internet Usage Policy 13.01. The content accessed by the link(s) on other web sites is the responsibility of the outside source(s) that produced the linked web pages. If any linked home page content is considered inappropriate, staff should bring the matter to the attention of the Web Administrator at [webteam@detroitk12.org](mailto:webteam@detroitk12.org).

## 16.0 Domain Names

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Web pages published under independently acquired domain names that reside external to the District's servers, are neither maintained by the web support team nor authorized by the District. Such pages remain the responsibility of the school or office and no links from the District web site will be made to the external site.

Any exceptions to this regulation must be approved either by the Chief Technology Information Officer or the office of the Content Manager.

## **17.0 Copyright**

All page sponsors are responsible for compliance with applicable copyright and intellectual property laws. This relates to the student work published, and also to any information copied or obtained from other sources. Material copied from other web pages should not be used without obtaining the prior permission of the author of the page and must be cited. Material from software owned by or licensed to the District such as Clip Art, electronic publications, etc. should not be used without prior permission of the author unless the licensing agreement for the product specifically allows such use. Note that what might qualify as fair use in the classroom under existing copyright law may not necessarily meet the test of fair use when published on a web page which has worldwide accessibility.

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## 11.6B Content Managers Agreement

### Web Site Content Management

### SERVICE AGREEMENT

The Division of Technology and Information Systems agrees to provide DPS administrators with access to the DPS Intranet Portal (<http://intranet.detroitk12.org>), a web-based content management system, for the purpose of creating and maintaining departmental websites and web pages. The Division of Technology and Information Systems agrees to provide this service and space on the DPS Web Server(s) provided the following conditions are understood and met:

1. The undersigned Web Site Content Manager and Administrator accepts full responsibility for all content posted to the departmental website and individual web pages. This includes graphical images, text documents, data, design, hyperlinks, language, terms and suggestions.
2. The undersigned Web Site Content Manager and Administrator accepts full responsibility for ensuring that departmental websites and all departmental web pages constructed under their supervision adhere to all Detroit Public Schools [Internet related policies](#):<sup>1</sup>.

▪	Internet Usage	13.01
▪	Password Policy	13.05
▪	Security Policy	13.03
▪	Software Usage	13.09
▪	Information Classification	13.04
3. The undersigned Web Site Content Manager and Administrator are responsible for reviewing all content prior to posting to confirm that it adheres to the following guidelines:
  - Web pages may not contain product, event, or other types of advertising.
  - Web pages may not contain personal information about students, teachers, administrators or any other persons.
  - Web pages may not contain inappropriate language, images, terms or suggestions.
  - Web pages shall be consistent with all other formatting guidelines and standards published by the Office of Web Services. .

#### Violation of the Above Conditions

A written notification will be sent to the Web Site Content Manager and Administrator when a violation occurs. Repeated violations may result in the department losing posting privilege to the district's web server. The Office of Web Services, the Chief Information Officer or his designee reserve the right to remove any information that does not comply with the Districts Internet or Acceptable Use Policies.

I, the undersigned Web Site Content Manager and Administrator accept full responsibility for the departmental website and all additional web pages. I understand and agree to the above conditions.

<b>Department Name:</b>		<b>Site Manager Name:</b>	
<b>Administrator Name (Director or Executive Director):</b>		<b>Site Manager Email Address &amp; Telephone Number:</b>	
<b>Administrator Signature:</b>		<b>Site Manger Signature:</b>	

## 16B. Acceptable Use Policy

### DPS Policy 13.01 Internet Usage

**SUBJECT:** **ACCEPTABLE INTERNET USAGE POLICY FOR STUDENTS AND STAFF**  
**Policy 13.01**

**Supersedes:** DPS Policy 10.42 - Student Acceptable Use of the DPSNet and  
DPS Policy 13.01 – Internet Usage

**Effective:** 2006

**Pages:** 1 of 6

#### 1.0 POLICY PURPOSE

Detroit Public Schools' (DPS) Internet and Intranet environment is available to assist business and educational processes through the utilization of technology and technology related services. Among the essential components of internet usage management are: establishing guidelines for utilization, a means for securing sensitive data and applications; awareness of the monitoring and recording Internet usage; assist in the training of end-users in the proper use of all available access and security technology, search engines usage, and encryption tools. It is the responsibility of the district to protect staff and students against exposure to inappropriate material. The provisions of this policy do not supersede local, state and federal laws. Appropriate Internet usage is important for three central reasons:

1. **Employee and Student Productivity:** Organizations typically measure productivity based on specified goals and objectives, as well as by examining how employees and students allocate their time. Management should have the information it needs to examine how employees spend their time on the Internet. While specific student classroom performance may not be measured by internet usage, the management of both amount and quality of time spent on the internet may be useful indicators to teaching staff.

2. **Network Bandwidth and Resources:** While Internet access is not free the privilege of using the DPS Internet facilities is a free service provided to students and staff. The privilege of non-business usage of the Internet results in real costs to the organization. For example: the cost to upgrade network resources such as leased lines, routers, disk storage, and printers in order to handle increased load; as well as the cost of wasted time caused by slow network response or unreliable connection.

3. **Potential Legal Liabilities and/or Negative Publicity:** Inappropriate usage of the Internet may result in legal liabilities and/or negative publicity to the district. Examples of inappropriate usage include, but are not limited to:

- The creation of, receipt, display or transmission of certain information may violate software licensing laws and may constitute illegal downloading
- The creation of, receipt, display or transmission of threatening, hostile, harassing,



- sexually and/or racially offensive language or any other communication that is deemed inappropriate.
- Certain activities on the internet may qualify as impermissible personal business conducted from a DPS server
  - Certain activities can result in connection with inappropriate sites on the Internet allowing the district domain (e.g., john\_doe@detroitk12.org) to be captured, possibly resulting in negative publicity
  - The Detroit Public Schools network must operate under the guidelines of the Children's Information Protection Act (CIPA) and Family Educational Rights and Protection Act (FERPA)

## **2.0 SCOPE**

Detroit Public Schools has provided access to the Internet to its employees and student body. As a provider of Internet services and staff email, Detroit Public Schools must ensure that the Internet, as a productive business tool and enhancement to curriculum-based activities, is used in a way that is legal, safe, and secure. Any employees, students, or business partners representing Detroit Public Schools directly or indirectly on the Internet must adhere to this policy.

## **3.0 POLICY**

1. The Internet is both a business tool and educational resource for DPS. Access to the Internet is provided by DPS to its employee and student population at a significant cost. That means DPS expects the Internet to be used for business- related purposes, which includes, but is not limited to, communication with customers and suppliers, to research relevant topics, and to obtain useful business or educational information. DPS Internet facilities include the DPS Intranet, cell phones (Blackberry), text messaging, voice mail and all forms of telecommunications.
2. DPS requires that those employees, students, and others who access the Internet through the DPS network comply with copyright laws, software licensing rules, intellectual property and privacy rights.
3. All existing DPS policies apply to conduct on the Internet, including, but not limited to DPS policies that address student code of conduct, intellectual property protection, privacy and confidentiality rules, and policies on the misuse of DPS resources, information and data security. Additionally this policy prohibits the transfer and/or dissemination of proprietary information, trade secrets, confidential documents or any other DPS privileged information via the Internet.
4. Detroit Public Schools does not extend nor imply a right to privacy in Internet usage or Information exchanged on the Internet. As set forth in the Section 4 below, DPS reserves the right to lawfully inspect and monitor Internet usage, to examine any files stored on its network in order to assure compliance with DPS policies, and to limit access to those known areas of the Internet deemed inappropriate content for students and staff.
5. DPS may be required to preserve stored Internet information for extended or specified periods of time. Pursuant to State Department of Education, Bulletin No. 522, Revised, March 1997, DPS is required to retain documents that qualify as Business Office Records, Student Educational Records, Pupil Accounting Records, and other miscellaneous information for designated periods of time. If the information or files stored on the Internet fall into one of these categories and/or is

required to be retained pursuant to Bulletin No. 522, then DPS may be required to archive such information.

6. The display of any kind of sexually explicit image or document on any DPS system is a violation of DPS policy, including but not limited to the DPS policy on sexual harassment. .in addition, sexually explicit material may not be archived, stored, distributed, edited, or recorded using DPS network or computing resources.

7. DPS uses independently supplied software and data to identify inappropriate or sexually explicit Internet sites. DPS may block access from within its networks to all such sites of which DPS is aware. The reporting of Internet related concerns shall be sent to

**[info.protection@detroitk12.org](mailto:info.protection@detroitk12.org)**.

8. DPS Internet facilities and computing resources must not be used knowingly to violate the laws and regulations of the United States or any other nation, or the laws and regulations of any state, city, province or other local jurisdiction in any material way.

9. An individual may not use the DPS-provided internet access to create, receive, display, transmit or download threatening, hostile or harassing information that is derogatory, defamatory, obscene, or offensive, or anything that may be perceived as harassment or disparagement based upon (race, color, national origin, sex, sexual orientation, age, disability, or religious or political beliefs or that is deemed inappropriate based upon federal. civil rights law, Michigan's Elliot Larsen Civil Rights Act, or other relevant law.

10. Software or files downloaded via the Internet into the DPS network will become the property of the DPS and must be used only in ways consistent with the licenses and/or copyrights governing the software or files.

11. No individual may use DPS Internet facilities to download or distribute pirated software or data.

12. DPS Internet users may not establish a web site with links to or from the DPS site without prior approval from the Division of Technology and Information Systems or designated Content Management.

13. No individua1 may use DPS Internet facilities to deliberately propagate a virus, worm, Trojan horse, trap-door program, or any other malicious code.

14. No individual may use the DPS Internet facilities knowingly to disable or overload any computer system or network, or to circumvent any system intended to protect the privacy or security of another user.

15. Individuals using DPS Internet facilities shall identify himself or herself honestly, accurately, and completely (including DPS affiliation and function where requested) when participating in chat rooms or newsgroups, or when setting up accounts on outside computer systems; however, only those agents, employees or officials who are duly authorized to speak to the media, to analysts, or in public behalf of DPS may speak/write in the name of DPS to any newsgroup or chat room.

16. DPS Internet users shall not reveal confidential DPS information, customer and student data, trade secrets, or any other material covered by DPS policies and procedures while accessing chat rooms, news groups or public forums.

17. The use of DPS Internet facilities to commit infractions, including but not limited to, the misuse of DPS assets or resources, sexual harassment, and misappropriation or theft of intellectual property is prohibited by DPS Policy 13.03 – Information Security.

18. Employees and students may use DPS Internet facilities during mealtime, breaks, and outside of work hours, solely in compliance with the DPS Internet Usage policy and other DPS policies.

19. The availability of DPS Internet facilities and the appropriateness of usage by employees and students during school hours will be determined by the local school administration.

20. Employees and Students may not use DPS Internet facilities to play games against opponents, download entertainment software, games, images, or videos unless there is an explicit business-related use for the material.

