
Every Child A Success!



**Dorchester County Public Schools in the Digital Age:
Technology & Learning Implementation Plan**

2008 - 2011

**THE BOARD OF EDUCATION OF
DORCHESTER COUNTY, MARYLAND**

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Executive Summary

Since 2005, Dorchester County Public Schools have made progress in administrator, teacher, and student capacity to infuse technology into learning. At that time, Dorchester educators were limited in both the availability of technology and expertise in integrating technology effectively into everyday student learning. In fact, veteran staff, teachers, and administrators faced the growing use of technology in education with some trepidation. Today, Dorchester administrators and teachers, who were not using email three years ago, are eager to integrate technology into their instruction and Dorchester County students use content and productivity software as tools for learning and communicating knowledge.

When the instructional technology resource teacher position came into being, teachers were uncomfortable with job-embedded professional development. Teachers did not know what assistance to ask for or were nervous about having another teacher in the classroom, and the technology resource teachers were often asked to do the work of the Information Technology Department's technicians. Now, administrators and teachers view job-embedded professional development with the Educational Technology Infusion Specialists as essential to their professional practice.

This technology and learning plan strategically establishes the path to realization of the Dorchester County Public Schools' vision for the status of Educational Technology in 2011. Teachers will deliver content instruction that effectively infuses technology and 21st century skills into daily lessons to meet differentiated student learning styles and learning needs. The forms and uses of technology will vary as student need requires, content or purpose demands, and new technologies emerge. Students will be skillful, ethical technology users, who use applications as tools in learning, problem-solving, information acquisition and management, creation of new ideas, and communication. Dorchester County Public Schools will maintain a commitment to remaining current as new and appropriate technologies emerge.

The Maryland Educational Technology Plan for the New Millennium served as the guide for the Dorchester County Public Schools plan, which adopts the same objectives:

- Objective 1: Improve student learning through technology.
- Objective 2: Improve staff's knowledge and skills to integrate technology into instruction.
- Objective 3: Improve decision-making, productivity, and efficiency at all levels of the organization through the use of technology.
- Objective 4: Improve equitable access to appropriate technologies among all stakeholders.
- Objective 5: Improve the instructional uses of technology through research and evaluation.

Each objective includes targets, progress to date, recommended actions, and specific action steps to achieve them. The assurance of adequate funding details how much the plan will cost and how each piece will be funded. Also, the action plan provides a timeline of when the action steps will be completed as well as who will oversee them, how much each step will cost, and the funding source. In addition, there are 7 Appendices:

- A. Alignment Resources
- B. DCPS 2007 Master Plan Update, Cross-cutting Themes: Educational Technology
- C. DCPS Acceptable Use and Internet Safety Policy for Staff
- D. DCPS Acceptable Use and Internet Safety Policy for Students
- E. DCPS Criteria for Selection of Instructional Software
- F. Bibliography
- G. Acknowledgements

Introduction

The Master Plan for Dorchester County Public Schools is currently in its fifth year of implementation. When it was written, educational technology played a supporting role in curriculum. Strategies included provision and integration of software and web resources into instruction and learning within reading, writing, and math. Although it was recognized that the technology plan needed to be supported and that professional development was needed for the system's staff, the activities were less than specific about how the integration and professional development would come to fruition. Working on these stated strategies has led those working with educational technology to be more intentional about the business of technology infusion. Missing from the original plan were standards, as the standards had not been accepted for the cohorts of students, teachers, and administrators when the original plan was written. The 2007 Master Plan Update included a detailed report of specific steps taken to accomplish the strategies in the Master Plan (Appendix B). Technology integration was peripheral to classroom instruction until the 2005-2008 Dorchester County Technology & Learning Implementation Plan was written. Since then, technology infusion is now an increasingly integral part of instruction in this public school system.

As the 2005-2008 Technology and Learning Plan began to take form, the educators in Dorchester County Public Schools were poised for building their capacity for the integration of technology into classroom instruction as a natural iteration of their instructional practice. Students were beginning to use computer technology to explore, research, problem-solve, create meaning, collaborate, communicate, and self-evaluate. Connectivity had been expanded to include broadband, and hardware was becoming more accessible. The plan addressed the existing problems and potential barriers to creating digital learning environments.

The *Maryland Teacher Technology Standards* required that our teachers develop new professional skills. In 2005, the two Technology Resource Teachers began this journey with classroom teachers in the high schools and middle schools of Dorchester County. These resource teachers, now called Educational Technology Infusion Specialists, were sent into the schools to provide job-embedded professional development as the classroom teachers developed skills in engaging students with appropriate and purposeful use of technology in regular

classroom learning activities. During the years since 2005, teachers have been using technology resources such as streaming video, databases, email, blogs, computer simulations, discussion boards, digital learning objects, student response systems, multimedia projection systems, document cameras, e-beam technology, InterWrite School Pads, the TI-Navigation system by Texas Instruments, and other technology resources in increasing numbers. Teachers learned to incorporate technology that accompanies new textbook adoptions; they also became familiar with modules from the High School Assessment online courses to differentiate instruction for students based on assessment information managed in Performance Matters, the data warehouse system. Summer technology academies engendered excitement in teachers about integrating technology into instruction, which meant that the school system needed to re-examine the established plan for technology acquisition and allocation. During the summer of 2007, teachers who participated in technology integration professional development opportunities were awarded the peripheral hardware necessary to implement the lessons developed during the academies.

Involvement in the work of the Technology Literacy by Grade 8 Consortium created awareness that student computers should be clustered in classrooms instead of just in the computer labs. Representatives from Dorchester County Public Schools made numerous trips to the Government Surplus Agency warehouse to acquire additional computer hardware to augment the equipment available through local county funding. The hardware, CPUs and components, were used to build classroom clusters of student computers and upgrade older computers for labs and teachers. At the same time, elementary schools were acquiring mobile laptop carts. This new equipment required increased connectivity, and greater student and teacher use frequently overwhelmed the three to six megabytes of bandwidth allocated to the school system by Dorchester County. Demands on the Information Technology Department staff increased, resulting in the restructuring of and increased staff in the department. The demands have not decreased, as secondary schools, both middle and high, began to use their school funds to build their own inventories of hardware and software to create digital classrooms. This deluge of hardware and software has created a need to bring some central guidance to further technology acquisition for Dorchester classrooms.

The Maryland State Department of Education has supported efforts in Dorchester County Public Schools to implement the local three-year technology and learning plan through its administration of the federal *Enhancing Education through Technology (Ed Tech) Program*. Dorchester County Public Schools have been recipients of formula and competitive grants as well as partnership grants (Curriculum Management Systems, Learning Management Systems, Maryland Virtual Learning Opportunities, Maryland Students Online Consortium, MDK-12 Digital Library, Project OPEN, Shore Readers, and Technology Literacy by 8th Grade), which have enabled the system to provide professional development and materials for educators and administrators. Dorchester County will continue to seek grant funding from MSDE and other sources to enhance the district's progress in appropriate educational and administrative technologies.

The *Maryland Technology Standards for School Administrators* were accepted by the Maryland State Department of Education on April, 24, 2007. During the summer of 2007, administrators spent time in professional development addressing these standards. However, varying capacity among the system's administrators means that continued and differentiated professional development is needed, particularly in the areas of *Teaching and Learning*, *Data-Driven Decision Making*, and *Management and Operations*. Principals must develop capacity not only in *their* standards, but also in the standards for teachers and students if they are to be visionary educational leaders who will promote and facilitate technology proficiency for students and teachers.

An Educational Technology Steering Committee began its work in the fall of 2007. Membership is comprised of a representative from each school, the Information Technology Manager, the Educational Technology Infusion Specialists, the Assistive Technology Specialist, the School Facilities Engineer, and the Educational Technology Curriculum Facilitator. These participants voice educational technology needs in their schools and keep their staffs apprised of developments in educational technology. Committee members will receive local credit toward recertification for participating in the work of this group. The school system will benefit from this group as a clearinghouse for gathering and disseminating information as well as developing capacity in each building for educational technology support.

In February of 2007, the *Maryland Technology Literacy Standards for Students*, prekindergarten through grade eight, were accepted by the Maryland State Board of Education. Along with students across Maryland, students from Dorchester County need to prove themselves proficient in these standards. The Division of Instruction and the Administration Division of Dorchester County Public Schools worked collaboratively to develop a plan to increase the availability of computers in elementary classrooms to allow the implementation of keyboarding instruction in grade three and continue this instruction as the students matriculate toward grade eight. Integration of student technology standards within content instruction will begin its cycle with third and fourth grade teachers in the 2008-2009 school year. A new curriculum has been adopted that will address the standards in the middle school until the current third grade students reach grade six.

The *Maryland Teacher Professional Development Standards* and the accompanying planning guide have formed the basis of our planning for the Educational Technology Academies and other professional development initiatives. Dorchester County Public Schools will be developing hybrid learning opportunities for teachers and administrators to develop capacity in the standards using a variety of digital, face-to-face, and collaborative lesson studies. The deliverables for these courses will be portfolios of lesson plans that have been tested, evaluated, and will be shared throughout the district. Grant funding will be sought to make this professional development possible.

Beyond the Classroom

Dorchester County Public Schools follows effective business practice in the application of technology tools to system-wide and school-based administrative functions including the planning, implementing, and monitoring of operations. Pentamation has recently been adopted

In a 21st century education system, technology must be used comprehensively and purposefully to create robust education support systems for standards and assessments, curriculum and instruction, professional development and professional learning communities, and administration. Maximizing the Impact: The pivotal role of technology in a 21st century education system

for use by the business administration of the district, in Finance and Human Resources. Monitoring programs have been installed in Dorchester County's school buses. DCPS will continue to adopt best-practices in its business administration technology to maintain efficiency and economy in its operation. Aside from internal operations, our schools use technology as a means of communications with the community via the email system, school websites, and the parent portal in Power School. The DCPS website offers increasingly important links to information for parents and community members in order to share the system's vision and goals, but also to enable interaction among parents, schools, teachers, and members of the community at large. Communication with the community is of vital importance to the achievement of the DCPS system goals. Continued improvement of these web-based communication resources will provide user-friendly and pertinent information to the community.

A growing collaboration between the instructional division and the administrative division has evolved in the last three years, as communication and planning for instructional initiatives has included the business side of system. This burgeoning teamwork will need to continue with seamlessness as the goals in this plan will require clear communication, careful strategic planning, and precise implementation of initiatives. This collaboration has also benefitted from the Board of Education. Finally, a Technology Advisory Committee will be established with representation from both divisions of the central office.

As stated above, the Dorchester County Board of Education supports and encourages the technology infusion initiatives of the past three years and is eager to be aware of the progress and plans for growth in preparing staff and students to use technologies for learning and productivity. Two meetings were held during 2007 and 2008 with the Board of Education to chronicle progress of technology infusion. Demonstrations involved the Board members in the use of educational technology that is available now in at least 17% of DCPS classrooms. The second meeting served to apprise the Board of the progress of training teachers and equipping classrooms and the projected costs for upgrading the remaining 83% of Dorchester classrooms to digital learning environments. The result of the session was that the Board began to purposefully discuss a timeline for equipping DCPS for technology infusion. This plan sets into motion the content of that discussion.

Vision

Creating a 21st century education system is about making sure that all students are prepared to succeed in a competitive world – a world with plenty of opportunities for highly skilled individuals and limited options for everyone else. It's about maximizing the impact of technology to develop proficiency in 21st century skills, support innovative teaching and learning, and create robust education support systems.
Maximizing the Impact: The pivotal role of technology in a 21st century education system

The Dorchester County Public School System believes that every child will be a success, and that this success will be achieved in classrooms lead by teachers who plan purposeful instruction that effectively involves all students in rich daily learning experiences using current technology resources. Teachers, well-grounded in knowledge of their content, its expression through a rigorous curriculum, and the appropriate use of technology will guide students through lessons that are differentiated to address individual learning styles and meet student needs. Valuable digital content, available in varied formats in order to be accessible by all students, will be as important to learning as conventional textbooks were to previous generations of students. Teacher facility with the *Maryland Teacher Technology Standards* will foster the collaborative planning and study of technology infused lessons through the use of online opportunities and e-Communities of educators teaching the same content curriculum. Through growing mastery of the *Maryland Technology Literacy Standards for Students*, DCPS students will solve problems using authentic, timely resources to learn in the classroom and beyond the school day. Students will develop, practice and master the obligations of digital citizenship: the ethical, safe, and responsible use of information obtained digitally. Not only will students master content, but they will develop the technology literacy and information gathering skills required for successful participation and competition in the global economy.

Dorchester County Public Schools in the Digital Age: Technology & Learning Implementation Plan 2008-2011

Goal: Move Dorchester County Public Schools into the digital age and prepare our students to take their places as productive members of the digital global society whatever their career paths may be.

Student Learning

Objective 1: Improve student learning through technology.

Professional Development

Objective 2: Improve staff's knowledge and skills to integrate technology into instruction.

Administrative Productivity and Efficiency

Objective 3: Improve decision-making, productivity, and efficiency at all levels of the organization through the use of technology.

Universal Access

Objective 4: Improve equitable access to appropriate technologies among all stakeholders.

Research and Evaluation

Objective 5: Improve the instructional uses of technology through research and evaluation.

Objective 1: Improve student learning through technology

Targets:

- Digital content will be available before, during, and after school to support teaching and learning.
- Digital content will be integrated into all instruction, as appropriate, to support teaching and learning.
- Students and staff will have access to advanced technology, online courses, and collaboration tools to improve teaching and learning.
- All students will have access to instructional resources that incorporate universal design.
- Digital resources will be used to differentiate instructional delivery.
- All students will demonstrate mastery of the Maryland Technology Literacy Standards for Students.

Progress to Date:

- DCPS has a subscription to United Streaming digital video database for all teachers to use in instruction.
- The DCPS website has a portal page with links to SIRS, SIRS Discoverer, World Book Online, and the ability to download Cap Jax Math Facts.
- Technology Literacy curriculum has been accepted by the DCPS Board of Education and will be taught in the middle schools beginning in August of 2008.
- Ed Options online courses are used for credit recovery, and sometimes original credit, in the high schools and Alternative Learning Center.
- Third grade students are learning keyboarding in each elementary school.
- All third grade classrooms have 3 student computer workstations.
- 17% of DCPS classrooms are digital classrooms with a computer, multimedia projector, InterWrite SchoolPad, and document camera.
- DCPS has 26 sets of TurningPoint student response systems, distributed among the 12 schools.
- Biology, Government, and Algebra teachers have received training on High School Assessment online courses.
- Moodle Learning Management System is up and running on a DCPS server.
- Limited seat-licenses of Kurzweil software are available at all schools.
- The new North Dorchester Middle School, currently under construction, will include over 1.5 million dollars in educational technology enhancements (including all digital classrooms, assistive listening systems, wireless network redundancy, category 6 cable, and a media retrieval system).

