
Pennsylvania Department of Education



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
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Educational Technology Report

Monday, October 13, 2008

Entity: Marple Newtown SD
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Core Purpose

Mission

To provide state of the art educational opportunities for all students in a safe, healthy and effective learning environment through a collaborative commitment involving students, families, staff and community

Vision

1. Learning is meaningful and relevant
2. Providing opportunities which maximize potential of students and staff
3. Building collaboration amongst all stakeholders
4. Respecting individual differences and honoring student interests
5. Ensuring availability of and access to necessary resources

Shared Values

- Students are entitled to a safe, caring learning environment which provides for interpersonal relationships, healthy lifestyles, leading-edge resources and highly-qualified staff.
- All students can learn.
- It is the responsibility of the district to provide an innovative and secure physical environment to maximize excellence in education.
- It is essential to recruit, retain and revere high quality staff.
- Student preparation for participation in the 21st Century is a priority.
- Education of our youth occurs through the supported leadership of all stakeholders.
- Collaboration between parents, educators and the community plays an integral role in student success.

Needs Assessment

History & Background

The Marple Newtown School District is a suburban Philadelphia school District in Delaware County, Pennsylvania. There are approximately 3,500 students enrolled in grade K-12. The District consists of 4 elementary, 1 middle and 1 high school. In addition, there is a Central Administration/Transportation office.

The District maintains a wide area network that supports data, voice, and video among the buildings. In addition, the District is part of a metropolitan area network that connects all 15 member Districts through the Delaware County Intermediate Unit. Internet service is provided by Widener University and the District participates in the Federal E-rate program, which provides discounts for Internet service and voice communications. The data center primarily consists of the Windows Server operating system and desktops/laptops have been standardized on the current Windows client. E-mail is provided to all staff via Microsoft Exchange and staff have access to their e-mail anywhere there is an Internet connection, through Exchange's Web Access. Numerous Information Systems are in place, including student (ProSoft), financial and human resources (ProSoft), special education (Cleartrack), transportation (VersaTrans), food service (PCS), library (Follett), curriculum (TechPaths), and instructional (Plato, Study Island, Kid/Teen Biz, Earbics, Read Naturally, to name a few). Staff development opportunities are provided year-

round in the District's technology training lab and many staff avail themselves of the numerous training opportunities provided by the IU and local Colleges and Universities.

Evaluation

In November 2002, the National Center of Education Statistics released the results of a three year educational technology survey conducted by educators, consultants and technology personnel. The report, "Technology in Schools: Suggestions, Tools and Guidelines for Assessing Technology in Elementary and Secondary Education," provides a framework for guiding District leaders in "assessing the need for, and the effects of, technology in schools." The document centers around seven (7) key areas: Technology Planning and Policies, Finance, Equipment and Infrastructure, Technology Applications, Maintenance and Support, Professional Development and Technology Integration.

Technology Planning and Policies

The key questions in this area are:

- Are there technology policies?
- Is there a technology plan?
- Is the plan being implemented?
- Is the plan being evaluated?

Finance

The key questions in this area are:

- How does your school district compare in technology expenditures with others in your state?
- How much was spent in the past academic year for instructional and administrative equipment purchases?
- How much was spent for instructional and administrative applications and software?
- How much was spent for maintenance and support?
- How much was spent for instructional and administrative professional development?
- How much was spent for connectivity and infrastructure?

Equipment and Infrastructure

The key questions in this area are:

- Is equipment present in instructional settings?
- Is equipment available for use by students?
- Is equipment available for use by teachers?
- Is equipment available for use by administrators and support staff?
- Does the infrastructure have the capacity to support the school's technology needs?

Technology Applications

The key questions in this area are:

- Do the school or district's instructional applications support teaching and learning standards across the curriculum?
- Is there software support for technology tool skill development?
- Does the school/district use technology applications to improve communication?

- Does the school/district have appropriate software and systems to support primary administrative functions?
- Are the applications in use evaluated for effectiveness?

Maintenance and Support

The key questions in this area are:

- Are resources and processes in place to maintain school technology?
- Are personnel available to provide technical support?

Professional Development

The key questions in this area are:

- What technology-related training and/or professional development do staff receive?
- What are the goals, methods, incentives and content of technology-related training and/or professional development for staff?
- How are training and/or professional development for staff evaluated?

Technology Integration

The key questions in this area are:

- Are teachers proficient in the use of technology in the teaching/learning environment?
- Are students proficient in the use of technology in the teaching/learning environment?
- Are administrators and support staff proficient in the use of technology in support of school management?
- Is technology integrated into the teaching/learning environment?
- Are technology proficiencies and measures incorporated into teaching and learning standards?
- Are technology proficiencies and measures incorporated into student assessment?
- Is technology incorporated into administrative processes?
- Is technology proficiency integrated into the evaluation of instructional and administrative staff?

Data

To evaluate the technology in the District and develop strategies to help the District achieve its goals over the next six years, a significant amount of data was gathered. A perception survey was administered to students, staff, parents and community members. Students, teachers and parents also had the opportunity to participate in the Speak Up 2008 survey. In addition, the Technology Action Plan Team performed a SWOT (Strengths, Weakness, Opportunities and Threat) analysis.

Technology Planning and Policies

The Marple Newtown School District has existing policies such as Acceptable Use, Copyright, and Website Use and Linking. A recognized need exists for the existing policies to be reviewed and revised as necessary. In addition, the leadership is aware that to keep pace with changing technology, new policies such as eDiscovery, Electronically Stored Information Retention, Data Breach, Donation of Technology Equipment, and Cell Phone Use must be created and maintained. The Technology Action Plan Team cited lack of policies/procedures (77%) as a weakness in the District.