21. Non DPS employees, students, agents, or officials who gain access to the internet through DPS-provided internet facilities by way of an employee, student, agent or official of DPS are subject to the terms and conditions of the DPS Internet Usage policy.

22. Web sites deemed by DPS as inappropriate, will be blocked from access.

23. Internet access external to the DPS Network where either a staff member or student is directly or indirectly associated with DPS that:

- o Violates the DPS Code of Student Conduct
- o Constitutes a threat to any DPS school, district facility, student or staff member including, but not limited to, cyber bullying
- o Causes harm or has the potential to cause harm to any DPS school, district facility, student, or staff member
- o Creates the perception of illegal activities is deemed a violation of this Policy.

24. Student Cyber Safety/Cyber Bullying effective July 1, 2012 students accessing the Internet through DPS facilities will complete Cyber Safety and Cyber Bullying online training at their first log-in on the student e-mail system (Gaggle).

#### **4.0 MONITORING**

DPS has the right to monitor usage of the DPS-provided Internet facilities by users, including but not limited to, reviewing a list of the sites accessed by an individual. The access to the Internet provided by DPS is for business purposes and the Internet should be used in accordance with the policy provisions set forth above. A DPS Internet user, whether an employee, student, agent or official should not have an expectation of privacy in the use of DPS-provided Internet facilities nor should they have an expectation of privacy in the information exchanged. Violation of the Internet policy or failure to comply with monitoring guidelines can lead to disciplinary and/or legal consequences.

##### **Monitoring Approach**

- o DPS may monitor Internet usage on a periodic basis (daily, weekly, monthly, and bi-

monthly)

and may generate Internet usage reports to ensure policy compliance.

- Violation of the terms of the above-referenced Internet Usage policy, provisions of other relevant DPS policies, federal, state or local laws will constitute non-compliance that carry disciplinary or legal consequences, including but not limited to criminal prosecution.
- An employee may be notified of non-compliance with the Internet Usage Policy, and/or provisions of other relevant DPS policies, federal, state, or local laws.

## **5.0 ISSUANCE OF REGULATIONS/STANDARD OPERATING PROCEDURES**

The Chief Technology and Information Systems Officer is authorized to develop regulations and guidelines for the implementation this policy.

## **6.0 FAILURE TO COMPLY**

Non-compliance with this policy will be subject to management review and action in conformance with the DPS disciplinary policies and/or relevant legal action. Violation of this policy will be treated like other allegations of wrongdoing at Detroit Public Schools. Allegations of misconduct will be adjudicated according to the established procedures for Detroit Public Schools. Sanctions for inappropriate use of the Internet may include, but are not limited to:

- Temporary or permanent revocation of access to some or all computing and networking resources and facilities
- Disciplinary action according to applicable DPS policies and School Code of Conduct
- Legal action according to applicable laws and contractual agreements

## **7.0 EXCEPTIONS**

Any exceptions to this policy must be documented and approved by the DPS Chief Technology and Information Officer and General Superintendent.

## **8.0 CONFIDENTIALTY ISSUES**

### **Children's Internet Protection Act - CIPA**

The Children's Internet Protection Act (CIPA) is a Federal law enacted by Congress in December 2000 to address concerns about access to offensive content over the Internet on school and library computers.

<http://www.fcc.gov/cgb/consumerfacts/cipa.html>

### **Family Educational Rights and Privacy Act (FERPA)**

The Family Educational Rights and Privacy Act (FERPA) is a Federal law that protects the privacy of student education records.

<http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

**9.0 AGREEMENT**

I, \_\_\_\_\_ (print name) have a received a written copy of the DPS Internet Usage Policy, dated \_\_\_\_\_. I fully understand the terms of this policy and agree to abide by them. I realize that DPS security software may record for management use, the Internet address of any site that I visit and keep a record of any network activity in which I transmit or receive any kind of file. I acknowledge that any message I send or receive will be recorded and stored in an archive file for management use and/or review. I acknowledge that any violation of this policy could lead to disciplinary action up to and including dismissal and/or criminal prosecution or other legal action.

I am a Detroit Public School:	___ Student	___ Employee
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\_\_\_\_\_  
Signed

Document Identification: Policy 13.01 - Internet Usage

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Chief Technology and Information Officer

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Chief Human Resources Officer

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
General Superintendent

**Liability Disclaimer:**

The Detroit Public Schools District disclaims all liability for the content of material that a staff member or student may access or post on the DPS Internet Facilities, for any damages suffered in the course of or as a result of the students Internet use. The Detroit Public Schools District reserves the right to change the Internet Usage Policy at any time.

## ET Action Plan

The ET Action Plan outlines the specific action steps for implementing the selected strategies, goals, and objectives of the Educational Technology Plan. The vast majority of the action steps have budget implications, many extending beyond the three years of this 2012-2015 planning period in terms of completion and funding. The percentage of completion of action steps varies and while significant progress is planned the progression of some actions represents less than 100% implementation during this three year planning period. The software tool used for project plan management enables the capture of the action steps, key milestones, start and end dates for actions and milestones, and percentage of progress made.

Both the action plan and the budget will be updated monthly by Divisions, Departments and Offices. Updates will be captured in the project plan and status reports generated and submitted to the Educational Technology Collaborative to communicate the status of assigned tasks and the percentage of completion.

### Responsibility Legend – *add other stakeholders if needed*

<b>BE</b>	Board of Education	<b>HR</b>	Human Resources
<b>BUD</b>	Budget	<b>IT</b>	Technology and Information Systems
<b>CA</b>	Central Administration	<b>OREA</b>	Research, Evaluation and Assessment
<b>CI</b>	Curriculum and Instruction	<b>PA</b>	Parents
<b>CIM</b>	Capital Improvement	<b>PD</b>	Professional Development
<b>CP</b>	Contracting and Procurement	<b>PI</b>	Parental Involvement
<b>CU</b>	Community Use	<b>PS</b>	Public Safety
<b>ETC</b>	Educational Technology Collaborative	<b>RM</b>	Risk Management
<b>FAC</b>	Facilities Services (Includes Facilities, Energy)	<b>SA</b>	School based Administration
<b>FD</b>	Fund Development	<b>SLA</b>	School Leadership and Accountability
<b>FIS</b>	Financial Services	<b>SUP</b>	Superintendent

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<b>Curriculum</b>			
	<b>Curriculum Integration</b>			
4	Embed Technology Standards in Core Curriculum for Teachers and Students	X	X	X
4	Identify Technology Transformation Teams for schools	X	X	X
4	Establish annual Curriculum Fair for instructional staff to showcase teacher and student products	X	X	X
4	Publish the results of Curriculum Fair as a "Handbook of Curriculum Projects" after judging by evaluators.	X	X	X
4	Create specific web pages for all curriculum content	X	X	X
4	Create "online e-registration" for teacher Professional Development	X	X	X
4	Identify all active "On-line" Teachers professional development in core content and technology integration	X	X	X
4	Create Awards Program/Incentives for schools to acknowledge use and achievement with technology	X	X	X
4	Expand teachers use of technology to communicate and collaborate with peers, parents, and the larger community.	X	X	X
4	Expand Technology Resource Centers managed by certified staff and available during, and after-school hours for student, teacher and parental access	X	X	X
4	Conduct on-line surveys of students, teachers, and principals and establish a time-line for enacting ETP recommendations	X	X	X
4	Create technology budgets and supplies for teachers and the on-line inventory system for purchased technology assets and classroom technology	X	X	X
4	Create on-line assessment system for classroom use	X	X	X
4	Create a process to convert all district documents from analog to digital formats. Permit online completion and delivery of on-line digital documents	X	X	X
4	Install automated system to support technology literacy and track student classroom performance and attendance	X	X	X
	<b>Student Achievement</b>			
5.0F	Review, revise and/or develop Educational Technology curriculum for all grade levels <ul style="list-style-type: none"> <li>Includes integration and alignment of DPS, METS, and NETS technology standards</li> </ul>	X	X	X
5.0F	Revise the Computer Application Program (CAP) curriculum (high school)	X	X	X
5.0F	<b>8<sup>TH</sup> GRADE TECHNOLOGY LITERACY PROFESSIONAL DEVELOPMENT</b>	X	X	X
5.0F	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>Continue increasing the rigor of the assessment</li> <li>Identify best practice measures for assessing student technological proficiency</li> </ul>	X	X	X
5.0F	Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities	X	X	X
5.0F	Plan and implement workshop(s)	X	X	X
	<b>ELA</b>			
5.0G	Develop and implement leadership engagement strategy, plan and toolkit ELA Educational Technology <ul style="list-style-type: none"> <li>Business case</li> <li>Strategy map</li> <li>Sponsor and leadership roadmaps</li> </ul>	X	X	X
5.0G	<b>ACCELERATED READER</b>	X	X	X
5.0G	Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs	X	X	X
5.0G	Develop implementation plan for augmenting Accelerated Reader initiative with addition of the NEO2 mobile cart;	X	X	X



ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	includes <ul style="list-style-type: none"> <li>• Prioritization and ranking of schools</li> <li>• Communication plan</li> <li>• Professional development</li> </ul>			
5.0G	Validate and remove barriers impacting implementation and effectiveness of Accelerated Reader program	X	X	X
5.0G	Upgrade to version 4.0 to provide parents monitoring capabilities	X	X	X
5.0G	Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness	X	X	X
5.0G	Work collaboratively with Fund and Grant development to develop campaign to secure increased grant funding and donations	X	X	X
5.0G	Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding			
5.0G	Coach Champions, School Administrators, Teachers (leaders)	X	X	X
5.0G	<b>MY ACCESS VANTAGE</b>	X	X	X
5.0G	Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs	X	X	X
5.0G	Develop implementation plan for expanding program over the next three years <ul style="list-style-type: none"> <li>• High School grades 9 and 11 (09-10)</li> <li>• High School grades 10 and 12 (10-11)</li> <li>• Middle School grades 6, 7, 8 (11-12)</li> </ul>	X	X	X
5.0G	Determine the total cost of ownership for My Access Vantage program	X	X	X
5.0G	Validate and remove barriers impacting implementation and effectiveness of Accelerated Reader program	X	X	X
5.0G	Ensure that all students and teachers have access to on-line textbooks and supplemental resources	X	X	X
5.0G	Work collaboratively with School Administrators to increase accessibility to technology in classrooms, library media centers and computer labs (i.e. computers, printers, Internet access, etc.)	X	X	X
5.0G	Work collaboratively with Fund and Grant development to develop campaign to secure increased grant funding and donations <ul style="list-style-type: none"> <li>• Services: Internet access</li> <li>• Hardware: Laptops, Printers (Standalone or Networked)</li> </ul>	X	X	X
5.0G	Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness	X	X	X
5.0G	<b>ELA EDUCATIONAL TECHNOLOGY AVAILABLE BY GRADE LEVEL</b>	X	X	X
5.0G	Ensure that all students and teachers have access to on-line textbooks and supplemental resources	X	X	X
5.0G	Purchase and/or install interactive whiteboards in every ELA classroom	X	X	X
5.0G	Equip each ELA classroom with standard ET configuration	X	X	X
5.0G	Apply for grants to secure funding for equipment and supplemental resource acquisitions			
5.0G	Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Performance Systems <ul style="list-style-type: none"> <li>• elnstruction (Elementary and Middle schools)</li> <li>• TI Navigator (High Schools)</li> </ul>	X	X	X
5.0G	<b>LIBRARY MEDIA CENTER</b>	X	X	X
5.0G	Increase the number of library media centers	X	X	X
5.0G	Increase teacher service and funding for librarian position	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
5.0G	Standardize library media center configuration <ul style="list-style-type: none"> <li>include internet access and video streaming capabilities</li> </ul>	X	X	X
5.0G	Determine the total cost of ownership for LMCs			
5.0G	Increase the number and variety of books available in every LMC	X	X	X
5.0G	<b>WORLD LANGUAGE</b>	X	X	X
5.0G	Increase the number of distance learning opportunities available to world language students <ul style="list-style-type: none"> <li>Configure ELA classrooms and language labs with capacity for video streaming and with internet access</li> <li>Offer Chinese on-line to 9-12 grade students through the Confucius Institute at Michigan State University</li> <li>Increase partnering with universities</li> </ul>	X	X	X
5.0G	Standardize the number of languages taught in High Schools – 3 minimum, one from each of the following categories: <ul style="list-style-type: none"> <li>Romance – Spanish, French, Italian</li> <li>Strategic – Arabic, Chinese, Japanese,</li> <li>Classical – Latin</li> </ul>	X	X	X
5.0G	Increase the number of language labs	X	X	X
5.0G	Increase the number of world language software applications available in language labs or on classroom workstations			
5.0G	Standardize language lab configuration including Internet access and video streaming capabilities	X	X	X
5.0G	Determine the total cost of ownership for world language labs	X	X	X
5.0G	Identify teachers in the district who are certified in the strategic languages and establish a support forum for students enrolled in on-line courses			
5.0G	Work collaboratively with the Office of Research, Evaluation and Assessment to develop process for assessing student proficiency	X	X	X
5.0G	<b>ELA PROFESSIONAL DEVELOPMENT</b>	X	X	X
5.0G	Work collaboratively with the Office of Professional Development to <ul style="list-style-type: none"> <li>Secure sites adequately equipped for sessions where Educational Technology must be used</li> <li>Develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)</li> </ul>	X	X	X
5.0G	Complete Accelerated Reader professional development for teachers	X	X	X
5.0G	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>Identify best practices for integrating technology in the delivery of ELA curriculum</li> <li>Transfer best practices from research to classroom application</li> <li>Assess and evaluate effectiveness of ELA professional development</li> </ul>	X	X	X
5.0G	Implement Professional Development as planned	X	X	X
5.0G	Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities	X	X	X
	<b>MATH</b>			
5.0H	Develop and implement leadership engagement strategy, plan and toolkit Mathematics Educational Technology <ul style="list-style-type: none"> <li>Business case</li> <li>Strategy map</li> <li>Sponsor and leadership roadmaps</li> </ul>		X	
5.0H	<b>ACCELERATED MATH</b>			
5.0H	Perform comprehensive program inventory to access deployment of Educational Technology	X		
5.0H	Determine the total cost of ownership for Accelerated Math program	X		
5.0H	Validate and remove barriers impacting implementation and effectiveness of Accelerated Math program		X	

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
5.0H	Work collaboratively with School Administrators of schools with inadequate infrastructures, the Department of Information and Technology and Facilities Services to develop strategy and plan to upgrade infrastructures to meet eRate compliant	X		
5.0H	Work collaboratively with the Office of Research, Assessment and Evaluation to access and evaluate program effectiveness	X		
5.0H	Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding <ul style="list-style-type: none"> <li>Coach Champions, School Administrators, Teachers (leaders)</li> </ul>	X		
5.0H	<b>CARNEGIE MATH</b>			
5.0H	Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs	X		
5.0H	Develop implementation plan for expanding program over the next three years <ul style="list-style-type: none"> <li>Middle Schools Grade 8 Algebra I 2009-2010</li> <li>High Schools Grade 9 Algebra I 2009-2010</li> <li>High Schools Grade 10 Geometry 2010-2011</li> <li>High Schools Grades 11 Algebra 2 2011-2012</li> </ul> <p>The rate of program expansion will be determined by individual school's ability to schedule students to spend 40% of their time interfacing with the Cognitive Tutor program</p>	X X	X X	
5.0H	Determine the total cost of ownership for Carnegie Math program	X		
5.0H	Validate and remove barriers impacting implementation and effectiveness of Carnegie Math program		X	
5.0H	Ensure that all students and teachers have access to on-line textbooks and supplemental resources	X		
5.0H	Work collaboratively with School Administrators to increase accessibility to technology in classrooms and computer labs (i.e. computers, printers, Internet access, etc.)	X		
5.0H	Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness	X		
5.0H	Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding <ul style="list-style-type: none"> <li>Coach Champions, School Administrators, Teachers (leaders)</li> </ul>	X		
5.0H	<b>READY FOR ALGEBRA! MICHIGAN VIRTUAL UNIVERSITY COLLABORATIVE</b>			
5.0H	Identify students eligible for participation	X		
5.0H	Assess adequacy of ET at schools to support program implementation	X		
5.0H	Work collaboratively with School Administrators to meet program technology requirements (i.e. voice/data/electrical infrastructure, computers, printers, Internet access, etc.)	X		
5.0H	Determine the total cost of ownership for program <ul style="list-style-type: none"> <li>Cost per student</li> <li>Software, hardware, services, infrastructure, security</li> <li>Professional development</li> </ul>	X		
5.0H	Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness	X		
5.0H	Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding <ul style="list-style-type: none"> <li>Coach Champions, School Administrators, Teachers (leaders)</li> </ul>	X		
5.0H	<b>MATH EDUCATIONAL TECHNOLOGY AVAILABLE BY GRADE LEVEL</b>			
5.0H	Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and			X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	needs			
5.0H	Develop implementation plan for augmenting Accelerated Math and Carnegie Math initiative with addition of the Classroom Performance System; includes <ul style="list-style-type: none"> <li>• Prioritization and ranking of schools</li> <li>• Communication plan</li> <li>• Professional development</li> </ul>			X
5.0H	Provide Internet access in every Math classroom			X
5.0H	Purchase and/or install interactive whiteboards in every Math classroom			X
5.0H	Equip each Math classroom with standard ET configuration			X
5.0H	Provide all students remote access to on-line textbooks and supplemental resources			X
5.0H	Apply for grants to secure funding for equipment and supplemental resource acquisitions			X
5.0H	Acquire essential Mathematics Educational Technology as funding is available (i.e. graphing calculators, document cameras)	X		
5.0H	Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Performance Systems <ul style="list-style-type: none"> <li>• eInstruction (Elementary and Middle schools)</li> <li>• TI Navigator (High Schools)</li> </ul>	X		
5.0H	<b>MATH PROFESSIONAL DEVELOPMENT AND PROFESSIONAL SUPPORT SERVICES</b>			
5.0H	Develop annual professional development budget	X		
5.0H	Work collaboratively with the Office of Professional Development to <ul style="list-style-type: none"> <li>• Secure sites for Professional Development that are adequately equipped with Educational Technology</li> <li>• Develop alternate course delivery methods</li> <li>• Customize coursework</li> <li>• Develop methods for optimizing use of interactive whiteboards</li> <li>• Engage master teachers who are expert users</li> <li>• Partner with organizations like WESA</li> </ul>	X  X  X	X X	
5.0H	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>• Identify best practices for integrating technology in the delivery of Mathematics curriculum</li> <li>• Transfer best practices from research to classroom application</li> <li>• Assess and evaluate effectiveness of Mathematics professional development</li> </ul>	X	X X	
5.0H	Develop Mathematics Educational Technology curriculum delivery model and implement district-wide	X		
5.0H	Implement Professional Development as planned	X		
5.0H	Access and analyze student and teacher performance data to identify critical areas where additional focus and support are needed	X		
5.0H	Develop tools integrating technology and non-technology resources <ul style="list-style-type: none"> <li>• Hyperlink pacing charts to related resources</li> </ul>	X		
5.0H	Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities		X	
5.0H	<b>MATH PARENTAL ENGAGEMENT AND INVOLVEMENT</b>			
5.0H	Work collaboratively with Parental Involvement to develop parent engagement strategies	X		
5.0H	Work collaboratively with the Department of Information and Technology to: <ul style="list-style-type: none"> <li>• Determine the total cost of ownership for developing and maintaining the portal</li> </ul>			

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Develop budget for mathematics parental portal</li> <li>Develop the mathematics parent portal</li> </ul>		X	
	<b>SCIENCE</b>			
5.01	Develop and implement leadership engagement strategy, plan and toolkit Science Educational Technology <ul style="list-style-type: none"> <li>Business cases</li> <li>Strategy map</li> <li>Sponsor and leadership roadmaps</li> </ul>		X	
5.01	<b>SCIENCE EDUCATIONAL TECHNOLOGY AVAILABLE BY GRADE LEVEL</b>			
5.01	Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs	X		
5.01	Equip each Science classroom with standard ET configuration		X	
5.01	Purchase and/or install interactive whiteboards in every Science classroom	X		
5.01	Provide Internet access in every Science classroom	X		
5.01	Work collaboratively with Department of Information and Technology to <ul style="list-style-type: none"> <li>Identify ways to authorize use of student and teacher owned technology without compromising system security, data integrity, legal requirements, etc.</li> <li>Establish service level requirements and expectations for schools</li> </ul>	X		
5.01	Work collaboratively with the Office of Procurement and the Department of Information and Technology to develop a naming convention for bundles of software that makes it easier to identify and locate instructional software <ul style="list-style-type: none"> <li>Present naming convention makes it difficult to know which individual applications are part of the bundle</li> </ul>		X	
5.01	Develop implementation plan for augmenting Science curriculum with addition of the Classroom Performance System; includes <ul style="list-style-type: none"> <li>Prioritization and ranking of schools</li> <li>Communication plan</li> <li>Professional development</li> </ul>	X		
5.01	Provide all students remote access to on-line textbooks and supplemental resources		X	
5.01	Apply for grants to secure funding for equipment and supplemental resource acquisitions		X	
5.01	Acquire essential Science Educational Technology as funding is available (i.e. probes, etc.)	X		
5.01	Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Performance Systems <ul style="list-style-type: none"> <li>eInstruction (Elementary and Middle schools)</li> <li>TI Navigator (High Schools)</li> </ul>	X		
5.01	<b>SCIENCE ASSESSMENT OF STUDENT ACHIEVEMENT &amp; DATA-DRIVEN DECISION MAKING</b>			
5.01	Work collaboratively with Office of Research, Evaluation and Assessment: <ul style="list-style-type: none"> <li>Develop Science Common METS assessment tool</li> <li>Customize existing questions and develop additional questions for Exam View</li> <li>Develop processes for monitoring and assessing: <ul style="list-style-type: none"> <li>Teacher utilization of ET tools (teacher performance)</li> <li>Impact of ET utilization in the teaching and learning process on student achievement (student performance)</li> </ul> </li> </ul>		X	

