

Dare County Schools

Technology Plan

Vision

**As we navigate through the 21st century,
Dare County Schools
will utilize technology to enhance the quality
of teaching and to positively impact student
learning and achievement.**

High Student Achievement: Current Situation

Dare County Schools provides a technology program that enables students to learn in ways that were not previously possible. Studies show that the students perform better on achievement tests if they have the technology resources to choose the tools that help them to obtain information in a timely manner, analyze and synthesize information and present in a professional manner. Research indicates the need to move beyond the “integration” of competencies into the curriculum to the transparent use of appropriate technologies to stimulate higher order thinking skills.

Our district is currently using technology to support student achievement by using assessment modules built into instructional programs like Star Reading, Academy of Reading, Novel Star and Harcourt Math. This information is used by the teacher to provide differentiated lessons that meet the needs of the students and move all students toward growth. One of the considerations in adopting a new textbook is the ancillary technology material that comes with the textbook adoption. The CD can be used with the students to assess their skills and provide lessons and practice that is individually paced by the student.

Curriculum based software, like Plato or Academy of Reading that is curriculum based is used by the schools for remediation and intervention to help struggling students to achieve rapid and permanent gains. Our ESL students benefit from ELLIS (English Language Learning Instructional Software) and Rosetta Stone software. These computer programs help students to learn English as a second language and therefore function successfully in school.

Technology in its essence is enrichment. Teachers can enhance any lesson with the wonderful resources provided by the state like NCWISEOWL.ORG, Kaleidoscope, and LearnNC. Students can explore with a web-quest, perform with a multimedia presentation and inform with a web page. Technology truly creates life-long-learners; students soon realize they can research anything by searching on the web. Technology motivates students to chart their own course for learning using their natural curiosity as a guide.

The technology tools available for delivering instruction are dazzling. Our schools use Smart Boards, video projectors, School Pads, DVDs, and Audio Enhancement. Teachers can demonstrate how to use computer programs using the Smart Board and School Pad. Students don't have to go to the blackboard, they can use the School Pad at their desk to show how to solve a math problem and have it projected on the screen for everyone to see. Video projectors replace the “bowling alley” technology of overhead projectors and teachers can easily switch from displaying a multimedia presentation to a DVD showing video and back to an Internet site with historical pictures. Audio Enhancement provides each classroom with a teacher microphone and a student microphone, so that everyone can hear what everyone says, keeping students on task.

We use a host of applications to support student achievement some of which include:

- Ellis
- Harcourt Math
- Accelerated Reading
- Qwizdom
- Plato
- Star Reading

Software is used to assess and benchmark student achievement. Many of our instructional applications have pre-tests and post-tests that teachers use to discover where a student fits in the learning continuum and how many students have mastered the concept and are ready for new instruction. An elementary teacher may use Star Reading or Academy of Reading to determine a student's reading level, measure individual and class growth and forecast results on a standardized tests. Students can complete the computer adaptive assessment in less than ten minutes, and the teacher gets accurate, reliable, norm-referenced scores immediately. In a middle school class, the Career Technical Education teacher will use VoCATS to develop a test bank to reflect the units of instruction. The students score a bubble sheet with their answers and a scanner scores the tests. In the high school advancement center students use Plato for remediation and make-up work. The English as Second Language teacher uses Rosetta Stone to assess any new student's ability with English.

The IMPACT Model for Media and Technology is implemented at different levels in different schools. All of our eleven schools have a technology facilitator on staff except for the Alternative High School: it shares a facilitator with a neighboring school. Among the schools, the technology facilitators have different roles in the school schedule and instructional plan. All of the eleven schools have access to instructional computer labs, networked classroom computers, Internet access and software applications. The numbers of labs per school differ: three schools have two labs, seven schools have one lab, the Alternative High School shares resources with Manteo Elementary School. Our five elementary schools have a modified fixed schedule for the media center and computer lab. The media coordinator and the technology facilitator are part of a special classes rotation that provides planning time for classroom teachers. The middle and high schools have flexible schedules for media centers and computer labs. The media coordinator and the technology facilitator are support personnel for the classroom teachers and students providing help and instruction as needed. The district requires classroom teachers to collaborate with the media and technology people; this is more evident in the flexible scheduled schools than in the fixed scheduled schools. The elementary schools have collaborative planning worksheets to assist with collaboration, since meetings are difficult to arrange with a fixed schedule. Using the Impact Guidelines rubric to rate the degree of implementation in our schools, two of our schools meet the outstanding criteria, seven schools rank at the developing level and two schools are at the minimal level.

Most classrooms have three computers. Some classrooms may have more computers depending on the subject taught and the ability of the teacher to integrate technology into the classroom. One hundred percent of our classrooms have Internet access, in Dare County. Our high schools have access to distance learning classrooms that are connected to the North Carolina Information Highway. Distance learning is used between our high schools to ensure parity among classes offered to high school students. Students can also take advantage of the classes offered by the North Carolina School of Science and Math for more advanced coursework.

The Department of Public Instruction provides several curriculum - based digital resources that enable students to interact with and explore the world. This brings a wealth of information and experiences into the classroom, thus potentially overcoming geographical isolation, physical barriers and economic hardships. Kaleidoscope is a web portal that encourages student's creativity and self direction while developing twenty-first century computer and information skills. Students have classes on how to use NC Wiseowl for research. Some schools use the Wiseowl homepage as the opening page on their school browsers. Many of our teachers have lesson plans on Learn NC. The teacher-on-loan from the DPI has conducted training in the many resources available through Kaleidoscope. The district purchases some digital resources and recognizes the importance of training teachers in how to use these tools. United Streaming Video is an excellent resource recently added. Teachers can use the

extensive library of educational videos for whole class instruction or students can use a video individually at the computer. Ultimately technology is a tool that helps every teacher, and helps every student master basic skills and develops critical thinking and problem solving abilities.

High Student Performance: Strategic Plan

Include at least one strategy or objective that addresses the following:

1. Mathematics/reading scores improvement
2. Classroom use of student resources
3. IMPACT model implementation
4. Computer Skills Test score improvement
5. Computer Skills Curriculum implementation
6. Information Skills Curriculum implementation
7. Technology integration across the curriculum
8. Student distance learning opportunities
9. Assistive technology availability

Strategic Priority 1: High Student Performance*

Strategic Goal: (Please check.)