Objective 1: Improve student learning through technology		
Targets for 2011	Recommended Actions	Action Steps
1.1 Digital content will be available before, during, and after school to support teaching and learning.	Collaborate with public libraries to provide computers and Internet access for student-only use	<ul style="list-style-type: none"> Establish collaborative relationship with public libraries Invite public librarians into schools Facilitate access to library cards for students Facilitate availability of computer workstations for student-only use at public libraries

	<p>Provide portal for web-based digital content used in DCPS classrooms through DCPS website</p> <p>Appoint one webmaster in each DCPS school to keep school website current</p> <p>Make digital toolkits available to students, parents, and teachers online (See Target 1.2)</p>	<p>Continue library card program in schools</p> <p>Continue to foster a collaborative relationship with the public libraries</p> <p>Facilitate collaboration between DCPS webmaster, DCPS Educational Technology Steering Committee, and school-based webmasters to guide DCPS website as a portal for web-based instructional content</p> <p>Monitor effectiveness of DCPS website</p> <p>Develop capacity at school level to update school website with pertinent information</p> <p>As digital toolkits are developed, work with DCPS webmaster to ensure accessibility through DCPS website</p>
1.2 Digital content will be integrated into all instruction, as appropriate, to support teaching and learning.	<p>Facilitate the integration of High School Assessment (HSA) online courses</p> <p>Create digital toolkits in support of the Maryland Voluntary State Curriculum (VSC) and High School Core Learning Goals (CLGs)</p>	<p>Develop protocols for integration of HSA online courses into instruction</p> <p>Continue professional development for teachers focused on integrating HSA online courses into instruction</p> <p>Monitor use of HSA online courses to improve student learning</p> <p>Begin digital toolkits for PreK-HS VSCs and CLGs</p> <p>Continue building all digital toolkits</p> <p>Develop an annual review process of digital toolkits</p>
1.3 Students and staff will have access to advanced technology, online courses, and collaboration tools to improve teaching and learning.	<p>Utilize Learning Management System (LMS) to support differentiated instruction and enhanced collaboration</p> <p>Expand online course offerings for students</p> <p>Incorporate state-of-the-art technology systems and infrastructure in all new construction and renovation projects</p>	<p>Establish protocols for teacher/student use</p> <p>Advertise availability of Moodle LMS</p> <p>Provide high quality professional development opportunities for teachers to create, manage, and facilitate hybrid courses or e-Communities</p> <p>Model implementation of LMS tools</p> <p>Integrate online courses and hybrid courses into high school course of study</p> <p>Establish course mentors</p> <p>Enroll students in online courses</p> <p>Investigate additional digital learning opportunities with local higher education institutions</p> <p>Investigate state-of-the-art technology systems utilized in similar construction projects in other local school systems</p> <p>Collaborate with School Facilities, Information Technology, Special Education, and Curriculum to determine specifications of construction projects</p>
1.4 All students will have access to instructional resources that incorporate universal design.	<p>Expanded access to Kurzweil software to improve reading speed and comprehension</p> <p>Inventory and review instructional software for 508 compliance</p>	<p>Purchase district-wide network license to Kurzweil</p> <p>Inventory current software programs used in schools</p> <p>Review all instructional software for 508 compliance</p> <p>Establish protocols for use of DCPS Criteria for Selection of Instructional Software Policy (Appendix E)</p> <p>Review DCPS Criteria for Selection of Instructional Software Policy annually</p> <p>Maintain software inventory at each school site</p>

		<p>Create digital database of software categorized by grade level and content, based on inventory</p> <p>Supervise software acquisition</p>
<p>1.5 Digital resources will be used to differentiate instructional delivery.</p>	<p>Develop enrichment groups based on data that will also assist specific sub-groups</p> <p>Utilize educational software database to match learning needs with appropriate tool</p> <p>Research and review research-based digital resources to improve differentiated instructional delivery</p>	<p>Continue high quality professional development on using Performance Matters to analyze student data and make instructional decisions</p> <p>Develop enrichment groups as needed, based on leading and lagging data</p> <p>Select and acquire software needed to differentiate instructional delivery with enrichment groups</p> <p>Use instructional software inventory to differentiate instructional delivery with enrichment groups</p> <p>Evaluate educational software for differentiated instructional delivery</p> <p>Review all software purchases using the DCPS Criteria for Selection of Instructional Software Policy</p>
<p>1.6 All students will demonstrate mastery of the Maryland Technology Literacy Standards for Students (MTLSS).</p>	<p>Expand keyboarding initiative at the elementary level to fourth and fifth grades</p> <p>Integrate MTLSS in K-5 classrooms</p> <p>Integrate MTLSS in 6-8 grade content classrooms</p> <p>Integrate high school MTLSS</p> <p>Create a database that offers specific strategies and lessons for teaching cybersecurity, cybersafety, and cyberethics</p>	<p>Expand keyboarding instruction to fourth grade</p> <p>Expand keyboarding instruction to fifth grade</p> <p>Allocate classroom clusters of 3 student computer workstations in each fourth grade classroom</p> <p>Facilitate collaborative e-Community to develop lessons integrating MTLSS with content VSCs with third and fourth grade teachers</p> <p>Allocate classroom clusters of 3 student computer workstations in each first, second, and fifth grade classroom</p> <p>Facilitate three collaborative e-Communities to develop lessons integrating MTLSS with content VSCs with first, second and fifth grade teachers</p> <p>Allocate classroom clusters of 3 student computer workstations in each kindergarten and pre-kindergarten classroom</p> <p>Facilitate collaborative e-Community to develop lessons integrating MTLSS with content VSCs with kindergarten and pre-kindergarten teachers</p> <p>Allocate classroom clusters of 5 student computer workstations in each 6th, 7th, and 8th grade classroom</p> <p>Facilitate four content-centered collaborative e-Communities to develop lessons integrating MTLSS with VSCs with 6th, 7th, and 8th grade Language Arts, Science, Social Studies, and Mathematics teachers</p> <p>Adopt the high school MTLSS</p> <p>Facilitate content-centered e-Communities at the high school level to develop lessons integrating MTLSS with content VSCs and CLGs</p> <p>Develop lessons across all content areas addressing cybersecurity, cybersafety, and cyberethics</p> <p>Collaborate with classroom teachers to provide instruction across all content areas on cybersecurity, cybersafety, and cyberethics</p> <p>Review and update lesson database on cybersecurity, cybersafety, and cyberethics</p> <p>Continue to collaborate with classroom teachers to provide instruction across all content areas on cybersecurity, cybersafety, and cyberethics</p>

Objective 2: Improve staff’s knowledge and skills to integrate technology into instruction

Targets:

- All teachers and media specialists will demonstrate mastery of the Maryland Teacher Technology Standards.
- All administrators at the school and county level will demonstrate mastery of the Maryland Technology Standards for School Administrators.
- All teachers will be able to integrate technology effectively into curriculum and instruction.
- Increase personnel within Educational Technology Department in order to provide improved instructional support.

Progress to Date:

- Two Educational Technology Infusion Specialists assist teachers with planning, co-teaching, and evaluating lessons integrating instructional technology.
- DCPS has facilitated summer technology academies for the last three years; 135 teachers have participated.
- 79% of secondary teachers integrate technology into instruction on a regular basis.
- A hybrid course focused on integrating instructional technology with teaching Reading for Information at the secondary level has been submitted to MSDE for CPD approval.
- Accreditation for Growth (AFG) plans at Cambridge-South Dorchester and North Dorchester High Schools include goals for technology integration.

Objective 2: Improve staff’s knowledge and skills to integrate technology into instruction		
Targets for 2011	Recommended Actions	Action Steps
2.1 All teachers and media specialists will demonstrate mastery of the Maryland Teacher Technology Standards (MTTS).	<p>Utilize Teacher Technology Profile to gauge current level of mastery toward the MTTS</p> <p>Incorporate technology requirements into School Improvement Plans</p> <p>Offer a professional development program to assist teachers with mastery of the MTTS</p> <p>Provide incentives to encourage teachers to master the MTTS</p> <p>Recruit teachers who meet state-established standards for technology related knowledge and skills</p>	<p>Import Teacher Technology Profile into DCPS Checkbox software</p> <p>Administer Teacher Technology Profile and analyze results</p> <p>Revise DCPS School Improvement Resource Guide to include expectations for mastery of MTTS</p> <p>Assist staff in structuring their individual professional development plans for meeting the MTTS</p> <p>Utilize Planning Guide to develop a high quality professional development program to assist teachers with mastery of the MTTS, including preparing all educators to teach cybersecurity, cybersafety, and cyberethics (Standard 3) and incorporate universal design and assistive technology (Standard 6)</p> <p>Develop certification program to accompany steps in the professional development program</p> <p>Apply for Continuing Professional Development credit through MSDE</p> <p>Provide high quality professional development program to assist teachers with mastery of the MTTS</p> <p>Explore technology-based rewards for mastery of MTTS</p> <p>Review transcripts for evidence of MTTS related course work</p> <p>Request portfolios demonstrating mastery of MTTS</p>
2.2 All administrators at	Develop a tool to assess the current	Establish a committee of key stakeholders to develop tool

<p>the school and county level will demonstrate mastery of the Maryland Technology Standards for School Administrators (MTSSA).</p>	<p>knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA</p> <p>Assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA</p> <p>Develop a professional development program to assist administrators with mastery of the MTSSA</p> <p>Provide incentives to encourage administrators to master the Maryland Technology Standards for School Administrators</p>	<p>Utilize tool to gauge current level of mastery of administrators toward MTSSA</p> <p>Utilize Planning Guide to develop a high quality professional development program to assist administrators with mastery of the MTSSA, including preparing all educators to teach cybersecurity, cybersafety, and cyberethics (Standard 6) and incorporate universal design and assistive technology (Standard 2)</p> <p>Introduce the MTSSA standards to participants in the DCPS Aspiring Leadership Academy</p> <p>Integrate professional development to move toward mastery of the MTSSA standards into Administrative Council meetings.</p> <p>Develop certification program to accompany steps in the professional development program</p> <p>Explore technology-based rewards for mastery of MTSSA</p>
<p>2.3 All teachers will be able to integrate technology effectively into curriculum and instruction.</p>	<p>Facilitate e-Communities among grade-level (elementary) or vertical (secondary) teams to build capacity to integrate technology effectively into curriculum and instruction</p> <p>Include appropriate educational technology/technology integration connections in all professional development programs</p> <p>Establish a program to have one existing educator at each school available to provide professional development and assist with curriculum integration</p> <p>Build the capacity of all school-based coaches to offer technology integration support</p> <p>Evaluate effectiveness of professional development in integrating technology into curriculum and instruction</p>	<p>Explore funding sources for stipends or incentives for participation in e-Communities</p> <p>Build e-Communities within Moodle Learning Management System</p> <p>Select knowledgeable facilitators for individual e-Communities</p> <p>Train facilitators in the management of an e-Community and teachers in the use of LMS tools</p> <p>Develop a process to maintain and monitor e-Communities</p> <p>Collaborate with supervisors and facilitators to ensure technology is included in all professional development programs</p> <p>Develop criteria for educational technology knowledge and skills needed to provide professional development and assist with curriculum integration</p> <p>Develop rewards for individuals who agree to serve in this capacity</p> <p>Develop a professional development program to prepare these individuals to provide site-based professional development and assistance with curriculum integration</p> <p>Revise job criteria to require technology integration knowledge and skills for all new hires</p> <p>Enroll current school-based coaches in professional development program addressing Maryland Teacher Technology Standards</p> <p>Seek assistance from MSDE to plan the evaluation</p> <p>Conduct evaluation of integration of technology</p>
<p>2.4 Increase personnel within Educational Technology Department in order to provide improved instructional support.</p>	<p>Provide dedicated facilitator for Educational Technology and School Library Media</p> <p>Seek funding to hire two additional Educational Technology Infusion Specialists, in order to have one per 100 educators to assist with professional development and curriculum integration</p>	<p>Request additional position in proposed fiscal budgets</p> <p>Request additional position in proposed fiscal budget for dedicated Educational Technology Infusion Specialist at new state-of-the-art North Dorchester Middle School</p> <p>Request additional Educational Technology Infusion Specialist in proposed fiscal budget in order to have one per 100 educators to assist with professional development and curriculum integration throughout DCPS</p>

Objective 3: Improve decision-making, productivity, and efficiency at all levels of the organization through the use of technology

Targets:

- All staff will use electronic information and communication tools to improve management and operational efficiency.
- DCPS will provide leadership and support in access to and use of technologies for administrative and operational purposes.
- Develop processes and strategies to provide access to digital resources, data, and information before and after school hours.
- Develop processes and strategies to provide electronic communication with educators, students, parents, and the community.
- Implement data management systems, integrated student information systems, curriculum/content management systems, and learning management systems.

Progress to Date:

- Parents and students at the secondary level have access to student grade and attendance information through the PowerSchool web portal.
- Parents at the secondary level have the option of receiving weekly emails with school messages and student grade information.
- Teachers at all levels have access to student information through the PowerSchool web portal.
- All DCPS teachers have access to Performance Matters online data warehouse system to view student MSA/HSA data and track student progress on local benchmarks.
- Teachers at the secondary level use the PowerGrade online gradebook system.
- DCPS utilizes the Microsoft exchange email system and Outlook Web Access which makes email communication accessible from any Internet connection.
- School closings and delays are communicated through the DCPS website and to DCPS employees through the DCPS Microsoft Outlook email system.
- The DCPS website and individual school websites are used to communicate school news and upcoming events to students, parents, and community members.
- Cambridge-South Dorchester and North Dorchester High Schools utilize the School Messenger automated phone system to share school news as well as student absence information with parents.
- Special Education teachers throughout DCPS use ESPED online Individual Education Plan (IEP) to create and manage student IEPs.
- Shared folders on the DCPS intranet are used to publish documents for use by students, teachers, administrators, and facilitators.
- Checkbox survey software is available to facilitate surveys of district employees.
- Pentamation software is used to prepare and run financial reports, including accounts payable and accounts receivable, and track human resources data.
- Moodle Learning Management System is up and running on DCPS server.
- Board Docs is used to facilitate paperless Board of Education meetings and communicate BOE decisions to students, parents, and community through a portal on the DCPS website.

