

Eastern North Carolina School for the Deaf
Strategic Technology Plan 2009-13

Developed
By

ENCSD Technology Committee
Office of Education Services
NC Department of Health and Human Services

October 15, 2008



Necessary Components for the LEA Technology Plans
North Carolina G. S. § Article 8, Part 3A 115c-102.6A-C(16).

In order for local education agencies to meet requirements as set forth in North Carolina General Statute § Article 8, Part 3A 115c-102.6C-A, each section of the plan must include at least one strategy or objective that addresses the following:

NC public schools will produce globally competitive students.

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
10. Global Exchange
11. Support for Early College/Learn and Earn (or similar) programs

NC public schools will be led by 21st Century professionals.

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
7. Readiness of an educator to design, implement, and discuss assessment strategies is referred to as "assessment literacy."
8. Global awareness training*

**Global Awareness:* The recognition and understanding of interrelationships among international organizations, nation-states, public and private economic entities, socio-cultural groups, and individuals across the globe.

NC public school students will be healthy and responsible.

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/security
6. Classroom telephone systems and other communications devices
7. Website use (district, school and classroom) Flexible access to resources
8. Equitable access to resources

9. Ethical and personal responsibility
10. Policy and procedures to address global, ethical and responsible use
11. Technology used to educate, monitor and maintain healthy student lifestyles

Leadership will guide innovation in NC public schools.

1. Leadership enabling Teaching and learning collaborative projects
2. MTAC
3. Leadership communication tools and venues
4. Leadership created professional growth opportunities
5. Partnerships
6. Process for addressing ongoing change

NC public schools will be governed and supported by 21st Century systems.

1. Policy
2. Budget
3. Personnel
4. Security
5. Administrative Applications
6. Hardware
7. Infrastructure-School Local Area Networks and District Wide Area Networks
8. Communication and collaboration tools (email, Web 2.0, file management) for clientele

Technology Committee Members

All committee members have been involved in the development of this plan and support its implementation.

Name	Title or Group Represented	Signature	Date
<u>Tony Hornick</u>			
<u>Patricia Cloyd</u>			
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VISION

All students will be enabled by technology to solve problems, improve their productivity, and gain the skills necessary to become contributing members of their society and life-long learners. It is the mission of ENCSD to provide deaf and hard of hearing students the skills and tools needed to achieve success.

NC public schools will produce globally competitive students. Current Situation Narrative

Current Situation

All classrooms at the Eastern North Carolina School for the Deaf have at least three data drops with computers connected to the LAN, a television and some VCR's/DVD for instructional purposes. The workstations on campus operate in a Windows XP environment with Microsoft Office 2000 software package. Students are able to utilize computer workstations and the Internet outside the classroom in one of three labs across campus. The computer labs are located in the K-8 building, high school building, library/media center. Study areas with 3-4 computers are also set up on each dorm floor, to provide students after school access to computers for homework and research purposes.

Teachers have a library of software packages and electronic resources available for classroom instruction. Accelerated Reader, Accelerated Math, Neufeld Math, and Study Island are utilized to enhance math and reading skills. An electronic textbook is currently in use for science and computer skills. Keyboarding skills are developed and strengthened using Type to Learn and Typing Masters software. To further aid in keyboarding skills, "little fingers" keyboards are available for the elementary students. NCWISE is utilized to input grades and daily attendance for grades 3 through 12.

Assistive technology is used to achieve a safe environment for our students through the use of visual alarms, video bulletin board and VRS.

Staff and students at ENCSD have access to the NC Information Highway (NCIH) room. This room allows opportunities for virtual tours of off-campus locations and teleconferencing with other schools, universities and agencies.

* Due to building renovations the NCIH is currently unavailable.

To keep up with technology, teachers and students have access to a variety of digital resources and equipment, such as digital cameras, and digital video recorders. Students learn how to operate digital cameras and utilize them to take pictures at athletic events, special activities, and of projects they complete for printing in the school newsletter and yearbook.

We are not an IMPACT Model school, however, we are implementing many of the goals and performance indicators used in the IMPACT Model.