A survey was conducted to evaluate staff perceptions regarding the implementation level of the previous plan's objectives. The survey was done with the Technology Action Team representing the staff and administration of the District. The members were asked to rate the District's ability to

achieve the objective during the past three years. The scale provided was from zero (0), meaning not begun to five (5), meaning fully implemented. The results follow:

Objective	0	1	2	3	4	5	No Opinion or Don't Know
Technology standards will be reviewed and integrated into existing curriculum where applicable and curriculum written to ensure mastery of the standards, where necessary.	27%	13%	13%	20%	20%	0%	7%
Applications that provide remediation, early intervention or enhancement for all learners will be explored and implemented.	7%	0%	7%	33%	40%	0%	13%
Technology resources will be equally distributed, readily accessible and sufficient to meet the curricular and administrative needs of students & staff.	20%	7%	33%	20%	20%	0%	0%
The District will provide innovative staff development opportunities to increase the technology capacity of the faculty.	0%	7%	47%	27%	13%	0%	7%
Faculty will pursue initiatives to increase the use of videoconferencing and the Internet in the classroom.	13%	20%	60%	7%	0%	0%	0%
Adequate management attention and financial resources will be dedicated to technology every year, in every future budget.	21%	14%	36%	29%	0%	0%	0%
Faculty will be given adequate support, including training and staff assistance, to be effective at teaching with technology.	0%	14%	43%	36%	7%	0%	0%
Special education staff will use the District-wide information management system for the creation of IEPs and to track student progress.	0%	0%	21%	14%	14%	14%	36%
All middle and high school teachers will store and manage student grades and attendance using the District-wide information management system.	0%	0%	7%	7%	36%	36%	14%
Value-added assessment software (i.e. PAVAAS, TetraData, etc.) will be implemented K-12 to facilitate data-drive decision making.	21%	21%	7%	14%	7%	0%	29%
The District will explore and provide expanded remote learning opportunities via distance learning and/or video conferencing technologies.	36%	21%	21%	0%	7%	0%	14%
The District infrastructure will be maintained and upgraded as needed in order to improve communication, share data, eliminate bandwidth competition and eliminate redundancy.	7%	21%	0%	43%	14%	0%	14%
The District will explore all channels of communication for enhanced learning opportunities and improved communication with all stakeholders.	7%	14%	0%	29%	36%	0%	14%
All personnel will use the District-wide email	0%	0%	0%	0%	36%	64%	0%

system to communicate within and among schools, offices and the community.							
Teachers will use District-supported voice messaging system to enhance communications with parents.	0%	0%	14%	7%	36%	29%	14%

Finance

Currently the District funds technology initiatives primarily through the use of local funds. These local funds are supplemented by Federal (Title) funding and E-rate, as well as a philanthropic organization known as the Tiger Foundation. Unfortunately, the trend for educational technology funding does not paint a good picture. Since 2001, Federal funding for educational technology programs has declined 12%. This is mostly attributed to No Child Left Behind legislation, which has caused legislators to focus on test scores and accountability. This focus has affected federal and state funding decisions, without regard for the impact technology has on student achievement and their ability to compete in a society that demands 21st Century skills. According to the Consortium for School Networking, "[n]early half (48 percent) of all school leaders surveyed cite long-term planning and budgeting issues as a key challenge to technology use. Cumulatively, technology budgets have been stuck in neutral for the last three years, with school leaders in more than six in 10 districts (62 percent) reporting that their technology budgets have remained unchanged or decreased....more school leaders report 'significant decreases' (18 percent) than 'significant increases' (14 percent) in budget outlays [for technology]." Ninety-two percent (92%) of the Technology Action Plan team identified "lack of funding for technology initiatives" as a weakness in the District. Of all the weaknesses identified, funding was chosen as the greatest weakness in the District.

Currently, there is no data available for comparison of Marple Newtown School District to comparable institutions in- and out-of-state. However, data collected in preparation of this document indicates a clear need. One parent commented "I wish the children had more computer access and at an earlier age. More, please. I feel we are way behind other districts in the area." A survey of the Marple Newtown community revealed thirty-two percent (32%) of the respondents would label the District "technology poor." When asked, staff overwhelmingly responded that funding of technology initiatives is a concern.

Equipment and Infrastructure

When surveyed, students were very enthusiastic about technology and its use in their educational lives. Asked if "in my class we get to use computers," 55% of elementary students and 69% of middle school students either agreed or strongly agreed. Only 10% and 7% (respectively) strongly disagreed. Elementary and middle school students also recognize "using the computer helps me learn," with 70% and 85% (respectively) of respondents agreeing or strongly agreeing. Unfortunately, 58% of elementary and 52% of middle school students agreed or strongly agreed with the statement "we don't get enough time to use technology." When high school students were asked 61% of students said "in my classes, time is spent using computers." When professional staff were asked their level of agreement with the statements "I believe student achievement can increase through the use of computers" and "I believe student achievement can increase through the use of varied technologies," 89% and 91% (respectively) strongly agreed or agreed. However, as evidenced by comments, access and availability are an issue: "I think we are behind with our technology at the high school level", "Technology is severely lacking in the buildings", and "...disheartened by the lack of technological devices available to me in my classroom. I am at a disadvantage over my cohorts from other districts." The action team identified strengths: network stability (84%), computer lab availability (85%), implementation of interactive whiteboards (77%); and a weakness: not everyone has access to the same resources (92%).

Technology Applications

The District maintains a very diverse collection of applications (125+) deployed through a variety of methods: local install, network install, and web-based. Sixty-one percent (61%) of the Action Team identified "too many different applications across the District" as a weakness. One of the other issues that affects technology operations is the lack of interoperability between those applications. Sixty-two percent (62%) of the Action Team identified "lack of data sharing/warehousing" as a weakness. This has a direct impact on the ability to make informed decisions about instruction.

