Cumberland Public Schools

Technology Plan

"A Smart District Getting Smarter"

July 1, 2010 – June 30, 2013

Introduction

Cumberland has strived to adopt and incorporate new technologies into its classrooms and throughout the district. Although, finances and resources are an ongoing challenge we continue to have a clear focus on our future. This plan is a guideline for the effective and appropriate use of technology for all of the schools in Cumberland and our staff.

A VISION FOR EDUCATION IN CUMBERLAND

The vision of the Cumberland Public Schools is to support the educational development of the whole child through proven strategies and a guaranteed and viable curriculum. As a result, students are aware of their global community, are active civic participants and achieve proficiencies which allow them to make valuable life choices. Through high expectations and best practice, students are led by an academy of teachers, administrators and staff dedicated to academic excellence. We envision a learning community established and supported through collaboration among students, families, educators, and the community.

WE BELIEVE THAT:

• All people have inherent worth.

• Everyone is capable of learning.

• Learning is a lifelong process.

• One must change to grow.

• The ability to apply knowledge empowers all people.

• Challenge encourages people to recognize and improve their abilities and skills.

• Education is a shared responsibility of the student, school, home, and community.

• Schools share the responsibility to prepare children to be productive citizens, collaborative workers, and community contributors.

• Learning happens best in a safe, positive, and engaging environment.

• Excellence is worth the investment.

Technology Mission

The Cumberland Public Schools will prepare all students to become responsible, contributing members of a complex global society through a partnership with home and community. We believe that in order to prepare our students to succeed in an ever-changing world of technology, we must create an environment that is matched to our students' educational needs, support for curriculum, and excel in the use of technology.

Overview of Technology Goals

Teachers and students will have access to software and hardware based on curriculum needs.

Teachers will be offered training on the software packages that students will use and that they will monitor.

Teachers will be offered training on the software productivity packages purchased for them by the district to improve their parental communication, and paper work flow.

The Information Technology Department will use email, and the Internet to deliver messages to teachers, staff and administrators for improving communications and disseminating information.

The media centers at all school locations will move toward the 21st century model structure.

Students will have access to computers and other technology components and devices throughout the district to allow them to use productivity applications for research, reports and other course work.

Media Specialists use Library Automation systems for checking out books and teach the students the proper procedure for their instructinal program.

The expansion of our current technology education department at the middle schools, through addition of two new labs and Carts on Wheels for the students will offer further access to technology.

Additional student progress monitoring software made available throughout out the district schools.

Integration of a new Student Information System (Aspen X2) with our current Nutrikids Point of Sale will track the free and reduced students for RIDE reporting and reimbursement.

The Cumberland Public Schools will implement the ISTE/NETS standards for inclusion into general classrooms. Emphasis is currently placed on matching those standards with the appropriate Cumberland Public Schools goals and objectives to ensure that students are gaining those skills as they are meshed with their every day studies and computer use.

The district is currently examining a solution to improve communication through the use of technology. This solution will offer parents and community members the opportunity to examine how Cumberland schools are implementing and integrating technology across the curriculum. The Cumberland Public Schools is considering a CMS (Content Management System) allowing for greater output of information to stakeholders in the district in a timely manner. This will improve parental involvement as well as the use of our current technologies such as making online grading for teacher/parent reporting.

During the FY11 budget the district will increase staffing in the IT Department to include a full time District Support Technician. Cumberland will be exploring options to add an Instructional Technology Specialist to the staff. The Data Manager position will continue to be examined for purposes of the rigorous reporting requirements by the Department of Education. As the need grows the district will consider extending the Data Manager to a full time position.

Technology Goals

1. Communication

Expansion of technology for communication and collaboration among staff, students and the community.