- Every child ready for school
- Rigorous and relevant academic standards and assessment systems for every student
- Every student masters essential knowledge and skills
- Every student graduates from high school
- Every student a life long learner and ready for work

Objective 1.1 *Improve student performance through collaboration.*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
1.1a <i>Implement shared use of DCS pacing guides K-12. (1, 2, 4, 5, 6, 7)</i>	<i>LAN, Pacing Guides, Scanners, Administration and Faculty members</i>	<i>School-level Administration, Department Chairs, and Technology Facilitators</i>	<i>N/A</i>	<i>N/A</i>	<i>Beginning September 2005 Updated annually in June</i>	<i>Record of approved pacing guides and notebook of pacing guides</i>	
1.1b <i>Continue Computer Skills Curriculum through collaboration with teachers and integrated lesson plans. (3,4,5,7)</i>	<i>Best practices, classroom computers, video projector & school pad</i>	<i>Technology Facilitators, Media Coordinator, Teachers, Administrators</i>	<i>N/A</i>	<i>N/A</i>	<i>Beginning September 2006 and evaluated annually in September</i>	<i>Integrated Lesson Plans Admin observation of technology integrated lessons</i>	

1.1c Investigate and encourage the implementation of the IMPACT model. (3)	Staff development, IMPACT Guideline, Pacing Guides, additional staff	Directors of Instruction, Principals, Technology Facilitators and Media Coordinators	\$55,000 per year	Local and Grants	Beginning August 2007 Evaluated yearly in June	Recognized by DPI as Impact School Teacher self-evaluation Survey	
1.1d Purchase additional licenses and increase implementation of Ellis and Rosetta Software (9)	Required hardware, software and staff development	Director of Instruction, Title I Coordinator, ESL Coordinator		Federal and state	Beginning Nov. 2005 ending Nov. 2006	ESL Coordinator logs increased use in classrooms and school display of licensure	

Strategic Priority 1: High Student Performance*

Strategic Goal: (Please check.)

- Every child ready for school
- Rigorous and relevant academic standards and assessment systems for every student
- Every student masters essential knowledge and skills
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- Every student a life long learner and ready for work

Objective 1.2 Improve student performance on the North Carolina State Writing Test.

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
1.2a Provide resources for writing across the curriculum (2, 7)	Internet, Tech Facilitators, Media Coordinators, DCS Accountability Specialists, Lead writing teacher	School Level Administration, Department Chairs, Lead Writing Teachers, Accountability Specialists	\$0.00	N/A	Beginning September 2005 Reviewed Annually in August	Invoices	

1.2b Provide support for implementation of county writing plan. (2, 7)	Writing applications	Director of Instruction, Lead Writing Teachers, Accountability Specialists	\$0.00	N/A	Beginning September 05 and review annually in June	Staff Development Roster for classes	
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Strategic Priority 1: High Student Performance*

Strategic Goal: (Please check.)

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- Every student a life long learner and ready for work

Objective 1.3 Assist identified students through the use of technology.

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
1.3a Continue to install audio enhancement in all classrooms. (9)	Hardware components and maintenance plan	District Engineer and Technology Department	\$10,000 per year	State technology funds and local funds	Beginning September 2005 ending September 2008	Inventory of components installed	
1.3b Purchase additional licenses and increase use of Kurzweil Software and other software for EC students (9)	Required hardware and software licenses	Exceptional Children Director		Federal Funds	Beginning September 2006, evaluated annually in August per student population	Invoices	

1.3c Continue to offer remediation programs for the computer skills test. (4, 9)	Internet access, hardware and software, DPI resources for remediation	Technology Facilitators, Student Accountability Specialist	\$0.00	N/A	Beginning September 2005 and evaluated annually in March	Computer Competency Test Scores	
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Strategic Goal: (Please check.)

- Every child ready for school
- Rigorous and relevant academic standards and assessment systems for every student
- Every student masters essential knowledge and skills
- Every student graduates from high school
- Every student a life long learner and ready for work

Objective 1.4 *Provide equitable access to student resources across the district.*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
1.4a Increase participation in distance learning courses. (2, 6, 8, 9)	Distance Learning Teachers, Access to NC Information Highway and administrators	Principals and Guidance Counselors	\$28,800.00 per year	State technology funds	September 2005 and evaluate annually in September	Record the number of students participating each year and measure growth in numbers	
1.4b Increase AP offerings through online and distance learning. (2, 8)	Internet, required textbooks and awareness sessions	Director of Instruction, Guidance Counselors and High School Administrators	Tuition costs as needed	Local and state funds	September 2005 and evaluate annually in September	Enrollment records and AP scores	

Strategic Priority 1: High Student Performance*

Strategic Goal: (Please check.)

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Objective 1.5 *Increase student performance on reading and mathematic state assessments.*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
1.5a <i>Encourage use of technology resources that accompany textbooks (1, 2, 7, 9)</i>	<i>Textbook adoption that favors technology resources</i>	<i>Textbook, Coordinator, Director of Instruction and Technology Facilitators</i>	<i>Amount extra over textbook costs</i>	<i>State Funds</i>	<i>September 2005 and evaluated annually in March</i>	<i>Invoices</i>	
1.5b <i>Increase use of existing software (1, 2, 7, 9)</i>	<i>Staff development, computer lab availability, and modeling</i>	<i>Director of Instruction, Principal, Technology Facilitators and Lead Teachers</i>	<i>\$0.00</i>	<i>N/A</i>	<i>September 2005 and evaluate annually in August</i>	<i>Computer Lab schedules and lesson plans</i>	
1.5c <i>Monitor and upgrade existing resources and research availability of new software. (1, 2, 7, 9)</i>	<i>Education Technology Journals, Technology Conferences, Technology Fairs and collaboration with other educators</i>	<i>Technology Facilitators</i>	<i>\$50,000</i>	<i>State Technology Funds</i>	<i>August 2005 and evaluated annually in July</i>	<i>Minutes from meetings of the Technology Department</i>	

1.5d Implement Test Magic for middle school testing (1)	Technology Facilitator, Student Accountability Specialist	Classroom Teachers, Student Accountability Specialist	\$0.00	N/A	September 2005 and evaluated annually in August	Test Magic Test Reports	
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Strategic Priority 1: High Student Performance*

Strategic Goal: (Please check.)