Maintenance and Support

The District currently employs a Director of Technology, Coordinator of Student Applications, Systems/Network Administrator, and Manager of Computers. In addition, the elementary buildings each have a part-time Technology Aide (30 hours - 10 months), the middle school has a full-time (10 month) Technology Aide, and the high school has a part-time (30 hours - 10 months) and full-time (10 month) Technology Aide. A new equipment budget of \$150,000 and replacement/repair line item of \$50,000 is allocated annually. An electronic ticketing system is in place to receive, categorize and dispatch assignments for providing technical support to staff. Forty-six percent (92%) of the Action Team agreed or strongly agreed with the fact that the implementation of the Service Desk for work orders was a strength and it tied for 1st place when ranking what the District's greatest strength in the area of technology. Administration has recognized a need for reorganization in the Technology Department to better meet the needs of the District. In addition, when surveyed, 47% of the Action Planning Team strongly agreed with the statement that an "undefined building technology support role" was a weakness.

Professional Development

The Manager of Computers has the primary responsibility for insuring that staff receive the technology training that is required. Working with key staff, such as Keystone Technology Integrators, the Professional Development Committee and Technology Department, this person identifies needs and offers one-on-one or group sessions throughout the year. Ninety-three percent (93%) of the Technology Action Plan team agreed or strongly agreed with "training opportunities" as being a strength in the District. It was also noted that respondents felt two weaknesses existed: "training opportunities are not differentiated and specific" (70%) and "there is not enough time and funding for training" (76%).

Technology Integration

The largest technology integration effort in the District, Classrooms for the Future, was recognized as a strength in the District by sixty-nine percent (69%) of the Action Team. The Team (84%) also identified the lack of a K-12 technology curriculum as a weakness and that traditional scheduling (69%) hampers technology use. Two other impediments to integration were identified: lack of technology management in the classroom (70%) and no collaboration opportunities/shared resources (69%). Additionally, the District currently lacks proficiencies, measurement and evaluation at all levels of operation.

Guidance

The Strategic Plan Steering Committee was asked to provide each action team with suggestions of what should be considered as they deliberated and developed their plans. Below are the items suggested by the group, as well as the Action Team's level of agreement with each, when polled.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Provide hardware (interactive whiteboards,	58%	25%	17%	0%	0%

printers, peripherals, wireless, etc.)					
Better software (business, instruction, assessment, etc.)	33%	50%	17%	0%	0%
Training/staff development	67%	33%	0%	0%	0%
Set definitive timelines in action plans	50%	42%	8%	0%	0%
Technology should impact all District facilities	42%	58%	0%	0%	0%
Improve infrastructure	75%	25%	0%	0%	0%
Obtain appropriate monetary resources	100%	0%	0%	0%	0%
Hire appropriate staff/achieve appropriate staffing levels	92%	8%	0%	0%	0%
Find business partnerships to help support financial needs and initiatives	50%	33%	17%	0%	0%
Greater technical support	42%	33%	25%	0%	0%
Proper evaluation for new technology prior to purchase/adoption	75%	25%	0%	0%	0%
Integrate IT systems with security systems	67%	17%	17%	0%	0%

Conclusions

The Marple Newtown School District is excited about the prospect technology has in impacting education and engaging students. The foundation upon which that use is built - staff development, infrastructure, access - requires significant investment and improvement. We believe that the needs assessment data echo the 7 key areas identified by NCES and require the District to focus on:

1. Policies and procedures that support educational and administrative endeavors
 2. Adequate funding
 3. Increased access to functional and appropriate technology for students, educators, staff and administration
 4. Consistent, research-based applications across the District that allow data aggregation so staff can make informed educational decisions
 5. Improvement in the technology support structure of the District
 6. Technology standards to assess, diagnose and prescribe training (to develop knowledge and skills in using technology tools) and/or professional development (to understand and apply technology in instruction and school management) for all staff
 7. Invisible incorporation of technology resources and technology-based practices in the daily routines, work and management of the District.
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Moving Forward

Progress in any endeavor is made when all stakeholders are aware of and share in the mission, vision and beliefs of an organization. In support of the District-wide mission, vision and beliefs statement, the Technology Department has created the following:

Vision Statement

Technology is changing the way we live and work and it will continue to evolve. Technology has the power to enhance the teaching and learning process, to stimulate creativity and self-discovery and to allow people to communicate more effectively, to work more efficiently, to solve problems and to access and analyze information.

Our vision is that technology will build a learning community where:

Students are engaged in a challenging curriculum that is focused on inquiry-based, hands-on learning. Students will be comfortable using technology and use it to take responsibility for their own educational success;

Teachers use technology to support all learning across the curriculum. They function as coaches, mentors, advocates and managers of information. Through on-going, comprehensive professional development, all teachers are knowledgeable and have the skills to fully integrate technology into a challenging and interdisciplinary curriculum which addresses students', specific needs, developmental levels and learning styles;

Staff facilitate the work of the school community by using technology to support teaching and learning;

Administration leverages technology to automate processes, thereby allowing more of the school's energy and resources to be focused on student education;

Parents are part of the student's educational process 24 hours a day. Parents are as comfortable with technology as their students and they use it to monitor student progress, communicate with teachers, staff, and administrators, and supplement classroom learning at home;

Community members recognize the value of education and their role in supporting such a worthwhile endeavor.

Mission Statement

The mission of the MNSD Technology Department is to optimize the technology ecosystem to achieve maximum student performance and operational efficiency.

Guiding Principles

- Technology is a tool to enhance District operations
- Technology needs to meet educational and business process needs
- Reliable video, voice and data systems are critical
- Well-trained employees are key to success
- Standards, policies and procedures are necessary and must be consistent with the goals of the District

Goals and Strategies

Goal: Curriculum

Description: To provide innovative standards-based curriculum, instructional strategies and assessments which enable students to communicate, collaborate and think critically.

Strategy: Data Driven Decision Making and Instruction

Description: Improve academic rigor and performance for all students using data driven decision making and instruction.