- DCPS utilizes AESOP centralized program to track teacher absences and schedule substitutes in schools.
- The Human Resources Department uses the Maryland State Department of Education EIS system to track teacher certification.
- The League Minder athletic scheduler is used in both high schools to schedule and communicate athletic schedules to students, parents, and community.
- Video Security surveillance is in place at both DCPS high schools through the Safe Schools grant and law enforcement funds.
- Video bus security surveillance is installed on all DCPS buses.
- Closed-circuit television is used at Cambridge-South Dorchester High School, North Dorchester High School, and Mace’s Lane Middle School to broadcast school announcements.
- Spectrum media circulation software is used throughout DCPS to maintain media inventories, monitor circulation, and catalog materials.
- Partnership with regional television station enables students, parents, and staff to receive school closing information through email or text message at no cost.

Objective 3: Improve decision-making, productivity, and efficiency at all levels of the organization through the use of technology		
Targets for 2011	Recommended Actions	Action Steps
3.1 All staff will use electronic information and communication tools to improve management and operational efficiency.	DCPS will subscribe to Atomic Learning online, or similar tool, to provide just-in-time training on communication and productivity software provided by DCPS DCPS will upgrade School Library Media database software to an online, district-wide database solution	Review Atomic Learning online learning modules (as well as suitable alternatives) using DCPS Criteria for Selection of Instructional Software Policy Acquire firm quotation from selected vendor Determine funding source Follow approval and acquisition procedures Advertise and train as necessary Evaluate possible programs using the DCPS Criteria for Selection of Instructional Software Policy Acquire quotation on software Determine funding source Follow approval and acquisition procedures Develop training materials Train appropriate staff members on new SLM database software Develop a plan to train new staff members
3.2 DCPS will provide leadership and support in access to and use of technologies for administrative and operational purposes.	Provide consistent training for school-based individuals who maintain student information in PowerSchool Provide consistent training for administrators, guidance counselors, resource teachers/coaches, and school secretaries on the administrative uses of	Develop training materials for school-based staff who maintain student information in PowerSchool Develop a plan to train existing school-based staff, new staff members, and updating staff members when PowerSchool is updated Provide ongoing training for school-based staff who enter data into PowerSchool Update training materials for school-based staff who have administrative access to PowerSchool (Administrators, Guidance Counselors, Resource Teachers/Coaches, Secretaries)

	<p>PowerSchool</p> <p>Provide consistent training for teachers on PowerSchool Teacher and PowerGrade</p>	<p>Provide ongoing training for existing school-based staff who have administrative access to PowerSchool, new staff members, and update staff members when PowerSchool is updated</p> <p>Update training materials for teachers on PowerSchool Teacher and PowerGrade</p> <p>Provide ongoing training to existing teachers on PowerSchool and PowerGrade, new teachers, and update teachers when PowerSchool and/or PowerGrade are updated</p>
3.3 Develop processes and strategies to provide access to digital resources, data, and information before and after school hours.	Expand online PowerGrade and student/parent portal to elementary grades	<p>Build tables in PowerSchool for elementary schedules</p> <p>Enter classes into PowerSchool database</p> <p>Train elementary school teachers on online PowerGrade system</p> <p>Communicate parent PowerSchool portal to parents of elementary students</p>
3.4 Develop processes and strategies to provide electronic communication with educators, students, parents, and the community.	<p>Acquire automated system to communicate with students and parents via telephone, email, and text messaging</p> <p>Utilize Transact and CTS translation services to make all forms accessible to Spanish speaking students, parents, and members of the community</p>	<p>Explore options utilizing existing databases and systems, or alternative vendors</p> <p>Follow approval and acquisition procedures</p> <p>Train school-based staff as necessary</p> <p>Have CTS translation services translate all forms</p> <p>Collaborate with DCPS webmaster to ensure all DCPS forms are accessible in Spanish through the DCPS website</p> <p>Continue to use CTS translation services and collaborate with DCPS webmaster</p>
3.5 Implement data management systems, integrated student information systems, curriculum/content management systems, and learning management systems.	<p>Provide high-quality professional development opportunities for instructional staff to effectively use Performance Matters to monitor student performance, to analyze student data, and to use the results to inform instructional decisions</p> <p>Utilize Learning Management System in all schools to create a paperless professional environment</p> <p>Utilize advanced features of Pentamation software to improve communication to staff and administration</p>	<p>Use planning guide to develop high quality professional development plan</p> <p>Implement plan</p> <p>Monitor progress</p> <p>Provide follow-up</p> <p>Advertise availability of Moodle Learning Management System</p> <p>Develop training materials for using the LMS as a paperless e-Community</p> <p>Train appropriate staff to use the LMS to manage a paperless e-Community</p> <p>Train staff members to access and utilize the LMS</p> <p>Continue training as necessary</p> <p>Monitor professional learning environments</p> <p>Review additional features of Pentamation software for compatibility with existing systems</p> <p>Determine time and resources needed to implement new features</p> <p>Train employees to use new features</p> <p>Implement tools</p> <p>Monitor use of Pentamation integrated accounting and human resources information management system</p>

Objective 4: Improve equitable access to appropriate technologies among all stakeholders

Targets:

- All DCPS schools will provide :
 - A ratio of 1:1 student-to-high performance computing device at the secondary level;
 - A 3:1 student-to-computer ratio at the elementary school level to provide on demand, equitable access to a variety of technological tools;
 - Access to a variety of other technology devices to maximize student learning;
 - One computer projection device or display unit per classroom and other instructional areas;
 - Connection to a broadband speed LAN/WAN from every instructional and administrative area, including all re-locatable classrooms, to support the use of high-quality digital learning resources;
 - A secure computing environment to ensure safe access and information integrity.
- DCPS will have policy and procedures in place to address equivalent accessibility to technology-based products for students, as defined by education article 7-910 of the Public Schools-Technology for Education Act.
- DCPS will provide access to technology after school hours for all learners.
- DCPS will provide:
 - Technical support using a locally established response system, including an adequately staffed, efficient help desk;
 - At least one full-time technical support person for every 300 computers.

Progress to Date:

- Every teacher has one high performance computer for administrative and instructional use.
- All computers have at least a Pentium IV processor, operate on Windows XP, and have the Microsoft Office 2007 productivity suite.
- The DCPS network is secured from unwanted network traffic with firewalls that have strict access rules between any external networks. The internal network is secured through the use of safe computing practices, such as virus scanners, critical updates to the operating system, and strict access controls to files using NTFS permissions. Any wireless network traffic is encrypted to help prevent unauthorized access to the wireless data streams. All internet traffic is monitored and filtered using an enterprise monitoring software application.
- Dorchester County has a 3-year replacement cycle for all computers.
- There is currently a 2.4:1 ratio of students-to-computers at the secondary level and a 3:1 student-to-computer ratio at the elementary level.
- 53% of DCPS classrooms have multimedia projectors.
- DCPS is building digital classrooms which consist of a personal computer, a multimedia projector, a document camera, an InterWrite SchoolPad, and a media cart. Currently 17% of DCPS classrooms have been converted to digital classrooms.
- DCPS uses TurningPoint student response systems to engage students; there are 26

systems across 13 school sites.

- DCPS has two TI-Navigation systems by Texas Instruments at the high school level.
- DCPS secondary math and science teachers are using Vernier probe-ware; there are 41 sets of probe-ware across 5 school sites.
- The DCPS BOE has approved a contract to upgrade the WAN to connect all locations to the central office through fiber optic cable.
- Students receive an individual secure login that follows them throughout their DCPS matriculation.
- DCPS has a Criteria for Selection of Instructional Software Policy to ensure that software and online resources are accessible for all learners before they are purchased.
- DCPS has an Assistive Technology Specialist and a multi-disciplinary core team of professionals who regularly consult on the unique learning needs of Special Education students.
- DCPS offers evening high school in two locations and afterschool programs in 8 locations.
- DCPS employs one full-time Wide Area Network administrator who supervises the help-desk technician and three school-based technical support staff.
- DCPS employs three full-time Local Area Network administrators/technical support staff to service 14 sites including 50 servers and 1700 computers.
- DCPS employs one full-time help desk technician to answer phone calls and funnel email requests to school-based technical support staff.

Objective 4: Improve equitable access to appropriate technologies among all stakeholders		
Targets for 2011	Recommended Actions	Action Steps
<p>4.1 All schools will provide :</p> <p>A ratio of 1:1 student-to-high performance computing device at the secondary level;</p>	<p>Provide a 1:1 student-to-computing device ratio by acquiring emerging technology at the secondary level, making consistent annual progress toward the 2012 goal</p>	<p>Evaluate results from 2-year study by Johns Hopkins University of Talbot County's 1:1 laptop initiative</p> <p>Explore funding sources for DCPS 1:1 computing device initiative</p> <p>Develop protocols for assigning, maintaining, and tracking computing devices</p> <p>Provide job-embedded professional development for all secondary teachers</p>
<p>A 3:1 student-to-computer ratio at the elementary level to provide on demand, equitable access to a variety of technical tools;</p>	<p>Maintain 3:1 student-to-computer ratio at the elementary level</p>	<p>Create classroom clusters of 3 student computer workstations in all elementary classrooms</p> <p>Monitor hardware inventory to maintain ratio</p>
<p>Access to a variety of other technology devices to maximize student learning;</p>	<p>Convert all DCPS classrooms to digital classrooms</p> <p>Research and examine new technologies to maximize student learning on a regular basis</p> <p>Install assistive listening systems in all new construction and renovation projects</p>	<p>Upgrade 40 classrooms per year with a multimedia projector, document camera, InterWrite SchoolPad, and security cabinet</p> <p>Attend technology conferences to research new technologies</p> <p>Read current literature and journals to determine research-based best practices in existing and emerging educational and assistive technologies</p> <p>Evaluate potential technologies</p> <p>Seek funding sources and approval</p> <p>Collaborate with School Facilities, Information Technology, Special Education, and Curriculum departments to utilize auditory enhancements in new construction and renovation projects</p>
<p>One computer projection</p>	<p>Install one multimedia projector in each</p>	<p>Upgrade 40 classrooms per year to digital classrooms</p>

device or display unit per classroom and other instructional areas;	classroom and other instructional areas	
Connection to a broadband speed LAN/WAN from every instructional and administrative area, including all re-locatable classrooms, to support the use of high-quality digital learning resources;	Connect all locations to the Board of Education through fiber optic cable	Monitor progress of contract to connect all locations to the WAN via fiber optic cable Maintain viable broadband access
A secure computing environment to ensure safe access and information integrity.	Update firewall and antivirus software as needed Review and revise DCPS Acceptable Use and Internet Safety Policy to reflect the current online environment	Monitor security of DCPS intranet Make adjustments as necessary Develop process and timeline for monitoring and updating the DCPS Acceptable Use and Internet Safety Policy Update the DCPS Acceptable Use and Internet Safety Policy as appropriate
4.2 DCPS will have policy and procedures in place to address equivalent accessibility to technology-based products for students, as defined by education article 7-910 of the Public Schools-Technology for Education Act.	Review annually and revise DCPS Criteria for Selection of Instructional Software Policy as needed Review accessibility and augment new software with assistive technology as needed	Develop process and timeline for monitoring and updating the DCPS Criteria for Selection of Instructional Software Policy Update the Criteria for Selection of Instructional Software Policy as needed As new software approval is requested, determine necessity of any assistive technology required to achieve equivalent access
4.3 DCPS will provide access to technology after school hours for all learners.	Utilize Project Phoenix to provide technology resources for economically disadvantaged students, as well as students on home hospital services	Develop a committee of key stakeholders to explore extent of need Draft procedure for technology acquisition and allocation through Project Phoenix Submit procedure to BOE for review Develop a plan to communicate and facilitate technology acquisition through Project Phoenix Follow plan to communicate and facilitate technology acquisition through Project Phoenix
4.4 DCPS will provide: Technical support using a locally established response system, including an adequately staffed, efficient help desk;	Review and update technical response system as needed	Monitor effectiveness of technical response system Make adjustments as necessary
At least one full-time technical support person for every 300 computers.	Add 2 technical support staff positions in information technology department	Request increase in staff positions during annual budget process Seek alternative funds to acquire additional positions

Objective 5: Improve the instructional uses of technology through research and evaluation

Targets:

- Dorchester County Public Schools will develop a process for evaluating how the use of technology is impacting student learning, especially in support of the Voluntary State Curriculum, High School Core Learning Goals, Maryland School Assessment, and High School Assessment.
- Dorchester County Public Schools will develop a process for evaluating how students are being prepared to master the Maryland Technology Literacy Standards for Students (MTLSS) and how educators are being prepared to master the Maryland Teacher Technology Standards and/or the Maryland Technology Standards for School Administrators.

Progress to Date:

- DCPS employs two Educational Technology Infusion Specialists who work with teachers to build their capacity to implement instructional technology models, programs, and content to improve teaching and learning.
- All Enhancing Education through Technology grants are evaluated through an outside evaluator from a local institution of higher education.
- A hybrid course focused on integrating instructional technology with teaching Reading for Information at the secondary level has been submitted to MSDE for Continuing Professional Development (CPD) credit approval.

