
Pennsylvania Department of Education



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 MARKET STREET
HARRISBURG, PA 17126-0333

Educational Technology Report **Monday, September 15, 2008**

Entity: Montrose Area SD
Address: 80 High School Road
Montrose, PA 18801-9501
Phone:
Contact Name:

Core Purpose

Mission

The mission of the Montrose Area School District is to:

- provide a challenging, comprehensive educational experience that recognizes and accommodates students' individual abilities and differences;
- encourage students to think logically and to learn cooperatively as well as independently;
- prepare students to take an active and responsive role in a global, technological society;
- promote a lifelong spirit of inquiry that addresses emotional, physical, social and intellectual growth;
- encourage students' acceptance of themselves and others in a safe and nurturing environment; and
- encourage students to become active participants in the community, state and country in which they live.

Vision

The vision of the Montrose Area School District is to provide an exemplary education that promotes individual development, intellectual growth and responsible citizenship in order to prepare its students to address tomorrow's challenges.

Shared Values

The Shared Values for the Montrose Area School District are:

- We believe every individual has worth and should be treated with respect.
- We believe education stimulates inquiry, creativity and cooperation among people.
- We believe the educational environment should be physically and psychologically safe.
- We believe all students deserve a quality education that promotes high academic standards.
- We believe active parent/school partnerships promote quality education.
- We believe learning includes planned activities within and beyond the school setting.
- We believe children are unique and should fully develop their talents and interests.
- We believe quality resources are essential to student learning.
- We believe staff development is essential for quality education.
- We believe opportunities for life-long, independent learning are a shared responsibility among students, parents, staff and the community.
- We believe that appropriate technology should be incorporated in all aspects of the educational process.
- We believe cultural awareness should be promoted in all areas of the curriculum.
- We believe support services are essential to the emotional, intellectual and social needs of students.
- We believe students must be prepared to assume adult roles as responsible citizens.
- We believe mutual benefits are derived from sharing resources among schools and the community.

Needs Assessment

Several key trends affect the integration and utilization of technology in education at the Montrose Area School District. First among these is a marked trend toward greater utilization of the network to provide essential services. The district's reliance on the network, as well as internet access, has grown significantly since the last technology plan, and strategies to ensure greater reliability and scalability need to be considered. Internet bandwidth, while currently meeting our needs, will most likely need to be scaled up within the scope of this plan. Similarly, wide area network (WAN) connectivity between school buildings will certainly need to increase within three years as more services are delivered whether from a central network location at the district's data center or over the internet. We anticipate participation within the Northeastern Pennsylvania Wide Area Network (NEPA WAN) consortium over the summer of 2008. This will precipitate a change to our internet and WAN services provider, which will need to be carefully monitored to ensure that our needs, both current and continuing, are adequately met. The NEPA WAN partnership will also provide the district with access to Internet2, which we look forward to with great anticipation but will need to consider as a part of this plan in order to take greatest advantage of this important learning resource. Further, a formal disaster recovery plan needs to be developed and routinely referenced to insure continuity of services. This disaster recovery protocol should consider not only backups of essential data and hardware systems but also testing of those backup systems as well as procedures for specific scenarios.

Another notable trend that has relevance to future planning includes an increasing saturation of wireless computing, including greater distribution of laptop computers and other mobile devices. We will need to consider infrastructure upgrades to better support a wireless computing environment, such as PoE switches and additional access points. With the district's participation in Classrooms for the Future and a dramatic influx of laptop computers in the classroom, attention must be paid to ensure that large groups of students can log in and out of the network fluidly without large delays for profile loads. We should consider other strategies for encouraging greater ubiquity of computing devices, such as handheld computers or tablet PCs. We should also carefully explore strategies to ensure the sustainability of laptop initiatives by such things as determining the feasibility of replacing textbooks with electronic texts or student laptop purchase programs. We might also be able to replace some of our fixed computing facilities as we see greater access to mobile devices.