Activities:

Activity	Description	
Data Warehousing	The District will continue to use and enhance its use of a centralized data warehouse for assessment, tracking and performance analysis.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$175,000.00

Strategy: Technology & Curriculum

Description: Increase student learning through appropriate integration of technology into classroom instruction. An effective teaching and learning environment includes technology tools to develop problem solving, critical thinking, decision making, research, communication and life skills for all students.

Activities:

Activity	Description	
Classroom Management	Provide and support tools that empower staff to manage technology tools used in their instructional spaces. Also, provide software/hardware at the District level that allows the Technology staff to monitor and maintain technology tools.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$203,000.00

Activity	Description	
Curricular Resources	Insure appropriate technological resources for all students and staff are present, available, and accessible.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$700,000.00

Activity	Description	
Curriculum Development	Insure appropriate staff from the Technology Department actively participate in the planning of new or modification of existing curriculum, including the process of evaluating resources.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Digital Content	Continue to provide digital content (i.e. photos, videos) sources (i.e. Discovery Education, Power Media Plus, etc.) aligned to State standards to help staff engage students in learning.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$84,000.00

Activity	Description	
Information Literacy and Cyber Safety	Establish an Information Literacy and Cyber Safety framework K-12 based on current research to include items such as copyright law, fair use, skills for evaluating content found on the Web, and safety awareness training. Provide training for staff to insure framework is a part of applicable lessons.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Instructional Support	Provide appropriate information technology resources and technical support needed for the effective integration of technology in daily classroom instruction. Provide staff development to insure staff are self-sufficient users of technology.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$70,000.00

Activity	Description	
Resource Center	Continue to develop the training lab into a resource center as a District-wide facility equipped with appropriate information technology resources to be utilized as a training, evaluation and resource center. Supplement this with an online learning community for staff to share ideas and resources.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$70,000.00

Activity	Description	
Student	Explore the potential for establishing a group of select students to assist staff in	

Technology Team	the use and help develop the District's technology infrastructure. If feasible, develop, train and maintain a Student Technology Team for that purpose.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Technology Standards	Develop a K-12 technology curriculum that incorporates Pennsylvania and National standards and is integrated as a part of all curriculum areas, with specific benchmarks for each grade level.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Goal: Facilities

Description: To make available secure, healthy, and attractive facilities that provide an adaptable and functional educational environment for instructional practice and mastery learning.

Strategy: Infrastructure Needs

Description: To upgrade or renovate the Marple Newtown School District buildings and grounds to meet all current and foreseeable infrastructure needs.

Activities:

Activity	Description	
Communications	Voice and data communications, including but not limited to wired and wireless lines, will be supported and used, as necessary, to sustain the educational and operational needs of the District. Systems will be monitored and reviewed for effectiveness and efficiency, and change recommendations will be made as appropriate.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$431,200.00

Activity	Description	
Network Backbone	Provide and maintain physical technology infrastructure for all instructional, administrative and support areas.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$2,425,000.00

Activity	Description	
Wireless Campuses	In support of mobility as a valuable educational tool, the District will explore and implement as appropriate, wireless access on its campuses.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$298,200.00

Goal: MATHEMATICS

Description: At least 56% of all students will be proficient in Mathematics, as measured by the annual state-wide PSSA assessments.

Strategy: Grade level appropriate math

Description: Integrate grade appropriate mathematics vocabulary.

Activities:

Activity	Description	
Instructional Software Systems	Staff will continue to utilize and expand the use of web- and computer-based applications (such as Study Island and PLATO) proven to diagnose and remediate student math skills in preparation for success on high stakes tests, such as the PSSA exam.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$122,500.00

Goal: Public Relations

Description: To increase internal and external communication highlighting district news and accomplishments.

Strategy: External Stakeholders

Description: Foster relationships between the school district and the components of the community it serves.

Activities:

Activity	Description	
Television Studio	Support and upgrade the production studios in the District to provide quality internal and external programming. Expand programming to multiple distribution media such as, but not limited, cable TV, Internet and hardcopy (i.e. tape, optical).	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$59,000.00

Strategy: Web Presence

Description: A uniform presence on the Internet provides community members, parents, students, and staff with a consistent message.

Activities:

Activity	Description	
Education Portal	Continue to provide and expand the use of an Internet-based technologies to inform parents and students of progress, as well as provide electronic learning communities for classes.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$195,000.00

Activity	Description	
Website Consolidation	Develop a content management system which consolidates all MNSD-related websites into a single portal, allowing individual users to manage their own content through an approval process, as necessary.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$153,000.00

Activity	Description	
Website Evaluation	Evaluate all web sites associated with the Marple Newtown School District. Insure compliance with all District policies and procedures.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Goal: READING

Description: At least 63% of all students will be proficient in Reading, as measured by the annual state-wide PSSA assessments.

Strategy: Strengthening Literacy K-12

Description: Increase student achievement in literacy through increases curricular rigor and options K-12.

Activities:

Activity	Description	
Instructional Software Systems	Staff will continue to utilize and expand the use of web- and computer-based applications (such as Achieve 3000) proven to accelerate reading comprehension, vocabulary, writing proficiency and performance on high stakes tests, such as the PSSA exam.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$252,700.00

Goal: Staff Development

Description: To provide meaningful and differentiated staff development for all employees to enhance the education and performance of our students.

Strategy: Technology

Description: Seamlessly integrate technology into the work of our staff and students.

Activities:

Activity	Description	
Leadership Cadre	Develop, train and maintain a Technology Leadership Cadre comprised of staff to create, practice and share technology integrated lessons and best practices. Will also provide training targeting professional development needs of the staff. Continue to encourage staff to apply to be Keystone Technology Integrators.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Strategy: Understanding by design

Description: The faculty will use the Understanding by Design Model as a guide to curriculum design and development using the district approved 7 year curriculum cycle timeframe.

Activities:

Activity	Description	
Curriculum Mapping	Continue to provide, support and expand the use of Curriculum Mapping software to insure curriculum is aligned to State standards, positively impacting student performance on PSSA exams. Provide staff the ability to electronically record lessons plans and share best practices.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$159,000.00

Goal: Technology

Description: To provide the resources to support informational and instructional technologies to enhance student performance and district operations.