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Objective 1.6 *Promote and establish collaborative themes in each school in the district.*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
1.6a Evaluate current Media/Technology Advisory Committees and establish guidelines for collaboration (3)	Administrators, Teachers and Parents	Media and Technology Personnel	\$0.00	N/A	January 2005 and evaluate annually in January	Written guidelines included in the School Improvement Plan	
1.6b Establish a Media/Technology Advisory Committee at	Administrators, Teachers and Parents	Administrators, Media and Technology	\$0.00	N/A	September 2006 and evaluate	Committee meeting minutes and roster of	

<i>each school to recommend needed resources for media and technology programs. (3)</i>		<i>Personnel</i>			<i>annually in September</i>	<i>attendance</i>	
<i>1.6c Explore funding for stipends/substitutes to provide a collaboration day in each school (3)</i>	<i>Internet access, testing specialist, and technology facilitators</i>	<i>Testing Specialists and Technology Facilitators</i>	<i>\$30,000</i>	<i>State and Federal Grants</i>	<i>January 2006 ending June 2006</i>	<i>List of funding opportunities</i>	

Strategic Priority 1: High Student Performance*

Strategic Goal: (Please check.)

- Every child ready for school
- Rigorous and relevant academic standards and assessment systems for every student
- Every student masters essential knowledge and skills
- Every student graduates from high school
- Every student a life long learner and ready for work

Objective 1.7 *Integrate information skills across all grade levels and subject areas.*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
<i>1.7a Provide professional development on collaboration and integration. (3)</i>	<i>Staff development, observation of other IMPACT schools and conferences</i>	<i>Media and Technology Personnel, Testing Specialist</i>	<i>\$5,000.00</i>	<i>Local</i>	<i>January 2005 and evaluate annually in June</i>	<i>Attendance sign-in and school-wide plans for formal collaboration</i>	

1.7b <i>Implement school-wide plan of collaboration theme in classrooms (3, 6, 7)</i>	<i>Teacher, school-wide collaboration plan</i>	<i>Principals, Assistant Principals, Teachers</i>	\$0	N/A	<i>September 2006 and evaluate yearly in June</i>	<i>Copies of lesson plans used in classroom to implement collaboration theme</i>	
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Today's students need to function in the 21st century. In order to do this they must be able to acquire, evaluate, and use information effectively in a technology intensive environment. Information Literacy Skills emphasize the problem solving, critical and creative thinking, decision making, and cooperative learning that prepare students for the challenges in society. Students need a wider window of opportunity to connect learning with meaningful experiences. This requires collaboration among all classroom teachers, the media specialist and the technology specialist with focus on student involvement, activity and action. With the integration of process with content, today's students will be better educated to live in a democratic society. And that was the original intention of a free public education.

Technology skills are the building blocks that enable today's students to meet the challenges of an unknown future. These skills grow from kindergarten through middle school by integrating activities into the content area. Technology and using applications becomes an intuitive process for students as they truly use technology as a tool in high school, college and professional life.

Healthy Students in Safe, Orderly and Caring Schools: Current Situation

Each school is required to have a Safe School Plan and technology is a vital part of that plan. Dare County Schools administrators, counselors, teachers and staff work to ensure that all individuals are working in a safe, orderly, and caring environment. The advent of technology into site planning and building design has increased the potential for creating this safe environment for teaching and learning. A technology infrastructure that includes integrated security and protection systems, such as telephones in every classroom, warning devices and monitoring cameras, protects individuals and the facility itself.

The real benefit of technology in a safe and orderly educational environment is in the resources it brings into the classroom and school library/media center. Because technology opens doors to the world while simultaneously focusing students on the task at hand, student interest and motivation are heightened while discipline problems are decreased. When students are motivated and successful, they tend to work harder and longer, contributing to the likelihood of higher student achievement. This success fosters a culture in which learning is the expectation and ultimate goal. The high schools and middle schools have Resource Officers, and the Board of Education has implemented a new substance abuse policy for students' grade 7-12. To assist with providing students with safe travel to and from school, school bus drivers are equipped with cell phones and two-way radios. Buses have video cameras on a rotating basis. Administrators also utilize two-way radios to assist in communications around each campus.

Dare County Schools uses SIMS for data management. There is concern that the planned implementation of NCWISE next year will be a difficult transition.

The following list demonstrates the use of technology to provide safety for our students and staff:

- Lobby Guard
- Video surveillance
- Alarm system on entrance
- Two-way radio
- Telephone in classrooms
- Honeywell Fire Monitor
- Phone Master
- Staff identification badges
- Automated substitute finder software
- Maintenance support with My Building Work Order program
- Climate control
- Motion detectors
- Public announcement and bell System
- Video surveillance on the buses
- GPS on the buses

The Child Nutrition Department uses computers and the Point-of-Sale program for managing student accounts and cash payments. The cafeteria uses the school email to communicate with teachers about lunch schedules. The manager uses computer applications to manage inventory and ordering. Lunch menus are published on the district web page and on *Share TV*.

Managing student discipline information is a cumbersome job. The use of technology makes this information more accessible and tracks student behavior in a more efficient way. The SIMS program manages student information and discipline referrals. The schools use Discipline Data Collection with the Department of Public Instruction. Schools use Microsoft Office applications to record and inform parents about discipline measures taken by the school. An Access database is being piloted in one school to track students make up time for unexcused absences.

Dare County Schools stopped participating in the D.A.R.E. program. We currently do not have a program of this kind implemented in our schools.