We recognize the importance of maintaining awareness, across all staff, of current and emerging trends in technology. This encourages process reform and best practices across all aspects of education in the district. Therefore, it is important to develop strategies to keep people informed through professional development efforts and access to conferences and literature. We should encourage efforts that inform staff not only about technology but also about best practices for effective teaching, including differentiated instruction, grouping, project-based learning, assessment, understanding by design. We can focus on better time management, communication, collaboration, time management and leadership skills. Through these efforts, the technology that supports our goals in education become better understood and stand the best chance of being transcribed into everyday practice.

We need to do a better job of identifying appropriate technology interventions by ensuring a standardized process of software selection. A procedure should be developed that will be used to identify, evaluate and select instructional and administrative software solutions. Historically, software has been subjected to little, if any, critical review and less post assessment. We need to ensure that only the most effective research-proven software is utilized to best affect student achievement, and we need to continuously evaluate that effectiveness to make appropriate recommendations for the continuation of such interventions. This process will enable us to better justify our decisions and ensure consistent application across grade levels and subject areas.

It is clear, based upon survey instruments utilized in the development of this plan, that more opportunities for planning, training and team collaboration are necessary, but time restrictions make the logistics of these difficult or impossible. We can address this need to some degree within our plan by developing technology-based constructs that support group collaboration. We should explore the development of an intranet portal that encourages team development and management at all levels. This tool should include file sharing, email, calendaring, task and project management capabilities and encourage the posting of information.

Also identified by teachers within the assessment instrument was a need for support integrating technology in the curriculum. We are seeing a very positive response to the classroom coach provided through the Classrooms for the Future initiative as a front-line instructional support for teachers. We should carefully examine and evaluate that position to make an informed recommendation regarding the viability of continuing that position beyond the scope of the grant.

Finally, we have seen extremely positive results from greater distribution of classroom technologies such as digital projectors and interactive whiteboards. Within almost every classroom where these technologies have been installed, we witness fundamentally transformative change toward more engaging and enriching instructional practice. We should make every effort to further increase the saturation of these tools across all grade levels.

Goals and Strategies

Goal: 21ST CENTURY CITIZENSHIP

Description: Prepare students to take an active and responsive role in a global, technological society and encourage students to become active participants in the community, state and country in which they live.

Strategy: Provide access to high-quality, relevant technology tools for learning.

Description: Every effort will be made to ensure equitable access to the appropriate technologies for all stakeholders throughout the school district. We recognize that an excellent information technology program is founded upon an exceptionally reliable infrastructure that is scalable and flexible. Continuity of services becomes mission critical as our reliance upon these systems becomes absolute.

Activities:

Activity	Description	
Continue to replace client computers on a 5-year refresh cycle.	Replace approximately 1/5th of all computers each year and ensure that there are no computers in production that are older than five years.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$420,000.00

Activity	Description	
Distribute laptop computers throughout core curriculum areas in grades 9-12.	Participate fully in the distribution and support of laptop computers across English, math, social studies and science as part of the Classrooms for the Future initiative. Develop and implement strategies that support appropriate integrations within each subject area and positively impact student learning outcomes.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start:9/10/2007	\$400,000.00

	Finish: 1/14/2008	
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Activity	Description	
Ensure the reliability and capacity of network resources.	All effort should be made to ensure that network uptime remains at or above 99% and utilization of network resources remain below 80% saturation.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$270,000.00

Activity	Description	
Fully participate in the Northeast Pennsylvania Regional Wide Area Network.	Partner with Intermediate Units 18 and 19 in year three implementation of NEPA WAN by acquiring network services through the chosen vendor (Verizon) and acquiring access to Internet2 connectivity.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start:7/1/2008 Finish: 6/30/2011	\$345,000.00

Activity	Description	
Increase the distribution and access to digital projectors and interactive whiteboards.	Continue to acquire and deploy whiteboards and projectors each year to classrooms that demonstrate a potential for successful and beneficial integration within the curriculum.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$235,000.00

Activity	Description	
Plan for and ultimately upgrade the domain to a new network operating system.	Develop a migration strategy after carefully examining Microsoft's next generation of network operating system. Identify appropriate action plan and perform migration 8 to 12 months after the product come to market. Ensure hardware requirements are addressed. Conduct migration.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start:3/3/2008 Finish: 8/29/2008	\$40,000.00

Activity	Description
Provide a laptop computer for each teacher.	Replace existing desktop workstations assigned to teachers with a laptop computer during the routine replacement cycle.

Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start:8/28/2008 Finish: 8/28/2009	\$75,000.00

Activity	Description	
Provide access to the learning resources available through Internet2.	Acquire port access and connectivity to Internet2 via University of Scranton as part of our participation in NEPA WAN beginning in 2008.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$32,000.00

Activity	Description	
Replace all original domain controllers.	Synchronize a replacement of existing domain controllers with a migration to a new network operating system. Guarantee adequate planning and preparation to provide a smooth transition that interrupts no user services.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start:3/3/2008 Finish: 12/31/2008	\$45,000.00

Activity	Description	
Upgrade network switches to increase bandwidth quality.	Systematically upgrade core and perimeter switches with an eye toward establishing gigabit minimum throughput bandwidth to the desktop.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$35,000.00

Strategy: Provide opportunities for students to acquire and apply technology skills.

Description: Students should be provided with many opportunities to interact with and gain experience using various technologies. These experiences should be both embedded within the regular curriculum and provided via extracurricular initiatives.

Activities:

Activity	Description	
Assess the feasibility of providing additional curriculum offerings in technology similar to the computer repair curriculum (eg. Network+, Cisco or Oracle Academy)	Work with the CAT team for business and computer science to evaluate the current status of the curriculum and determine the need of additional offerings or modifications of existing curricula to provide students with the most viable technology curriculum offerings available. Explore the possibility of incorporating the Oracle or Cisco curricula or expanding the current A+ computer repair to include the Network+ module components.	
Person Responsible	Timeline for Implementation	Resources

Craig Owens	Ongoing	\$0.00
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Activity	Description	
Create fixed computer lab facilities in both elementary schools.	Identify a facility to house a computer lab of at least 25 seats and install computer workstations and network infrastructure to support at least 25 students and an instructor. Include a digital projector and interactive whiteboard.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start: 7/2/2007 Finish: 8/31/2007	\$60,000.00

Activity	Description	
Explore the feasibility of establishing a formal technology education program at the elementary level.	Determine the staffing requirements and scope of curriculum to establish a formal program of instruction in technology for grades K-6. Make a recommendation to the Board of Education.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$120,000.00

Activity	Description	
Explore the feasibility of providing email accounts for all students.	Provide a messaging platform that students can use to communicate with each other and their teachers.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$0.00

Activity	Description	
Form a cohort of student technicians to support the influx of technology laptops into the curriculum at the high school.	Identify 10-20 students and provide dedicated training and supports so that they can provide in-class assistance to teachers and other students and appropriate elevate technical support problems to full time staff.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start: 9/3/2007 Finish: 9/3/2007	\$3,000.00

Goal: ACADEMIC EXCELLENCE

Description: Provide a challenging, comprehensive educational experience that recognizes and accommodates students' individual abilities and differences.

Strategy: Encourage the development of a collaborative learning network.

Description: Explore and develop strategies that support enhanced levels of communication and collaboration within and between various groups across the district.

Activities:

Activity	Description	
Develop a robust intranet for staff and students, rich with collaborative tools	Utilize Microsoft Office Sharepoint Server to create an intranet website that will house websites for formal and ad hoc workgroups (i.e. business office, classroom, guidance office, etc.). The intranet should at minimum be available internal to the district network, but effort should be made to make this resource securely available from outside the network as well. At a minimum, this resource should allow for the posting of documents/media and provide a mechanism to post information (i.e. blog). Effort should be made to encourage strategies to schedule appointments, manage tasks/projects and facilitate discussion.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$15,000.00

Activity	Description	
Maintain high levels of communication between district leaders.	Provide tools for communication to all district administrators - including cell phones and laptop computers.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$36,000.00

Activity	Description	
Provide additional reliable, fast and scalable network storage capacity.	Assess the current network data storage capacity and develop strategies to improve performance and functionality based upon best practice and needs.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$35,000.00

Strategy: Ensure exceptional levels of support for technology throughout the district.

Description: Provide a robust support system including well trained human resources and strategies support the seamless integration of technology in the educational process.