Communication Action Plan

Results Statement

1. Provide continued support and expansion for the ConnectEd Notification System
2. Provide continued support and expansion for the FirstClass Communication and Collaboration System
3. Implementation of a new Content Management Server (CMS) for our district website
4. Integration of the High School phone system to email system
5. Implementation of a internal listserv server
6. Group Collaboration through Cloud Computing
7. Direct dial through extensions between schools

Evaluation

1. Review communication system errors and daily statistics on a regular basis
2. Utilize the FirstClass Log Analyzer for statistics and tracking

1. Action Steps – ConnectEd notification system

Provide and support automated data interface from Aspen X2

Provide continued support to existing users:

- District emergency and community outreach use
- Elementary, middle and high school principals for parent, student and staff notification
- High school principals and staff for automated daily attendance
- Expand utilization to middle schools for automated daily attendance
- Expand utilization to the elementary schools for automated daily attendance
- Implementation of the elementary schools to be complete during the 2010-2011 school years.
- Expand use of other components for the district news letter
- Utilize the survey capabilities, audience groupings and e-mail notification messages pending Cumberland School Committee approval
- Provide Professional Development sessions for new users and expanded components.

2. Action Steps – FirstClass Communication/Collaboration System

Maintain and customize to the needs of the Cumberland Public Schools

- Upgrade to a new server and FirstClass version
- Create and maintain users mailboxes, desktop structure and security levels
- Develop workflow forms with automation
- Collaboration conferencing
- Creation of a Student Incident Tracking System
- Automate student and teacher collaboration and workflow
- Maintain workflow to support helpdesk functions and requests
- Provide continued support to existing users
- School Committee members, district administrators and staff
- Expansion of email account for middle and high school students
- Creation of "Eagle Eye" for anonymous email tips
- Elementary and middle school administrators and staff training
- Expand utilization to facilitate Proficiency Based Graduation Requirements (PBGR)
- Guidelines complete and posted on district website
- Training/development of department and individual webpage's and links to main site
- Research further uses of FirstClass for communication and collaboration
- Implementation of Wikis, Blogs and Pod Casts through FirstClass
- Provide PD sessions for new users and expanded PD for advanced users
- Install and implement FirstClass Archive Services
- Ensure regulatory compliance for the storage and retrieval of electronic content
- Develop district procedures and archive rules

2. Data Management

Provide data, information and reporting to the state, staff and parents to improve student achievement and support assessment.

Data Management Action Plan

Results Statement

1. Provide support and expansion for the new Aspen X2 Student Information System
2. Provide and support data accuracy, download and upload for Rhode Island Department of Education State and Federal Reporting
3. Provide continued support to all data management systems
4. Special Education integration

Evaluation

1. Define reports sent to schools quarterly for review, correction and follow-up to ensure data is accurate.
2. Assessment and Personal Literacy Plan (PLP) data reports sent to each school for review and correction

1. Action Steps – Aspen X2 Student Information System

Continue to provide support to users

- Computer Center provides ongoing user support via phone and site-based technical support
- Assist with student scheduling, attendance, grade reporting, report card process and printing

Provide integration and continued support and with student assessment

- Creation of electronic Personal Literacy Plan (PLP), online PLP data entry, reporting, accounts, security and training for principals, classroom teachers, special educators, and reading specialists
- Online PLP data entry, reporting, accounts, security and training for principals, special educators, and reading specialists

Active participation in state leadership committee and legislative commission for the adoption of a statewide SIS

- Recommendation for the Cumberland Public Schools to transition to X2 Aspen for the 2010-11 school year
- The Cumberland Public Schools purchase and phase 1 implementation beginning September 2010

2. Action Steps – State and Federal Reporting

Support state and federal data reporting requirements

- NECAP Data Reporting requirements
- ERide and Data Warehouse State Data Reporting Requirements
  - provide instruction to the schools for data accuracy
  - extract, massage and upload data to meet reporting schedules
- Federal Civil Rights Data Reporting Requirements
  - provide instruction to the schools for data accuracy
  - extract, massage and upload data to meet reporting schedules

3. Action Steps – Library Media Support

Support of school library transition to Follett Destiny, provide data interface from Aspen X2

- JJM Cumberland Hill converted to Destiny
- Maintain current Follett System
- Elementary conversion for the 2011-2012 school year to Follett Destiny
- Adopt the model library structure for the four remaining elementary libraries

4. Action Steps – Digital Portfolio

Support and expansion of Richer Picture Digital Portfolio System

- Collaborate with vendor to customize system for our teachers and students needs and state required reporting.
- Expand the use of digital portfolio to the 8th grade
- Develop and incorporate Individual Learning Plans in a digital format

5. Actions Steps – Transportation System

Provide data interface from SIS to Versa Tran transportation system through Durham

6. Actions Steps – Financial/Human Resource System

Support the Budget Sense/Unifund Financial/Human Resource system

- Data integrity (Uniform Chart of Accounts)
- Security
- Maintenance
- Integration of data with AESOP attendance system
- Development of statistical and trending reports
- Development of external databases and/or spreadsheets
- Training for expanded personnel

3. Teaching and Learning

Provide and support a learning community with appropriate technology tools and professional development to enhance instruction, improve student achievement and support assessment.