Objective 5: Improve the instructional uses of technology through research and evaluation		
Targets for 2011	Recommended Actions	Action Steps
5.1 Dorchester County Public Schools will develop a process for evaluating how the use of technology is impacting student learning, especially in support of the Voluntary State Curriculum, High School Core Learning Goals, Maryland School Assessment, and High School Assessment.	<p>Seek assistance from MSDE or third-party evaluator for evaluation model of how the use of technology is impacting student learning</p> <p>Conduct evaluation of how the use of technology is impacting student learning</p> <p>Use rubric for online/hybrid course development and implementation</p>	<p>Explore evaluation models available through MSDE or possible partnerships with higher education</p> <p>Explore funding sources for evaluation</p> <p>Plan evaluation of how the use of technology is impacting student learning in DCPS classrooms</p> <p>Implement plan</p> <p>Utilize design, content, and accessibility criteria developed through Project OPEN for development of online and hybrid courses</p> <p>Utilize End-of-Course Evaluation Instrument developed through Project OPEN to evaluate effectiveness of online/hybrid courses</p>
5.2 Dorchester County Public Schools will develop a process for evaluating how students are being prepared to master the Maryland Technology Literacy Standards for Students (MTLSS) and how educators are being prepared to master the Maryland Teacher Technology Standards (MTTS) and/or the Maryland Technology Standards for School Administrators (MTSSA).	<p>Implement student portfolios as a means of monitoring student progress toward mastery of the MTLSS</p> <p>Utilize Teacher Technology Profile to gauge current level of mastery toward the MTTS</p> <p>Develop a tool to assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA</p>	<p>Develop a rubric and required artifacts at benchmark stages for student portfolios as well as a process to evaluate portfolios</p> <p>Import Teacher Technology Profile into DCPS Checkbox software</p> <p>Administer Teacher Technology Profile and analyze results</p> <p>Develop a tool to assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA</p> <p>Utilize tool to gauge current level of mastery of administrators toward MTSSA</p>

Assurance of Adequate Funding

Category/Item	Fiscal Year 2009		Fiscal Year 2010		Fiscal Year 2011	
	Cost	Funding Source	Cost	Funding Source	Cost	Funding Source
Telecommunications						
Voice – Telephone/cellular service through Verizon	\$152,445	Operating Budget (Telecommunications)	\$152,445	Operating Budget (Telecommunications)	\$152,445	Operating Budget (Telecommunications)
Video – cable through Comcast	Free	Comcast digital cable	Free	Comcast digital cable	Free	Comcast digital cable
Data – Fiber WAN service from Bay County Communications	\$153,575	Federal e-rate subsidy	\$153,575	Federal e-rate subsidy	\$153,575	Federal e-rate subsidy
Data – ISP service from Bay Country Communications	\$90,000	Operating Budget (Telecommunications)	\$90,000	Operating Budget (Telecommunications)	\$90,000	Operating Budget (Telecommunications)
Equipment						
Computer Lease	\$303,000	Operating Budget (IT)	\$478,000	Operating Budget (IT)	\$500,000	Operating Budget (IT)
Laptop Carts (3 carts, 25 laptops each)	\$98,000	Operating Budget (IT)	NA	NA	NA	NA
Scanners/Printers	\$6,000	Operating Budget (IT)	NA	NA	NA	NA
Multimedia Projectors (\$1,000 each)	\$40,000	Operating Budget (IT)	\$40,000	Operating Budget (IT)	\$60,000	Operating Budget (IT)
Document Cameras (\$600 each)	\$24,000	Operating Budget (IT)	\$24,000	Operating Budget (IT)	\$36,000	Operating Budget (IT)
InterWrite SchoolPads (\$400 each)	\$16,000	Operating Budget (IT)	\$16,000	Operating Budget (IT)	\$24,000	Operating Budget (IT)
Security Carts (\$500 each)	\$20,000	Operating Budget (IT)	\$20,000	Operating Budget (IT)	\$30,000	Operating Budget (IT)
Wiring						
Install additional network drops	\$4,800	EETT formula grant	\$18,000	Operating Budget (IT)	\$7,500	Operating Budget (IT)
Software/online resources						
Network version of Kurzweil	\$9,805	Sp.Ed. Local Application grant	NA	NA	NA	NA
Atomic Learning (\$1.38/user/year)	\$700	EETT competitive grant	\$700	Operating Budget (IT)	\$700	Operating Budget (IT)
Kidspiration for elementary classrooms/ Inspiration for middle school classrooms and labs (\$28/workstation)	\$1,344	EETT competitive grant	\$,1440	EETT formula grant	\$10,200	EETT formula /competitive grants
Scholastic Keys for elementary classrooms and computer labs (\$36/bundle for 100+ computers, \$34/bundle for 500-1000 computers)	\$8,785	EETT formula grant	\$19,000	EETT formula /competitive grants	\$2550	EETT formula grant
Existing renewals	\$24,062	Operating Budget (IT)	\$26,000	Operating Budget (IT)	\$28,000	Operating Budget (IT)
Transact & CTS translation services	\$6,000	ESL grant	\$6,000	Operating Budget (IT)	\$6,000	Operating Budget (IT)
Media circulation/catalogue online database	NA	NA	\$33,000	Operating Budget (Media)	NA	NA
Online course enrollments	NA	NA	\$2,500	Operating Budget (Ed	\$2,500	Operating Budget (Ed

				Tech)		Tech)
Administrative & Support Salaries						
IT Manager	\$75,016	Operating Budget (Salaries)	\$76,516	Operating Budget (Salaries)	\$78,047	Operating Budget (Salaries)
Webmaster (.5)	\$22,727	Operating Budget (Salaries)	\$23,181	Operating Budget (Salaries)	\$23,645	Operating Budget (Salaries)
Network Administrator	\$52,753	Operating Budget (Salaries)	\$53,808	Operating Budget (Salaries)	\$54,885	Operating Budget (Salaries)
Systems Analyst	\$44,941	Operating Budget (Salaries)	\$45,840	Operating Budget (Salaries)	\$46,757	Operating Budget (Salaries)
Computer Technicians	(4) \$130,670	Operating Budget (Salaries)	(6) \$202,391	Operating Budget (Salaries)	(6) \$206,438	Operating Budget (Salaries)
Professional Development						
Substitutes - \$75/day/teacher involved in in-service Salaries	\$6,000	Operating Budget (Substitutes)	\$6,000	Operating Budget (Substitutes)	\$6,000	Operating Budget (Substitutes)
Facilitator of Educational Technology	(.25) \$21,567	Operating Budget (Salaries)	(1) \$87,993	Operating Budget (Salaries)	(1) \$89,753	Operating Budget (Salaries)
Ed. Technology Infusion Specialists	(2) \$123,314	Operating Budget (Salaries)	(3) \$188,670	Operating Budget (Salaries)	(4) \$256,592	Operating Budget (Salaries)
Stipends	\$15,080	EETT Competitive Grant	\$9,000	EETT Competitive Grant	\$31,000	EETT Competitive Grant

Category	Fiscal Year 2009	Fiscal Year 2010	Fiscal Year 2011
Telecommunications	\$396,020	\$396,020	\$396,020
Equipment	\$507,000	\$578,000	\$650,000
Wiring	\$4,800	\$18,000	\$7,500
Software/online resources	\$50,696	\$87,200	\$49,950
Administrative & Support Salaries	\$326,107	\$401,736	\$409,772
Professional Development	\$165,961	\$291,663	\$383,345
	33% of hardware funds	50% of hardware funds	59% of hardware funds
Total	\$1,450,584	\$1,772,619	\$1,896,587

Implementation Strategies

- The Educational Technology Steering Committee currently includes teacher representatives from 11 of 13 schools, as well as the Facilitator of Educational Technology, Information Technology Manager, School Facilities Engineer, and Assistive Technology Specialist. This committee, co-facilitated by the two Educational Technology Infusion Specialists, was instrumental in developing this technology plan.
- The 2008-2011 Dorchester County Public Schools in the Digital Age: Technology and Learning Implementation Plan was reviewed by the Assistant Superintendent of Instruction, the Assistant Superintendent of Administration, the School Facilities Engineer, the Network Administrator, the Supervisor of Instructional Grants, and three Curriculum Facilitators prior to being presented to the Dorchester County Public Schools Board of Education for acceptance and submission to the Maryland State Department of Education.
- The Educational Technology Steering Committee will seek parents and additional teachers as well as students, administrators, and community members to serve and assist in evaluating and revising the Plan over time.
- Dorchester County Public Schools will establish a Technology Advisory Committee comprised of the Assistant Superintendent of Instruction, the Assistant Superintendent of Administration, the School Facilities Engineer, the Information Technology Manager, the Network Administrator, the Facilitator of Educational Technology, the Supervisor of Special Education, and the Assistive Technology Specialist in the fall of 2008.
- The Technology Advisory Committee will: analyze data from the annual Technology Inventory and identify strategies to address needs; monitor progress toward the DCPS Technology & Learning Plan targets; develop strategies to address needs identified after an annual review of the Technology Inventory; review requests for technology purchases; review and update technology policies; and, develop a tool to assess progress toward mastery of the Maryland Technology Standards for School Administrators.
- The Educational Technology Steering Committee and Technology Advisory Committee will share the responsibility of communicating the success of the plan and the importance of technology to key stakeholders. The Educational Technology Steering Committee will advocate the success of the plan and the necessity for further improvements to school faculties, parent and student organizations, and the Dorchester Educators bargaining unit. The Technology Advisory Committee will promote advancements in the realm of technology and education in Dorchester County with district leadership, administrators, the Board of Education, and community groups.

Action Plan

Key: NA – Not Applicable; there are no costs to the Dorchester County Public School System associated with the action step.
 Job-embedded – This action step will be completed as part of an assigned duty by a DCPS salaried employee.
 OB – This item is or will be included in the proposed DCPS Operating Budget.

Objective 1: Improve student learning through technology					
Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
1.1 Digital content will be available before, during, and after school to support teaching and learning.	Collaborate with public libraries to provide computers and Internet access for student-only use	2008-2009 SY: Establish collaborative relationship with public libraries; invite public librarians into schools; facilitate access to library cards for students	Facilitator of School Library Media	Job-embedded	OB - salaries
		2009-2010 SY: Facilitate availability of computer workstations for student-only use at public libraries; continue library card program in schools	Facilitator of School Library Media	NA	NA
		2010-2011 SY: Continue to foster a collaborative relationship with the public libraries	Facilitator of School Library Media	Job-embedded	OB - salaries
	Provide portal for web-based digital content used in DCPS classrooms through DCPS website	2008-2009 SY: Facilitate collaboration between DCPS webmaster, DCPS Educational Technology Steering Committee, and school-based webmasters to guide DCPS website as a portal for web-based instructional content	Facilitator of Educational Technology	Job-embedded	OB - salaries
		2009-2011: Monitor effectiveness of DCPS website	Educational Technology Steering Committee	NA	NA
	Appoint one webmaster in each DCPS school to keep school website current	2008-2009 SY: Develop capacity at school level to update school website with pertinent information	School Principal/Webmaster	Job-embedded	OB - salaries
Make digital toolkits available to students, parents, and teachers online (See Target 1.2)	2008-2011: As digital toolkits are developed, work with DCPS webmaster to ensure accessibility through DCPS website	Facilitator of Educational Technology	Job-embedded	OB – salaries	
1.2 Digital content will be integrated into all instruction, as appropriate, to support teaching and learning.	Facilitate the integration of High School Assessment (HSA) online courses	2008-2009 SY: Develop protocols for integration of HSA online courses into instruction	Facilitators of Math, English/Language Arts, Social Studies, Science, and Educational Technology	Job-embedded	OB - salaries
		2009-2011: Continue professional development for teachers focused on integrating HSA online courses into instruction; monitor use of HSA online courses to improve student learning		\$75/ substitute	OB - salaries
	Create digital toolkits in support of the Maryland Voluntary State Curriculum (VSC) and High School Core Learning Goals (CLGs)	2008-2009 SY: Begin digital toolkits for PreK-HS VSCs and CLGs	Facilitators of Elementary Schools, Math, English/Language Arts, Science, Social Studies, and Educational Technology	Job-embedded	OB - salaries
		2009-2011: Continue building all digital toolkits; develop an annual review process of digital toolkits		Job-embedded	OB – salaries

Objective 1: Improve student learning through technology

Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
1.3 Students and staff will have access to advanced technology, online courses, and collaboration tools to improve teaching and learning.	Utilize Learning Management System (LMS) to support differentiated instruction and enhanced collaboration	2008-2009 SY: Establish protocols for teacher/student use; advertise availability of Moodle LMS;	Educational Technology Steering Committee	NA	NA
		2008-2009 SY: Provide high quality professional development opportunities for teachers to create, manage, and facilitate hybrid courses or e-Communities; model implementation of LMS tools	Educational Technology Infusion Specialists	Job-embedded	OB - salaries
	Expand online course offerings for students	2008-2009 SY: Integrate online courses and hybrid courses into high school course of study	High School Task Force	NA	NA
		2008-2009 SY: Establish course mentors	High School Principals	Job-embedded	OB – salaries
		2009-2011: Enroll students in online courses	High School Guidance Counselors	\$5,000	OB – online resources
	Incorporate state-of-the art technology systems and infrastructure in all new construction and renovation projects	2010-2011 SY: Investigate additional digital learning opportunities with local higher education institutions	High School Task Force	NA	NA
		As needed: Investigate state-of-the-art technology systems utilized in similar construction projects in other local school systems	School Facilities Engineer	Job-embedded	OB - salaries
As needed: Collaborate with School Facilities, Information Technology, Special Education, and Curriculum to incorporate updated technology in the specifications for construction projects	Assistant Superintendents for Instruction and Administration	Job-embedded	OB - salaries		
1.4 All students will have access to instructional resources that incorporate universal design.	Expanded access to Kurzweil software to improve reading speed and comprehension	2008-2009 SY: Purchase district-wide network license to Kurzweil	Supervisor of Special Education	\$9,805	Sp.Ed. Local Application grant
	Inventory and review instructional software for 508 compliance	2008-2009 SY: Inventory current software programs used in schools; review all instructional software for 508 compliance	Educational Technology Steering Committee	NA	NA
		2008-2011: Establish protocols for use of DCPS Criteria for Selection of Instructional Software Policy; review DCPS Criteria for Selection of Instructional Software Policy annually; maintain software inventory at each school site	Educational Technology Steering Committee	NA	NA
		2009-2010 SY: Create digital database of software categorized by grade level and content, based on inventory	Facilitator of Educational Technology	Job-embedded	OB - salaries
		2008-2011: Supervise software acquisition	Technology Advisory Committee	Job-embedded	OB – salaries

Objective 1: Improve student learning through technology

Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
1.5 Digital resources will be used to differentiate instructional delivery.	Develop enrichment groups based on data to target specific sub-groups	2008-2011: Continue high quality professional development on using Performance Matters to analyze student data and make instructional decisions	Local Accountability Coordinator	Job-embedded	OB - salaries
		2008-2011: Develop enrichment groups as needed based on leading and lagging data	School Principals	Job-embedded	OB - salaries
		2008-2011: Select and seek funding for software needed to differentiate instructional delivery with enrichment groups	School Principals/Technology Advisory Committee	Job-embedded	OB - salaries
	Utilize educational software database to match learning needs with appropriate tool	2008-2011: Use instructional software inventory to differentiate instructional delivery with enrichment groups	School Principals	Job-embedded	OB - salaries
		2008-2011: Evaluate educational software for differentiated instructional delivery	Educational Technology Steering Committee	NA	NA
		2008-2011: Review all software purchases using the DCPS Criteria for Selection of Instructional Software Policy	Technology Advisory Committee	Job-embedded	OB – salaries