Activities:

Activity	Description	
Explore the feasibility of making the Technology Coach a permanent position.	The effectiveness of the Technology Coach made available through the Classrooms for the Future grant will be analyzed and a recommendation delivered to the Board of Education for consideration of maintaining as a regular staff position in support of classroom integration of technology.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$70,000.00

Activity	Description	
Maintain adequate levels of human resources necessary to support the technology.	Regularly evaluate the adequacy and effectiveness of technical support personnel, as well as its organizational structure, and make recommendations to the technology committee board for changes as determined necessary.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$0.00

Activity	Description	
Provide continuous training for technical support staff.	Provide ongoing opportunities for technical support personnel to participate in formal trainings. Ensure staff members are cross-trained to provide for assured continuity of services.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$75,000.00

Strategy: Ongoing Professional Development

Description:

Activities:

Activity	Description	
Develop a robust collection of professional development materials that are available on the internet via the district website.	Utilize a tool such as Macromedia Captivate to develop interactive multimedia professional development modules that can be easily accessed online. Further develop the help desk knowledgebase to provide additional opportunities for staff to troubleshoot their own problems.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$15,000.00

Activity	Description	
Develop and deliver regular after-school workshops on the integration of technology into instruction.	Ensure that after-school workshops are being offered at all school locations on at least a monthly basis throughout the school year.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$4,500.00

Activity	Description	
Focus on the utilization of MyLearningPlan for the management of all district professional development	Encourage greater utilization of MyLearningPlan by scheduling frequent activities that provide a robust variety of offerings throughout the year. Utilize the forms routing more effectively and encourage teachers to request professional development more	

activities.	frequently.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$10,500.00

Activity	Description	
Identify and enlist the services of outside professional development providers.	Seek interesting outside speakers that can be utilized to motivate and train staff. Emphasis should be given to areas of focus that are defined year to year (eg. differentiated instruction).	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$22,500.00

Activity	Description	
Partner with outside agencies, including colleges/universities and the intermediate unit, to provide professional development opportunities.	Make full use of the partnership opportunities that are available through the intermediate unit and the regional colleges. Encourage participation in the graduate teacher education offerings, including Wilkes University's masters program associated with Classrooms for the Future. Utilize the professional staff at NEIU to assist in the development of online learning modules as well as offering on-site training workshops.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$9,000.00

Strategy: Reevaluate existing administrative software and make necessary upgrades, modifications or additions as determined appropriate.

Description: Identify areas of need and perform needs analysis, identify appropriate software and implement the solutions to improve district administrative operations.

Activities:

Activity	Description	
Evaluate all current administrative software to ensure it meets the needs of the district.	Perform a needs assessment on all current management software currently utilized across the district, including but not limited to transportation, special education, business affairs, and data warehousing. Make appropriate recommendations to the technology committee for actions to replace, upgrade add or eliminate software based upon our current and emerging needs.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$0.00

Activity	Description
Identify and implement a new	Develop a needs analysis of all district operations currently being managed through Edunet (student accounting, transcripts, scheduling, medical, POS,

student information system.	etc.) and conduct a review of currently available best-of-class software. Develop a recommendation for the technology committee and recommend action to initiate a replacement of the student information system(s).	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start:1/1/2008 Finish: 8/22/2008	\$60,000.00

Goal: LIFELONG LEARNING

Description: Encourage students to think logically and to learn cooperatively as well as independently and promote a lifelong spirit of inquiry that addresses emotional, physical, social and intellectual growth.

Strategy: Develop the various skills students will need to become lifelong learners.

Description: Provide opportunities within and without the curriculum for students to get their hands on technology and use it to solve real world problems. Foster the skills necessary to become life-long learners, including self-motivation, critical thinking, problem solving and creativity.