Strategy: Connectivity and Infrastructure

Description: Provide an information technology infrastructure which supports the needs of all students and staff. The District uses a variety of infrastructure options to allow users to transfer voice, video and data. This strategy addresses the ability to interconnect information technology resources and users.

Activities:

Activity	Description
Computers	Develop, implement and monitor a 5 year review cycle for the acquisition and disposal of desktop and laptop computers.

Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$2,500,000.00

Activity	Description	
Connected Classrooms	Technologies will be used to encourage collaboration between classrooms both within and outside the District. Technologies include, but are not limited to: WAN, MAN, Internet, Video Conferencing, and Internet2	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$1,328,320.00

Activity	Description	
Disaster Recovery	Continue to implement, monitor and revise the District Disaster Recovery protocols for all information technology resources to insure continued operation in the event of a critical outage.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$84,000.00

Activity	Description	
Hardware Inventory	Maintain, update and review an annual inventory of hardware. Evaluate hardware use for educational impact and continued use. Provide adequate server resources with appropriate power protection.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$160,000.00

Activity	Description	
Remote Access	Evaluate the capabilities for remote access to online information resources from within and outside the District.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description
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Service Desk	Continue to provide, develop and monitor the efficiency of the Service Desk in providing communication and support to staff.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$72,000.00

Activity	Description	
Software Standards	Maintain, update and review the inventory of software. Annually review the standardized list of supported software and upgrade as necessary.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Staff Review	Develop a long-range staffing plan and review staffing levels and needs annually, making necessary recommendations to the Administration and Board.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Video Distribution	Utilize existing IP network to provide broadcast and "DVR"-like functionality to every instructional space for educational broadcast television such as Cable in the Classroom programming.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$355,000.00

Strategy: Educational and Administrative Applications

Description: Maximize the use and efficiency of available and emerging technology in the management and operational processes of the District. Technology has the potential to positively impact all aspects of District operations from efficient grade reporting to effective facility management. The available and emerging technologies must be continually evaluated and explored for maximum benefit.

Activities:

Activity	Description	
Business Office & Human Resources	Continue to support the use of the Financial Information and Human Resource Information System applications. Monitor use for effectiveness and efficiency and make recommendations for replacement, as necessary.	

Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$65,700.00

Activity	Description	
Centralized Library Systems	Continue to provide, support and update Library Information System that allows students and staff to locate and manage library resources electronically.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$90,000.00

Activity	Description	
Data Exchange	Explore and implement a system to improve the capability of current and future information systems to communicate and exchange data with each other.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$74,000.00

Activity	Description	
Electronic Grading and Reporting	Continue to support the use of electronic grading and reporting at the secondary level. Investigate and if able, expand to the elementary buildings.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$30,500.00

Activity	Description	
Electronic Records Management	Establish District policy and procedures for handling ESI (electronically stored information) in accordance with local, state and federal guidelines. Identify staffing, equipment and material needs. Implement and maintain solution.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$105,000.00

Activity	Description

Food Services	Continue to support the use of the Food Service Information system. Monitor use for effectiveness and efficiency and make recommendations for replacement, as necessary.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Online Learning Community	Investigate, create and maintain connected learning opportunities for staff and students, including but not limited to distance learning, video conferencing, web-based instruction, and learning management systems.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Operations and Transportation	Continue to support the use of the Operations and Transportation Information System applications. Monitor use for effectiveness and efficiency and make recommendations for replacement, as necessary.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Productivity Software	Provide the necessary server and desktop software to enable educational and operational activities.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$600,000.00

Activity	Description	
Special Education & Pupil Services	Continue to support the use of the Special Education Information System applications. Monitor use for effectiveness and efficiency and make recommendations for replacement, as necessary.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Student Management	Continue to support the use of the Student Information Management system. Monitor its use for effectiveness and efficiency and make recommendations for replacement, as necessary.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$74,020.00

Strategy: Evaluation and Planning

Description: Anticipate, plan and direct the use of technology and technological resources. Planning requires anticipating the emergence of future technologies and opportunities. Each new initiative must be evaluated for suitability with current needs and the ability to upgrade, expand or adapt to future needs.

Activities:

Activity	Description	
ITAC Formation	Establish an Information Technology Advisory Council to provide recommendations, feedback and monitor the technology plan implementation.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Purchasing	Continue to implement and monitor the process for evaluating and approving all information technology resources prior to purchase. Evaluate and update systems specifications as needed.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Security	Continue to audit and monitor existing systems for security issues. Establish and enforce appropriate policies and procedures that insure the integrity of information technology resources and the data contained therein. Include security as the overriding factor when reviewing expansion of current systems or new purchase requests. Security includes, but is not limited to: endpoint protection, web filtering and firewalling.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$130,500.00

Activity	Description	
Technology Standards	Develop District technology standards for all staff. Develop a process for assessing technology skill sets. Provide appropriate professional development opportunities for all staff related to their role in student learning and improving student achievement. Include appropriate technology use as a component in staff evaluation processes.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$0.00

Activity	Description	
Trends and Issues	Leaders who have an involvement in technology must be knowledgeable and kept apprised of emerging technologies and issues. Technology staff will attend conferences, participate in trainings and/or join professional organizations that are related to technology, education, curriculum and/or management.	
Person Responsible	Timeline for Implementation	Resources
Joseph Violanti	Ongoing	\$30,000.00

Staff Development

Before developing a staff development plan, it is necessary to define what staff development is and set some ground rules. In the context of technology, staff development represents the learning activities for District staff that prepare them to use technology in the school setting. Included are activities such as:

- familiarization with the operation of equipment, software and District resources
- development of proficiency in the use of technology resources to carry out District tasks
- utilize software and applications in the management of school activities, whether instructional or administrative
- integrate technology into teaching, learning and administrative processes

Again, in the context of technology, staff development applies not just to teachers, but is explicitly understood to extend to administrative and support staff whose jobs have changed and will continue to change due to the infusion of technology in the District. It includes support for teachers and staff as they apply technology to their evolving practices - from lesson plans and curriculum integration to recordkeeping and administrative functions. It is an ongoing process that cannot be satisfied with one-time training in a particular technology.