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Analyze data to identify opportunities for continuous improvement of student and teacher performance</li> <li>Leverage these initiatives to increase and enhance teacher accountability for student achievement</li> </ul>			
5.0I	<b>SCIENCE PROFESSIONAL DEVELOPMENT &amp; INSTRUCTIONAL TOOLS</b>			
5.0I	Work collaboratively with the Office of Professional Development to <ul style="list-style-type: none"> <li>Secure sites adequately equipped for sessions where Educational Technology must be used</li> <li>Develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)</li> <li>Develop college level course for teachers on using web based tools for designing animation, etc.</li> <li>Increase number of practice exercises and progress checks throughout course delivery (vs. at end) to improve skill acquisition and retention</li> <li>Develop post course assignments with staggered submission dates to demonstrate skill acquisition and retention</li> <li>Schedule post course follow-up by professional development liaisons to coach teachers and reinforce skills development</li> </ul>		X	
5.0I	Work collaboratively with Department of Information and Technology to <ul style="list-style-type: none"> <li>Develop ability to record professional development courses</li> <li>Deliver live webinars; eliminate or reduce need to travel</li> <li>Archive webinars for on-demand professional development</li> </ul>	X	X	X
5.0I	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>Identify best practices for integrating technology in the delivery of Science curriculum</li> <li>Transfer best practices from research to classroom application</li> <li>Assess and evaluate effectiveness of Science professional development</li> </ul>	X		
5.0I	Develop Science toolkit of hyperlinked instructional tools and resources	X		
5.0I	Implement Professional Development as planned	X		
5.0I	Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities		X	
	<b>SOCIAL STUDIES</b>			
5.0J	Develop and implement leadership engagement strategy, plan and toolkit Social Studies Educational Technology <ul style="list-style-type: none"> <li>Business case</li> <li>Strategy map</li> <li>Sponsor and leadership roadmaps</li> </ul>	X		
5.0J	<b>EDUCATIONAL TECHNOLOGY AVAILABLE BY GRADE LEVEL</b>			
5.0J	Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs	X		
5.0J	Equip each Social Studies classroom with standard ET configuration	X		
5.0J	Purchase and/or install interactive whiteboards in every Social Studies classroom	X		
5.0J	Provide Internet access in every Social Studies classroom	X		
5.0J	Work collaboratively with Department of Information and Technology to <ul style="list-style-type: none"> <li>Identify ways to authorize use of student and teacher owned technology without compromising system security, data integrity, legal requirements, etc.</li> <li>Establish service level requirements and expectations for schools</li> </ul>	X		
5.0J	Develop implementation plan for augmenting Social Studies curriculum with addition of the Classroom Performance	X		

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	System; includes <ul style="list-style-type: none"> <li>• Prioritization and ranking of schools</li> <li>• Communication plan</li> <li>• Professional development</li> </ul>			
5.0J	Provide all students remote access to on-line textbooks and supplemental resources		X	
5.0J	Apply for grants to secure funding for equipment and supplemental resource acquisitions	X		
5.0J	Acquire essential Social Studies Educational Technology as funding is available (i.e. probes, etc.)	X		
5.0J	Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to acquire technology for full implementation of Classroom Performance Systems <ul style="list-style-type: none"> <li>• eInstruction (Elementary and Middle schools)</li> <li>• TI Navigator (High Schools)</li> </ul>	X		
5.0J	<b>SOCIAL STUDIES PROFESSIONAL DEVELOPMENT &amp; INSTRUCTIONAL TOOLS</b>			
5.0J	Work collaboratively with the Office of Professional Development to <ul style="list-style-type: none"> <li>• Secure sites adequately equipped for sessions where Educational Technology must be used</li> <li>• Develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)</li> </ul>	X		
5.0J	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>• Identify best practices for integrating technology in the delivery of ELA curriculum</li> <li>• Transfer best practices from research to classroom application</li> <li>• Assess and evaluate effectiveness of ELA professional development</li> </ul>	X		
5.0J	Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities	X		
5.0J	Implement Professional Development as planned	X		
	<b>EARLY CHILDHOOD</b>			
5.0K	Develop and implement leadership engagement strategy, plan and toolkit Early Childhood Educational Technology <ul style="list-style-type: none"> <li>• Business case</li> <li>• Strategy map</li> <li>• Sponsor and leadership roadmaps</li> </ul>	X		
5.0K	<b>PK GREAT START READINESS</b>			
5.0K	Work collaboratively with School Administrators and staff, the Office of Curriculum Development, the Office of Parental Involvement, and the Office of Research, Assessment and Evaluation to <ul style="list-style-type: none"> <li>• Integrate the DETS, METS, and NETS standards into PK-K Curriculum for Great Start Readiness classrooms <ul style="list-style-type: none"> <li>• Large Group Time</li> <li>• Planning Time</li> <li>• Work Time</li> <li>• Recall Time</li> <li>• Small Group Time</li> <li>• Plan/Work/Recall Time</li> </ul> </li> <li>• Develop parent involvement components</li> </ul>			X
5.0K	Work collaboratively with Office of Professional Development to develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for Great Start Readiness classrooms		X	

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
5.0K	Work collaboratively with Fund and Grant development to develop campaign to secure grant funding and donations for Educational Technology <ul style="list-style-type: none"> <li>Standard ECE ET classroom configuration</li> <li>Voice/Data/Electrical/Security Infrastructure</li> </ul>		X	
5.0K	<b>PK HEAD START</b>			
5.0K	Work collaboratively with School Administrators and staff, the Office of Curriculum Development, the Office Parental Involvement and the Office of Research, Assessment and Evaluation to <ul style="list-style-type: none"> <li>Integrate the DETS, METS, and NETS standards into PK-K Curriculum for Head Start classrooms</li> <li>Develop parent involvement components</li> </ul>			X
5.0K	Work collaboratively with Office of Professional Development to <ul style="list-style-type: none"> <li>Develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for Head Start classrooms</li> </ul>		X	
5.0K	Work collaboratively with Fund and Grant development to develop campaign to secure grant funding and donations for Educational Technology <ul style="list-style-type: none"> <li>Standard ECE ET classroom configuration</li> <li>Voice/Data/Electrical/Security Infrastructure</li> </ul>		X	
5.0K	<b>KINDERGARTEN</b>			
5.0K	Work collaboratively with School Administrators and staff, the Office of Curriculum Development, the Office Parental Involvement and the Office of Research, Assessment and Evaluation to <ul style="list-style-type: none"> <li>Integrate the DETS, METS, and NETS standards into PK-K Curriculum for Kindergarten classrooms</li> <li>Develop parent involvement components</li> </ul>			X
5.0K	Work collaboratively with Office of Professional Development to develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for Kindergarten classrooms		X	
5.0K	Work collaboratively with Fund and Grant development to develop campaign to secure grant funding and donations for Educational Technology <ul style="list-style-type: none"> <li>Standard ECE ET classroom configuration</li> <li>Voice/Data/Electrical/Security Infrastructure</li> </ul>		X	
5.0K	<b>EARLY CHILDHOOD EDUCATIONAL TECHNOLOGY AVAILABLE BY GRADE LEVEL</b>			
5.0K	Work collaboratively with Curriculum and Instruction, the Office of Information and Technology Systems, and the Office of Research, Evaluation and Assessment to <ul style="list-style-type: none"> <li>Develop strategy for establishing PK-K Educational Technology building blocks</li> <li>Hardware and software standards that enable use of age appropriate resources</li> <li>Develop strategies and campaign for advocating for eRate funding eligibility for DPS PK-K ET initiatives</li> </ul>		X	
5.0K	Equip each PK-K classroom with standard ET configuration			X
5.0K	Ensure that all teachers have access to on-line textbooks and supplemental resources		X	
5.0K	Apply for grants to secure funding for equipment and supplemental resource acquisitions		X	
5.0K	ECE school leadership participate on Educational Technology Collaborative leadership and work teams		X	
5.0K	<b>EARLY CHILDHOOD PROFESSIONAL DEVELOPMENT</b>			
5.0K	Work collaboratively with Office of Professional Development to <ul style="list-style-type: none"> <li>Develop a Professional Development plan that focuses on the integration of the DETS, METS, and NETS standards into PK-K Curriculum for all PK-K classrooms (i.e. Head Start, Great Start Readiness, etc.)</li> </ul>		X	



ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
5.0K	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>Identify best practices for integrating technology in the delivery of Early Childhood Education curriculum</li> <li>Transfer best practices from research to classroom application</li> <li>Assess and evaluate effectiveness of Early Childhood Education professional development</li> </ul>			X
5.0K	Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities			X
5.0K	Implement Professional Development as planned		X	
5.0K	<b>EARLY CHILDHOOD FUNDING SOURCES</b>			
5.0K	Work collaboratively with Fund and Grant development and the Office of Information and Technology Systems to develop campaign to secure increased grant funding and donations <ul style="list-style-type: none"> <li>Standard ECE ET classroom configuration</li> <li>Voice/Data/Electrical/Security Infrastructure</li> </ul>			X
	<b>CAREER TECHNICAL EDUCATION (CTE)</b>			
5.0L	Develop and implement leadership engagement strategy, plan and toolkit for CTE Educational Technology <ul style="list-style-type: none"> <li>Business case</li> <li>Strategy map</li> <li>Sponsor and leadership roadmaps</li> </ul>	X		
5.0L	<b>ASSESSMENTS</b>			
5.0L	Work collaboratively with <ul style="list-style-type: none"> <li>Professional Development and School Administrators to identify sites adequately equipped to serve as test locations</li> <li>School Administrators and teachers to analyze the computer lab scheduling process to improve technology opportunities and experiences</li> </ul>	X		
5.0L	<b>CTE COMPUTER/RESOURCE LABS</b>			
5.0L	Increase the number of computer/resource labs		X	
5.0L	Standardize CTE computer/resource lab configuration <ul style="list-style-type: none"> <li>Mandate wireless Internet access and video streaming capabilities</li> </ul>		X	
5.0L	Determine the total cost of ownership for CTE computer/resource labs		X	
5.0L	<b>CTE EDUCATIONAL TECHNOLOGY</b>			
5.0L	Conduct comprehensive program inventory to assess deployment of Educational Technology; To identify gaps and needs for technology programs <ul style="list-style-type: none"> <li>Maintain equipment inventory to meet Perkins grant compliance requirements</li> <li>Work collaborative with Facilities Services, the Office of Information and Technology, and the Office of Funds and Development to ensure CTE assets are captured in Active Directory and the District inventory management system</li> </ul>	X	X	
5.0L	Validate and remove barriers impacting implementation and effectiveness of Career Technical Education Programs	X		
5.0L	Increase accessibility to technology in classrooms and computer labs (i.e. computers, printers, Internet access, etc.) <ul style="list-style-type: none"> <li>Equip each classroom with standard CTE ET essentials configuration</li> <li>Equip each computer lab/resource lab with standard configuration</li> <li>Acquire mobile labs meeting standard configuration</li> </ul>		X X X	
5.0L	Ensure that all students and teachers have access to on-line textbooks and supplemental resources			X
5.0L	Increase the number of distance learning opportunities available to CTE students			X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
5.0L	Apply content-based technology in delivery of instruction <ul style="list-style-type: none"> <li>• Digitize existing curriculum to facilitate instruction</li> <li>• Increase use of on-line textbooks and supplemental teacher and student resources</li> <li>• Invest in digital learning/instructional materials</li> <li>• Provide delivery of instruction through multimedia sources</li> </ul>		X	X X
5.0L	Provide focus trips to technology savvy businesses as a conduit to substantiate the usefulness of technology	X		
5.0L	Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to <ul style="list-style-type: none"> <li>• Secure equipment and supplementary resources</li> <li>• Acquire and implement Classroom Performance Systems</li> </ul>		X X	
5.0L	Determine the total cost of ownership for CTE Education programs and computer/resource labs		X	
5.0L	Develop strategies for maintaining program integrity and continuity in the midst of changing workforce (i.e. reductions, transfers) and funding	X		
5.0L	CTE staff participates on the Educational Technology Collaborative leadership and work teams to support advancement of Educational Technology district-wide	X		
5.0L	Work collaboratively with the Office of Research, Assessment and Evaluation to <ul style="list-style-type: none"> <li>• Assess and evaluate program effectiveness</li> <li>• Develop process for assessing student proficiency</li> </ul>			X
5.0L	<b>CTE PROFESSIONAL DEVELOPMENT</b>			
5.0L	Work collaboratively with the Office of Professional Development to: <ul style="list-style-type: none"> <li>• Secure sites adequately equipped for sessions where Educational Technology must be used</li> <li>• Develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)</li> </ul>		X X	
5.0L	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>• Identify best practices for integrating technology in the delivery of CTE curriculum</li> <li>• Transfer best practices from research to classroom application</li> <li>• Assess and evaluate effectiveness of CTE professional development</li> </ul>	X X X		
5.0L	Implement Professional Development for Instructional Technology	X		
5.0L	Develop standardize course introductions to reinforce importance educational value of ET initiatives and review educators implementation roles/responsibilities	X		
5.0L	<b>CTE ADVISORY COUNCILS</b>			
5.0L	Seek support from the District leadership, advisory boards and Educational Technology Collaborative (ETC) for developing and implementing partnership engagement strategies that include financial and non-financial contributions to DPS		X	
5.0L	<b>CTE FUNDING SOURCES</b>			
5.0L	Work collaboratively with Fund and Grant development to develop campaign to secure increased grant funding and donations <ul style="list-style-type: none"> <li>• Services: Internet access</li> <li>• Hardware:Laptops, Printers (Standalone or Networked)</li> </ul>	X		
5.0M	<b>ELL PROGRAMS; EXTENDED LEARNING OPPORTUNITIES</b>	X		
5.0M	Develop and implement leadership engagement strategy, plan and toolkit <ul style="list-style-type: none"> <li>• Bilingual Education Educational Technology business case</li> <li>• Bilingual Education Educational Technology strategy map</li> </ul>	X		

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Bilingual Education sponsor and leadership roadmaps</li> </ul>			
5.0M	Perform comprehensive program inventory to assess deployment of Educational Technology; Identify gaps and needs	X		
5.0M	Determine the total cost of ownership for ELL and Migrant Educational Technology program	X		
5.0M	Validate and remove barriers impacting implementation and effectiveness of ELL and Migrant Education programs	X		
5.0M	Work collaboratively with the Office of Research, Assessment and Evaluation to assess and evaluate program effectiveness	X		
5.0M	Work collaboratively with Fund and Grant development to develop campaign to secure increased grant funding and donations	X		
5.0M	<b>EDUCATIONAL TECHNOLOGY AVAILABLE BY GRADE LEVEL</b>			
5.0M	Equip each Bilingual Education classroom with standard ET configuration	X		
5.0M	Equip each Bilingual Education classroom with ScanTran for collecting student performance data	X		
5.0M	Provide Internet access in every Bilingual Education classroom	X		
5.0M	Ensure that all students and teachers have access to on-line textbooks and supplemental resources	X		
5.0M	Apply for grants to secure funding for equipment and supplemental resource acquisitions	X		
5.0M	Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to equip Bilingual Education classrooms with ET standard configuration	X		
5.0M	Implement collection of student performance data for Bilingual Education using the Scantron scanning system	X		
5.0M	Analyze student performance data collected with e-Assessments and Scantron system to measure student progress and to differentiate instruction	X		
5.0M	Work collaboratively with the Office of Information and Technology and the Office of Research, Evaluation and Assessment to conduct a preliminary evaluation of Adobe Acrobat as a potential communication/collaboration solution for the Bilingual Education learning community	X		
5.0M	<b>Bilingual Education CONTENT-FOCUSED PROFESSIONAL DEVELOPMENT</b>			
5.0M	Work collaboratively with the Office of Professional Development to <ul style="list-style-type: none"> <li>Secure sites adequately equipped for sessions where Educational Technology must be used</li> <li>Develop alternate course delivery methods (i.e. video conferencing, on-demand, etc.)</li> </ul>	X		
5.0M	Complete professional development for teachers	X		
5.0M	Work collaboratively with the Office of Research, Evaluation, and Assessment to: <ul style="list-style-type: none"> <li>Identify best practices for integrating technology in the delivery of Bilingual Education curriculum</li> <li>Transfer best practices from research to classroom application</li> <li>Assess and evaluate effectiveness of Bilingual Education professional development</li> </ul>	X		
5.0M	Implement Professional Development as planned	X		
5.0M	Develop standardize course introductions to reinforce importance and educational value of ET initiatives and review educators implementation roles/responsibilities	X		
5.0M	<b>Bilingual Education FUNDING SOURCES</b>			
5.0M	Work collaboratively with School Administrators and the Office of Funds and Grants to identify funding sources to equip Bilingual Education classrooms with ET standard configuration	X		
5.0N	<b>MUSIC EDUCATION EDUCATIONAL TECHNOLOGY</b>			
5.0N	Perform comprehensive program inventory to assess deployment of Educational Technology; identify gaps and needs	X		
5.0N	Equip each Music Education classrooms with <ul style="list-style-type: none"> <li>Standard configuration of Educational Technology</li> <li>Content specific supplement to the standard configuration of Educational Technology</li> </ul>	X	X	
5.0N	Equip Music Education department and classrooms with a standard configuration of instructional software	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
5.0N	Equip MIDI or digital keyboard labs with standard configuration of Educational Technology	X	X	
5.0N	Equip dedicated computer music labs with standard configuration of Educational Technology	X	X	X
5.0N	Equip dedicated recording and composing studio with standard configuration of Educational Technology	X	X	X
5.0N	Equip non-music education school-based labs/ resource centers with supplemental equipment to support Music Education			X
5.0N	Provide all teachers and students remote access to on-line textbooks and supplemental resources		X	X
5.0O	Develop and implement leadership engagement strategy, plan and toolkit <ul style="list-style-type: none"> <li>• Art Education Educational Technology business case</li> <li>• Art Education Educational Technology strategy map</li> <li>• Art Education sponsor and leadership roadmaps</li> </ul>		X	
5.0O	<b>ART EDUCATION EDUCATIONAL TECHNOLOGY</b>			
5.0O	Perform comprehensive program inventory to assess deployment of Educational Technology; identify gaps and needs	X	X	
5.0O	Equip each Art Education classrooms with <ul style="list-style-type: none"> <li>• Standard configuration of Educational Technology</li> <li>• Content specific supplement to the standard configuration of Educational Technology</li> </ul>	X	X	X
5.0O	Equip Art Education department and classrooms with a standard configuration of instructional software	X	X	X
5.0O	Equip MIDI or digital keyboard labs with standard configuration of Educational Technology	X	X	
5.0O	Equip dedicated computer art labs with standard configuration of Educational Technology	X	X	X
5.0O	Equip non-art education school-based labs/resource centers with supplemental equipment to support Art Education			X
5.0O	Provide all teachers and students remote access to on-line textbooks and supplemental resources			X
<b>Technology Delivery</b>				
6.0	Develop a project plan for establishing ET standards <ul style="list-style-type: none"> <li>• Standardized ET classroom – baseline/guideline for all DPS classrooms</li> <li>• Customized content area specifications (i.e. CTE, Bilingual Education, Early Childhood Education, etc.)</li> </ul>	X	X	X
6.0	Develop and implement ET standards; including bringing existing initiatives into compliance	X	X	X
6.0	Identify, analyze, and improve policies, processes, and practices related to acquisition and replacement of Educational Technology hardware, software, and services to ensure that adherence to ET standards are embedded	X	X	X
6.0	Publish ET standards on DPS website and intranet	X	X	X
6.0	Conduct professional development and training on ET standards for impacted stakeholders	X	X	X
6.0	Evaluate eInstruction Classroom Performance System and assess impact on student learning	X	X	X
6.0	Develop total cost of ownership for eInstruction Classroom Performance System <ul style="list-style-type: none"> <li>• Curriculum and Instruction works collaboratively with IT and Budget to estimate the total cost of ownership for a single unit (clickers, projector, supplies, accessories, computer, technical support, maintenance and repair, supplemental software, Annual updates to MDE GLCE, professional development, asset protection equipment, etc.)</li> </ul>	X	X	X
6.0	Estimate the cost of implementing the eInstruction Classroom Performance System either district-wide or strategically in designated schools	X	X	X
6.0	Develop process for evaluating NEO2 Classroom Performance System and assessing impact on student learning	X	X	X
6.0	Develop total cost of ownership for NEO2 Classroom Performance System <ul style="list-style-type: none"> <li>• Curriculum and Instruction works collaboratively with IT and Budget to estimate the total cost of ownership for a single unit (NEO2 laptop, projector, supplies, accessories, technical support, maintenance and repair, supplemental software, professional development, storage cart, anti-theft devices, asset protection</li> </ul>	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	equipment, etc.) and the cost of implementation either district-wide or strategically in designated schools			
<b>Parental Communications &amp; Community Relations</b>				
7.0	Provide parents METS information and guidance on how to use it to gauge student achievement	X	X	X
7.0	Disseminate newsletters to parents to provide valuable and timely information about ways to foster student learning	X	X	X
7.0	Provide workshops to equip parents to facilitate learning with technology in the home, with a emphasis on developing reading, writing and technology literacy skills; also to provide parents job skills training and access to higher learning communities	X	X	X
7.0	Provide learning resources for parents	X	X	X
7.0	Use multiple strategies (newsletters, website, telephone, voice and text messaging, Internet, email) to communicate with parents and community, to improve communications, and to increase parent and community involvement in children's education		X	X
7.0	Use technology to communicate with parents of students in schools on the "Priority Schools List"			X
7.0	Create a parent web-site		X	X
7.0	Develop a list of family software titles to encourage interaction with children	X		
7.0	Engage faith-based and community organizations to provide remote learning environments to facilitate e-learning and to deliver education services to families		X	X
7.0	Secure funding to establish four (4) Technology Resource Centers located strategically in the District to provide parents access to educational technology		X	X
7.0	Secure funding to implement a district-wide communications system.	X		
7.0	Secure funding to support implementation of a "Homework Hotline" system	X		
<b>Collaboration</b>				
8A	Perform comprehensive program to assess deployment of Educational Technology; Identify gaps and needs for educational technology	X		
8A	Determine the total cost of ownership for AE curriculum using Educational Technology	X		
8A	Develop and implement DPS leadership AE Educational Technology engagement strategy, plan and toolkit <ul style="list-style-type: none"> <li>Seek to secure active, visible champions for AE Educational Technology at the board and cabinet levels to help</li> <li>Seek to increase the level of board, administration and school leadership engagement and involvement in implementation of</li> </ul>	X		X
8A	Work collaboratively with Adult Education Units leaders and staff (i.e. Day, Evening, Community based program meetings) to continuously improve <ul style="list-style-type: none"> <li>Student and teachers awareness of technological literacy and Education Technology standards</li> <li>Procedures (i.e. operational, academic, assessment) that impact delivery of AE Educational Technology</li> </ul>		X	
8A	Work collaboratively with The Office of Curriculum and Instruction, the Office Professional Development, the Department of Information and Technology Services and the Office of Research, Assessment and Evaluation <ul style="list-style-type: none"> <li>Identify best practices for integrating technology in the delivery of AE curriculum</li> <li>Increase distance learning opportunities available to adult learners</li> <li>Transfer best practices from research to classroom practice</li> </ul>	X		X
8A	Work collaboratively with Colleagues and agencies to organize programs with colleges, universities, community groups to support achievement and job training of adult learners <ul style="list-style-type: none"> <li>ACCESS—United Way Southeast Michigan Program</li> <li>Wayne State University</li> </ul>	X		