Objective 1: Improve student learning through technology					
Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
1.6 All students will demonstrate mastery of the Maryland Technology Literacy Standards for Students.	Expand keyboarding initiative at the elementary level to fourth and fifth grades	2008-2009 SY: Expand keyboarding instruction to fourth grade	Facilitator of Educational Technology/Information Technology Manager	NA	NA
		2009-2010 SY: Expand keyboarding instruction to fifth grade		NA	NA
	Integrate MTLSS in K-5 classrooms	2008-2009 SY: Allocate classroom clusters of 3 student computer workstations in each fourth grade classroom	Information Technology Manager	\$39,312	FY '09 OB – Computer Lease
		2008-2009 SY: Facilitate collaborative e-Community to develop lessons integrating MTLSS with content VSCs with third and fourth grade teachers	Educational Technology Infusion Specialists	\$5,800	EETT Competitive grant funds
		2009-2010 SY: Allocate classroom clusters of 3 student computer workstations in each first, second, and fifth grade classroom	Information Technology Manager	\$147,420	FY '10 OB – Computer Lease
		2009-2010 SY: Facilitate three collaborative e-Communities to develop lessons integrating MTLSS with content VSCs with first, second and fifth grade teachers	Educational Technology Infusion Specialists	\$9,000	EETT Competitive grant funds
		2010-2011 SY: Allocate classroom clusters of 3 student computer workstations in each kindergarten and pre-kindergarten classroom	Information Technology Manager	\$61,425	FY '11 OB – Computer Lease
		2010-2011 SY: Facilitate collaborative e-Community to develop lessons integrating MTLSS with content VSCs with kindergarten and pre-kindergarten teachers	Educational Technology Infusion Specialists	\$6,200	EETT Competitive grant funds
	Integrate MTLSS in 6-8 grade content classrooms	2010-2011 SY: Allocate classroom clusters of 5 student computer workstations in each 6 th , 7 th , and 8 th grade classrooms	Information Technology Manager	\$38,493	FY '11 OB – Computer Lease
		2010-2011 SY: Facilitate four content-centered collaborative e-Communities to develop lessons integrating MTLSS with VSCs with 6 th , 7 th , and 8 th grade Language Arts, Science, Social Studies, and Mathematics teachers	Educational Technology Infusion Specialists	\$12,400	EETT Competitive grant funds
	Integrate high school MTLSS	Following MSDE Adoption: Adopt the high school MTLSS	Facilitator of Educational Technology	NA	NA
		Following DCPS Adoption: Facilitate content-centered e-Communities at the high school level to develop lessons integrating MTLSS with content VSCs and CLGs	Educational Technology Infusion Specialists	\$12,400	EETT competitive grant funds
	Create a database that offers specific strategies and lessons for teaching cybersecurity, cybersafety, and cyberethics	2008-2009 SY: Develop lessons across all content areas addressing cybersecurity, cybersafety, and cyberethics; collaborate with classroom teachers to provide instruction across all content areas on cybersecurity, cybersafety, and cyberethics	Media Specialists and Educational Technology Infusion Specialists	Job-embedded	OB - salaries
		2009-2011: Review and update lesson database on cybersecurity, cybersafety, and cyberethics; continue to collaborate with classroom teachers to provide instruction across all content areas on cybersecurity, cybersafety, and cyberethics	Media Specialists and Educational Technology Infusion Specialists	Job-embedded	OB - salaries

Objective 2: Improve staff's knowledge and skills to integrate technology into instruction

Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
<p>2.1 All teachers and media specialists will demonstrate mastery of the Maryland Teacher Technology Standards (MTTS).</p>	Utilize Teacher Technology Profile to gauge current level of mastery toward the MTTS	2008-2009 SY: Import Teacher Technology Profile into DCPS Checkbox software; administer Teacher Technology Profile and analyze results	Facilitator of Educational Technology	Job-embedded	OB – salaries
	Incorporate technology requirements into School Improvement Plans	2008-2009 SY: Revise DCPS School Improvement Resource Guide to include expectations for mastery of MTTS	Assistant Superintendant for Instruction	Job-embedded	OB – salaries
		2008-2011: Assist staff in structuring their individual professional development plans for meeting the MTTS	School Principals	Job-embedded	OB – salaries
	Offer a professional development program to assist teachers with mastery of the MTTS	2008-2009 SY: Utilize Planning Guide to develop a high quality professional development program to assist teachers with mastery of the MTTS, including preparing all educators to teach cybersecurity, cybersafety, and cyberethics (Standard 3) and incorporate universal design and assistive technology (Standard 6)	Educational Technology Infusion Specialists	Job-embedded	OB – salaries
	Provide incentives to encourage teachers to master the MTTS	2008-2009 SY: Develop certification program to accompany steps in the professional development program (with Continuing Professional Development credit); apply for Continuing Professional Development credit through MSDE	Educational Technology Infusion Specialists	Job-embedded	OB – salaries
		2009-2010 SY: Provide high quality professional development program to assist teachers with mastery of the MTTS	Educational Technology Infusion Specialists	Job-embedded	OB - salaries
		2009-2010 SY: Explore technology-based rewards for mastery of MTTS	Facilitator of Educational Technology & Information Technology Manager	Job-embedded	OB – salaries
	Recruit teachers who meet state-established standards for technology related knowledge and skills	2008-2009 SY: Review transcripts for evidence of MTTS related course work; request portfolios demonstrating mastery of MTTS	Human Resources Manager	Job-embedded	OB - salaries

Objective 2: Improve staff's knowledge and skills to integrate technology into instruction

Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
2.2 All administrators at the school and county level will demonstrate mastery of the Maryland Technology Standards for School Administrators (MTSSA).	Develop a tool to assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA	2008-2009 SY: Develop tool to assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA	Technology Advisory Committee	Job-embedded	OB – salaries
	Assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA	2008-2009 SY: Utilize tool to gauge current level of mastery of administrators toward MTSSA	Assistant Superintendent for Instruction & Facilitator of Educational Technology	Job-embedded	OB – salaries
	Develop a professional development program to assist administrators with mastery of the MTSSA	2009-2010 SY: Utilize Planning Guide to develop a high quality professional development program to assist administrators with mastery of the MTSSA, including preparing all educators to teach cybersecurity, cybersafety, and cyberethics (Standard 6) and incorporate universal design and assistive technology (Standard 2); introduce the MTSSA standards to participants in the DCPS Aspiring Leadership Academy	Educational Technology Infusion Specialists	Job-embedded	OB – salaries
		2010-2011 SY: Integrate professional development toward mastery of the MTSSA with existing DCPS Administrative Council	Assistant Superintendent for Instruction & Facilitator of Educational Technology	Job-embedded	OB – salaries
	Provide incentives to encourage administrators to master the MTSSA	2009-2010 SY: Develop certification program to accompany steps in the professional development program; explore technology-based rewards for mastery of MTSSA	Assistant Superintendent for Instruction & Facilitator of Educational Technology	Job-embedded	OB – salaries

Objective 2: Improve staff's knowledge and skills to integrate technology into instruction									
Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source				
2.3 All teachers will be able to integrate technology effectively into curriculum and instruction.	Facilitate e-Communities among grade-level (elementary) or vertical (secondary) teams to build capacity to integrate technology effectively into curriculum and instruction	2008-2009 SY: Explore funding sources for stipends or incentives for participation in e-Communities	Facilitator of Educational Technology	Job-embedded	OB – salaries				
		2009-2010 SY: Build e-Communities within Moodle Learning Management System; select knowledgeable facilitators for individual e-Communities; train facilitators in the management of an e-Community; train teachers in the use of LMS tools	Educational Technology Infusion Specialists	Job-embedded	OB – salaries				
		2010-2011 SY: Develop a process to maintain and monitor e-Communities	Facilitator of Educational Technology & Educational Technology Infusion Specialists	Job-embedded	OB – salaries				
	Include appropriate educational technology/technology integration connections in all professional development programs	2008-2011: Collaborate with supervisors and facilitators to ensure technology is included in all professional development programs	Assistant Superintendent for Instruction	Job-embedded	OB – salaries				
						Establish a program to have one existing educator at each school available to provide professional development and assist with curriculum integration	2008-2009 SY: Develop criteria for educational technology knowledge and skills needed to provide professional development and assist with curriculum integration; develop rewards for individuals who agree to serve in this capacity as an extra duty	Facilitator of Educational Technology & Educational Technology Infusion Specialists	Job-embedded
	Build the capacity of all school-based coaches to offer technology integration support	2009-2010 SY: Develop a professional development program to prepare these individuals to provide site-based professional development and assistance with curriculum integration	Educational Technology Infusion Specialists	Job-embedded	OB – salaries				
		2008-2009 SY: Revise job criteria to require technology integration knowledge and skills in all new hires	Facilitator of Elementary Schools and Human Resources Manager	Job-embedded	OB – salaries				
	Evaluate effectiveness of professional development in integrating technology into curriculum and instruction	2009-2010 SY: Enroll current school-based coaches in professional development program addressing MTTs	Educational Technology Infusion Specialists	Job-embedded	OB – salaries				
						2009-2010 SY: Enroll current school-based coaches in professional development program addressing MTTs	Educational Technology Infusion Specialists	Job-embedded	OB – salaries
						Seek assistance from MSDE to plan the evaluation	Facilitator of Educational Technology	Job-embedded	OB – salaries
2.4 Increase personnel within Educational Technology Department in order to provide improved instructional support.	Provide dedicated facilitator for Educational Technology and School Library Media	FY 2010: Request additional position in proposed fiscal budgets	Assistant Superintendant for Instruction	\$87,993/Y	OB - salaries				
		FY 2010: Request additional position in proposed fiscal budget for dedicated Educational Technology Infusion Specialist at new state-of-the-art North Dorchester Middle School	Facilitator of Educational Technology	\$62,899/Y	OB - salaries				
		FY 2011: Request additional Educational Technology Infusion Specialist in proposed fiscal budget in order to have one per 100 educators to assist with professional development and curriculum integration throughout DCPS	Facilitator of Educational Technology	\$64,149/Y	OB - salaries				
		Conduct evaluation of integration of technology	Facilitator of Educational Technology	Job-embedded	OB - salaries				

Objective 3: Improve decision-making, productivity, and efficiency at all levels of the organization through the use of technology					
Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
3.1 All staff will use electronic information and communication tools to improve management and operational efficiency.	DCPS will subscribe to Atomic Learning online, or similar tool, to provide just-in-time training on communication and productivity software provided by DCPS DCPS will upgrade School Library Media database software to an online, district-wide database solution	2008-2009 SY: Review Atomic Learning online learning modules (as well as suitable alternatives) using DCPS software acquisition policy; acquire firm quotation from selected vendor; determine funding source; follow approval and acquisition procedures	Technology Advisory Committee	Approx. \$1.38/user /year	EETT formula funds
		2008-2009 SY: Advertise and train as necessary	Educational Technology Infusion Specialists	Job-embedded	OB – salaries
		2008-2009 SY: Evaluate possible programs using the DCPS software acquisition policy; acquire quotation on software; determine funding source	Technology Advisory Committee	Job-embedded	OB - salaries
		2009-2010 SY: Follow approval and acquisition procedures; develop training materials; train appropriate staff members on new SLM database software; develop a plan to train new staff members	Facilitator of School Library Media	\$33,000	OB - software
3.2 DCPS will provide leadership and support in access to and use of technologies for administrative and operational purposes.	Provide consistent training for school-based individuals who maintain student information in PowerSchool Provide consistent training for administrators, guidance counselors, resource teachers/coaches, and school secretaries on the administrative uses of PowerSchool Provide consistent training for teachers on PowerSchool Teacher and PowerGrade	2008-2009 SY: Develop training materials for school-based staff who maintain student information in PowerSchool; develop a plan to train existing school-based staff, new staff members, and updating staff members when PowerSchool is updated; provide ongoing training for school-base staff who enter data into PowerSchool	Information Technology Manager	Job-embedded	OB - salaries
		2008-2009 SY: Update training materials for school-based staff who have administrative access to PowerSchool (Administrators, Guidance Counselors, Resource Teachers/Coaches, Secretaries); provide ongoing training for existing school-based staff who have administrative access to PowerSchool, new staff members, and update staff members when PowerSchool is updated	Information Technology Manager	Job-embedded	OB - salaries
		2008-2009 SY: Update training materials for teachers on PowerSchool Teacher and PowerGrade; provide ongoing training to existing teachers on PowerSchool and PowerGrade, new teachers, and update teachers when PowerSchool and/or PowerGrade are updated	Information Technology Manager	Job-embedded	OB - salaries
3.3 Develop processes and strategies to provide access to digital resources, data, and information before and after school hours.	Expand online PowerGrade and student/parent portal to elementary grades	2008-2009 SY: Build tables in PowerSchool for elementary schedules; enter classes into PowerSchool database; train elementary school teachers on online PowerGrade system	Information Technology Manager	Job-embedded	OB - salaries
		2008-2009 SY: Communicate parent PowerSchool portal to parents of elementary students	Elementary Principals	Job-embedded	OB - salaries

Objective 3: Improve decision-making, productivity, and efficiency at all levels of the organization through the use of technology					
Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
3.4 Develop processes and strategies to provide electronic communication with educators, students, parents, and the community.	Acquire automated system to communicate with students and parents via telephone, email, and text messaging Utilize Transact and CTS translation services to make all forms accessible to Spanish speaking students, parents, and members of the community	2008-2009 SY: Explore options utilizing existing databases and systems, or alternative vendors	Technology Advisory Committee	Job-embedded	OB - salaries
		FY 2010: Follow approval and acquisition procedures	Technology Advisory Committee	Job-embedded	OB - salaries
		2010-2011 SY: Train school-based staff as necessary	Information Technology Manager	Job-embedded	OB - salaries
		2008-2009 SY: Have CTS translation services translate all forms; collaborate with DCPS webmaster to ensure all DCPS forms are accessible in Spanish through the DCPS website	Information Technology Manager/Facilitator of Educational Technology/Webmaster	\$6,000	ESL grant
3.5 Implement data management systems, integrated student information systems, curriculum/content management systems, and learning management systems.	Provide high-quality professional development opportunities for instructional staff to effectively use Performance Matters to monitor student performance, to analyze student data, and to use the results to inform instructional decisions Utilize Moodle Learning Management System in all schools to create a paperless professional environment Utilize advanced features of Pentamation software to improve communication to staff and administration	2008-2009 SY: Use planning guide to develop high quality professional development plan; implement plan	Local Accountability Coordinator	Job-embedded	OB – salaries
		2009-2011: Monitor progress; provide follow-up	Local Accountability Coordinator	Job-embedded	OB – salaries
		2008-2009 SY: Develop training materials for using the LMS as a paperless e-Community; advertise availability of Moodle Learning Management System; train appropriate staff to use the LMS to manage a paperless e-Community; train staff members to access and utilize the LMS	Educational Technology Infusion Specialists	Job-embedded	OB – salaries
		2009-2011: Continue training as necessary	Educational Technology Infusion Specialists	Job-embedded	OB – salaries
		2009-2011: Monitor professional learning environments	School Principals	Job-embedded	OB – salaries
		2008-2009 SY: Review additional features of Pentamation software for compatibility with existing systems; determine time and resources needed to implement new features	Assistant Superintendent for Administration	Job-embedded	OB – salaries
		2009-2010 SY: Train employees to use new features; implement tools	Information Technology Manager	Job-embedded	OB – salaries
		2010-2011 SY: Monitor use of Pentamation integrated accounting and human resources information management system	Assistant Superintendent for Administration	Job-embedded	OB - salaries