Key Question #1: What technology-related training and/or staff development do staff receive?

Indicators:

Technology-related training and/or staff development

- Total hours of staff development received by instructional staff in the most recent academic year
- Hours of technology-related staff development received by instructional staff in the most recent academic year
- Percentage of hours of technology-related staff development to total hours of staff development received by instructional staff
- Hours of staff development received by administrative and support staff in the most recent academic year
- Percentage of hours of technology-related staff development to total hours of staff development received by administrative and support staff
- Percentage of staff meeting the minimum technology standards, as defined by ISTE and/or District-established standards, in the most recent academic year

Key Question #2: What are the goals, methods, incentives and content of technology-related training and/or staff development for staff?

Indicators:

Goals and content of technology-related staff development for instructional staff

- Existence of a written goal statement for technology-related training/staff development for instructional staff
- Technology-related content areas covered in training and/or staff development for instructional staff in the most recent academic year

Methods and incentives of technology-related staff development for instructional staff

- Delivery means used for technology-related training and/or staff development for instructional staff
- Percentage of total hours of technology-related staff development provided to instructional staff through various means
- Incentives provided for technology-related staff development to instructional staff

Goals and content of technology-related staff development for administrative and support staff

- Is there a written goal statement for technology-related staff development for administrative and support staff?
- Technology-related content areas covered in staff development for administrative and support staff in the most recent academic year

Methods and incentives of technology-related staff development for administrative and support staff

- Delivery means for technology-related staff development for administrative and support staff
- Percentage of total hours of technology-related staff development provided to administrative and support staff through various means
- Incentives provided for technology-related staff development to administrative and support staff

Key Question #3: How are training and/or staff development for staff evaluated?

Indicators:

Training in evaluating instructional staff

- Administrators and/or curriculum leaders receive training in evaluating instructional staff technology proficiency or extend of integration of technology into the curriculum
- Existence of evaluation criteria for effects of training and/or staff development for instructional staff

Training in evaluating administrative and support staff

- Administrators receive training in evaluating administrative and support staff technology proficiency
- Existence of evaluation criteria for effects of training and/or staff development for administrative and support staff

In the past, the Technology staff worked with the Professional Development Committee to develop and offer technology-related training to the staff. Sessions were offered after-school and during the Summer, with both group and one-on-one delivery. As new applications or systems were purchased, technology-literate staff were identified to be trained. A "train-the-trainer" model was used to provide subject matter experts in the buildings, as well as lessen the burden on the Technology Staff.

For the duration of this plan, the MNSD Technology and Professional Development communities need to re-evaluate the effectiveness of their training methodology, as it relates to technology. Staff come to the District with varying degrees of technology-literacy, but all need to use technology in their daily work. A change to staff development practices (as it relates to technology) needs to be evaluated and implemented. Since staff development is an instructional exercise, these new practices should follow sound instructional techniques, such as KNL (what I KNOW, what I NEED to know, what I LEARNED). The first segment in the process allows staff to demonstrate what they know, as it relates to technology. From there, targeted training allows staff to increase (remediation) their knowledge and/or expand (new learning) their competencies. Once they have received the training, the third segment is demonstrated in their work product. This methodology allows the staff to apply higher-order thinking skills to their use of technology. Rather than follow a simple "screen-by-screen shot" of instructions, staff benefit from the ability to construct meaning from the training and a deeper understanding of the technology. This eliminates the fear, uncertainty and doubt when product versions change or a completely new product is implemented.

In addition to looking at what is delivered, technology staff development must be evaluated for how and when it is delivered. Many Districts have found success with technology academies - concentrated staff development around a single or group of related technologies, with multiple follow-ups and demonstrated application to the employee's work. Supplemental materials should be provided for anytime, anywhere learning for staff to refer to and/or use to refresh knowledge. In addition, staff development needs to be an integral part of the implementation of any new systems or technologies and considerable time must be dedicated before, during and after its implementation. Lastly, a comprehensive tool should be implemented for evaluation and improvement of provided staff development opportunities.

Budget

Summary: Potential Funding Distribution

Funding Source	2009-2010	2010-2011	2011-2012	Total
010 - ADMINISTRATIVE BUDGET	\$1,345,110.00	\$1,500,150.00	\$1,474,450.00	\$4,319,710.00
eRATE	\$40,960.00	\$40,960.00	\$40,960.00	\$122,880.00
TOTAL	\$1,386,070.00	\$1,541,110.00	\$1,515,410.00	\$4,442,590.00

Goal: Curriculum

To provide innovative standards-based curriculum, instructional strategies and assessments which enable students to communicate, collaborate and think critically.

Data Driven Decision Making and Instruction	2009-2010	2010-2011	2011-2012	Total	Funding Source
Data Warehousing	\$25,000.00	\$25,000.00	\$25,000.00	\$75,000.00	010 - ADMINISTRATIVE BUDGET

Technology & Curriculum	2009-2010	2010-2011	2011-2012	Total	Funding Source
Classroom Management	\$15,000.00	\$15,000.00	\$15,000.00	\$45,000.00	010 - ADMINISTRATIVE BUDGET
Classroom Management	\$15,000.00	\$15,000.00	\$15,000.00	\$45,000.00	010 - ADMINISTRATIVE BUDGET
Curricular Resources	\$300,000.00	\$200,000.00	\$100,000.00	\$600,000.00	010 - ADMINISTRATIVE BUDGET
Digital Content	\$12,000.00	\$12,000.00	\$12,000.00	\$36,000.00	010 - ADMINISTRATIVE BUDGET
Instructional Support	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	010 - ADMINISTRATIVE BUDGET
Resource Center	\$10,000.00	\$10,000.00	\$15,000.00	\$35,000.00	010 - ADMINISTRATIVE BUDGET

TOTAL	\$387,000.00	\$287,000.00	\$192,000.00	\$866,000.00	
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Goal: Facilities

To make available secure, healthy, and attractive facilities that provide an adaptable and functional educational environment for instructional practice and mastery learning.