Healthy Students in Safe, Orderly and Caring Schools: Strategic Technology Plan

Include at least one strategy or objective that addresses the following:

1. School campus security (video, alarms, metal detectors, etc.)
2. School bus security (video, radios, cell phones, etc.)
3. Student and Staff ID systems
4. Student Information/Tracking Systems (SIMS/NCWISE, nutrition, etc.)
5. Internet and email filtering
6. Classroom telephone systems and other communications devices
7. Website use (district, school and classroom)

Strategic Priority 2: Healthy Students in Safe and Orderly and Caring Schools*							
Strategic Goal: (Please check.)							
<input type="checkbox"/> Learning environments inviting and supportive of high student performance							
<input checked="" type="checkbox"/> Schools free of controlled and illegal substances and all harmful behavior							
<input type="checkbox"/> Mutual respect of students, teachers, administrators, and parents							
<input checked="" type="checkbox"/> Adequate, safe education facilities that support high student performance							
Objective 2.1 <i>Student and visitor conduct and behavior will be monitored outside the classroom.</i>							
Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
2.1a <i>Study the feasibility of installing surveillance cameras in halls, playgrounds, and surrounding grounds (1)</i>	<i>Cameras and computer equipment and software</i>	<i>Student Resource Officer, Technology Facilitators, Administrators</i>	<i>\$15,000.00/per school</i>	<i>Local, state, federal</i>	<i>Beginning October, 2005 Ending June, 2009</i>	<i>Report generated from study</i>	
2.1b <i>Maintain & improve security on school</i>	<i>Cameras,</i>	<i>Transportation Director</i>	<i>\$38,000.00</i>	<i>Local</i>	<i>Beginning October, 2005</i>	<i>School bus discipline</i>	

buses, addition of 12 cameras (1)					Ending June, 2006	reports, bus videos, purchase orders for 12 cameras	
2.1c Study the feasibility of installing GPS systems on activity buses (2)	GPS specifications	Transportation Director	\$85,000 for start up cost	Local	Beginning October, 2005 Ending June, 2009	List of installation costs	

Objective 2.2 Student information will be communicated via the implementation of NCWISE							
2.2a Implement NCWISE in every classroom throughout the system (4,1,6)	Computers, high speed connectivity, staff development	NCWISE Coordinator, Administration, Technology Facilitators, Teachers	Supplied by State	State	Beginning October, 2006 Ending June, 2009	NCWISE printed reports	
2.2b Maintain accurate records of school incidents as required by district (4)	NCWISE	Administration, Teachers	No additional funding	N/A	Beginning November 2006 Ending June 2009	Printed school incident summary forms	
Objective 2.3 Maintain and expand current staff ID systems							
2.3a Study the need for additional Lobby Guard systems in schools for staff/visitor sign-in/sign-out (1,3)	Computer, peripherals, and software	Administrators, Technology Department	\$3000.00 per sign in system \$400.00 yearly maintenance	Local	Beginning October, 2005 Ending June, 2009	Written recommendation to school board	

2.3b <i>Research possible funding sources to implement Lobby Guard in each school</i> (1)	<i>Available Grant information</i>	<i>Administration, Technology Department</i>	<i>\$0.00</i>	<i>N/A</i>	<i>Beginning October, 2005</i> <i>Ending June, 2008</i>	<i>List of possible funding sources</i>	
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<i>Objective 2.4 Maintain computer security methods to protect students from unsafe material on the Internet and school system website integrity.</i>							
2.4a <i>Maintain and evaluate security software</i> (5)	<i>LightSpeed</i>	<i>Technology Department</i>	<i>\$6000.00 per year</i>	<i>Local, state</i>	<i>Beginning October, 2005</i> <i>Evaluated yearly in October</i>	<i>Printed reports from Lightspeed</i>	
2.4b <i>Maintain and evaluate the system firewall</i> (1)	<i>Pix Box</i>	<i>Technology Department</i>	<i>\$0.00</i>	<i>N/A</i>	<i>Beginning October, 2005</i> <i>Evaluated yearly in October</i>	<i>Inventory of hardware and firewall reports</i>	

<i>Objective 2.5 Maintain current devices established for school to community and school to home communication</i>							
<i>2.5a Continue to enhance communication by maintaining and upgrading school telephone systems to comply with Safe School Plans (6)</i>	<i>Equipment and software</i>	<i>Technology Department</i>	<i>\$20,000 per year</i>	<i>Local,</i>	<i>Beginning September, 2005 Ending June 2009</i>	<i>Purchase Orders</i>	
<i>2.5b Maintain and evaluate Websites for district, schools and classrooms (7)</i>	<i>Big Medium</i>	<i>Technology Department, Public Relations Committee and Teachers</i>	<i>\$5,000 per year</i>	<i>Local</i>	<i>Beginning October, 2005 Evaluated yearly in October</i>	<i>Operable websites available to view over Internet</i>	

Quality Teachers, Administrators and Staff: Current Situation

Dare County Schools require all faculty and administration to attend technology staff development each school year. Training teachers in the use of applications and technology resources is a priority. We are fortunate that our local government agrees that training is important and funds a local incentive pay.