Objective 4: Improve equitable access to appropriate technologies among all stakeholders					
Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
<p>4.1 All schools will provide :</p> <p>A ratio of 1:1 student-to-high performance computing device at the secondary level;</p>	<p>Provide a 1:1 student-to-computing device ratio by acquiring laptop/emerging technology at the secondary level, making consistent annual progress toward the 2012 goal</p>	2008-2009 SY: Evaluate results from 2-year Johns Hopkins study of Talbot County's 1:1 laptop initiative	Facilitator of Educational Technology	Job-embedded	OB – salaries
		2009-2010 SY: Explore funding sources for DCPS 1:1 computing device initiative	Assistant Superintendant for Administration	Job-embedded	OB – salaries
		2010-2011 SY: Develop protocols for assigning, maintaining, and tracking computing devices; provide job-embedded professional development for all secondary teachers	Facilitator of Educational Technology	Job-embedded	OB - salaries
A 3:1 student-to-computer ratio at the elementary level to provide on demand, equitable access to a variety of technical tools.	Maintain 3:1 student-to-computer ratio at the elementary level	<p>2008-2011: Create classroom clusters of 3 student computer workstations in all elementary classrooms</p> <p>2008-2011: Monitor hardware inventory to maintain ratio</p>	<p>Information Technology Manager</p> <p>Information Technology Manager</p>	<p>\$286,650</p> <p>Job-embedded</p>	<p>OB – Computer Lease</p> <p>OB - salaries</p>
<p>Access to a variety of other technology devices to maximize student learning;</p>	<p>Convert all DCPS classrooms to digital classrooms</p>	2008-2009 SY: Convert 40 DCPS classrooms to digital classrooms	Information Technology Manager	\$60,000	FY '09 OB - Equipment
		2009-2010 SY: Convert 40 DCPS classrooms to digital classrooms	Information Technology Manager	\$60,000	FY '10 OB – Equipment
	<p>Research and examine new technologies to maximize student learning on a regular basis</p> <p>Install assistive listening systems in all new construction and renovation projects</p>	2010-2011 SY: Convert remaining DCPS classrooms to digital classrooms	Information Technology Manager	\$90,000	FY '11 OB – Equipment
		2008-2011: Research and examine new technologies to maximize student learning on a regular basis	Facilitator of Educational Technology and Educational Technology Infusion Specialists	Job-embedded	OB - salaries
<p>One computer projection device or display unit per classroom and other instructional areas;</p>	<p>Install one multimedia projector in each classroom and other instructional area</p>	2008-2009 SY: Install multimedia projectors in 40 classrooms/instructional areas	Information Technology Manager	\$40,000	FY '09 OB – Equipment
		2009-2010 SY: Install multimedia projectors in 40 classrooms/instructional areas	Information Technology Manager	\$40,000	FY '10 OB – Equipment
		2010-2011 SY: Install multimedia projectors in remaining classrooms/instructional areas	Information Technology Manager	\$60,000	FY '11 OB - Equipment

Objective 4: Improve equitable access to appropriate technologies among all stakeholders					
Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
Connection to a broadband speed LAN/WAN from every instructional and administrative area, including all re-locatable classrooms, to support the use of high-quality digital learning resources;	Connect all locations to the Board of Education through fiber optic cable	2008-2009 SY: Connect all schools except South Dorchester School to the Board of Education through fiber optic cable	Information Technology Manager	\$153,575/Y	Fed. E-rate subsidy
		2009-2010 SY: Monitor progress of contract to connect South Dorchester School to WAN via fiber optic cable	Information Technology Manager	Job-embedded	OB - salaries
		2010-2011 SY: Maintain viable broadband access	Information Technology Manager	Job-embedded	OB – salaries
A secure computing environment to ensure safe access and information integrity;	Update firewall and antivirus software as needed Review and revise DCPS Acceptable Use and Internet Safety Policy to reflect the current online environment	2008-2011: Monitor security of DCPS intranet; make adjustments as necessary	Network Administrator	Job-embedded	OB – salaries
		2008-2009 SY: Develop process and timeline for monitoring and updating the DCPS Acceptable Use and Internet Safety Policy	Technology Advisory Committee	Job-embedded	OB – salaries
		2009-2011: Update the DCPS Acceptable Use and Internet Safety Policy as appropriate	Technology Advisory Committee	Job-embedded	OB – salaries
4.2 DCPS will have policy and procedures in place to address equivalent accessibility to technology-based products for students, as defined by education article 7-910 of the Public Schools- Technology for Education Act.	Review annually and revise DCPS Criteria for Selection of Instructional Software Policy as needed Review accessibility and augment new software with assistive technology as needed	2008-2009 SY: Develop process and timeline for monitoring and updating the DCPS Criteria for Selection of Instructional Software Policy	Technology Advisory Committee	Job-embedded	OB – salaries
		2009-2011: Update the Criteria for Selection of Instructional Software Policy as needed	Technology Advisory Committee	Job-embedded	OB – salaries
		As new software approval is requested, determine necessity of any assistive technology required to achieve equivalent access	Technology Advisory Committee and Assistive Technology Specialist	Job-embedded	OB – salaries
4.3 DCPS will provide access to technology after school hours for all learners.	Utilize Project Phoenix to provide technology resources for economically disadvantaged students, as well as students on home hospital services	2008-2009 SY: Develop a committee of key stakeholders to explore extent of need; draft procedure for technology acquisition and allocation through Project Phoenix; submit procedure to BOE for review	Supervisor of Pupil Services	Job-embedded	OB – salaries
		2009-2010 SY: Develop a plan to communicate and facilitate technology acquisition through Project Phoenix; follow plan to communicate and facilitate technology acquisition through Project Phoenix	Supervisor of Pupil Services	Job-embedded	OB – salaries
4.4 DCPS will provide: Technical support using a locally established response system, including an adequately staffed, efficient help desk;	Review and update technical response system as needed	2008-2011: Monitor effectiveness of technical response system; make adjustments as necessary	Network Administrator	Job-embedded	OB - salaries
At least one full-time technical support person for every 300 computers.	Add 2 technical support staff positions in information technology department	FY '10: Request increase in staff positions during annual budget process	Information Technology Manager	\$69,108/Y	OB – salaries
		As needed, seek alternative funds to acquire additional positions	Assistant Superintendant for Administration	Job-embedded	OB – salaries

Objective 5: Improve the instructional uses of technology through research and evaluation

Targets for 2011	Recommended Actions	Timeline/Action Steps	Person Responsible	Cost	Funding Source
<p>5.1 Dorchester County Public Schools will develop a process for evaluating how the use of technology is impacting student learning, especially in support of the Voluntary State Curriculum, High School Core Learning Goals, Maryland School Assessment, and High School Assessment.</p>	<p>Seek assistance from MSDE or third-party evaluator for evaluation model of how the use of technology is impacting student learning</p> <p>Conduct evaluation of how the use of technology is impacting student learning</p> <p>Use rubric for online/hybrid course development and implementation</p>	<p>2008-2009 SY: Explore evaluation models available through MSDE or possible partnerships with higher education</p> <p>2009-2010 SY: Explore funding sources for evaluation; plan evaluation of how the use of technology is impacting student learning in DCPS classrooms</p> <p>2010-2011 SY: Implement plan</p> <p>2008-2011: Utilize design, content, and accessibility criteria developed through Project OPEN for development of online and hybrid courses; utilize End-of-Course Evaluation Instrument developed through Project OPEN to evaluate effectiveness of online/hybrid courses</p>	<p>Technology Advisory Committee</p> <p>Technology Advisory Committee</p> <p>Technology Advisory Committee</p> <p>Facilitator of Educational Technology</p>	<p>Job-embedded</p> <p>Job-embedded</p> <p>Job-embedded</p> <p>Job-embedded</p>	<p>OB – salaries</p> <p>OB – salaries</p> <p>OB – salaries</p> <p>OB – salaries</p>
<p>5.2 Dorchester County Public Schools will develop a process for evaluating how students are being prepared to master the Maryland Technology Literacy Standards for Students (MTLSS) and how educators are being prepared to master the Maryland Teacher Technology Standards (MTTS) and/or the Maryland Technology Standards for School Administrators (MTSSA).</p>	<p>Implement student portfolios as a means of monitoring student progress toward mastery of the MTLSS</p> <p>Utilize Teacher Technology Profile to gauge current level of mastery toward the MTTS</p> <p>Develop a tool to assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA</p>	<p>2008-2009 SY: Develop rubric and required artifacts at benchmark stages for student portfolios as well as a process to evaluate portfolios</p> <p>2008-2009 SY: Import Teacher Technology Profile into DCPS Checkbox software; administer Teacher Technology Profile and analyze results</p> <p>2008-2009 SY: Develop tool to assess the current knowledge, skills, and attitudes of administrators related to instructional technology and the MTSSA</p> <p>2009-2011: Utilize tool to gauge current level of mastery of administrators toward MTSSA</p>	<p>Educational Technology Steering Committee</p> <p>Facilitator of Educational Technology</p> <p>Technology Advisory Committee</p> <p>Assistant Superintendant for Instruction and Facilitator of Educational Technology</p>	<p>NA</p> <p>Job-embedded</p> <p>Job-embedded</p> <p>Job-embedded</p>	<p>NA</p> <p>OB – salaries</p> <p>OB – salaries</p> <p>OB - salaries</p>

Appendix A: Alignment Resources

2007 Dorchester County Technology Inventory Summary Report

<http://md.ontargetus.com/distSum.asp?otid=09&accDesc=Dorchester+County>

Education Article § 7-910: Equivalent Access for Students with Disabilities and COMAR 13A.05.02.13H (Accessibility of Technology-Based Instructional Products)

<http://mlis.state.md.us/2002rs/billfile/SB0226.htm>

The Maryland Educational Technology Plan for the New Millennium 2007-2012:
Anytime, Anywhere Technology to Improve Teaching & Learning

<http://www.marylandpublicschools.org/NR/ronlyres/9242FEDD-09F7-4BB0-8F1F-AE6FAE562EA8/13485/TechPlanFinalfromPrinter73007.pdf>

Maryland Instructional Leadership Framework

<http://marylandpublicschools.org/NR/ronlyres/BABBCCE8-07F0-4C82-AB4E-FB8549E67474/9383/InstructionalLeadershipFrameworkFeb2006.pdf>

Maryland School Library Media Voluntary State Curriculum (Draft)

http://www.marylandpublicschools.org/MSDE/programs/technology/library_media

Maryland Teacher Professional Development Standards and Planning Guide

http://www.marylandpublicschools.org/MSDE/divisions/instruction/prof_standards

Maryland Teacher Technology Standards (MTTS)

<http://www.mttsonline.org>

Maryland Technology Literacy Standards for Student (MTLSS)

<http://www.mcps.k12.md.us/departments/techlit>

Maryland Technology Standards for School Administrators (MTSSA)

<http://www.bcps.org/offices/oit/ProfessionalDevelopment/MarylandTech%20StandardsforSchool%20AdminsApril2007.pdf> (standards)

<http://www.bcps.org/techforadmin/tech-toolkits-for-admins.html> (toolkit)

Partnership for 21st Century Skills

www.21stcenturyskills.org

School Improvement in Maryland

<http://www.mdk12.org/>

Voluntary State Curriculum and Toolkits

<http://www.mdk12.org/instruction/curriculum/index.html>

Appendix B: DCPS 2007 Master Plan Update, Cross-cutting Themes: Educational Technology

CROSS-CUTTING THEMES

Educational Technology

In responses to the previous questions, districts may have addressed the following cross-cutting themes. Use this space to report on progress toward outcomes and timelines established in the Master Plan and further elaborate on any revisions or adjustments pertinent to these cross-cutting themes that the school system has made to the Master Plan.

Educational Technology

The Bridge to Excellence legislation requires that the updated plan “shall include goals, objectives, and strategies” for addressing how technology will be integrated into curriculum, instruction, and high quality professional development in alignment with the objectives of the Maryland Plan for Technology in Education and local technology plans. The five main objectives of the State plan are as follows:

- Objective 1: Access to high performance technology and its rich resources is universal;
- Objective 2: All educators will be highly knowledgeable and skilled, capable of effectively using technology tools and digital content;
- Objective 3: Technology tools and digital content that engage our students will be seamlessly integrated into all classrooms on a regular basis;
- Objective 4: Technology will be used effectively to improve school administrative functions and operational processes; and
- Objective 5: Effective research, evaluation and assessment will result in accountability and continuous improvement in the implementation and use of technology.

In addition to including technology strategies across the Master Plan aligned to State and local technology plans, the local school system Master Plan and/or Master Plan Update should outline specifically how it will use all sources of funding in meeting *No Child Left Behind* Statutory Goals:

- Improve student academic achievement through the use of technology in elementary schools and secondary schools.
- To assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student’s race, ethnicity, gender, family income, geographic location, or disability.
- To encourage the effective integration of technology resources and systems with teacher training and curriculum development to establish research-based instructional methods that can be widely implemented as best practices by State educational agencies and local educational agencies.