**NC public schools will produce globally competitive students.
Strategic Technology Plan**

Include at least one strategy or objective that includes 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
10. Global Exchange
11. Support for Early College (or similar) programs

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation
Objective #1 – Improve student scores on reading and math based on the EOG test.						
1.1.1 Provide student access to online instructional and assessment programs for core subject areas	Access to Computers and software, LAN Manager, Residential life trainers	K-12 teachers, Residential life trainers, LAN Manager	\$1100.00/yr	State	Beginning September 2009 Ending June 2013	Reports from programs
Objective #2 – By 2013, all students will directly use technology during at least 50% of their instructional day as measured by student self-assessment survey.						
2.1.1 Students will access the K-12 Computer Standard Course of Study	Computer teachers	Principal, assistant principal, computer teacher	N/A	N/A	Beginning September 2009 Ending June 2013	Self-assessment survey
2.1.2 Provide K-5 grade students with at least ninety minutes of instruction per week on the NC Standard Course of Information Skills and Technology/ Computer Skills	Information skills and technology/ computer skills curricula, academic instructional schedule	Principal, assistant principal, computer teacher	N/A	N/A	Beginning September 2005 Ending June 2009	Attendance records

2.1.3 Provide 6-8 grade students with at least 180 minutes of instruction per week on the NC Standard Course of Information Skills and Technology/ Computer Skills	Information skills and technology/ computer skills curricula, academic instructional schedule	Principal, assistant principal, computer teacher	N/A	N/A	Beginning September 2005 Ending June 2009	Instructional schedule and class attendance records
2.1.4 Require students to develop at least one technology project annually	Access to computers and software	K-12 teachers and principals	N/A	N/A	Beginning September 2009 Ending June 2013	Technology projects assessment spreadsheet (file containing list of students, projects, dates completed, grades assigned, teacher responsible)
2.1.5 Assign all students a laptop computer or other appropriate electronic device to use while they are on campus	Laptops, monitoring software, laptop policies and procedures, student, teacher and residential life training, Wireless connections, LAN Manager, <i>Technology Facilitator</i>	Laptop 1:1 Workgroup, <i>Technology Facilitator</i>	\$60,000/yr	State, Federal & Grant Funding	Beginning September 2009 HS/MS Pilot – 2009/2010 Elementary – 2010/2011 Ending June 2013	Equipment check-out forms, student laptop inventory

2.1.6 Provide students with a managed email account. This account will be monitor for inappropriate content	Computer, Laptop, email content filtering software or hosting	Laptops, computers,	300.00	State and Federal Grant Funding	Beginning September 2009 Ongoing	Email logs
Objective #3 – Each year, the percentage of students passing the computer skills test will increase by at least 10%						
3.1.1 Provide students with Internet access to using assigned laptops computer labs after school with trained supervision	Trained staff after school, Laptops, wireless or hard-line connections in dorms	Residential life trainers, residential life coordinator	N/A	N/A	Beginning September 2009 Ending June 2013	Equipment check-out forms, student laptop inventory
3.1.2 Provide the opportunity for scheduled remediation instruction, as needed, during after school hours	Computer teacher, access to computer lab	Computer teacher, principal, assistant principal, residential life coordinator	N/A	N/A	Beginning September 2009	Academic instructional schedule and attendance sheets

Objective #4 –By 2013, all classroom teachers will use technology at least 50% of the time during classroom instructional time as measured by classroom observation, teacher lessons plans and teacher-self assessment surveys						
4.1.1 Provide media demonstrations twice a year for K-12 staff for the purpose of improving technology integration in the K-12 curriculum	Scheduled meeting times, media coordinator, K-12 instructional staff	Media coordinator, Audio Visual Specialist, K-12 instructional staff, principal, assistant principal.	N/A	N/A	Beginning September 2005	Documentation of attendance
4.1.2 Provide students with distance-learning opportunities through the use of ENCSD’s NC Information Highway Room	Highway room, LAN Manager or Facilitator	K-12 Teachers, LAN Manager or Facilitator	\$340 per month	State, E-rate	Beginning September 2005 Ongoing	Record of Highway Room use
4.1.3 Provide upgrades for assistive technology through Video Relay Services (VRS) for every classroom	LAN Manager, A/V Specialist, TVs, switch/hub, and VRS devices, T-1 line	A/V Specialist, LAN Manager	\$200.00 per device	State	Beginning September 2009 Ongoing	Asset Report/logs
4.1.4 Increase recognition of verbal sounds through the use of Auditory Training devices in the classroom.	Audiologist, Teacher, student, auditory training device	Audiologist	\$100.00 per device	State	Beginning September 2009 Ongoing	Audiologist/Teacher reports
4.1.5 Assign all classroom teachers a laptop computer or other appropriate electronic device to use at school and at home	Laptops, monitoring software, laptop policies and procedures, teacher training and support through OES and Friday Institute, Wireless connections, LAN Manager, <i>Technology Facilitator</i>	Laptop 1:1 Workgroup, OES Program Staff, <i>Technology Facilitator</i>	\$40,000/yr	State, Federal & Grant Funding	Beginning September 2009 HS/MS Pilot – 2009/2010 Elementary – 2010/2011 Ending June 2013	Equipment check-out forms, teacher laptop inventory

**NC public schools will be led by 21st Century professionals.
Current Situation Narrative**

ENCSD currently provides technology-related staff development to all educators, administrators and staff through different methods and at different levels. ENCSD contracts some staff development and also participates in a regional partnership that provides staff training. ENCSD provides some staff development utilizing current employees. Many of the staff has received at least some training in technology through Wilson Technical College and Wilson county schools summer technology institutes. All staff that attended off campus training sessions are encouraged to share knowledge gained with other staff. ENCSD employees use various web-based resources such as Ed Helper, ABC Teach, Quia, NC Learn, NCWISE Owl, e-Procurement, school intranet and emails to perform their work.