Activities:

Activity	Description	
Improve access to online learning opportunities and explore the feasibility of incorporating online learning within the standard curriculum.		
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$60,000.00

Activity	Description	
Identify a curriculum software or combination of software to best meet the needs of our elementary students.	Form a committee to evaluate our use of Compass software and determine a strategy to implement a curriculum software within two years.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Start:7/2/2007 Finish: 9/1/2008	\$0.00

Activity	Description	
Provide comprehensive training on information literacy skills across all grade levels.	Through continuous involvement in the curriculum review process, ensure that technology skills are infused throughout all grade levels and curricula.	
Person Responsible	Timeline for Implementation	Resources
Craig Owens	Ongoing	\$30,000.00

Staff Development

The Montrose Area School District recognizes the critical importance of coordinated, systematic high-quality professional development in support of technology integration and is committed to providing effective, on-going staff development opportunities. A yearly staff development needs assessment will be utilized as a reference for structuring and targeting instruction on areas of immediate need. While the needs assessment will certainly help guide the professional development content and structure, we will also identify and integrate best practices based on research and knowledge of adult learning styles and effective instruction for education professionals.

The use of MyLearningPlan as a professional development framework will continue. It will be the responsibility of the technology (IT) department to ensure that all certified professionals are provided a MyLearningPlan (MLP) account and provided the necessary instruction to login and effectively use this web-based tool. The needs assessment will annually be delivered through MLP and be required of all teachers during the first week of school. All efforts will be made to ensure that new professional development activities are populated at least bi-weekly at multiple locations through the high school and are available to browse through the MLP course listings. The director of technology and the Classrooms for the Future technology coach will have primary responsibility for ensuring that a robust set of trainings are coordinated and delivered. The building principals as well as key technology-savvy teachers, including Keystones Technology Integrators, in each school building will also play an important role in the delivery of these activities. Most activities will be in the form of after-school workshops. Attention will be given to the language in the pending professional collective bargaining agreement to structure any training within the allowable context defined therein.

Not only is the relevancy of the content provided essential to ensuring we meet the needs of teachers learning to integrate technology but also the availability and timeliness of the information is critical. To this end, the district will develop more extensive online resources including, but not limited to, improving the breadth of content available in an online knowledgebase and developing multi-media tutorial modules using software such as Macromedia's Captivate. We will make these resources available on the district website within proximity to the technical support systems currently in place. This will ensure 24/7 accessibility to needed information related to the software and hardware in use within our classrooms and offices.

We will seek to improve our relationships with education providers such as the Northeastern Pennsylvania Intermediate Unit (NEIU #19) and regional colleges and universities, including Wilkes University. We will not only capitalize on the professional development programs made available to us through our participation in the Classrooms for the Future grant initiative but also encourage our teachers to enjoy the benefit of participating in these activities for college credit through Wilkes University, including the opportunity to pursue a Master's degree within that program. The NEIU will prove a valuable partner by assisting in the development of the online professional development modules with an eye toward making the resources developed available to other schools throughout the region as we plan to participate within the regional wide area network (NEPA WAN).

Further, we will seek to identify high—quality outside professional development providers and explore incorporating professional speakers to motivate and inspire our teachers to think and apply technology in instruction in creative, innovative ways. We have received positive feedback from teachers for programs that have used outside providers and motivational speakers, and we believe it will be successful as we further challenge teachers to incorporate increasingly effective technology into everyday instruction.

Budget

Summary: Potential Funding Distribution

Funding Source	2008-2009	2009-2010	2010-2011	Total
010 - ADMINISTRATIVE BUDGET	\$140,000.00	\$255,000.00	\$0.00	\$395,000.00
020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES	\$368,000.00	\$393,000.00	\$40,000.00	\$801,000.00
050 - CONTINUING PROFESSIONAL EDUCATION SERVICES	\$15,500.00	\$15,500.00	\$0.00	\$31,000.00
340 - REVENUE FOR TECHNOLOGY (EDUCATIONAL AND OTHER)	\$240,000.00	\$40,000.00	\$0.00	\$280,000.00
eRATE	\$91,000.00	\$91,000.00	\$75,000.00	\$257,000.00
TOTAL	\$854,500.00	\$794,500.00	\$115,000.00	\$1,764,000.00

Goal: 21ST CENTURY CITIZENSHIP

Prepare students to take an active and responsive role in a global, technological society and encourage students to become active participants in the community, state and country in which they live.