Educational Technology

Please provide data from the Maryland Technology Inventory, local data and data from any other relevant sources to address the following questions:

<p>Maryland Plan for Technology in Education</p> <p>Objective 1: Access to high performance technology and its rich resources is universal.</p>			
<p>Dorchester County Technology and Learning Implementation Plan for the years 2005-2008 approved in June of 2006, which included the following objective:</p> <p>Objective 1: All students and staff of Dorchester County Public Schools will have universal access to high performance technology.</p>			
<p>DCPS Master Plan alignment:</p> <p>Reading Strategy 25. Continue with implementation of DCPS Technology Plan.</p> <p>Math Strategy 54. Provide assistive technology for special education students as needed in mathematics classrooms.</p>			
<p>1. Describe the progress that was made in 2006-2007 toward meeting educational technology goals.</p> <ul style="list-style-type: none"> ▪ Dorchester County Public Schools has an acquisition policy that addresses the requirement of universal accessibility. ▪ DCPS is a partner with Dorchester County in broadband access. ▪ Fiber optic cable was laid connecting one elementary school directly to the central office. ▪ All middle school Language Arts teachers received a laptop with docking station to facilitate 	<p>2. Identify the key practices, programs, or strategies to which you attribute the progress. Include supporting data and evaluation results as appropriate.</p> <ul style="list-style-type: none"> ▪ Two IT resource teachers introduce, train, and coach classroom teachers on the integration of educational technology in instruction. ▪ Enhancing Education through Technology grants. ▪ Visit to North Salisbury Elementary school to view example of 21st century digital classrooms. ▪ One high school established an 	<p>3. Describe where challenges in making progress toward meeting educational technology goals are evident.</p> <ul style="list-style-type: none"> ▪ Wireless Wide Area Network is frequently disrupted by weather related issues. ▪ While all teachers have a computer workstation, some have a Pentium II or lower processor. ▪ Currently, the student to computer ratio in DCPS is 3.8:1. Allocation of technology equipment is managed by the IT department in operations. Teacher workstations are the current focus. 	<p>4. Describe the plans for addressing those challenges and include a description of the adjustments that will be made to the Master Plan and local Technology Plan. Include timelines where appropriate.</p> <ul style="list-style-type: none"> ▪ Plan is currently being developed to link 5 additional schools to the central office via fiber optic cable. ▪ Dorchester County has entered into a leasing agreement to acquire 1500 new computers over the next three school years, on a three year replacement cycle, using local funds. This lease will enable all teachers to have access to a computer and all computers with a processor less than

<p>integration of educational technology.</p> <ul style="list-style-type: none"> ▪ Eight middle school math teachers acquired a tablet PC, multimedia projector, document camera, and digital camera through a math partnership. ▪ Both high schools received a wireless computer cart containing thirty laptop computers, with a networked printer and multimedia projector. ▪ A lab of fifteen PCs was installed at one middle school in order to facilitate use of Kurzweil educational software. ▪ Both middle schools purchased two classrooms sets each of TurningPoint student response systems. ▪ One middle school acquired two e-beams to create smart classrooms. ▪ Twenty student computer workstations were added in one middle school. ▪ Nine multimedia projectors added at the middle school level; fifteen added at the high school level. ▪ Fourteen laptops purchased at the high school level for instruction. ▪ TI Navigator purchased by one high school. 	<p>objective specifically related to integration of educational technology in pursuit of AFG recertification.</p> <ul style="list-style-type: none"> ▪ Technology showcase presented by IT resource teachers to representatives of the DCPS Board of Education; all DCPS principals, facilitators, and department chairs; and, faculty at North Dorchester High School. 	<ul style="list-style-type: none"> ▪ Currently, 98% of DCPS classrooms have internet access. One elementary school recently added portable classrooms that do not have internet access. ▪ Currently, 50% of DCPS classrooms have student access to computers. ▪ Currently 93% of DCPS classrooms have teacher access to a computer. 	<p>Pentium II will be removed from the network.</p> <ul style="list-style-type: none"> ▪ During July of 2007, the Technology Steering Committee developed a plan for incorporating the Maryland Technology Literacy Standards for Students into Pre-K-8th Grade classrooms. The plan includes placing student workstations in grades Pre-K-2 during the 2008-2009 school year. In subsequent years, DCPS will add student computer workstations to one grade level per year until all classrooms are equipped with student workstations. ▪ Portable classrooms will be connected to the school's server by September 2007.
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Maryland Plan for Technology in Education

Objective 2: All educators will be highly knowledgeable and skilled, capable of effectively using technology tools and digital content.

Dorchester County Technology and Learning Implementation Plan for the years 2005-2008 approved in June of 2006, which included the following objective:

Objective 2: Dorchester County educators, administrators and teachers, will be proficient in the use of technology tools and digital content.

DCPS Master Plan alignment:

Reading

Strategy 23. Provide an assortment of technology applications to enhance reading and writing instruction and assessment results.

Strategy 24. Provide a technology instructor at each school to train faculty, support staff, and students in integrating effective web and software resources in instruction and learning.

Strategy 25. Continue with implementation of DCPS Technology Plan.

Math

Strategy 52. Use computer software to enhance instruction so students experience similar testing and sample problems.

Strategy 53. Use an assortment of technology applications that support math year-end outcomes.

Strategy 54. Provide assistive technology for special education students as needed in mathematics classrooms.

<p>1. Describe the progress that was made in 2006-2007 toward meeting educational technology goals.</p> <ul style="list-style-type: none"> ▪ Kurzweil training throughout the school year for core content teachers and special education teachers at North Dorchester Middle School. ▪ All middle school faculties learned how to use TurningPoint student response system in the classroom. ▪ Training on Thompson Gale Science Resource Center at Cambridge-South Dorchester High School. ▪ All high school math teachers attended professional development related to the Algebra Online course. 	<p>2. Identify the key practices, programs, or strategies to which you attribute the progress. Include supporting data and evaluation results as appropriate.</p> <ul style="list-style-type: none"> ▪ Supportive Superintendent ▪ Two Instructional Technology resource teachers provide job-embedded professional development on a daily basis. This includes training, coaching, planning, and co-teaching with classroom teachers. ▪ Classroom teachers have attended the MICCA conference (Individual schools are sending teachers to MICCA, rather than relying on grant funds). 	<p>3. Describe where challenges in making progress toward meeting educational technology goals are evident.</p> <ul style="list-style-type: none"> ▪ Participation in job-embedded professional development is voluntary due to contract-based constraints on teacher planning time. ▪ Participation in professional development opportunities held beyond the work day is also voluntary. ▪ Local budget constraints have not allowed an increase in the number of IT resource teachers; 12 schools are served by 2 IT resource teachers. ▪ Currently, 87.17% of DCPS teachers 	<p>4. Describe the plans for addressing those challenges and include a description of the adjustments that will be made to the Master Plan and local Technology Plan. Include timelines where appropriate.</p> <ul style="list-style-type: none"> ▪ Incentives, in the form of technology bundles to be used in the classroom, will be purchased for participants of ongoing job-embedded professional development. ▪ A course is being written for MSDE CPD credit on effective use of educational technology. In the future, participants will receive CPD credit as well as a technology bundle for classroom use. ▪ Request additional positions for IT
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<ul style="list-style-type: none"> ▪ Eight middle school math teachers and four elementary school math teachers attended educational technology training through the Math-Science Partnership. ▪ Four middle school and three elementary science teachers participated in educational technology training through the Math-Science Partnership. ▪ Twenty-three teachers participated in a pilot professional development opportunity provided by the Technology Literacy by Grade 8 grant consortium related to the Maryland Technology Literacy Standards for Students. ▪ Fourteen teachers attended the 2nd Annual Summer Technology Academy. ▪ All middle school Social Studies teachers were trained on how to use United Streaming video effectively in the classroom. ▪ Technology training opportunities at CSD including: electronic gradebook, creating web pages, email, and operating a digital classroom using a projector, laptop, wireless keyboard and mouse, and web-based instruction. ▪ Seven DCPS high school and middle school math teachers participated in a workshop on basic use of TI-83 graphing calculators. 	<ul style="list-style-type: none"> ▪ Cambridge-South Dorchester High School's 2nd Objective for recertification with AFG states: Student learning in all content areas will be enhanced through the integration of technology into instruction. 	<p>rate themselves as intermediate users of the computer; 83.77% rate themselves as intermediate users of the Internet; and, 87.26% rate themselves at the intermediate level of technology integration.</p>	<p>resource teachers in upcoming budget. In the meantime, a county-wide technology steering committee will be expanded during the 2007-2008 school year to include one staff member from each school who will act as a school-based instructional technology resource teacher.</p>
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Maryland Plan for Technology in Education

Objective 3: Technology tools and digital content that engage our students will be seamlessly integrated into all classrooms on a regular basis.

Dorchester County Technology and Learning Implementation Plan for the years 2005-2008 approved in June of 2006, which included the following objectives:

Objective 3: Dorchester County students will become technology literate consumers and producers of digital content as a tool in learning and production.

Objective 4: Dorchester County teachers will integrate technology tools and digital content seamlessly into their classroom instruction.

DCPS Master Plan alignment:

Reading

Strategy 14. Develop an electronic portfolio in grades 1-12 that demonstrates application of reading and writing skills.

Strategy 24. Provide a technology instructor at each school to train faculty, support staff, and students in integrating effective web and software resources in instruction and learning.

Strategy 25. Continue with implementation of DCPS Technology Plan.

Math

Strategy 52. Use computer software to enhance instruction so students experience similar testing and sample problems.

Strategy 53. Use an assortment of technology applications that support math year-end outcomes.

Strategy 54. Provide assistive technology for special education students as needed in mathematics classrooms.

<p>1. Describe the progress that was made in 2006-2007 toward meeting educational technology goals.</p> <ul style="list-style-type: none"> ▪ Middle school math intervention programs adopted, incorporating educational technology. ▪ New Science and Social Studies textbook series adopted, incorporating educational technology. ▪ A 15-seat Kurzweil lab for Special Education students was installed at North Dorchester Middle School. ▪ DCPS switched to a Microsoft Exchange Server during the 2006-2007 school year, which enabled the 	<p>2. Identify the key practices, programs, or strategies to which you attribute the progress. Include supporting data and evaluation results as appropriate.</p> <ul style="list-style-type: none"> ▪ An e-Community was established using Desire 2 Learn for the entire DCPS Special Education department. ▪ Participation in the Technology Literacy by Grade 8 grant consortium. ▪ Receipt of Title II Part D Enhancing Education through Technology grant funding. ▪ MSDE development and adoption of 	<p>3. Describe where challenges in making progress toward meeting educational technology goals are evident.</p> <ul style="list-style-type: none"> ▪ Students still share network folders for saved student work. ▪ IT difficulties getting the Plato software installed on dedicated server. ▪ Fitting the Plato program into school master schedules. ▪ Buying software and hardware to implement Keyboarding initiative. ▪ Local budget constraints have not allowed an increase in the number of 	<p>4. Describe the plans for addressing those challenges and include a description of the adjustments that will be made to the Master Plan and local Technology Plan. Include timelines where appropriate.</p> <ul style="list-style-type: none"> ▪ Individual student logins will be created in September of 2007, with roaming student profiles. Students will be able to maintain a portfolio through network. ▪ Type to Learn keyboarding software was purchased in June 2007; equipment is being leased through Dell and 3 computer workstations will be installed in each Grade 3 classroom September 2007. Each
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<p>creation of roaming profiles for teachers.</p> <ul style="list-style-type: none"> ▪ Four separate educational technology professional development opportunities were offered in June of 2007; math and science teachers, 13 ELA teachers, 23 elementary teachers, and 17 social studies teachers participated in content-based educational technology PD. All middle and high school participants received a technology bundle to use in their classrooms. Follow-up is ongoing and provided by 2 IT resource teachers. ▪ All DCPS administrators participated in workshop addressing look-fors in a technology rich learning environment and supporting teachers who are learning to use educational technology. ▪ A pilot program was established at both high schools using Plato literacy software to address specific reading deficits in ninth grade students. ▪ Superintendant approval of DCPS Keyboarding initiative beginning in September 2007 at the 3rd grade level. 	<p>the Technology Standards for Administrators.</p> <ul style="list-style-type: none"> ▪ Participation in the Shore Readers partnership grant. ▪ MSDE adoption of Maryland Technology Literacy Standards for Students. ▪ Online administration of timed Science Maryland School Assessment. 	<p>IT resource teachers; 12 schools are served by 2 IT resource teachers.</p>	<p>year, another grade level will be added to the initiative until all DCPS students Grade 3 and above are proficient at keyboarding.</p> <ul style="list-style-type: none"> ▪ Collaborate with Plato technicians to debug the problem. ▪ Designate teachers in January 2008 for Plato during the 2008-2009 school year. ▪ Request additional positions for IT resource teachers in upcoming budget. In the meantime, a county-wide technology steering committee will be expanded during the 2007-2008 school year to include one staff member from each school who will act as a school-based instructional technology resource teacher.
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Maryland Plan for Technology in Education

Objective 4: Technology will be used effectively to improve school administrative functions and operational processes.

Dorchester County Technology and Learning Implementation Plan for the years 2005-2008 approved in June of 2006, which included the following objectives:

Objective 2: Dorchester County educators, administrators and teachers, will be proficient in the use of technology tools and digital content.

Objective 5: Dorchester County Public Schools will use effective research, assessment, and evaluation in order to maintain accountability and continuous improvement and use of educational and administrative technology.

DCPS Master Plan alignment:

Reading

Strategy 25. Continue with implementation of DCPS Technology Plan.

<p>1. Describe the progress that was made in 2006-2007 toward meeting educational technology goals.</p> <ul style="list-style-type: none"> ▪ The IT department has upgraded Power School, our student data management system in which attendance, discipline, assessment, historical grades, and classroom grades are stored. The entire database is now web-based to improve access for teachers and all middle and high schools take attendance through the online database. ▪ School-based administrators use an electronic form for teacher appraisal process. ▪ System-wide financial and personnel data is now backed-up off-site. Student data is routinely backed up. ▪ Book keepers at each school use technology software (Quicken or Excel) to track school expenditures. 	<p>2. Identify the key practices, programs, or strategies to which you attribute the progress. Include supporting data and evaluation results as appropriate.</p> <ul style="list-style-type: none"> ▪ Change in IT personnel: a new IT management position, a new Network Administrator, a new computer analyst, and a previously vacant computer technician position was filled. ▪ MSDE adoption of Technology Standards for Administrators. ▪ Administrator training on the appraisal process using CaseNex provided by central office facilitators. 	<p>3. Describe where challenges in making progress toward meeting educational technology goals are evident.</p> <ul style="list-style-type: none"> ▪ Internet access throughout DCPS is often interrupted by a failing wireless Wide Area Network; schools in the far north and south areas of the district are affected most frequently. ▪ DCPS does not currently have complete redundancy built into school site data back-ups. 	<p>4. Describe the plans for addressing those challenges and include a description of the adjustments that will be made to the Master Plan and local Technology Plan. Include timelines where appropriate.</p> <ul style="list-style-type: none"> ▪ Plan is currently being developed to link 5 additional schools to the central office via fiber optic cable. ▪ Elementary schools throughout DCPS will begin using an electronic gradebook in September 2007. ▪ By the end of the 2007-2008 school year, all school data will be backed up on each school server, thereby accomplishing complete redundancy.
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<ul style="list-style-type: none"> Financial and Human Resources record-keeping is maintained through J.D. Edwards software package. 			
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Maryland Plan for Technology in Education

Objective 5: Effective research, evaluation and assessment will result in accountability and continuous improvement in the implementation and use of technology.

Dorchester County Technology and Learning Implementation Plan for the years 2005-2008 approved in June of 2006, which included the following objective:

Objective 5: Dorchester County Public Schools will use effective research, assessment, and evaluation in order to maintain accountability and continuous improvement and use of educational and administrative technology.

DCPS Master Plan alignment:

Reading
 Strategy 23. Provide an assortment of technology applications to enhance reading and writing instruction and assessment results.
 Strategy 24. Provide a technology instructor at each school to train faculty, support staff, and students in integrating effective web and software resources in instruction and learning.
 Strategy 25. Continue with implementation of DCPS Technology Plan.