ENCSD has one person responsible for all technology related issues. ENCSD is working on reassigning an existing teacher position to act as an instructional technology facilitator to assist with classroom technology integration and provide technical assistance and training to instructional and residential life staff members. ENCSD currently has a Director, Principal, Assistant Principal, Computer Consultant, and two computer teachers to oversee the technical and educational programs. ENCSD has a secretary designated as the SIMS/NCWise data manager. This individual also has other duties. ENCSD has a Computer Consultant who provides technical support and receives support provided by the Department of Information Resource Management (DIRM).

The resources available to ENCSD students and staff vary greatly. Assistive technology is available for students when needed. Currently teachers are not required to take a computer skills assessment. The ethical and professional guidelines are outlined in the DHHS/OES Acceptable use Policy. Students are also required to sign and follow an acceptable use policy.

Teachers are currently required to get one CEU in technology every five years for certification renewal. Starting next year, ENCSD will be using the new teacher evaluation instrument. This instrument will help administrative staff assess the computer competencies of teachers since it is based on the 21st century skills. Starting this year, ENCSD teachers will complete online STNA surveys through the Friday Institute to collect data on overall teacher technology usage, competency, and staff development needs. Example of STNA questions and collected information:
<http://www.keysurvey.com/report/132131/225475/182f8?afterVoting=7bbb1c421b11>

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Strategic Technology Plan**

Include at least one strategy or objective that includes 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
7. Readiness of an educator to design, implement, and discuss assessment strategies ("assessment literacy.")
8. ***Global awareness training

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation
Objective #5- Each year, at least 80% of <i>teachers</i> will agree or strongly agree that provided technology staff development is based on their needs as measured on annual survey. (STNA- Professional Development Quality Q16)						
5.1.1 Provide training annually for instructional and residential staff in computer technology (basic and advanced computer skills, basic computer maintenance/repair, and technology integration/computer skills curricula)	Computer teacher, staff development coordinator, time for training and training schedules	Administration, Instructional Technology Facilitator	None	State	Beginning September 2009 Ending June 2013	Staff development training records
5.1.2 Provide at least two hours per semester of required training for all instructional staff on the multimedia capabilities through Moodle at ENCSD	Time for training and training schedules	Audio Visual Specialist, Media Coordinator, Computer Teachers	None	State	Beginning September 2009 Ending June 2013	Staff development training records

Objective #6 – Provide multiple trainings related to technology. Documentation						
6.1.1 Provide training and information to instructional and residential staff, with emphasis on new staff, on NC Wise Owl, Web-based services, and other online services	Time, staff, computer teacher, LAN Manager	Computer teacher, LAN Manager	None	State	Beginning September 2009 Ending June 2013	Staff development training records
6.1.2 Provide training and information to staff on new technology policies annually	Training materials, policies, LAN Manager	LAN Manager	None	State	Beginning September 2009 Ending June 2013	Staff development training records
6.1.3 Complete a minimum of 1.0 technology renewal credits per five-year renewal cycle	Staff Development Coordinator, K-12 Teachers	Staff Development Coordinator, K-12 Teachers	None	State	Beginning September 2009 Ending June 2013	Staff development training records
6.1.4 Provide training for instructional and residential staff in utilizing Study Island and related technology programs	Time, upgrades and license renewal for software, materials	Computer Teachers	None	State	Beginning September 2009 Ending June 2013	Staff development training records

Objective #7 By 2013, all teachers will report including technology-enhanced learner-centered teaching strategies at least weekly as measured on teacher survey (STNA- Teaching and Learning: Instruction Q5)						
7.1.1 Give STNA survey annually to teachers	Time, software,	Administration	None		Beginning September 2009 Ending Fall 2013	Documentation of completed surveys
7.1.2 Evaluate results as a team to determine technology staff development needs	Time	Administrative staff and technology committee	\$300.00	State	Beginning Spring 2009 Ending Spring 2013	Documentation of staff development needs
7.1.3 Review teacher evaluations for inclusion of technology and skill assessment	Time	Administrative Staff and technology committee	None		Beginning Fall 2009 Ending June 2013	Test Scores

NC public school students will be healthy and responsible.
Current Situation Narrative

All areas have video capabilities via electronic messaging board ensuring all staff and students have access to important information. All staff are required to display school identification tags on a daily basis. All visitors are required to sign in at the Administration Building and to display a visitor's tag. The school dietician posts the school menu weekly via the Video Bulletin Board and school email.