Provide access to high-quality, relevant technology tools for learning.	2008-2009	2009-2010	2010-2011	Total	Funding Source
Continue to replace client computers on a 5-year refresh cycle.	\$140,000.00	\$140,000.00	\$0.00	\$280,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Distribute laptop computers throughout core curriculum areas in grades 9-12.	\$200,000.00	\$0.00	\$0.00	\$200,000.00	340 - REVENUE FOR TECHNOLOGY (EDUCATIONAL AND OTHER)
Ensure the reliability and capacity of network resources.	\$50,000.00	\$50,000.00	\$0.00	\$100,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Ensure the reliability and capacity of network resources.	\$40,000.00	\$40,000.00	\$0.00	\$80,000.00	340 - REVENUE FOR TECHNOLOGY (EDUCATIONAL AND OTHER) (Secondary)
Fully participate in the Northeast Pennsylvania	\$75,000.00	\$75,000.00	\$75,000.00	\$225,000.00	eRATE

Regional Wide Area Network.					
Fully participate in the Northeast Pennsylvania Regional Wide Area Network.	\$40,000.00	\$40,000.00	\$40,000.00	\$120,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Increase the distribution and access to digital projectors and interactive whiteboards.	\$30,000.00	\$40,000.00	\$0.00	\$70,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Plan for and ultimately upgrade the domain to a new network operating system.	\$25,000.00	\$10,000.00	\$0.00	\$35,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Provide a laptop computer for each teacher.	\$15,000.00	\$60,000.00	\$0.00	\$75,000.00	010 - ADMINISTRATIVE BUDGET
Provide access to the learning resources available through Internet2.	\$6,000.00	\$6,000.00	\$0.00	\$12,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Provide access to the learning resources available through Internet2.	\$10,000.00	\$10,000.00	\$0.00	\$20,000.00	eRATE
Replace all original domain controllers.	\$10,000.00	\$35,000.00	\$0.00	\$45,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Upgrade network switches to increase bandwidth quality.	\$10,000.00	\$25,000.00	\$0.00	\$35,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES

Provide opportunities for students to acquire and apply technology skills.	2008-2009	2009-2010	2010-2011	Total	Funding Source
Explore the feasibility of establishing a formal technology education program at the elementary level.	\$60,000.00	\$60,000.00	\$0.00	\$120,000.00	010 - ADMINISTRATIVE BUDGET
Form a cohort of student technicians to support the influx of technology laptops into the curriculum at the high school.	\$1,000.00	\$1,000.00	\$0.00	\$2,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
TOTAL	\$712,000.00	\$592,000.00	\$115,000.00	\$1,419,000.00	

Goal: ACADEMIC EXCELLENCE

Provide a challenging, comprehensive educational experience that recognizes and accommodates students' individual abilities and differences.

Encourage the development of a collaborative learning network.	2008-2009	2009-2010	2010-2011	Total	Funding Source
Develop a robust intranet for staff and students, rich with collaborative tools	\$5,000.00	\$5,000.00	\$0.00	\$10,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Maintain high levels of communication between district leaders.	\$6,000.00	\$6,000.00	\$0.00	\$12,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Maintain high levels of communication between district leaders.	\$6,000.00	\$6,000.00	\$0.00	\$12,000.00	eRATE
Provide additional reliable, fast and scalable network storage capacity.	\$20,000.00	\$10,000.00	\$0.00	\$30,000.00	020 - CURRICULUM DEVELOPMENT AND

					INSTRUCTIONAL IMPROVEMENT SERVICES
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Ensure exceptional levels of support for technology throughout the district.	2008-2009	2009-2010	2010-2011	Total	Funding Source
Explore the feasibility of making the Technology Coach a permanent position.	\$0.00	\$70,000.00	\$0.00	\$70,000.00	010 - ADMINISTRATIVE BUDGET
Provide continuous training for technical support staff.	\$25,000.00	\$25,000.00	\$0.00	\$50,000.00	010 - ADMINISTRATIVE BUDGET