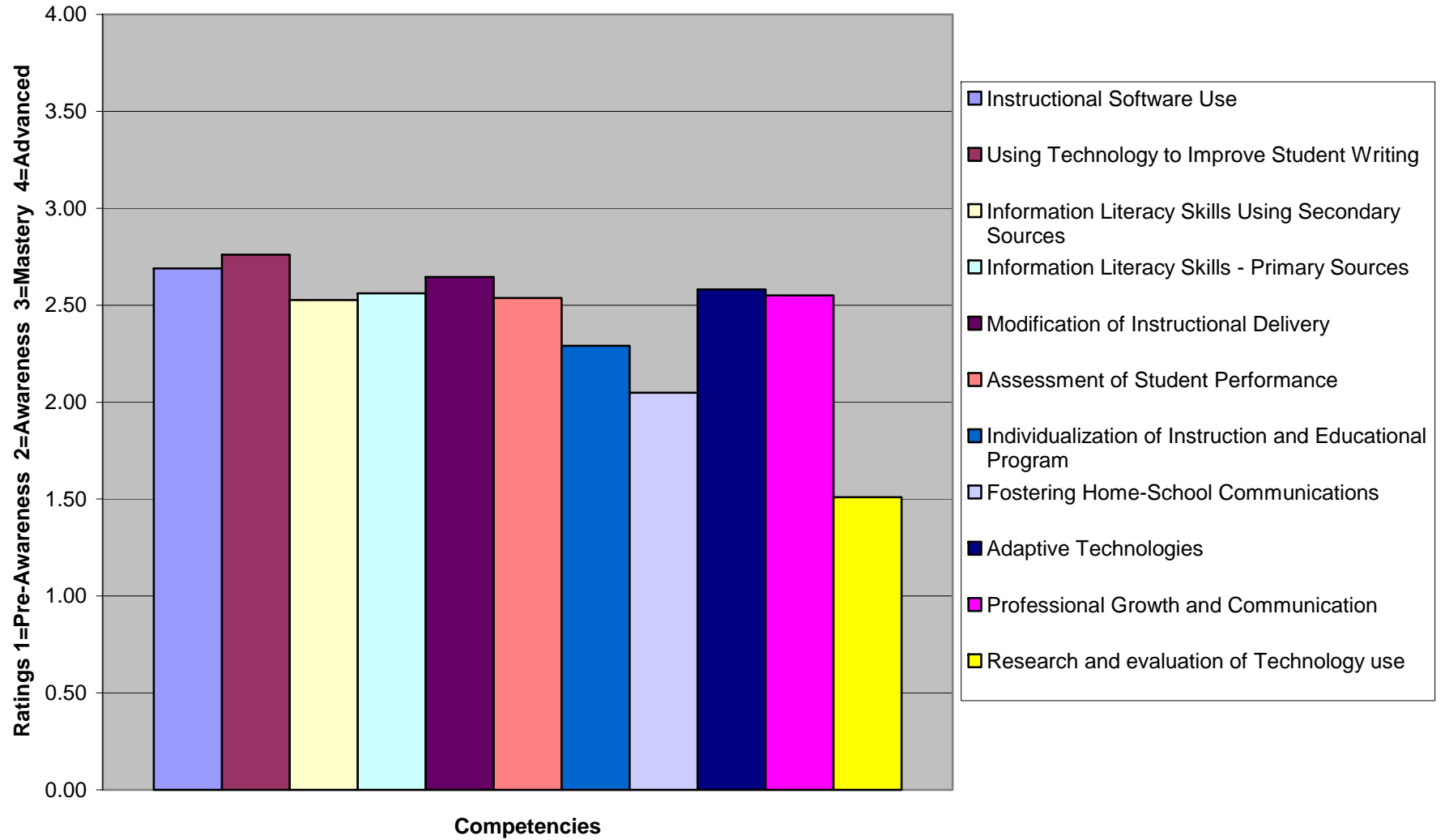
Teachers and students are encouraged to use NC Department of Public Instruction resources. Training for teachers is provided at each school on how to access the resource and how to navigate the web site. The DPI teacher-on-loan came to Dare County and did an excellent job of showing teachers how to navigate the web portal Kaleidoscope. She is very knowledgeable about the DPI resources and helps teachers to use Kaleidoscope for their professional and instructional duties. NC WISE OWL provides free online resources for all stakeholders in Dare County Schools. The NC WISE OWL program ensures that all of our students will have access to quality research tools and curriculum support materials. All of the WISEOWL sources are available for student and parent use at home as well as at school. The state offered training sessions on NC WISE OWL in different locations across the state; Dare County sent two media coordinators to the training. Upon return, they trained the other media coordinators, who trained their staff and students in how to use the NC WISE OWL web site.

LearnNC, a program of the University of NC at Chapel Hill, is a statewide network of educators using the power of the Internet to improve K-12 education in North Carolina. The site offers a wide array of quality resources for classroom instruction and teacher professional development; all are tied to the North Carolina Standard Course of Study. Dare County is fortunate to have a LearnNC county coordinator in our district. She supports the program by sending out emails with updates and new features to all staff on a regular basis. This keeps LearnNC in the forefront of teachers list of tools and creates an ongoing training model that is quite successful and promotes life-long learning.

Since the beginning of the technology program, Dare County Schools has been committed to technology staff development. Only with sufficient training can teachers and staff become competent in the use of technology that will become an integral part of the classroom. As more technology, software, and Internet-based content is made available, the county's challenge is to better prepare teachers to use these powerful tools. The county offers a stipend if the teacher earns two technology Continuing Education Units and meets other criteria.

As of September 2005, 98 % of certified staff and 100% of the principals completed a Technology Survey. The following charts present the results.

Teacher Computer Survey Fall 2005-06



From the survey results, the technology team, the student accountability specialist and principals decide on the most needed staff development courses to be offered. Each school technology facilitator instructs the teachers in groups or one-on-one. A teacher may also earn CEUs by attending conferences or workshops, taking online courses or completing independent studies. Some teachers opt out of technology staff development and forego the stipend; these teachers still use technology professionally but resist integrating technology into their curriculum.

ExplorNet provides training for K-12 teachers in Centers for Quality Teachers and Learning (QTL). QTL for K-12 is an intensive seven day professional development experience for teachers. Teams of educators work together and discover ways to make learning an active, engaging process. QTL for K-12 helps teachers to connect instruction, technology and content. Participants learn strategies for reaching every student every day. All of our elementary and middle schools have sent teams for training and completed a school-wide project.

School employees access the following web based resources to perform their work:

- Exceptional children teachers use CECAS
- All faculty and staff use eProcurement
- All faculty, staff and Central Office personnel use Groupwise email
- A local Intranet is provided for teachers and students
- Administrators use My School Building.com
- All schools provide online forms through their Intranet
- Many of the professional forms are on Movaris

Dare County's commitment to technology staff development uses 36% of the technology budget.

Quality Teachers, Administrators and Staff: Strategic Technology Plan

Include at least one strategy or objective that addresses the following:

1. Teacher/staff skills assessment.
2. Diverse training resources (local and online including DPI resources).
3. Follow-up support.
4. Local certification and professional development requirements.
5. Ethical and professional standards.
6. Evaluation of training.