Currently, we do not have an electronic surveillance system, but we have proposed several options in our ENCSD technology plan. ENCSD has its own web site, which will be updated in the current school year for school closings due to inclement weather and posting security policies. A WatchGuard firewall protects the internal network from intrusion and safeguards students and staff from accessing inappropriate web sites. Spam is removed through the NCMail email system.

ENCSD currently uses NCWISE as its student information tracking system. A NCWise operator monitors and updates information daily.

Supervisors for weekly and day transportation use school cell phones and radios for the purpose of contacting parents and the school in case of an emergency. Bus drivers have radio contact for emergencies.

Alarm systems are "deaf friendly" allowing auditory and visual awareness for staff and students.

Visual relay systems have been installed in all classroom and some administrative offices.

**NC public school students will be healthy and responsible.
Strategic Technology Plan**

Include at least one strategy or objective that includes 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/security
6. Classroom telephone systems and other communications devices
7. Website use (district, school and classroom)
8. Flexible access to resources
9. Equitable access to resources
10. Ethical and personal responsibility
11. Policy and procedures to address global, ethical and responsible use
12. Technology used to educate, monitor and maintain healthy student lifestyles

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation
Objective # 8 Each year, the number of security infractions on campus will decrease by 10%						
8.1.1 Fence & mechanical front gate around entire grounds to limit unauthorized personnel and walk-on intruders	Contractor, Safety Director, and Facilities Director	Facilities Director	?	State/Federal	Beginning: July 1, 2009 Ending: Dec 31, 2010	Safety surveys, results, logs
8.1.2 Install Access Kiosk to record entry to campus.	Contractor, Safety Director, Facilities Director, and Technology Coordinator	Facilities Director	\$12,000.00	State/Federal	Beginning: Jan 2, 2010 Ending: Dec 31, 2010	Safety surveys, results, logs

8.1.3 Provide a golf cart for Security staff to patrol the campus	Contractor, Safety Director, Facilities Director, and Technology Coordinator	Facilities Director	\$6,000.00	State/Federal	Beginning Jan 2, 2010	
8.1.4 Provide Fire Alarm Notification to Security for ALL buildings.	Alarm Contractor, Safety Director, and Technology Coordinator	Safety Director, Facilities Director, and Technology Coordinator	\$3,000.00	State/Federal	Beginning: July 1, 2009 Ending: ?	Safety surveys, results, logs
8.1.5 Install four (4) motion-activated video surveillance cameras to monitor grounds and parking lots.	Cameras, computer equipment and software	Safety Director, Facilities Director, and Technology Coordinator	\$12,500.00	Local, state, federal, other	Beginning: July 1, 2009 Ending: June 2010	Observation, security records, vandalism reports, etc.
8.1.6 Require all visitors to sign in/out at the Administration Building and display visitor's badge at all times	Sign in sheet and visitor's badges, Receptionist	Audio Visual Specialist and Receptionist	\$150 per year	State	Beginning: July 1, 2009	Observation by school staff and campus security

8.1.7 Visitors Badge ID system in Security Office (LobbyGuard)	Safety Officer, Security, LAN Manager, Maintenance, software	Safety Officer, Security, LAN Manager, Maintenance, software	\$5000.00	State/Federal	Beginning: July 1, 2009	Safety surveys, results, logs
8.1.8 Require all staff to display an identification badge at all times	Identification badges, Audio Visual Specialist	Audio Visual Specialist	\$1100 per year	State	Beginning: July 1, 2009	Safety surveys, results, logs
8.1.9 Install RF-ID Card Security systems for all main doors	Safety Officer, Maintenance, LAN Manager, Teachers, Administrative Staff, All Staff	Safety Officer, Maintenance, LAN Manager	\$250.00/door	State/Federal	Beginning July 1, 2009 Ending June 2012	Safety surveys, results, logs
8.1.10 Install Patrol Scans Security System (PC Based)	Safety Officer, Security, LAN Manager, Maintenance, software	Safety Officer, LAN Manager, Maintenance, Software	\$1000.00	State/Federal	Beginning: July 1, 2009 Ending: Dec 31, 2009	Safety surveys, results, logs