Teaching and Learning Action Plan

Results Statement

Continue to implement and support the integration and use of technology to support teaching, learning and assessment.

Evaluation

- See Impact below

Action Steps	**Impact**
Continue to support the use of the digital portfolio system	High school principals, department heads, teachers, HS students, support staff and central administration Expand the use of digital portfolio to middle school administrators, teachers, support staff and students Develop and incorporate ILP in a digital system
Expand the use of the digital portfolio system	Intro Guidance Counselors and Library Media Specialists Intro Health, Physical Education and Family and Consumer Science teachers **Evaluation:** Review usage reports regularly
Continue to support and write the E2T2 grant	To current target audience
Continue to support the Internet Safety Program	Assist the Library Media Specialists and parents to integrate the program. Research Federal requirements for teaching Internet Safety K-12
Implement assessment of technology literacy for all 8th grade students	• Middle school Tech ED teachers to attend the PD session • Administer the tech literacy assessment to administrators, teachers and library media specialists **Evaluation:** Review reports/results

Research instructional software to support, supplement, remediate instruction and assessment	Curriculum department and Technology departments collaborate to view, evaluate and recommend programs.
Continue to support and expand the Diploma System	Graduation By Proficiency, Richer Picture Digital Portfolio, Senior Project
Provide PD sessions to integrate and support teaching and learning using Technology.	Provide Microsoft IT Academy on-line courses Provide Thinkfinity.org-Literacy Network on-line courses **Evaluation:** • Simple Assessment will be used for teacher and administrator technology
Thinkfinity	Identify teachers/administrators to become Thinkfinity certified trainers to offer professional development in using Thinkfinity.org as a means for teachers to incorporate technology into daily teaching and learning. Use the Verizon Thinkfinity grant $5,000 to pay stipends to trainers to deliver professional development in using Thinkfinity resources.

4. Emerging Technologies

Advance innovative technologies to enhance instruction, improve student achievement, support assessment and expand efficiency.

Emerging Technologies Action Plan

Results Statement

Expand and improve the district Network.
Provide continued support, expansion and research for current technology resources.

Evaluation

Review current status as needed of each action step by the Informational and Instructional Technology department

Action Steps - Network Infrastructure

- Expand the wireless network coverage to include core wireless controller and access points
- Label new switch ports for network identification
- Continue to improve site to site bandwidth with RINET
- Continue to expand HP SAN storage platform
- Storage groups for all users (students, faculty, staff)
- Enhance data backups

    - Completion of a second data center in the district for backup and data redundancy
- Expand video security system to secondary schools
- Implement centralized printing in some areas, save on toner, paper, maintenance costs
- Change default printing fonts for basic printing to reduce toner costs
- Research for implementation of centralized NAC
- Creation of new network VLANs

Action Steps - Expand and maintain high quality end user support and maintenance cycles

- NComputing
- Desktop Virtualization
- Replacement / refresh cycle
- Inventory Maintenance; include software licenses and upgrades concurrent with curriculum needs
- Create and maintain digital maps of schools that feeds directly into inventory
- Provide IS staff training on current technology

NETWORK RECOMMENDATIONS/IMPROVEMENTS:

This technology plan will be implemented with integrated district and school based delivery priorities. The first priority will be to continue to adapt basic core technology common to all buildings. The second priority will be to continue to generate school based delivery options to allow each school to address the unique physical structure limitations as well as address the needs of students, and staff at each building.