Infrastructure Needs	2009-2010	2010-2011	2011-2012	Total	Funding Source
Communications	\$24,000.00	\$24,000.00	\$24,000.00	\$72,000.00	010 - ADMINISTRATIVE BUDGET
Communications	\$20,000.00	\$20,000.00	\$20,000.00	\$60,000.00	010 - ADMINISTRATIVE BUDGET
Communications	\$9,600.00	\$9,600.00	\$9,600.00	\$28,800.00	eRATE (Secondary)
Communications	\$8,000.00	\$8,000.00	\$8,000.00	\$24,000.00	eRATE

					(Secondary)
Network Backbone	\$125,000.00	\$175,000.00	\$175,000.00	\$475,000.00	010 - ADMINISTRATIVE BUDGET
Wireless Campuses	\$25,000.00	\$47,000.00	\$33,500.00	\$105,500.00	010 - ADMINISTRATIVE BUDGET
TOTAL	\$211,600.00	\$283,600.00	\$270,100.00	\$765,300.00	

Goal: MATHEMATICS

At least 56% of all students will be proficient in Mathematics, as measured by the annual state-wide PSSA assessments.

Grade level appropriate math	2009-2010	2010-2011	2011-2012	Total	Funding Source
Instructional Software Systems	\$17,500.00	\$17,500.00	\$17,500.00	\$52,500.00	010 - ADMINISTRATIVE BUDGET
TOTAL	\$17,500.00	\$17,500.00	\$17,500.00	\$52,500.00	

Goal: Public Relations

To increase internal and external communication highlighting district news and accomplishments.

External Stakeholders	2009-2010	2010-2011	2011-2012	Total	Funding Source
Television Studio	\$15,000.00	\$8,000.00	\$8,000.00	\$31,000.00	010 - ADMINISTRATIVE BUDGET
Web Presence	2009-2010	2010-2011	2011-2012	Total	Funding Source
Education Portal	\$15,000.00	\$25,000.00	\$30,000.00	\$70,000.00	010 - ADMINISTRATIVE BUDGET
Website Consolidation	\$15,000.00	\$25,000.00	\$30,000.00	\$70,000.00	010 - ADMINISTRATIVE BUDGET
TOTAL	\$45,000.00	\$58,000.00	\$68,000.00	\$171,000.00	

Goal: READING

At least 63% of all students will be proficient in Reading, as measured by the annual state-wide PSSA assessments.

Strengthening Literacy K-12	2009-2010	2010-2011	2011-2012	Total	Funding Source
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Instructional Software Systems	\$36,100.00	\$36,100.00	\$36,100.00	\$108,300.00	010 - ADMINISTRATIVE BUDGET
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TOTAL	\$36,100.00	\$36,100.00	\$36,100.00	\$108,300.00	
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Goal: Staff Development

To provide meaningful and differentiated staff development for all employees to enhance the education and performance of our students.

Understanding by design	2009-2010	2010-2011	2011-2012	Total	Funding Source
Curriculum Mapping	\$10,500.00	\$28,000.00	\$28,000.00	\$66,500.00	010 - ADMINISTRATIVE BUDGET

TOTAL	\$10,500.00	\$28,000.00	\$28,000.00	\$66,500.00	
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Goal: Technology

To provide the resources to support informational and instructional technologies to enhance student performance and district operations.

Connectivity and Infrastructure	2009-2010	2010-2011	2011-2012	Total	Funding Source
Computers	\$200,000.00	\$300,000.00	\$400,000.00	\$900,000.00	010 - ADMINISTRATIVE BUDGET
Connected Classrooms	\$32,400.00	\$32,400.00	\$32,400.00	\$97,200.00	010 - ADMINISTRATIVE BUDGET
Connected Classrooms	\$108,000.00	\$108,000.00	\$108,000.00	\$324,000.00	010 - ADMINISTRATIVE BUDGET
Connected Classrooms	\$26,000.00	\$26,000.00	\$26,000.00	\$78,000.00	010 - ADMINISTRATIVE BUDGET
Connected Classrooms	\$12,960.00	\$12,960.00	\$12,960.00	\$38,880.00	eRATE (Secondary)
Connected Classrooms	\$10,400.00	\$10,400.00	\$10,400.00	\$31,200.00	eRATE (Secondary)
Disaster Recovery	\$12,000.00	\$12,000.00	\$12,000.00	\$36,000.00	010 - ADMINISTRATIVE BUDGET
Hardware Inventory	\$30,000.00	\$20,000.00	\$45,000.00	\$95,000.00	010 - ADMINISTRATIVE BUDGET
Service Desk	\$9,600.00	\$10,200.00	\$10,800.00	\$30,600.00	010 - ADMINISTRATIVE

					BUDGET
Video Distribution	\$50,000.00	\$100,000.00	\$50,000.00	\$200,000.00	010 - ADMINISTRATIVE BUDGET