Strategic Priority 3: Quality Teachers, Administrators and Staff*							
Strategic Goal: (Please check.)							
<input checked="" type="checkbox"/> Professional preparation aligned with state priorities							
<input type="checkbox"/> A system to develop, train, and license a BK (birth-kindergarten) professional staff for public schools							
<input type="checkbox"/> A system to recruit, retain, and compensate a diverse corps of quality teachers, administrators, and staff							
<input type="checkbox"/> A system to ensure high performance of teachers, administrators, and staff							
<input checked="" type="checkbox"/> A system of continuous learning and professional development to support high performance of all employees							
<input type="checkbox"/> High ethical and professional standards for all employees							
Objective 3.1 <i>All teachers will integrate technology into the curriculum</i>							
Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results June, 2006
3.1a <i>Provide required professional development to help teachers integrate technology into the curriculum. (2,4)</i>	<i>Computer lab, software, and Internet access</i>	<i>Technology Facilitators and Department Chair/Lead Teacher</i>	<i>\$0.00 (Training supplies come with ancillary materials associated with textbook adoption)</i>	<i>N/A</i>	<i>Beginning October, 2005 Ending June, 2009</i>	<i>Sign in sheets, Training evaluations, Principal observations, Teacher self-evaluation survey</i>	

3.1b Provide sample lesson plans showing integration of technology in curriculum (6)	Computer lab, software, textbook ancillary material	Technology Facilitators, Director of Instruction, Administration	\$0.00	N/A	Beginning October, 2005 Ending June, 2009	Copies of sample lesson plans	
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Strategic Priority 3: Quality Teachers, Administrators and Staff*

Strategic Goal: (Please check.)

Professional preparation aligned with state priorities

A system to develop, train, and license a BK (birth-kindergarten) professional staff for public schools

A system to recruit, retain, and compensate a diverse corps of quality teachers, administrators, and staff

A system to ensure high performance of teachers, administrators, and staff

A system of continuous learning and professional development to support high performance of all employees

High ethical and professional standards for all employees

Objective 3.2 *All schools will have staff development and support for integration with a certified Technology Facilitator*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results June, 2006
3.2a Recommend hiring quality instructional technology facilitators with the 079 and/or 077 license (5)	Human resources and technology checklist for hiring	Personnel Director, Principals and Technology Department	\$0.00	N/A	Beginning October, 2005 Ending June, 2009	List of Technology Facilitators with certification and license	
3.2b Require attendance at quarterly technology meetings for	Release time from school responsibilities and substitutes for elementary	Director of Instruction, Technology Department and Principals	\$1200.00 per year	Local	Beginning October, 2005 Ending June, 2009	Minutes from meetings	

<i>technology facilitators, network engineer and network technicians and Director of Instruction to discuss troubleshooting, technology issues, staff development, integration, purchases and evaluations. (3)</i>	<i>Technology Facilitators</i>						
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Strategic Priority 3: Quality Teachers, Administrators and Staff*

Strategic Goal: (Please check.)

- Professional preparation aligned with state priorities
- A system to develop, train, and license a BK (birth-kindergarten) professional staff for public schools
- A system to recruit, retain, and compensate a diverse corps of quality teachers, administrators, and staff
- A system to ensure high performance of teachers, administrators, and staff
- A system of continuous learning and professional development to support high performance of all employees
- High ethical and professional standards for all employees

Objective 3.3 *Require all certified staff to complete a minimum twenty hours of technology staff development each school year*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results June, 2006
3.3a <i>Develop training modules for technology staff development (1, 2, 3, 4 and 6)</i>	<i>Time to meet with Technology Facilitators from other schools</i>	<i>Director of Instruction, Principal and Technology Department</i>	<i>\$0.00</i>	<i>N/A</i>	<i>Beginning October, 2005 Ending June, 2010</i>	<i>List of Technology Staff Dev. Workshop Plans w/BOE approval</i>	

<p>3.3b Provide professional development opportunities that integrate technology into the curriculum based on NETS (1,2,6)</p>	<p>NETS, Teacher self-evaluation survey</p>	<p>Technology Facilitators, Lead Teacher/Department Chair, Assistant Principals</p>	<p>\$0.00</p>	<p>N/A</p>	<p>Beginning October 2005 Ending June 2009</p>	<p>Lesson Plans Teacher self-evaluation survey</p>	
<p>3.3c Provide regularly scheduled technology staff development either during the school day or after school (2 and 4)</p>	<p>Computer lab and software Internet access</p>	<p>Technology Facilitators and Principal</p>	<p>\$0.00</p>	<p>N/A</p>	<p>Beginning October, 2005 Ending June, 2009</p>	<p>Sign in sheets, Principal observations, Teacher self-evaluation Survey on progression toward ISTE standards</p>	
<p>3.3d Train all teachers in the Center for Quality Teaching and Learning (ExplorNet) (2, 4 and 6)</p>	<p>Dedicated QTL Computer Lab and a certified QTL Instructor, GPS, digital cameras, document camera, required software, school pad, network connectivity</p>	<p>Personnel Director, Curriculum Director, Network Engineer, Technology Coordinator, QTL Director and Instructors</p>	<p>\$35,000.00 to QTL per year and \$4,500.00 for substitutes per year</p>	<p>Title I V and State Technology Funds</p>	<p>Beginning October, 2005 Ending June, 2009</p>	<p>Listing of certified QTL Teachers</p>	

Strategic Priority 3: Quality Teachers, Administrators and Staff*

Strategic Goal: (Please check.)

- Every child ready for school
- Rigorous and relevant academic standards and assessment systems for every student
- Every student masters essential knowledge and skills
- Every student graduates from high school
- Every student a life long learner and ready for work

Objective 1.6 *Promote and establish collaborative themes in each school in the district.*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
1.6a <i>Evaluate current Media/Technology Advisory Committees and establish guidelines for collaboration (3)</i>	<i>Administrators, Teachers and Parents</i>	<i>Media and Technology Personnel</i>	<i>\$0.00</i>	<i>N/A</i>	<i>January 2005 and evaluate annually in January</i>	<i>Written guidelines included in the School Improvement Plan</i>	
1.6b <i>Establish a Media/Technology Advisory Committee at each school to recommend needed resources for media and technology programs. (3)</i>	<i>Administrators, Teachers and Parents</i>	<i>Administrators, Media and Technology Personnel</i>	<i>\$0.00</i>	<i>N/A</i>	<i>September 2006 and evaluate annually in September</i>	<i>Active committee meeting quarterly during school year with minutes.</i>	
1.6c <i>Explore funding for stipends/substitutes to provide a collaboration day in each school (3)</i>	<i>Internet access, Testing Specialist, and Technology Facilitators</i>	<i>Testing Specialists and Technology Facilitators</i>	<i>\$30,000</i>	<i>State and Federal Grants</i>	<i>January 2006 ending June 2006</i>	<i>List of possible funding sources</i>	

Strong Family, Community, and Business Support – Current Situation

Dare County Schools use Novell GroupWise for email. Research indicates that in communities with high achieving schools, ongoing communication along with information sharing occurs among administration, staff, parents and the larger community. Every teacher has a school email address that can be accessed from school or home. Each teacher is encouraged and some schools require teachers to setup parent groups in their email address books. Technology has become a nearly essential tool to acquire pertinent information concerning education on a daily basis. Newsletters, memos, and missed assignments can be emailed home to each family with current email accounts. Teachers using email as a communication tool report students perform at higher levels when students know an email report is going home on a regular basis.