Network Improvements:

Completion of the districts CAT 6 wiring project in the 2008-2009 school year: The project brought a minimum of 7 network drops into every classroom as well as 10 gig fiber redundant connections between IDF's. The project also included the replacement of all aging hubs and switches. These units where replaced with HP ProCurve switches that also include POE for wireless. The new devices will provide for a unified communications platform as well as speed and reliability for the expansion of our systems.

The IT Department began implementing a new domain structure in 2008-2009. The IT Department will continue restructuring at each school to allow for teacher and student account creation to follow them wherever they go in the district. Eventually we would like them to have access to this information from home through the use of a new SonicWall VPN device and virtual applications with Citrix XenApp.

The IT Department is recommending future storage expansion to support home directories for users (students and employees), which ties into the above domain restructuring. This current structure was completed at theCumberland High School during the 2009-2010 school years and will be expanded to the middle level as well as the elementary level over the next few years.

Continue support for the implemented VMware Environment Solution.

- VMware provides consolidation and high availability of critical services and servers.
- Reduce power and cooling costs by reducing the physical number of servers with fewer, more powerful energy efficient systems.

- Support proposed expansion of VMware into a virtual desktop environment to allow individual virtual desktops for every user accessible from anywhere. This will also allow us to retrofit older machines into “thin clients” reducing the need for upgrades and maintenance of these systems.
- Provides reduced hardware maintenance costs.

Continue support and expansion of HP Fiber SAN Storage (2)

Expansion plan and replacement cycle of existing equipment

Research implementation for the HP Left Hand SAN data solution at our second offsite data center

Computers and Peripherals:

Since July 2006, the Information Technology Department has been purchasing new computers and peripherals from the State Master Price Agreement through the State of Rhode Island. The current standard classroom computer configuration consists of an HP desktop, computer with a dual core processor, Ethernet connectivity; minimum 2GB RAM a 17-inch flat panel monitor, and Windows operating system. All computers are purchased with a 3-year, next day parts only agreement. The HP purchases have proven both cost effective and reliable.

Elementary Schools piloted NComputing stations with great success in the 2009-2010 school years. NComputing devices will provide a new mini tower with a dual core processor, ethernet connectivity, 3GB RAM, a 160GB hard drive and a 17-inch flat panel monitor, Microsoft Windows Multi-point Operating System with terminal server and client licenses to support 3 to 11 NComputing workstations and one printer. NComputing consists of the X350 (3 User PCI Kit) or X550 (5 User PCI Kit), 3 or 5 HP 17" LCD 2 USB Monitors, and 3 or5 Keyboard/Optical Mouse Bundle PS/2.

The implementation of the NComputing solution will provide energy saving, electrical and software licensing cost savings.

Computers at the secondary level will be a combination of NComputing stations and HP desktops. The selection will be determined by the software applications needed for various courses.

Administration and clerical staff throughout the district have HP/ Dell computers or Latitude laptops. It is the recommendation of IT Department that new equipment be purchased for these departments for the 2010-2011 school years.

It is the District’s intention to continue to decrease the number of students per computer to meet the National recommendation of 5:1. NComputing and thin clients will assist in achieving this goal.

Staff members of the Cumberland Public Schools who utilize the district network and computers have an e-mail address. The Cumberland Public Schools hosts a FirstClass Communication system server and Archive server. It is the continued intention of the Technology Department and Administration to improve communication by the utilization of e-mail.

The Cumberland Public Schools will host a new Web Server. The Cumberland Public Schoolss Home Page is located on an offsite hosted server which will be converted to a new CMS site hosted internally to the district. All of the Schools have individual web pages linked to this home page. It is the recommendation

of the Director of Information Technology to explore the development of an improved website to include design and training to each department and school to support and update their own pages.

The Cumberland Public Schools utilizes Symantec Anti-Virus Endpoint Protection throughout the administration and individual site domains to protect all networked computers from viruses.

The Cumberland Public Schools utilizes RINET for its WAN and Internet connectivity. RINET provides as part of the yearly service fees a 10MB line to each secondary school, 5MB to each elementary school and 20MB to each admin location. They also provide Web filtering as well as monitoring tools to help the Cumberland Public Schools maintain CIPA compliance.