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>• FAFSA/PELL grants</li> <li>• Detroit Voter Registration</li> <li>• Detroit Workforce Development Department, Michigan Works! Agency</li> <li>• Wayne County Community College District</li> <li>• Marygrove College</li> </ul>	X X X X X X		
8A	<p>Work collaboratively with The Office of Research, Evaluation and Assessment</p> <ul style="list-style-type: none"> <li>• To monitor the community based programs through on-site visits to ensure that the climate is conducive to teaching and learning</li> <li>• To assess and evaluate the effectiveness of integration of technology in AE curriculum and delivery of instruction</li> </ul>	X		X
8A	Establish partnerships with the DPS Career Technical Centers, service centers and local businesses to link education and career training specific to partnership needs	X		
8B	Curriculum and Instruction will work collaboratively with Department of Funds and Development to develop and implement a fund development plan to acquire new funding sources	X	X	X
8B	Curriculum and Instruction will work collaboratively with Detroit Federation of Teachers (DFT) to define teacher role and responsibilities as peer coaches	X	X	
8B	Curriculum and Instruction will work collaboratively with WCCCD to define space utilization needs and class size to meet middle college mandates; also work to standardize the learning environments	X	X	
8B	Curriculum and Instruction will work collaboratively with Facilities Services and Department of Information and Technology Services to identify potential middle college sites on DPS high school campus'	X	X	
8C	Students will complete online training modules on ESRI.com.		X	X
8C	EMU will provide training and support for students and staff	X	X	X
8C	Students will continue to interface on the Detroit ITEST Forum. This is an online community where students may ask questions, post comments and download data files necessary to complete the final CAPSTONE PROJECT.	X	X	X
8C	Partnership agreement must be signed by all parties and filed		X	X
8C	Staff will evaluate program progress and develop a plan to expand program to allow for greater student participation.	X	X	X
8C	Identify, evaluate, and acquire software for video conferencing and video streaming.		X	X
8C	Expand work based learning opportunities for students within City of Detroit Depts, Wayne County Agencies and business partners.		X	X
8C	Involve IT dept to ensure technical requirements for software and hardware are adequate to successfully implement and meet program objectives	X	X	X
8E	Develop innovative approach to budget and fund development	X	X	X
8E	<p>Develop campaign to increase number of business partners</p> <ul style="list-style-type: none"> <li>• Fund full system: <ul style="list-style-type: none"> <li>• Computer and printer workstation (hardware only) \$1,800</li> <li>• One (1) Workstation for eleven branches \$20,000</li> </ul> </li> <li>• Software licenses <ul style="list-style-type: none"> <li>• Single student license \$18</li> <li>• 2009-2012 70,000 students \$1,260,000</li> <li>• 2009-2010 10,000 students \$180,000</li> <li>• 2010-2011 20,000 students \$360,000</li> <li>• 2011-2012 40,000 students \$320,000</li> </ul> </li> </ul>	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
8E	Develop communication plan to inform DPS learning community about the impact on student		X	X
8E	Analyze and streamline the business partnership process, reducing the time required to complete the process	X	X	X
8F	Develop campaign to increase number of Pistons participating in the partnerships to impact number of new libraries remodeled annually	X	X	X
8F	Develop communication plan to inform DPS learning community about the impact on student achievement the Pistons Partners are having	X	X	X
8F	Work collaborative with Assistant Superintendents, school administrators, and the Office of Community Use to analyze community use process to evaluate addition of dual use of LMC by neighboring schools in the same constellation, allowing LMC to be open at designated times after school. Also evaluate a constellation community use fee cost sharing model.	X	X	X
8F	Analyze and streamline the business partnership process, reducing the time required to complete the process <ul style="list-style-type: none"> <li>Current process is time consuming and cumbersome and partners get discouraged electing to opt-out before completing the process</li> </ul>	X	X	X
<b>Professional Development</b>				
<b>Strategy</b>				
9.0	Work collaboratively with Administrators of departments and schools to develop professional development plans <ul style="list-style-type: none"> <li>Customize plans based on the Educational Technology competency gaps of staff; also individualize plan based on support required for current initiatives</li> <li>Increase rigor of teacher and school administrator technological literacy development</li> <li>Develop strategies and accountability processes to increase attendance <ul style="list-style-type: none"> <li>Define role and responsibilities of Assistant Superintendents and School Administrators</li> <li>Define support role and responsibilities of the Office of Profession Development</li> </ul> </li> <li>Develop strategies and processes for transferring learning to work and school environments</li> </ul>	X	X	
9.0	Develop field support processes provided to schools by Program Associates and Professional Development/IT Liaisons <ul style="list-style-type: none"> <li>Assessment of ET inventory and infrastructure</li> <li>Measurement of instructional and non-instructional staff proficiency</li> <li>Measurement of ET utilization rate</li> <li>Reinforcement and transfer of learning to work and school environments</li> </ul>	X	X	X
9.0	Work collaboratively with Curriculum and Instruction, and the Office of Research, Evaluation and Assessment to: <ul style="list-style-type: none"> <li>Develop a system for collecting and analyzing data to measure the progress of employees in mastering established standards</li> <li>Incorporate action and best practices research in the course evaluation and revision process</li> <li>Develop an online Profile Tool to measure staff technology literacy</li> <li>Research models of effective and successful professional development programs and field support (by liaisons and program associates) <ul style="list-style-type: none"> <li>Support in classroom during instruction</li> <li>Skills practice integrated in actual work environment pre- and post- course delivery</li> </ul> </li> <li>Develop evaluation criteria and standards-based tools that can be used in observations to evaluate technology competencies related to specific standards</li> <li>Evaluate the effectiveness of instructional technology support</li> </ul>	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Share models of effective implementation of technology tools in the delivery of instruction</li> </ul>			
9.0	Develop high quality professional hybrid and online courses and e-communities to support technology infusion	X	X	
9.0	Secure approval to fill Professional Development/IT Liaison position	X		
9.0	Seek funding and other strategic partnerships to provide opportunities for updating technology applications and revising professional development courses	X	X	X
<b>Support Resources</b>				
10.0	Educational Technology Collaborative (ETC) engage with DPS Board and Administration Leadership semi-annually to review and update the strategic direction of Educational Technology	X	X	X
10.0	Update technology and other resources in Library Media Centers at equal time intervals over the three year planning period, including facilitation of Professional Development; implementation will be accelerated as funding permits	X	X	X
10.0	Curriculum and Instruction works collaboratively with the Office of Research, Evaluation and Assessment to survey educators to gather and document information about Educational Technology services and resources used (past and present) <ul style="list-style-type: none"> <li>Analyze the data to identify the types and sources of ET resources; validate with educators via a focus group</li> <li>Work collaboratively with IT to design and develop a Curriculum Educational Technology repository</li> </ul>	X	X	X
10.0	Educational Technology Collaborative establishes an ad hoc work team to draft an approach for developing a comprehensive "Support Resources Network", and upon approval of the approach drafts a support resources plan	X	X	X
10.0	Develop strategy and process for developing ET partnerships; target Cisco, Intel and Microsoft based on commitment to education globally	X	X	X
10.0	School based Administrators work collaboratively with Curriculum and Instruction, the Office of Information and Technology and the Office of Facilities Services to update Educational Technology Inventory (i.e. Voice/Data/Electrical infrastructure, Hardware, Software, Peripherals, Supplemental Materials/CDs/DVDs/On-line resources)	X	X	X
<b>Infrastructure, Hardware, Technical Support and Software</b>				
<b>Infrastructure Needs/ Technical Specifications and Design</b>				
11.2	Upgrade voice services systems			X
11.2	Review and adjust WAN band width provided to schools annually	X	X	X
11.2	Review and adjust Internet bandwidth for the District	X	X	X
11.2	Establish multiple year network equipment replacement schedule		X	
11.2	Replace 175 windows-based file servers (2012-2015)	X		
11.2	Implement student email and web hosting	X		
11.2	Investigate and implement Unified Threat Management Appliance	X		
11.2	Implement Microsoft SharePoint and Microsoft Exchange <ul style="list-style-type: none"> <li>2009-2010 Pilot in DTIS <ul style="list-style-type: none"> <li>Implement document management and centralized storage</li> <li>Expand to production functionality</li> </ul> </li> <li>2010-2011 Pilot in three (3) central office divisions/departments <ul style="list-style-type: none"> <li>Initiate processes project and change manage processes for district-wide implementation</li> </ul> </li> <li>2012-2012 Full District implementation <ul style="list-style-type: none"> <li>Implement collaboration and social computing (networking)</li> <li>Conduct professional development</li> </ul> </li> </ul>			X



ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
11.2	Research multiple year plans for the following technology enhancements: <ul style="list-style-type: none"> <li>Distance learning</li> <li>VOIP</li> <li>One to One desktop computing (thin client)</li> <li>Video and Audio Internet Streaming</li> </ul>			X
11.3	Conduct electrical system requirements assessments on schools that have not received power upgrades	X		
11.3	Analyze the power usage of all schools and develop models for projecting power requirements and cost for the various configurations of technology-enabled learning environments	X		
11.3	Develop business case for discussions on improving the quality of power from PLD, including financial and academic impacts of power surges and declines (i.e. student inaccessibility to e-learning experiences, cost of equipment replacement, etc.)	X		
11.3	Apply for Qualified Zone Academy Bonds		X	
11.3	Collaborate with the Office of Funds and Development to develop a fund campaign	X		
11.3	Develop proposal and seek Board approval for an allocation of the anticipated Economic Stimulus funds to complete electrical system upgrades	X		
11.4	Establish support and maintenance contract from IBM Cognos and upgrade the software	X		
11.4	Integrate measured progress assessment data into data warehouse and develop reports	X	X	X
11.4	Integrate and analyze Curriculum and Instruction Programs' data with the student information	X	X	
11.4	Develop a reporting solution for trend analysis of Grade Level Content Expectations (GLCE) across multiple years	X		
11.4	Identify and engage all stakeholders in planning the data governance and data quality campaign	X	X	X
11.4	Identify processes or components changes to improve data quality	X	X	X
11.4	Integrate Human Capital Management (HCM) data with the student achievement data	X	X	X
11.4	Develop a reporting solution for the HCM and student data	X	X	X
11.4	Implement a reporting data mart for financial reporting	X	X	X
11.5A	Identify and quantify business requirements <ul style="list-style-type: none"> <li>Perform needs assessment</li> <li>Develop a Business Case</li> </ul>	X		
11.5A	Identify funding source(s)	X		
11.5A	Obtain Executive level approval	X		
11.5A	Develop Request For Proposal (RFP) process (list modules required)	X		
11.5A	Evaluate and select vendor	X		
11.5A	Select and adopt implementation strategy	X		
11.5A	Develop implementation plan	X		
11.5A	Implement plan <ul style="list-style-type: none"> <li>Install and commission new web-based system</li> <li>Establish communication portals for students, parents, and teachers</li> <li>Conduct Professional development and training</li> </ul>	X		
11.5B	Identify and quantify business requirements for digitizing and archival systems and develop business case	X		
11.5B	Identify funding source(s)	X		
11.5B	Obtain Executive level approval	X		
11.5B	Work collaboratively with assistant superintendents, schools administrators and staff, Pupil Population Management, Student Records and Transcripts, Facilities Services, and external vendors and service providers to revise the process for managing student records and transcripts for:	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Active students</li> <li>Inactive students</li> <li>Internal transfers</li> <li>External transfers</li> </ul>			
11.5B	Develop Request For Proposal (RFP) process	X		
11.5B	Evaluate and select vendors	X		
11.5B	Select and adopt implementation strategy (i.e. Phased or Big Bang Approach)	X		
11.5B	Implement plan <ul style="list-style-type: none"> <li>Digitize student records and transcripts</li> <li>Launch revised student records and transcripts management process</li> <li>Conduct professional development and training</li> </ul>	X	X	X
11.6	<b>Setup a Steering Committee to discuss Standards and Best Practices Guidelines</b>	X		
11.6	<b>Develop Content Age Standards (on an annual basis, contact designated Content Managers to have them review information for their area and to keep information fresh and current)</b>	X		
11.6	<b>Integrate server environment and increased sharing of resources</b>	X		
11.6	<b>Enhance Content Management (CM) tools</b>	X	X	X
11.6	<b>Implement a web-based site for every school in the District</b>	X	X	
11.6	<b>Develop Best Practices Guidelines</b>	X		
11.6	<b>Establish a Web Compliance Task Force for oversight of:</b> <ul style="list-style-type: none"> <li>Web policies enforcement</li> <li>Non-compliance issues</li> <li>Copyright infringement, intellectual property, content-specific issues(in conjunction with Legal Department)</li> </ul>	X	X	X
11.6	<b>Maintain a set of technical standards and accessibility guidelines</b>	X	X	X
11.6	<b>Implement Streaming Media Hosting</b> <ul style="list-style-type: none"> <li>Capacity to reflect live broadcasts generated by encoding programs which can then be archived for on-demand access using a variety of video formats including VHS, SVHS, DV/DVC Pro, or DVD</li> <li>Acquire two servers to establish two environments, real media and QuickTime; content manager may securely transfer via SFTP encoded video files to a specific server directory that maps to a specific URL.; encoding at 1 Mbps or less</li> <li>QuickTime Server</li> <li>Real Media Server</li> </ul>	X	X	X
11.6	Develop a comprehensive body of web publishing policies, procedures, and guidelines for those District users desiring a DPS web presence	X	X	X
11.6	Establish and document a body of web design standards, best practices, and requirements	X		
11.6	Provide a standardized set of internet accessible tools for web content management; empowering schools and administrative offices to develop, maintain, and publish their own websites in accordance with an established content approval process	X	X	X
11.7	Initiate all district Technical-based Proposals through <i>initiation</i> phase of CCB process (2012-2015)	X		
11.7	Initiate all DTIS Proposals through <i>all</i> phases of PMO process (2012-2015)			X
11.7	Develop a workflow process for all aspects of the PMO process (2012-2015)			X
11.7	Develop and implement a Project Management Tool; Adopt it as the application of choice for Educational Technology initiatives (2012	X		

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
11.7	Provide PMO training for DTIS staff (2012-2013)	X		
11.7	Provide training on the phases of the project management process to administrators and staff who sponsor and lead Educational Technology initiatives (2009-2012)	X		
11.7	Establish a team of contract project managers (external) <ul style="list-style-type: none"> <li>Engage through duration of planning period to support Enterprise Initiatives (includes pilots); Modify if DPS staff allocations increased</li> </ul>			X
11.7	Develop budget and secure adequate funding to sustain continuity and engagement of external project managers		X	
11.8	Phase I – Proposed Completion of adding Fisher Campus Computer Assets to Active Directory: February 2009	X		
11.8	Phase II – Proposed Completion of adding Non-Fisher Campus Administrative Computer Assets to Active Directory: June 2009	X		
11.8	Phase III – Proposed Completion of adding School Administrative Computer Assets to Active Directory: December 2009	X		
11.8	Phase IV – Proposed Completion of adding School Instructional Computer Assets to Active Directory: June 2010	X		
11.8	Roll-out unique User IDs to all DPS Staff and Students	X		
11.8	Develop communication plan and professional development for Active Directory; audience is all DPS system users	X		
11.8	Develop group policies to manage user access to DPS resources based on group and individual needs	X		
11.8	Develop process for auto-adding new computers to Active Directory upon initial connection to the DPS network	X		
11.8	Develop process for purging computers from Active Directory when they are removed from the DPS environment	X		
11.8	Maintain efforts to write Active Directory processes as users need to access technology resources change		X	
11.8	Establish adequate network bandwidth to support a network server for rolling-out applications through the network		X	
11.8	Develop group policies to tell Active Directory the rules for deploying applications		X	
11.8	Create custom MSI packages to facilitate silent, unattended installation of applications through Active Directory	X		
11.10	Secure funding and approval to hire three Audio Visual Technicians and to transfer five School Technicians to the Office of Audio Visual Support Services	X		
11.10	Secure funding and approval to purchase AV-ET for the Office of Audio Visual Support Services	X		
11.10	Expand the role/responsibilities of AVSS to include supporting the use of AV equipment in learning environments (AV-ET)	X		
11.10	Expand the role/responsibilities of AVSS to include being the first line of technical assistance for Teacher Technology Consultants and Local Network Administrators (LNA)	X		
11.10	Translate service level objectives to service level agreements for AV contractors	X		
11.10	Develop performance standards for AV contractors and staff	X		
11.10	Take an inventory of school-based AV-ET	X		
11.10	Develop and conduct professional development for Teacher Technology Consultants and LNAs	X		
11.10	Develop the total cost of ownership model for AV-ET		X	
11.10	Develop the business case for standardizing AV-ET to reduce costs, improve competency, increase continuity for staff (particularly instructional staff), ensure equitable learning experiences for students		X	
11.10	Develop standards for AV-ET for curriculum delivery and student learning		X	
11.10	Evaluate systems for monitoring AV-ET remotely and providing remote technical support		X	
11.10	Develop the methodology for creating an integrated system of AV-ET to support teaching and learning		X	
11.11	Improve average speed to answer experienced by Educational Technology users <ul style="list-style-type: none"> <li>Analysis the average speed to answer</li> <li>Survey Educational Technology users to gain an understanding of their satisfaction or dissatisfaction with the current average speed to answer</li> <li>Establish standard for average speed to answer</li> </ul>	X		

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Improve delivery of service process(es) to achieve standard</li> </ul>			
11.11	<p>Improve level of service experienced by Educational Technology users</p> <ul style="list-style-type: none"> <li>Identify and analyze the top ten types of support requests made by Educational Technology users</li> <li>Work collaboratively with assigned Local Network Administrators who are responsible for communicating technical requests to the Help Desk</li> <li>Survey Educational Technology users to gain an understanding of their satisfaction and dissatisfaction with the level of service they receive</li> <li>Establish standards for delivery of these types of support</li> <li>Improve delivery of service process(es) to achieve standard</li> </ul>	X		
11.12	Determine if all schools have an assigned LNA and a back-up; support administrators in selecting and assigning an LNA and a back-up	X		
11.12	Review LNA pre-test to ensure it reflects relevant NETS for facilitators-leaders	X		
11.12	Revise LNA's role and responsibilities to include being the single point of contact for schools to interface with the Help Desk	X		
11.12	<p>Provide on-going LNA professional development to increase skills and improve service results</p> <ul style="list-style-type: none"> <li>20 hour curriculum for assigned LNA levels; content includes topics such as <ul style="list-style-type: none"> <li>Troubleshooting, desktop security, network operations, hardware and software installation, active directory, technology policies/practices (including software licensing) and help desk support and practices</li> <li>Use of classroom management tools in a technology rich environment</li> <li>Integration of blended technology devices in schools, including laptop computers, calculators, probes, portable word processing devices, and digital/video cameras, electronic whiteboards, etc.</li> <li>Use of digital audio and video devices for delivery of instructional content</li> <li>Use of video conferencing to facilitate training and provide field trip experiences to connect classroom instruction with real-world events</li> </ul> </li> <li>Implement the train-the-trainer model to coordinate LNA professional development throughout district, particularly to support newly trained LNA's</li> </ul>	X	X	X
11.12	Develop an implement an appropriate model for a LNA Virtual Community Forum		X	
11.12	Participate in local, state, and national technology conferences to maintain awareness of new technology-based instructional methods		X	
11.12	Work collaboratively with IT staff, Teacher Technology Consultants, and external service providers to support assigned school(s)		X	X
11.13	<p>Review and revise ET hardware standards; Develop new standards if non-existing for particular types of technology</p> <ul style="list-style-type: none"> <li>Responsibility of the ETC ET Architecture team</li> </ul>	X		
11.13	<p>Identify non-standard equipment in current ET inventory</p> <ul style="list-style-type: none"> <li>Assess non-standard equipment to determine appropriate actions, 1)bring into compliance, 2) disposed of, or 3) redefine use of (i.e. use in curriculum teaching equipment repair, etc.)</li> </ul>		X	
11.13	Create standardized computer images to ensure connectivity of only standard equipment to the DPS network	X		
11.13	<p>Publish ET hardware standards; include</p> <ul style="list-style-type: none"> <li>Business case outlining rationale and demonstrating cost/benefits of standardization and non-standardization</li> <li>Reference to the district's Asset Recovery Program (ARP)</li> </ul>	X		