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation
						<i>Observation, discipline records, vandalism reports</i>
Objective #9 Staff members will be notified of emergencies within 10 minutes of information being received by the school administration as documented by emergency/maintenance logs, email documentation or whatever system you have in place.						
8.1.1 Post daily weather forecasts and emergency information on television bulletin boards positioned across campus	TVs, server, software, cable connectivity, Audio Visual Specialist	Audio Visual Specialist and other designated staff	Software/Hardware upgrade \$5000.00	State, federal	Beginning September 2009 Ending June 2013	Observation, Maintenance logs
Objective #9 Block all known inappropriate web sites and emails through regularly updated content filtering devices and software as documented through weekly content filtering reports.						
9.1.1 Block students' and staffs' access to inappropriate websites by using Content filtering associated with firewall	LAN manager, software	LAN Manager	\$900 per year	State	Beginning September 2009 Ending June 2013	Analyze security logs
9.1.2 Provide comprehensive, reliable PC security protection, identity theft protection and PC damage control protection -Trend Micro Security	Pop-up, anti-spyware and anti-phishing software and LAN Manager	LAN Manager	<u>\$1500.00</u>	State	Beginning September 2009 Ending June 2013 Ongoing	<u>Anti-virus server logs</u>

9.1.3 Close internet security holes through the use of security management software	PatchLink software, LAN Manager	LAN Manager	\$2480.00	State	Beginning September 2009 Ending June 2013	Logs
Objective #10 All e-mails accounts will be monitored for viruses and spam daily as documented through NC Mail reports.						
10.1.1 Filter email for known viruses through Firewall and statewide NC Mail system	NC Mail administrator, LAN Manager	NC Mail administrator, LAN Manager	\$1.50/per month for each NC Mail account (for 15 mb usage)	State	Beginning September 2009 Ending June 2013	NC Mail System
Objective #8 All staff members will have access to communication tools as documented by equipment inventory and usage logs.						
10.1.2 Upgrade Video Relay Equipment and web cams for each office, dorm and classroom	TV, web cam, data line, switch, router, firewall, Audio Visual Specialist	Audio Visual Specialist	\$6000.00 for 30 devices	State	Beginning September 2009 Ending June 2013	Equipment inspection and inventory.

Objective #11 All drivers transporting students will have the capability to communicate immediately with safety officers, emergency personnel, school administration and parents as documented through weekly communication equipment inspections and communication logs.						
11.1.1 Utilize radios, pagers, Blackberry devices and cell phones with text messaging capabilities as needed for communication	Cell phones, pagers, Blackberry devices, radios,	Transportation coordinator, Safety Officer	\$275 for radio purchase and \$60 for Blackberry plus \$17/month for each phone and \$39.95/month for pagers and/or Blackberry	State	Beginning September 2009 Ending June 2013	Equipment inspection and Safety Officer oversight
Objective # 12 Attendance and grade information for all students will be entered into NCWISE on a daily basis by teachers as measured through NCWISE reports.						
12.1.1 Utilize NCWISE for student contact information, attendance records, and report cards	NCWISE coordinator, software	Building secretaries, NCWISE coordinator	N/A	State	Beginning September 2009 Ending June 2013	SIMS/ NCWISE database

Leadership will guide innovation in NC public schools.
Current Situation Narrative

Monthly meetings are scheduled for discussing the development and implementation of technology plans. The OES Instructional Technology Facilitator communicates technology resources to help teachers integrate technology into their classroom instruction. Teachers and Education Developmental assistants are encouraged to attend Wilson County Summer Technology courses.

The OES Summer Institute provides additional technology training for staff. OES encourages technical staff to attend computer conferences within and outside of state. ENCSD provides financial aid to staff for technical training through community colleges. OES offers online technology courses for teachers, technology specialist and any other interested staff to incorporate 21st century learning strategies in their classroom instruction. ENCSD has a MTAC committee that meets regularly to discuss concerns and issues to help strengthen the library program.

**Leadership will guide innovation in NC public schools.
Strategic Technology Plan**

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

1. Leadership enabling teaching and learning collaborative projects – 1:1 Laptop Initiative
2. Media and Technology Advisory Committee – Review of STNA data and other collected information to provide recommendations to leadership regarding new technologies
3. Leadership communication tools and venues – Intranet through Moodle, Parent/staff communication through EDLINE
4. Leadership created professional growth opportunities – Creation of Technology Facilitator position
5. Partnerships – Friday Institute
6. Process for addressing ongoing change – Promotion of personal learning networks and communities

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation
Objective # 13 Teachers will use Moodle for staff development in the area of the new State Writing Assessment.						
13.1.1 Teachers once given access to Moodle will complete all training modules.	Computer, Server, Software	Testing Coordinator, Administrators, 3-12 grade teachers	None	None	Beginning October, 2008 Ending May, 2009	Teacher Course Completion Certificates