Technology Baseline Standards:
Secondary Level Classroom/Lab Computers- minimum requirements:
Purchase computers and/or NComputing (will update specifications to reflect need as technology changes):

Desktop Computers

- 17 inch flat panel monitor
- Desktop Computer
- 3GB RAM minimum
- 80 – 160GB Hard Drive
- Windows XP Professional or Windows 7
- Symantec Antivirus
- Network Printer Access
- Microsoft Office Professional 2007
- Ethernet connectivity

NComputing Solution / Thin Clients

- 17-inch flat panel monitor
- Multi-Point Server to support 3 to 10 NComputing workstations
- Microsoft Office Professional 2007
- Symantec Antivirus
- Network Printer Access
- Ethernet connectivity

Labs should be equipped with the necessary number of above listed multimedia computers and the following additional components:
Network Laser Printer
Scanner with OCR Software
Access to a Digital Camera
Devices to aid students with disabilities using computers, as needed
Presentation devices to project computer image screens
Appropriate electrical power to accommodate equipment

Additional Computer Facilities within a School (Elementary and Secondary):
In addition to the classroom computers and labs, computer workstations are located in the main office principal's office, guidance offices and special services locations at each of the schools. Also, computers and a network or slaved laser printer are located in the Library Media Centers at each school.

Technology Infrastructure Internal and External Connections:
The Cumberland Public Schools WAN infrastructure consists of Cisco Routers located at each location routed back to the RINET core. RINET supplies 12MB of internet bandwidth to the Cumberland Public Schools. The internet bandwidth requested for the fiscal year beginning July 1, 2010 will increase to 20MB. The Elementary Schools are using COX lines equivalent to 5MB up from the 3MB in 2009-2010 school year. The Secondary Schools are supplied with 10MB also supplied by COX with a request for 20MB for the 2010-2011 year.

Current External Connections:
Ashton, BF Norton, Community, Cumberland Hill and Garvin Elementary Schools
3 MB line
North Cumberland Middle School & McCourt Middle School
10 MB
Cumberland High School
20 MB

Technology Support and Maintenance:
The Cumberland Public Schools is home to approximately 2000 computers ranging in age from new to 10 years old. The academic and administrative computers are maintained by the IT Department.

The Technology Department is made up of the following:

Director of Information Technology
Network Manager
Data Manager (stipend)
District Support Technician (TBD for future hire)

Information Management Service Functions have traditionally been shared between the Technology Department and the Business Office. As obsolete business systems are replaced, more responsibility is shifting from the Business Office to the Technology Department, which increases staff support demands. The Technology Department is responsible for the business and financial systems and the student information system with the exception of staff attendance. As more information management functions are upgraded or automated, support demands and response times will increase.
The Technology Department is responsible for overseeing the following Communications and Network Infrastructure Service Functions: Network Management, Voice/Video/Data Infrastructure, Internet Access and Security, Network Security, Electronic Communication (e-mail, fax, etc.), Phone System, Website Management, Campus Controlled Lighting, Video Security and Staff Development related to those functions.
The Technology Department is responsible for the following Operations, Maintenance and Support Services Functions: Hardware Maintenance, Help Desk Services, Technical Standards and Procurement, Installation and Contract Management, Fixed Assets Management/Capital Inventory and Management, End-User Relations and Management, Research and Planning.

Repairs:
The IT Department visits the elementary schools twice a week on a rotation or when needed. The main priorities are at the secondary schools as well as the administrative and business offices.
Work Order Request forms are available via e-mail using a custom form and process developed in FirstClass. The request forms are addressed by the department by priority and school.
Completing the automated form, technicians complete the task and forward the completed form to a completed folder which is monitored by the Director.
Phone calls for immediate priority assistance are by the recipient of the call or forwarded to another in the department based on need. All call requests are setup to forward from voice mail to the email system to district assigned smart phones.
Laptop maintenance and upgrades are scheduled during the summer or vacations by the Network Manager.

Software:
Software purchases and licensing are the responsibility of the Information Technology Department. Installations of newly purchased software or upgrades are performed by the IT Department staff only.