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
11.13	Review and update district and school-level procurement policies, processes and practices to support standardization of Educational Technology hardware	X		
11.13	Develop process for monitoring compliance with ET hardware standards	X	X	X
11.13	Monitor ET hardware acquisitions and deployment and take action to address/eliminate non-compliance to standards	X	X	X
11.14	Work collaboratively to establish instructional software applications standards to improve teaching and learning and to achieve greater operational efficiencies	X		
11.15	Increase knowledge and proficiency of executing evaluation, testing, purchasing, and transfer procedures; methods include professional development, intranet, school web sites, coaching, technical support, etc.	X		
11.15	Develop process for reevaluating instructional software after initial purchase	X		
11.15	Reduce the time required to complete the evaluation, testing and purchasing procedures, individually and collectively	X		
11.15	<b>Develop policy, process and procedures for unauthorized instructional software</b>	X		
11.16	<p>Analyze the donation process definitions to identify ways to:</p> <ul style="list-style-type: none"> <li>• Reduce the number of days from receipt of potential donation notification and completion of the determine of whether the equipment meets district standards and specifications</li> <li>• Reduce the number of days from determine that equipment meets district standards and specifications and install of the equipment at the designated donation location</li> <li>• Determine the feasibility of using donated equipment that does not meet district standards to support curriculum programs designed to teach technology concepts such as identifying the main components of a computer, disassembly and assembly of a computer, etc.</li> <li>• Minimize the cost incurred by the district when equipment donations are accepted</li> </ul>	X		
11.16	Develop and publish a guide on "How to donate Educational Technology equipment to DPS"	X	X	X
11.16	Develop and launch a Educational Technology donation campaign, including distribution of the guide; align campaign with ETP strategies		X	
11.17	Update the Educational Technology inventory; execute Asset Recovery Program (ARP) concurrently	X	X	
11.17	Work collaboratively with Information Technology, Facilities Services, and the Department of Funds and Grants to implement a new asset inventory and tracking system	X	X	
11.17	<p>Work collaboratively with various DPS stakeholders to improve and implement a seamless Asset Management process</p> <ul style="list-style-type: none"> <li>• School Leadership and Accountability</li> <li>• Curriculum and Instruction</li> <li>• Risk Management</li> <li>• Information and Technology Systems</li> <li>• Public Safety</li> <li>• Facilities Services</li> <li>• Procurement</li> <li>• Human Resources</li> <li>• Professional Development</li> <li>• General Council</li> <li>• Budget</li> </ul>	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Funds and Development; Compliance</li> </ul>			
11.17	Review, revise and develop policies, processes, procedures, and work rules to support the process including (but not limited to): <ul style="list-style-type: none"> <li>Sustaining funding for processing claims for loss of Educational Equipment assets</li> <li>Streamlining claims processing</li> <li>Making claims process documentation accessible to all DPS staff by posting it on the intranet (already on the intranet, however, needs to be updated)</li> <li>Strengthening punitive consequences for employee initiated or assisted larceny of Educational Technology equipment</li> </ul>	X	X	X
11.17	Conduct staff development and communication campaigns on asset management, protection and recovery	X	X	X
11.17	Estimate costs, identify funding sources, and secure funding to install identification tags, tracking and disabling equipment on designated, if not all, Educational Technology equipment	X	X	X
11.17	Sustain funding for equipment tracking and disabling services and to increase the recovery rate of stolen Educational Technology equipment	X	X	X
11.18	Implement employee training to reinforce compliance with the security technology policy		X	X
11.18	Implement an employee discipline track to address cases of disregard and security technology device tampering		X	X
11.18	Identify secure funding sources for the needed improvements in the technologies and the maintenance of those technologies and staffing	X	X	X
11.18	Mandate the inclusion of security technology system upgrades in the total cost of ownership of all Educational Technology initiatives during this planning period	X	X	X
11.18	DPS offices work collaboratively to identify and remove barriers and gaps in implementing asset management, protection and recovery policies, processes, and practices	X	X	X
11.18	During the 2009-2010 planning year, estimate the costs and secure funding for security risks assessments and security technology system upgrades for Public Safety command center, schools designated for closure, and schools rated as high risk security	X		
11.18	During the 2010-2011 and 2011-2012 planning years, estimate costs and secure funding for security risks assessments and security technology system upgrades for the remaining schools		X	X
11.18	Evaluate the costs, benefits and implications of centralizing responsibility and funding for protection of Educational Technology assets – shifting from school-based responsibility to system-based (central administration) responsibility		X	
11.19	Develop annual ARP campaign process and campaign plan		X	
11.19	Implement annual ARP campaign 90 days prior to start of the budget development process to encourage redeployment of educational technology resources; this could contribute to the reduction of educational technology expenditures		X	
11.19	Analyze results and refine campaign to improve effectiveness for next campaign			X
11.19	Work collaboratively to revise ARP process to include an annual ARP campaign and to reflect tasks to meet federal and state compliance requirements for equipment acquired with grant funds; engage: <ul style="list-style-type: none"> <li>Curriculum and Instruction</li> <li>Funds and Development, Compliance</li> <li>Procurement, Accounting</li> </ul>		X	
11.19	Revise annual ARP report to include detailed reporting on the redeployment or disposal of educational technology equipment, particularly those acquired with grant funds	X	X	X
11.19	Publish annual ARP report; include distribution to process owner of Educational Technology asset management process	X	X	X

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
12.0	Document and communicate (to Learning community members) how identity management helps increase access to Educational Technology resources, thereby impacting the teaching and learning processes	X		
12.0	Project the total cost of ownership of the Identity Management System and the percentage of utilization to support implementation of Educational Technology	X	X	
12.0	Develop implementation plan for launching Identity Management System	X	X	
12.0	Identify and acquire those tools and utilities necessary to create an environment driven by a combined initiative of single sign-on and portal strategy	X	X	
12.0	Define and implement portal groups based on the needs of Educational Technology users	X	X	X
<b>Funding and Development</b>				
<b>Strategy</b>				
13.0	Develop model for determining the total cost of ownership for Educational Technology <ul style="list-style-type: none"> <li>• Hardware, additional hardware</li> <li>• Software, additional software, upgrades</li> <li>• Cables and Accessories</li> <li>• Infrastructure and Facility retrofitting</li> <li>• Professional Development</li> <li>• Technical Support, warranty</li> <li>• Maintenance and Repair</li> <li>• Replacement costs</li> <li>• Build a comprehensive “Educational Technology Budget Workbook”, containing all relevant line items and individual customized worksheets for each known stakeholder</li> <li>• Develop and implement an integrated Educational Technology Budget/Fund Development Process</li> </ul>	X		
14.0	Design and implement integrated Budget/Fund Development Process		X	
14.0	The Educational Technology Collaborative (ETC), DTIS PMO, Office of Budget, and the Office of Funds and Development work collaboratively to ensure that Educational Technology initiative project teams complete the budget/fund development process		X	
14.0	Secure software, professional development and technical assistance to support implementation of the fund management and project management processes		X	
14.0	Develop and implement strategic Educational Technology fund development campaigns <ul style="list-style-type: none"> <li>• Infrastructure, technical support, and services</li> <li>• Security devices and systems</li> <li>• Compensatory curriculum and programs</li> <li>• Alternative Education curriculum and programs</li> <li>• Career Technical Education curriculum and programs</li> <li>• Adult Education curriculum and programs</li> <li>• SPED curriculum and programs</li> </ul>	X		

ETP Section Number	Action Steps	Year 1 2012-2013	Year 2 2013-2014	Year 3 2014-2015
	<ul style="list-style-type: none"> <li>Bilingual curriculum and programs</li> <li>Early childhood curriculum and programs</li> </ul>			
<b>Monitoring and Evaluation</b>				
<b>Strategy</b>				
15.0	Perform assessments at classroom and school levels (action research)	X	X	X
15.0	Make recommendations to instructional settings based on assessment results	X	X	X
15.0	Provide research findings to help support development of models of technology integration and best practices	X	X	X
15.0	Conduct research to identify factors that contribute to successful staff development and student achievement	X	X	X
15.0	Perform qualitative and quantitative evaluations of existing Educational Technology programs	X	X	X
15.0	Evaluate and validate district Educational Technology initiatives		X	X
15.0	Inform stakeholders of effective practices and products used in the District and how they promote improvement in student achievement and performance	X	X	X
15.0	Develop criteria and select external evaluator	X		
15.0	Collaborate with external evaluator to create system to monitor key tasks, activities and milestones; also document the quality, effectiveness, and efficiency of the Educational Technology system	X	X	X
15.0	Collect data regarding select performance measures	X	X	X
15.0	Communicate timely data, analyses, reports on implementation progress and impact assessment to key decision makers	X	X	X
15.0	Monitor all major implementation tasks and activities and ongoing communication	X	X	X
15.0	Develop instrument to measure achievement levels, enable to predict success in the next grade level	X	X	X
15.0	Develop benchmarks for evaluation of the Educational Technology Plan	X		
15.0	Develop checklists to determine if the Educational Technology Plan has been successful	X		
15.0	Develop checklists to determine sources of contributions to the plan	X		
15.0	Develop checklists to assess additions, deletions, or revisions in terms of alignment with original plan	X		
15.0	Collect data, as needed	X	X	X
15.0	Confer with Curriculum and Instruction and IT to prioritize most critical initiatives on which extended monitoring and evaluation activities will be performed	X	X	X
15.0	Review action items and initiatives (projects)	X	X	X
15.0	Measure progress and evaluate extent to which activities are effective	X	X	X
15.0	Conduct ongoing update of the Educational Technology Plan and provide update of plan to the state	X	X	X
15.0	Develop tools for monitoring and evaluating technical application use in instruction in various learning environments	X	X	X
15.0	Conduct needs assessments	X	X	X
15.0	Conduct evaluations of selected district ET programs (surveys, interviews, focus groups, observations; review of student records, test results, artifacts; rubrics)	X	X	X
15.0	Produce and disseminate "The State of DPS Educational Technology Annual Report"	X	X	X