Educational and Administrative Applications	2009-2010	2010-2011	2011-2012	Total	Funding Source
Business Office & Human Resources	\$9,400.00	\$10,300.00	\$11,300.00	\$31,000.00	010 - ADMINISTRATIVE BUDGET
Centralized Library Systems	\$15,000.00	\$15,000.00	\$15,000.00	\$45,000.00	010 - ADMINISTRATIVE BUDGET
Data Exchange	\$9,800.00	\$9,800.00	\$9,800.00	\$29,400.00	010 - ADMINISTRATIVE BUDGET
Electronic Grading and Reporting	\$5,500.00	\$5,500.00	\$5,500.00	\$16,500.00	010 - ADMINISTRATIVE BUDGET
Electronic Records Management	\$25,000.00	\$25,000.00	\$10,000.00	\$60,000.00	010 - ADMINISTRATIVE BUDGET
Productivity Software	\$85,000.00	\$95,000.00	\$105,000.00	\$285,000.00	010 - ADMINISTRATIVE BUDGET
Student Management	\$10,560.00	\$11,600.00	\$12,800.00	\$34,960.00	010 - ADMINISTRATIVE BUDGET

Evaluation and Planning	2009-2010	2010-2011	2011-2012	Total	Funding Source
Security	\$21,750.00	\$21,750.00	\$21,750.00	\$65,250.00	010 - ADMINISTRATIVE BUDGET
Trends and Issues	\$5,000.00	\$5,000.00	\$5,000.00	\$15,000.00	010 - ADMINISTRATIVE BUDGET

TOTAL	\$678,370.00	\$830,910.00	\$903,710.00	\$2,412,990.00	
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GRAND TOTAL	\$1,386,070.00	\$1,541,110.00	\$1,515,410.00	\$4,442,590.00	
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Monitoring

Every stakeholder has responsibility for monitoring the implementation and execution of this plan. The Director of Technology is responsible to the Superintendent and Board of School Directors,

for overseeing the goals, strategies and activities in this plan. Currently, there is a standing item on the monthly Board Meeting Agendas that provides a way to report on the progress being made for each of the activities. The Director of Technology will also establish a Technology Council. This new concept will regularly bring together stakeholders (community, parents, staff, students, educators, and administrators) to evaluate the progress of each activity toward completion. In addition, recognizing that the technology landscape is a constantly changing environment, this group will provide suggested adaptations for keeping strategies and activities current. The Director of Technology will also work closely with the Operations Department to insure that technology applications can be successfully carried out, given a building's infrastructure. Lastly, the Administrative Council and Superintendent's Cabinet will be instrumental in providing feedback from their various perspectives.

Teacher proficiency, growth, technology integration and implementation at the building level will be monitored by the Director of Secondary Education, Director of Elementary Education and the Building Administrators. Technology, for the sake of technology, will not be used for demonstration of integration. Not every assignment or classroom objective requires the use of technology. Instead, technology integration and implementation will be determined by the curriculum. When there is an alignment between technology and curriculum, teacher lesson plans will include technology components. Staff proficiency with technology will be monitored by their supervisor, as it relates to their job function. Monitoring techniques can include, but will not be limited to: informal/formal observations, surveys, evaluations, and checklists.

Strategies and activities that relate to students will be monitored numerous ways. Data will be collected from formal and informal observations in the classroom, as well as through the use of electronic portfolios which will illustrate representative work of the student. Data will also be collected from the various information systems used in the District. These data will provide benchmark information for the next stage in the technology planning cycle: evaluation. In addition, short technology reviews with students and staff will help track and monitor the utilization of technology and guide the District in tailoring its technologies to what works and utilize the knowledge of best practices.

In addition to internal monitoring, state and federal reports such as the Pennsylvania Technology Inventory and Federal Title programs that involve technology are completed and submitted to the appropriate agency.

Evaluation

The most important aspect of the technology planning process is ongoing evaluation of its results and impact. Effective evaluation will force the District to rethink and adapt objectives, priorities and strategies as implementation proceeds. Continuous evaluation also facilitates making changes if aspects of the plan are not working. The technology plan evaluation will be driven by data and correlation. The ultimate measure of success for this plan will be student achievement. Data collected throughout the process will be used to match student achievement with the goals of this plan. Each activity has a corresponding evaluation criterion which will be used for reporting progress. All of this information will be used to insure that all professional, administrative and support staff have the proficiency and expertise required to understand and apply technology to promote student achievement. When an activity meets or exceeds its evaluation criteria, those best practices will be shared District-wide. When an activity falls short of expectations, the Technology Department, Advisory Council and other stakeholders will "circle back" to evaluate and remediate the situation. Surveys, observations and interviews with staff and students will be conducted to help gather this information.

Technology implementation is a continuous process that adapts to the District's changing circumstances. It is expected that significant cultural change will occur at the organization level. Seven key variables identified by Barbara Means (Means, et al., 1993) will be the blueprint for systemic change, all related to student engagement. These variables include: (1) authentic and

multidisciplinary tasks, (2) interactive participation, (3) collaboration, (4) heterogeneous grouping, (5) exploration, (6) teacher as facilitator, (7) and performance-based assessment. The design on the technology integration program is paramount to student success, not technology integration as an outcome. As standards are set for student learning, the vision must include digital-age skills that reflect the world in which the student lives. The district will rely heavily on research and modeling of best practices that have personal, professional, and societal relevance. In an effort to support cultural changes, educators must be armed with digital proficiency that moves beyond the mechanics into infusion. For this to occur, the delivery system of professional development must focus on instructional strategies that infuse technology. The culture must reflect an environment where all members know how to respond to the changing and challenging circumstances of the 21st Century by responding with innovative, reinvented, and creative solutions. Skills to find, interpret, and utilize new ideas require a curriculum that moves beyond prepackaged instruction and allows for the genesis of instructional techniques. Design will be driven by five major reasons to infuse technology into the curriculum as defined by Roblyer and Edwards (2000): (1) motivation, (2) unique instructional capabilities, (3) support of new instructional approaches, (4) increased teacher productivity, and (5) required skills for a digital information age. The organizational culture must be one that requires professional productivity and responsibility to insure social, ethical, and legal issues presented by the use of technology are studied and addressed without bias. In addition, equity issues including socioeconomic, gender, special needs, and racial/ethnic must be considered as well equity in general on the community level. Finally, the organization must insure robust access through a commitment of technology resources that has sustainability, support, and is fiscally responsible.