Students in our schools are not automatically given email and are not allowed to check personal email at school. If a project or an activity requires a student to communicate via email, the student is given a limited student account for that assignment only. Some schools use Gagle email for these projects and others use GroupWise

All classrooms have telephones in the room for easier access to administration and parents. Four of the eleven schools in the district have Voice over IP telephone systems. Two of the eleven schools will have Voice over IP when they move to their new facilities sometime this school year. The remaining schools are on a schedule to update to Voice over IP as they complete renovation or finish existing contracts on rotary systems.

Each school has a *Share TV* coordinator in charge of creating PowerPoint presentations announcing important information and spotlighting special events. The PowerPoint slides are updated weekly and run continuously on the public access channel.

The district's website provides a powerful first impression and is a place for parents, students and community members to gather information about the schools. The Board of Education employs a full-time Community Relations Coordinator to write news articles for newspaper publication, update the website, and oversee the *Share TV* production.

Dare County is fortunate to have a community group that created and supports a local Education Foundation. This foundation provides staff development for teachers, grants to teachers for special projects and other support. The foundation has a learning center located centrally in the district. The learning center is available for teachers and students for research or to work on special projects. Monday Night Alive is a weekly tutoring program conducted in the community and staffed by teacher and parent volunteers.

Many of the school facilities are used by community organizations and local government for training purposes. For example the Sheriff Department uses a school computer lab to train officers in Internet crime and recognizing child predators. The local community colleges use the school computer labs for training and continuing education classes.

When community groups use the school computers for training they are provided with Internet access. We do not provide file access, nor do we provide Internet accounts to members of the community.

Strong family, Community and Business Support: Strategic Plan

Strong Family, Community and Business Support: Strategic Technology Plan

Include at least one strategy or objective that addresses the following:

1. Email access (staff, students)
2. Public relations (use of local Broadcast Media)
3. School and teacher websites
4. Learning Centers
5. Partnerships
6. Teacher/staff and student Internet and file access.

Strategic Priority 1: Strong Family, Community and Business Support							
Strategic Goal: (Please check.)							
<input type="checkbox"/> State educational priorities responsive to the needs of the family, community, and business customers							
<input checked="" type="checkbox"/> A comprehensive and aligned system of support for the academic success and general well-being of all children							
<input type="checkbox"/> A system to build the capacity of local districts to create, respond to, and sustain meaningful partnerships							
Objective 4.1 <i>To train all Dare County teachers using The Center for Quality Teaching and Learning.</i>							
Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
4.1a <i>To continue to send school teams to the QTL training (4, 5)</i>	<i>Human Resources</i>	<i>Director of Instruction, Administration</i>	<i>\$35,000 per year</i>	<i>Title I Title II State</i>	<i>Beginning October, 2005 February, 2010</i>	<i>Certificate of completion</i>	
4.1b <i>To establish a QTL lab in Dare County (4)</i>	<i>Fully equipped computer lab, Human Resources</i>	<i>Director of Instruction, Administration, Technology Department</i>		<i>Local and federal</i>	<i>Beginning October 2005 June 2010</i>	<i>Completion of a operational QTL lab</i>	

Strategic Priority 2 Strong Family, Community and Business Support

Strategic Goal: (Please check.)

- State educational priorities responsive to the needs of the family, community, and business customers
- A comprehensive and aligned system of support for the academic success and general well-being of all children that promotes:
- A system to build the capacity of local districts to create, respond to, and sustain meaningful partnerships

Objective 4.2 All schools will publish and maintain a school website and encourage all classroom teachers to publish a website.

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
4.2a Provide training to personnel in the production of web pages (3)	Internet access, web page development software.	School Administration, Technology Facilitators	\$6,000.00	Local	Beginning October, 2005 Ending June, 2009	Operable website	
4.2b Design and publish teacher websites (3)	Internet access, Big Medium web development software	Technology Facilitators	\$0.00	N/A	Beginning October, 2005 Ending June, 2009	Posted teacher websites	

Strategic Priority 2 Strong Family, Community and Business Support

Strategic Goal: (Please check.)

- State educational priorities responsive to the needs of the family, community, and business customers
 A comprehensive and aligned system of support for the academic success and general well-being of all children that promotes:
 A system to build the capacity of local districts to create, respond to, and sustain meaningful partnerships

Objective 4.3 *To provide resources enabling communications within the schools as well as to the outside world*

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results
4.3a Continue to provide Groupwise email to all faculty, staff and administrators (1,2)	Email application, hardware, LAN/WAN	Technology Department	\$10,000	Local	Beginning October, 2005 Ending June, 2009	Printed email with header information to show sender and receiver	
4.3b Continue to provide school information via local cable shared television (2)	Hardware, Software and Cable TV connection	Public Relations Coordinator (district) and assigned Shared TV Coordinator in each school	\$0.00	N/A	Beginning October, 2005 Ending June, 2009	PowerPoint Master file	
4.3c Continue to provide network accounts, network home drives and Internet access to	Software, hardware, Internet connectivity, LAN/WAN	Technology Department	\$20,000.00	Local and Erate	October 2005 to June 2009	Printout of Network Directory Structure	

*faculty, staff and
students
(6)*

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Effective and Efficient Operation: Current Situation

The technology personnel for Dare County Schools support both instructional and administrative technology utilized by teachers, students and staff. The following positions are in place:

- Ten Technology Facilitators
- One Technology Coordinator (that also serves as a technology facilitator in a school)
- Two Technicians
- One Network Engineer
- One Director of Instruction
- One Technology Assistant (full-time in the Technology Coordinator's school)
- Two Technology Assistants (part-time)

The DCS staff benefits from a technology enriched environment that enhances teaching and learning. Each school has a technology facilitator that promotes using the technology support system for increasing productivity, time management, and greater student achievement. Solid planning and ongoing communication between administrators, teachers, and technology personnel keep a broad range of essential information and resources accessible. With adequate technical support within each school, teachers and administrators can focus the important aspects of instruction rather than wires and hardware.