Ongoing Professional Development	2008-2009	2009-2010	2010-2011	Total	Funding Source
Develop a robust collection of professional development materials that are available on the internet via the district website.	\$5,000.00	\$5,000.00	\$0.00	\$10,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Develop and deliver regular after-school workshops on the integration of technology into instruction.	\$1,500.00	\$1,500.00	\$0.00	\$3,000.00	050 - CONTINUING PROFESSIONAL EDUCATION SERVICES
Focus on the utilization of MyLearningPlan for the management of all district professional development activities.	\$3,500.00	\$3,500.00	\$0.00	\$7,000.00	050 - CONTINUING PROFESSIONAL EDUCATION SERVICES
Identify and enlist the services of outside professional development providers.	\$7,500.00	\$7,500.00	\$0.00	\$15,000.00	050 - CONTINUING PROFESSIONAL EDUCATION SERVICES
Partner with outside agencies, including colleges/universities	\$3,000.00	\$3,000.00	\$0.00	\$6,000.00	050 - CONTINUING PROFESSIONAL

and the intermediate unit, to provide professional development opportunities.					EDUCATION SERVICES
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Reevaluate existing administrative software and make necessary upgrades, modifications or additions as determined appropriate.	2008-2009	2009-2010	2010-2011	Total	Funding Source
Identify and implement a new student information system.	\$30,000.00	\$30,000.00	\$0.00	\$60,000.00	010 - ADMINISTRATIVE BUDGET

TOTAL	\$112,500.00	\$172,500.00	\$0.00	\$285,000.00	
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Goal: LIFELONG LEARNING

Encourage students to think logically and to learn cooperatively as well as independently and promote a lifelong spirit of inquiry that addresses emotional, physical, social and intellectual growth.

Develop the various skills students will need to become lifelong learners.	2008-2009	2009-2010	2010-2011	Total	Funding Source
Improve access to online learning opportunities and explore the feasibility of incorporating online learning within the standard curriculum.	\$20,000.00	\$20,000.00	\$0.00	\$40,000.00	020 - CURRICULUM DEVELOPMENT AND INSTRUCTIONAL IMPROVEMENT SERVICES
Provide comprehensive training on information literacy skills across all grade levels.	\$10,000.00	\$10,000.00	\$0.00	\$20,000.00	010 - ADMINISTRATIVE BUDGET

TOTAL	\$30,000.00	\$30,000.00	\$0.00	\$60,000.00	
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GRAND TOTAL	\$854,500.00	\$794,500.00	\$115,000.00	\$1,764,000.00	
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Monitoring

The Director of Technology for the Montrose Area School District, Craig Owens, will have primary responsibility for monitoring the implementation of this plan. The Director will provide ongoing reports of progress to the district Superintendent as well as provide relevant reports to the Board of Directors. In addition, a formal review will be conducted annually to ensure that progress is being made on each activity in support of the identified strategies and that the plan is amended appropriately to ensure completion of those tasks. The measurable performance assessments associated with each activity will be the measure of progress, and a formative program evaluation will ensure appropriate modification of program details while still maintaining the integrity of the overarching goals.

The technology committee will meet at least quarterly to evaluate the current status of technology plan. The committee will recommend modifications to the technology plan based upon successes and challenges identified and develop additional initiatives as new information regarding our needs arise as well as the development of newer and better technologies are identified. The committee will develop a rubric for overall program evaluation that indicates whether the district has adequately addressed at least the following criteria:

- Accountability
- Quality
- Impact
- Sustainability
- Lessons Learned

The committee will also utilize the model developed for the SEIR*TEC project, based upon Brinkerhoff, Brethower, Hluchyj and Nowakoski (1983) of Western Michigan University to develop this district's evaluation instrument. We will utilize the key elements contained therein as a framework, including evaluation questions, indicators of success, information sources and benchmarks. We will also reference the CAPE evaluation framework.

Evaluation

The technology plan will be evaluated annually. Results of the monitoring and evaluation actions will be utilized to make appropriate adjustments to ensure completion of objectives and effectively address district goals. The types of activities that will be used to fulfill this plan include:

- Staff professional development needs assessment
- Staff technology competencies assessment
- Student technology competencies assessment
- Network monitoring of technology usage
- Parent surveys
- Student surveys
- Staff surveys
- Staff development feedback forms
- Student assessment scores