Objective # 14 Through use of the NC Highway Room, teachers will collaborate with teachers from NCSD on Signing Vocabulary for EOG/EOC						
14.1.1 Teachers will meet with teachers from NCSD to determine the correct vocabulary/signs to use when teaching Math and Science to our students for consistency	NC Highway Room	OES Math & Science Support person, teachers, & administration	\$23,000	State & Federal	Beginning Spring 2009	Logs
Objective # 15 Increase parent/staff communication through on-line methods.						
15.1.1 Provide web hosting, content management, information portals, and tools for classroom management, gradebook, notification, analytics, virtual storage and related technologies	Computers, Servers, software	Administration, IT support, teachers	1000.00	State/Federal	Beginning Spring 2009	Friday Institute online teacher assessment

**NC public schools will be governed and supported by 21st Century systems.
Current Situation Narrative**

ENCSD has an IT Support Analyst, an Audio Visual Specialist, and one computer instructor. We receive support from an Instructional technology facilitator. There is a position open for an additional computer instructor. These individuals work primarily to support technology utilization by teachers and educational staff for the benefit of student learning. The IT Support Analyst primary responsibility is to ensure application, web, and email servers, computer workstations and Video Relay Services are operating efficiently to support academic and administrative functions. The file servers consist of NetWare 6.5 and Windows 2003 network operating system used to store administrative, teacher, and student files. A key component of maintaining the file server is performing routine backups to keep information secure in the event of a power outage. Applications and software updates are distributed via ZenWorks 7. The school utilizes Renaissance Math via an integrated web-based information system. The Renaissance programs allow teachers, principals, and administrator's easy access to the information they need to monitor progress, personalize instruction and ensure adequate yearly progress. The result is improved student achievement in all grades, K-12. The IT Support Analyst also supports the School Health Managed Program (SNAP), which allows nurses to store medical records of students electronically on an SQL server. The program can also be accessed through a personal digital assistant, which makes it easy for medical care to be provided outside of the actual health center.

The Audio Visual Specialist works with teachers and staff to ensure setup of necessary equipment for classes and meetings, such as LCD projectors, DVD and VCR players, overhead projectors, and audio equipment. With the setup of these different types of equipment, the Audio Visual Specialist also offers basic training for the user. Additionally, the Audio Visual Specialist performs the installation and setup of the Video Relay System, which is used as a public address system for the deaf and hard of hearing. The Audio Visual Specialist assists the IT department when necessary. This interactive system allows two individuals to communicate with sign language via a television screen. ENCSD maintains and updates VRS systems in each building across campus. Staff identification badges are designed and printed by the Audio Visual Specialist at the beginning of each school year and as new employees are hired.

The computer instructors, one for K-8 and one substitute teacher for high school, teach a curriculum that involves computer engineering, keyboarding, basic computer skills, document and file creation, email and internet usage to students. To keep the network environment safe for student use and prevent intrusion and virus attacks, ENCSD incorporates a WatchGuard x1000 firewall that utilizes network address translation to protect internal addresses from outside intruders. Each local workstation and server has Trend Antivirus and Spyware software installed to protect from virus and Botnet attacks. All workstations have Windows XP with limited user rights, protecting systems from manipulation.

Staff who do not possess the level of computer skills necessary for their job classification are encouraged to attend computer courses at state training facilities, Wilson County summer technology courses and local community colleges. OES Instructional Facilitator is offering on-site technology training in the spring of 2009.

Currently, SLD provides funding for a 10 mbps data line, network switches, telephone communication and cabling. ENCSD has applied for a 20mbps data line, wireless communication, NXI text messaging and is waiting for SLD approval. The NCIH room is currently unavailable and is waiting on SLD to approve funding to upgrade and terminate existing equipment due to building renovations.

A NCWISE coordinator trains and assists teachers on how to document daily attendance and for reporting quarterly grades.