Technology requires a big line item in the school system's budget. Funds are pulled from available resource:

- State Technology Fund from the DPI
- Safe and Drug Free School Money
- Title II – Part B
- E-Rate
- Local Government
- Dare Education Foundation
- Career Technical Education Funds
- Assorted Grants

The wide-area-network and the local-area networks in each school are secure for student use. Appropriate firewalls and filters provide both server and client security, monitor and control everything going in and out of the local network as well as everything running inside the network. All members of Dare County Schools, teachers, administrators, students, substitutes and classified staff, are required to read and sign an Acceptable Use Policy. The policy covers all the regulations for using the network, computers and school technical resources.

The current bandwidth of the WAN and LANs is adequate for most usage of school networks. It seems that you never have enough bandwidth. Bandwidth was increased dramatically at most of the schools over the past year. Some schools are still in a developing stage for bandwidth because they are either in the midst of renovation or they

are moving to a new building. The hardware available for each school's ongoing use of computers for instruction is sufficient but not to the level we desire. Most schools have 3:1 ratio computers to student; however that does not always allow for projects. Teachers are requesting more computer labs in each school so they can do whole group instruction and classroom projects. New schools built in the last two years have two computer labs. Older schools are looking for space to setup another lab.

Effective and Efficient Operation: Strategic Technology Plan

Include at least one strategy or objective that addresses the following:

1. Policy
2. Budget
3. Personnel
4. Security
5. Administrative Applications
6. Hardware
7. Infrastructure-School Local Area Networks and District Wide Area Networks

Goal 5: Effective and Efficient Operations							
Strategic Goal: (Please check.)							
<input type="checkbox"/> Components of the education system aligned to achieve high performance							
<input checked="" type="checkbox"/> Decision making authority and control at the most appropriate level closest to the classroom							
<input checked="" type="checkbox"/> Information and accountability systems capable of reporting strategic and operational results							
<input type="checkbox"/> A funding system that provides adequate and aligned financial and personnel resources to maximize educational achievement							
Objective 5.1 <i>Improve Home/School Relations</i>							
Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation	Evaluation Results July, 2006
5.1a <i>Provide online documents from the District Website (3,5)</i>	<i>Big Medium, Technical support personnel High speed Internet Access</i>	<i>Public Relations, Technology Facilitator, Administrators Staff and Teachers</i>	<i>\$0.00</i>	<i>N/A</i>	<i>Beginning October, 2005 Ending June 2009</i>	<i>Comments and Question Link</i>	

5.1b DCS Report Cards (district & school level) (1,5)	MS Publisher	Directors and Principals	\$5000.00	Local	Beginning October, 2005 Ending June 2009	Published document	
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Objective 5.2 Safe, secure & reliable communications							
5.2a Provide filtered Internet access (4)	Total Traffic Control	Technology Department	\$6000.00 per year	Local	Beginning October, 2005, Ending June 2010	Reports provided by Lightspeed	
5.2b Provide spam and virus- free email (4)	Total Traffic Control	Technology Department	Same as above	Local	Beginning October, 2005, Ending June 2010	Reports provided by Lightspeed	

Objective 5.3 Secure/reliable high-speed data transmission							
5.3a Provide reliable wired and wireless high speed connectivity (7)	Solarwinds and high speed provider	Technology Department	\$140,000	Local and State	Beginning October, 2005 Ending June 2010	Reports from Solarwinds - Uptime	

5.3b Provide reliable server and desktop equipment (6)	Hardware, Technology Facilitators, Technician	Technology Department	\$750,000	Local	Beginning October, 2005 Ending June, 2010	Replacement plan Inventory	
5.3c Provide remote access for DCS users (5)	Hardware, Internet Access Training	Technology Department	\$0.00	N/A	Beginning October, 2005 Ending June 2010	Teacher self-evaluation Survey report	
Objective 5.4 Use of technology facilitator performance appraisal evaluation form							
5.4a Provide training to school administration for TFPA (1, 5)	TFPA Forms from DPI A qualified TFPA trainer	Director of Staff Development	\$0.00	N/A	Beginning October, 2005 Ending June, 2010	Completed evaluation forms	
5.4b Provide TFPA forms to principals to evaluate tech facilitators (1)	TFPA Forms from DPI	Principals	\$0.00	N/A	Beginning October, 2005 Ending June, 2010	Completed evaluation forms	

Objective 5.5 Make necessary provisions for the school system to have appropriate components for a successful technology program

<p>5.5a Maintain current policies and continue to update as needed (1)</p>	<p>Legal and Ethical resources</p>	<p>Technology Department</p>	<p>\$0.00</p>	<p>N/A</p>	<p>Beginning October, 2005 Ending June , 2009</p>	<p>BOE Policy Manual</p>	
<p>5.5b Continue to seek funding sources and present a formal budget request to the Board of Education (2)</p>	<p>Erate, Local, State, Federal Funds and Grants</p>	<p>Technology Department</p>	<p>\$0.00</p>	<p>N/A</p>	<p>Beginning March running to July 1 annually</p>	<p>Copy of Technology Budget turned into State, AMTR</p>	
<p>5.5c Continue to support out current number of technology personnel, as well as adding technology facilitators as new schools open. (3)</p>	<p>Technology Facilitators, Technicians and Network Engineer</p>	<p>Board of Education</p>	<p>\$370,000</p>	<p>Local</p>	<p>Beginning September ,2005 Ending June, 2009</p>	<p>Staffing Records</p>	

Appendix