<p>1. Describe the progress that was made in 2006-2007 toward meeting educational technology goals.</p> <ul style="list-style-type: none"> All DCPS elementary schools met AMO for the 2006-2007 school year. One elementary school, Hurlock, came out of School Improvement. One middle school met AMO for the first time in four years. DCPS adopted Performance Matters as student assessment and data management system. Five central trainings have been provided, with follow-up available through the LAC and 2 IT resource teachers. 	<p>2. Identify the key practices, programs, or strategies to which you attribute the progress. Include supporting data and evaluation results as appropriate.</p> <ul style="list-style-type: none"> Use of educational technology: Elmo document camera, HATCH computer workstations in early childhood classrooms. Use of Kurzweil assistive technology, V-math online math instruction and assessment, Larson math software, and an increase in classroom integration of technology at the middle school level. Educators at all levels are able to 	<p>3. Describe where challenges in making progress toward meeting educational technology goals are evident.</p> <ul style="list-style-type: none"> Site-based school budgets are allocated without categories by school administrators; budgetary spending on educational technology is dependant upon site-based administrative support. Loss of grant funds which paid for most of the existing programs. Training all DCPS staff on how to use the Performance Matters system, and make instructional decisions using lagging and leading data. 	<p>4. Describe the plans for addressing those challenges and include a description of the adjustments that will be made to the Master Plan and local Technology Plan. Include timelines where appropriate.</p> <ul style="list-style-type: none"> Continued professional development for school administrators on new educational technology and Technology Standards for School Administrators. Continued job-embedded professional development by 2 IT resource teachers for teachers using educational technology in the classroom.
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	<p>monitor student lagging and leading data in order to diagnose student instructional needs towards meeting proficiency goals in Maryland VSC and Core Learning Goals.</p>	<ul style="list-style-type: none"> ▪ DCPS did not have benchmarks in place to monitor student progress toward proficiency on Maryland VSC objectives. 	<ul style="list-style-type: none"> ▪ Training will be provided at each school by the LAC and follow-up will be provided by the 2 IT resource teachers on use of Performance Matters and data-driven decision making. ▪ Development of benchmarks in Language Arts, Math, and Science began in September 2006. Middle school math benchmarks were implemented during the 2006-2007 school year using Performance Matters. All LA, math, and science benchmarks at the elementary, middle, and high school level will be administered during the 2007-2008 school year. A new part-time data entry and analyst position for benchmark data and Performance Matters has been created and filled.
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Appendix C: DCPS Acceptable Use and Internet Safety Policy for Staff

THE BOARD OF EDUCATION OF DORCHESTER COUNTY ACCEPTABLE USE OF ELECTRONIC EQUIPMENT, FACILITIES, SERVICES, AND INTERNET SAFETY POLICY

It is the general policy of Dorchester County Public Schools that computer systems and network services are to be used as any other instructional medium. Standards of conduct and use appropriate to an instructional setting are expected of all users. Therefore, computer systems and network services are to be used in a responsible, efficient, ethical, and legal manner in accordance with the mission of the Dorchester County Public Schools. Users of any Dorchester County Public Schools' computer system or network must acknowledge their understanding of the general policy and guidelines as a condition of use.

Use of the Dorchester County Public Schools' computer systems and networks is a privilege, not a right. Failure to adhere to this policy and administrative procedures may result in suspension or revocation of system or network access. Willful or intentional misuse could lead to disciplinary action or criminal penalties under applicable state and federal law.

Provisions:

- 1. Acceptable uses of Dorchester County Public Schools' systems or networks are activities, which support learning and teaching. System or network users are encouraged to develop uses which meet their individual educational needs and which take advantage of the system or network functions.**
- 2. Unacceptable uses of Dorchester County Public Schools' systems or networks include, but are not limited to:**
 - a. Violating the rights to privacy of students or employees of Dorchester County Public Schools, or others outside the school system.**
 - b. Using profanity, obscenity, or other language, which may be offensive to another user.**

- c. **Violating United States copyright law.**
- d. **Plagiarizing, which is the taking of someone else's words, ideas, or findings and intentionally presenting them as your own without properly giving credit to their source.**
- e. **Using the system or network for personal financial gain or for any non-school commercial or any illegal activity.**
- f. **Attempting to degrade or disrupt system or network performance or unauthorized entry to and/or destruction of computer systems and files.**
- g. **Re-posting personal e-mail communications without the author's prior consent.**
- h. **Revealing home phone numbers, addresses, or other personal information.**
- i. **Making personal purchases or unauthorized orders using the Dorchester County Board of Education name.**
- j. **Accessing, downloading, storing, or printing files or messages that are sexually explicit, obscene, or that offend or tend to degrade others. The administration invokes its discretionary rights to determine such suitability.**
- k. **Accessing, downloading, storing, or printing files or messages related to illegal activities, substances, and/or devices which are not permitted by law or by Dorchester County Board of Education Policy and Procedures.**
- l. **Downloading or copying information on to disks, CDs, hard drives or other media without prior teacher approval.**

3. The staff of Dorchester County Public Schools will be responsible for:

- a. **Teaching students the Dorchester County Public Schools Policy and Procedures for system and network services.**
- b. **Supervising and guiding student access to system and network services to ensure that each student adheres to the appropriate use guidelines.**

- c. **Installing and monitoring “technology protection measures” that block or filter Internet access to inappropriate sites which are obscene, contain pornography, or are harmful to minors.**
4. **The following people are entitled to use the network:**
- a. **All Dorchester County Public Schools staff and other employees as directed by appropriate authority.**
 - b. **All Dorchester County Public Schools students under the supervision of a staff member and/or parent/guardian.**
 - c. **Others who request Guest Accounts from the network or system administrator. These requests will be reviewed on a case-by-case basis and will be granted, if warranted, as needs and resources permit.**
5. **Dorchester County Public Schools makes no express or implied warranties for the Internet access it provides. Dorchester County Public Schools cannot completely eliminate access to information that is offensive or illegal and residing on networks outside of the Dorchester County Public Schools system. The accuracy and quality of information obtained cannot be guaranteed. Dorchester County Public Schools will not guarantee the availability of access to the Internet and will not be responsible for any information that may be lost, damaged, or unavailable due to technical or other difficulties. Information sent or received cannot be assured to be private.**

Dorchester County’s Implementation of the Acceptable Use Policy

- 1. **Installation of Surf Control across the entire network**
- 2. **Each Internet request is checked against Surf Control’s list of acceptable and unacceptable sites as well as DCPS personalized lists to ensure that students as well as staff are not able to access inappropriate sites.**
- 3. **This filtering tool is active 100% of the time on all DCPS computers that are used by students as well as staff.**

Appendix D: DCPS Acceptable Use and Internet Safety Policy for Students

THE BOARD OF EDUCATION OF DORCHESTER COUNTY ACCEPTABLE USE OF ELECTRONIC EQUIPMENT, FACILITIES, SERVICES, AND INTERNET SAFETY POLICY

It is the general policy of Dorchester County Public Schools that computer systems and network services are to be used as any other instructional medium. Standards of conduct and use appropriate to an instructional setting are expected of all users. Therefore, computer systems and network services are to be used in a responsible, efficient, ethical, and legal manner in accordance with the mission of the Dorchester County Public Schools. Users of any Dorchester County Public Schools' computer system or network must acknowledge their understanding of the general policy and guidelines as a condition of use.

Use of the Dorchester County Public Schools' computer systems and networks is a privilege, not a right. Failure to adhere to this policy and administrative procedures may result in suspension or revocation of system or network access. Willful or intentional misuse could lead to disciplinary action or criminal penalties under applicable state and federal law.

Provisions:

- 1. Acceptable uses of Dorchester County Public Schools' systems or networks are activities, which support learning and teaching. System or network users are encouraged to develop uses which meet their individual educational needs and which take advantage of the system or network functions.**
- 2. Unacceptable uses of Dorchester County Public Schools' systems or networks include, but are not limited to:**
 - a. Violating the rights to privacy of students or employees of Dorchester County Public Schools, or others outside the school system.**

- b. Using profanity, obscenity, or other language, which may be offensive to another user.**
- c. Violating United States copyright law.**
- d. Plagiarizing, which is the taking of someone else’s words, ideas, or findings and intentionally presenting them as your own without properly giving credit to their source.**
- e. Using the system or network for personal financial gain or for any non-school commercial or any illegal activity.**
- f. Attempting to degrade or disrupt system or network performance or unauthorized entry to and/or destruction of computer systems and files.**
- g. Re-posting personal e-mail communications without the author’s prior consent.**
- h. Revealing home phone numbers, addresses, or other personal information.**
- i. Making personal purchases or unauthorized orders using the Dorchester County Board of Education name.**
- j. Accessing, downloading, storing, or printing files or messages that are sexually explicit, obscene, or that offend or tend to degrade others. The administration invokes its discretionary rights to determine such suitability.**
- k. Accessing, downloading, storing, or printing files or messages related to illegal activities, substances, and/or devices which are not permitted by law or by Dorchester County Board of Education Policy and Procedures.**
- l. Downloading or copying information on to disks, CDs, hard drives or other media without prior teacher approval.**

3. The following people are entitled to use the network:

- a. All Dorchester County Public Schools staff and other employees as directed by appropriate authority.**

- b. All Dorchester County Public Schools students under the supervision of a staff member and/or parent/guardian.
 - c. Others who request Guest Accounts from the network or system administrator. These requests will be reviewed on a case-by-case basis and will be granted, if warranted, as needs and resources permit.
4. Dorchester County Public Schools makes no express or implied warranties for the Internet access it provides. Dorchester County Public Schools cannot completely eliminate access to information that is offensive or illegal and residing on networks outside of the Dorchester County Public Schools system. The accuracy and quality of information obtained cannot be guaranteed. Dorchester County Public Schools will not guarantee the availability of access to the Internet and will not be responsible for any information that may be lost, damaged, or unavailable due to technical or other difficulties. Information sent or received cannot be assured to be private.

I have read the *BOARD OF EDUCATION OF DORCHESTER COUNTY ACCEPTABLE USE OF ELECTRONIC EQUIPMENT, FACILITIES, SERVICES, AND INTERNET SAFETY POLICY*. By signing this form I communicate that I understand and will follow the policy.

Student Signature _____ Date _____

Printed Name _____

Appendix E: DCPS Criteria for Selection of Instructional Software

Section 300 INSTRUCTION Policy Code 300

360.6 Criteria for Selection of Instructional Software

Purpose: Instructional software is an important resource for both teachers and students. Instructional software should be selected to help students increase their understanding of the curriculum and to improve student achievement.

- All instructional software used in the Dorchester County Public Schools (DCPS) must go through an evaluation process to determine the appropriateness of using the software to meet curricular goals. The Curriculum Office will facilitate the process of software evaluation and will maintain a listing of “Approved Instructional Software,” a list of “Not Approved Instructional Software,” and a list of “Software Pending Approval.”
- Software should not be installed on DCPS computers for instructional use until it has been approved.
- Any staff member may request that a software program be evaluated.

Definition:

Educational Software is defined by Dorchester County Schools as any digital entity that can be used, reused, or referenced during technology-supported learning. Examples of educational software include multimedia, instructional, and software tools. Educational software that will be selected by Dorchester County Public Schools will

- Support DCPS curriculum
- Match the instructional purpose and readiness of students with which it will be used
- Foster differentiated instruction/learning
- Encourage self-assessment
- Be adaptable to student needs (COMAR 13A.05.02.13H and Section 508)
- Present material in a variety of formats
- Model research-based strategies
- Provide scaffolding, when needed
- Provide activities that require application, analysis, synthesis, and evaluation
- Foster creativity

Selection Process:

1. Check current lists of “Approved Instructional Software,” “Not Approved Instructional Software,” and “Software Pending Approval.” (Available at... or through the technology liaison.)
2. Complete and submit “Request for Evaluation of Instructional Software Form” to the Curriculum Office. (Available at... or through the technology liaison.)
3. The program will be tested for compatibility with DCPS hardware and for compliance with the provisions of COMAR 13A.05.02.13H (Form ISA - 1). Results will be sent to the Curriculum Office and/or the person requesting the evaluation.
4. If a program is compatible and in compliance it must be evaluated by members of a software committee using the “Instructional Software Evaluation Form (ISA- 2 and ISA - 3).
5. Committee results will be forwarded to the Office of School Improvement for appropriate signature.
6. The program will be placed on the appropriate list.

General Guidelines:

- Members of the Educational Technology Steering Committee will meet to evaluate software proposed for selection. Software evaluation will be convened in a timely manner following a request for evaluation.
- Curriculum facilitators, working with school personnel and technology liaisons will distribute instructional software.
- Software installation is the responsibility of the DCPS technicians under the direction of the Technology Office.
- Training in the use of instructional software and curriculum integration will be provided at the county and school level.
- All school software shall be inventoried and housed in a central location with a procedure for checkout. Library media specialists, administrators, teachers, and technology liaisons will work together to ensure accuracy.
- The Office of School Improvement will maintain a listing of “Approved Instructional Software,” “Software Pending Approval,” and a list of “Not Approved Instructional Software.” Software may be approved for specific grade levels. See the technology liaison for licensing agreements and approval of titles specific to the grade level or content.

Appendix F: Bibliography

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<http://www.setda.org/web/guest/maximizingimpactreport>

Appendix G: Acknowledgements

The Dorchester County Public School System would like to acknowledge the individuals listed below who were instrumental to the revision of the Dorchester County Public Schools in the Digital Age: Technology & Learning Implementation Plan. Your generous time and expertise have created a plan that will transform our classrooms into a collaborative environment focused teaching and learning in the digital age.

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Gary McCabe, Assistant Superintendent of Administration
Art Renkwitz, Educational Technology Infusion Specialist
Dorothy Rinehart, Facilitator
Patricia Vickers, Facilitator
Henry Wagner, Assistant Superintendent of Instruction

The Educational Technology Steering Committee:

Stephanie Adams, South Dorchester School
Candace Allebach, Sandy Hill Elementary School
Linda Blackmon, North Dorchester High School
Fran Brannock, Assistive Technology Specialist
Kim Castle, Mace's Lane Middle School
Theresa Connors, Warwick Elementary School
James Gallagher, Cambridge-South Dorchester High School
Cindy Houghtaling, Choptank Elementary School
Krista Kolb, Maple Elementary School
Mark Lowrie, North Dorchester Middle School
LeAnn McWilliams, Information Technology Manager
Carol Sleeper, Vienna Elementary School
John Tomey, Hurlock Elementary School
Steve Willey, North Dorchester High School