**NC public schools will be governed and supported by 21st Century systems.
Strategic Technology Plan**

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

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

Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Funding Sources	Time-line (Proposed Beginning & Ending dates)	Method of Evaluation
Objective # 16.1 90% of formally reported technical issues will be resolved in at 48 hours as documented by maintenance logs.						
16.1.1 Provide one technical support person to ensure that available technology is quickly and properly set up, maintained and repaired	LAN Manager	LAN Manager	Salary	State	Beginning September 2005	Maintenance Logs
16.1.2 Provide Technology facilitator	Instructional technology teacher	Personnel	Salary	State	Beginning September 2009	PM Evaluation
16.1.3 Provide a WAN/LAN support consultant and technical assistance	LAN Manger, DIRM	DIRM, LAN Manager	Salary	State	Beginning September 2005	Maintenance Logs
16.1.4 Provide a certified school media coordinator	Media Coordinator, Media Center	Media Coordinator	Salary	State	Beginning September 2005 Ongoing	Personnel in place, increased use of the media research facility
16.1.5 Provide technical support for NCIH equipment	LAN Manager, VisiCom	LAN Manager, VisiCom	\$2,500.00 yearly	State	Beginning September 2009 Ongoing	Increase use of NCIH services

Objective #17 Each year, at least 95% of students and staff will utilize technology safely and securely as documented by weekly security logs and reported incident logs.						
17.1.1 Continue subscription to WatchGuard live security updates for content filtering to prevent students and staff access to inappropriate websites	LAN manager, software	LAN manager	\$1,100.00 per year	State	Beginning September, 2009 Ongoing	Analyze security logs
17.1.2 Provide and enforce security policies to guide the appropriate use of technology	LAN Manager, DIRM, Policies	LAN Manager, DIRM	None	State	Beginning September 2009 Ongoing	Policies in place
17.1.3 Upgrade existing Firewall and security appliance to increase throughput and content filtering protection	LAN Manager, DIRM, Policies	LAN Manager, DIRM	10,000.00	State	Beginning 2009	Purchase Requisition
Objective #18 Provide adequate resources to support the usage of the network.						
18.1.1 <u>Increase network bandwidth from 10mbps to 20mbps or as needed to support data, voice over IP, and VRS demands</u>	ITS, LAN Manager	ITS, LAN Manager	Installation plus \$2,500 per month	State and Federal	2009	Switch, Firewall, and Router Logs

18.1.2 Replace outdated files, web, application, and proxy servers based on the DPI/ITS replacement policy	LAN Manager, DIRM, and ITS	LAN Manager	\$4,200.00 per server as needed \$400.00 per operating system (Windows 2000/3 server software) as needed	State and Federal	Beginning September 2009	Purchase Requisition
18.1.3 Replace outdated files, web, application, and proxy servers based on the DPI/ITS replacement policy	LAN Manager, DIRM, and ITS	LAN Manager	\$4,200.00 per server as needed \$400.00 per operating system (Windows 2000/3 server software) as needed	State and Federal	Beginning September 2009 Ending 2013	Purchase Requisition
18.1.4 Incorporate Iwise help desk system to track and resolve customer support issues	LAN Manager, Advantage Help Desk system, DIRM	LAN Manager, DIRM	None	State	Beginning September 2009 Ongoing	System evaluation logs
18.1.5 Provide network monitoring software that will identify current and future problems	LAN Manager, Monitoring software	LAN Manager	\$300.00	State	Beginning September 2009 Ongoing	Monitoring logs

18.1.6 Renew Novell annual license agreement, NOS software, Zenworks desktop management	LAN Manager, software	LAN Manager	\$1,000.00	State	Beginning September 2009 Ongoing	Purchase Requisition
18.1.7 Maintain and upgrade Windows 2003 server and migrate all users to Active Directory	LAN Manager, License, Server	LAN Manager	\$4000.00	State	Beginning September 2009	Requisition
18.1.8 Upgrade NCIH Codec equipment to Polycom system	LAN Manager, Polycom equipment	LAN Manager	\$23000.00	State, Federal	Beginning September 2009	Logs
18.1.9 Install wireless access points in academic areas and conference rooms to support network access with laptops.	Access point	LAN Manager	\$10,000	State	Beginning 2009	Laptop accessibility to the network
18.1.10 Replace and maintain Uninterruptible Power Supply devices for network switches and servers.	Uninterruptible Power Supply devices	LAN Manager	\$15,00.00	State/Federal	Beginning 2009 Ongoing	Network logs

Objective #19 Each year, at least 90% of <i>teachers</i> will agree or strongly agree that they have sufficient computer hardware available for their use as measured by survey (STNA survey – Supportive Environment Q. 21)						
19.1.1 Replace obsolete classroom hardware based on the DHHS/DPI policies	LAN Manager, DIRM, replacement policies, computer hardware	LAN Manager	Approximately \$40,000.00 annually	State	Beginning September 2009 Ongoing	Purchase Requisition, Asset Report
19.1.2 Upgrade Microsoft Office suites from Office 2000 to Office 2007 Pro	LAN Manager, software	LAN Manager	\$18,800.00	State	Beginning 2009 Ending 2013	Upgrade installed
19.1.3 Provide telephone access through Voice over IP for every classroom.	LAN Manager, DIRM, and ITS, Business Officer, Maintenance	LAN Manager	\$189,000.00	State and Federal	Beginning September 2009 Ending 2013	Call accounting
19.1.4 Provide a text-based communication system allowing equal communication for all	LAN Manager, DIRM, and ITS, Business Officer, Maintenance	LAN Manager	\$50,000 for purchase; \$2,000 per month for hosting lease	State and Federal	Beginning July 2009 Ending 2013	Customer Feedback
19.1.5 Upgrade Campus Video Relay Services (VRS) for every classroom	LAN Manager, A/V Specialist, TVs, switch/hub, and VRS devices	A/V Specialist, LAN Manager	\$200.00 per device	State	Beginning September 2009 Ongoing	Asset Report
19.1.6 Provide upgrade and support for SmartBoard Technology	LAN Manager, Business Officer, and Administrators	LAN Manager and AV Specialist	\$3000	State	Beginning 2009 Ongoing	Installation complete

Objective #20 Each year, the school will submit e-Rate applications, state budget requests and grant funding requests based on current technology plan as documented by annual budget reports and e-Rate and other grant applications and forms.						
20.1.1 Utilize the state funded technology budget, the Information Highway Grant, E-rate monies, and Title VIB grant	Budget, grants, LAN Manager and Business Officer	LAN Manager and Business Officer	N/A	State and Federal	Beginning September 2009 Ongoing	Budget Report

****Information Highway Room not currently accessible. Building is undergoing renovation until December 2009**

* Most of the examples in this document are general in nature, it would be expected that more specific information be included in a district or school technology plan. Strategies should begin with verbs and objectives should be measurable.

**Items in italics are only examples and should be removed from your chart.

Appendix A

ENCSD Technology Plan
Policy, Procedure, & Guidelines Implementation Chart

Policies, Procedures, & Guidelines (Policies should be translated into predominant languages of students and parents)	LEA Policy Code or Procedure	LEA Date of Adoption, Implementation or Revision
Policies Required		
A. Materials Selection Policy (GS §115c-98(b))		09/01/04
B. Disposal of Equipment / Replacement of Obsolete Equipment (GS §115c-518)		09/01/04
C. Hardware and Software Procurement (GS § 115c-522, 115c-522.1)		09/01/04
D. Copyright Policy (PL §94-553, 90 Stat. 2541)		09/01/04
E. Acceptable Use Policy (PL §106-554)		09/01/04
F. Equipment/Materials Donation Policy (GS §115C-518)		09/01/04
G. Data Privacy Policy (20 U.S.C. § 1232g; 34 CFR Part 99 (FERPA))		09/01/04
H. Inventory Control Policy (GS §115c-539, 115c-102.6A-C(5))		09/01/04
I. Access to Services Policy (GS §115c-106)		09/01/04
J. Student Discipline and Liability Policy (GS § 115C-391, 115C-398)		09/01/04
K. Remote Access Policy (GS §147-33.111)		09/01/04
L. Virus Protection Policy (GS §147-33.111)		09/01/04
M. NC WISE ID and Password Workstation Policy (GS § 147-33.111)		09/01/04
N. Security Awareness Policy (GS §147-33.111)		09/01/04
O. Network Security Policy (SBE EEO-C-018, SB 991, 2004)		09/01/04
P. Advertising and Commercialism Policy (GS §115c-98)		09/01/04
Procedures		
A. Hardware and Software Deployment		09/01/04
B. Equipment maintenance and repairs		09/01/04
C. Outdated Resources and Equipment Replacement		09/01/04
D. Disaster Recovery of Data and Hardware		Under Development
E. Administration of Online Courses		Under Development
F. Other(s) (as needed by LEA)		
Guidelines		
A. Policy Translation		Under Development
B. Web Site Development		Under Development
C. Instructional Use of Videos		Under Development
D. Development of Online Resources		Under Development
E. Other(s) (as needed by LEA)		

Appendix B

The Technology Plan Budget

LEAs will be required to submit a two-part budget on or before November 1 of each year. Part one will consist of a working budget for the current year. Data needed for input in the spreadsheet include:

- Item
- Type
- Per Unit Cost
- Number of Units Purchased
- Total Annual Unit Cost
- Erate %
- Lease Cycle
- Primary Funding (drop-down menu provided)
- Secondary Funding (drop-down menu provided)
- Primary Goal (drop-down menu provided)
- Secondary Goal (drop-down menu provided)
- Primary User (drop-down menu provided)
- Secondary User (drop-down menu provided)

Part two will include the same components as a projected budget for the following school year.

The budget spreadsheet is available for download from <http://etips.dpi.state.nc.us/techplan0913/default.html>.

Appendix C.

Network Diagrams