Network Infrastructure:
The network infrastructure is monitored by the Network Manager and/or the Director of Technology; repairs are performed by either the Information Technology staff or by the outside vendors responsible for the Cumberland Public Schools (RINET and/or Atrion Networking)

Future Plans and Projections

Elementary School Classroom:
The goal of the district is to install NComputing devices in all elementary classrooms. With this configuration it will bring a seat count of 3-5 computers per classroom as well as access to network printing. Along with these units the district will be expanding the use of Computers on Wheels to the elementary level to mimic that of the High School.

Middle Schools:

Classroom:
The goal of the district is to install NComputing devices in all middle school classrooms. With this configuration it will bring a seat count of 3-5 computers per classroom as well as access to network printing. Along with these units the district will be expanding the use of Computers on Wheels to the middle school level to mimic that of the High School.
Computer Labs:
The middle school model includes a Keyboarding/Digital Tools lab used for the delivery of curriculum instruction.

It has been recommended that a new lab be constructed to accommodate 25 – 30 students, and be situated so all screens are viewable by the teacher and a separate work area created for the “build area” for the Tech Ed curriculum. These labs will also use classroom control software to assist students with work and control unnecessary use of the internet.

Accommodations for students with disabilities need to be considered. Adaptive technologies may also need to be installed on computer workstations to accommodate the individual needs of some students.

***Timetable*:**
Necessary funds should continue to be made available during the implementation of this plan to:
Provide at least one additional multi-media PC for each classroom.
Provide access to LCD projection.
Provide networked high-speed laser printers in strategically placed common access areas.
Continue to update existing computer labs.
Provide a LCD projection device for all computer labs.

High School

The high school model design includes subject specific computer labs, a general purpose computer lab, multiple workstations in the library media center, and classroom computers. A teacher workstation will be available for every classroom. All High School rooms designated as Home Rooms (Advisories) are equipped with at 5 least computers.

Classroom:

Teacher and student workstations will connect to the network for sharing software, resources, data exchange capabilities, and accessing information stored in the library media center. The workstations are to be used to present whole class instruction, illustrate ideas and concepts, manage and organize information.

Computer Labs:

The high school model incorporates the use of subject-specific computer applications labs in the subject areas of Math, English/writing, Technology Education, Business Education, CAD, Foreign Language, Music/Midi, Library and a multidisciplinary/open lab.

Accommodations for students with disabilities need to be considered. Adaptive technologies may also need to be installed on computer workstations to accommodate the individual needs of some students. The number of computer workstations in a lab can be used towards the district goal of providing a computer workstation for every 5 students.

Library Media Center:
The library media center will support networked automated circulation and catalog functions as well as provide access to full-text database sources via the web. All schools will be online with Destiny or another Follett version for Library automation. In addition, multiple computer workstations accessible by students and teachers will provide access to the catalog, and the Internet. The computer workstations should also provide accessibility the MS Office applications suite. Considering space limitations, it is recommended that at a minimum 4-6 computer workstations be provided in an elementary library, 8-10 workstations at the middle school level, and 30 workstations available at the high school level.

Timetable:
Necessary funds should continue to be made available during the implementation of this plan to:
Align student information with Aspen X2 Student Information System.

Administrative Management

SIS Implementation and Conversion:
The Cumberland Public Schools continues to utilize SchoolMax as its Student Information System until the end of the 2009-2010 school years. It will then move to Aspen X2 for the start of the 2010-2011 school years.
The new Aspen X2 SIS provides real-time, web-client student information management for administrators, clerical staff, and counselors. The system assists the district in state and federal reporting and in meeting educational standards set by the No Child Left Behind Act. The current SchoolMax system is out-dated and will be replaced. This new system will utilize the data from the old system through data conversion and custom application conversions, which will be a considerable cost to the district.

Cumberland is an active supporter of the RINET Consortium and would like to continue with its current relationship. RINET currently maintains our centrally located SIS and data storage center, as well as other consortium districts. At some point this model would allow consortium districts to transfer student data between districts for students that move into or out of the current district.

Some of the features and advantages of the RINET Consortium SIS:
All users have access to the SIS from any location that has an internet connection, rather than from specified work stations at the school building level.
All district employees can have access to the SIS, depending on role and need, rather than just select users with particular roles and responsibilities.

Other features of Aspen X2 include:
Electronic student attendance, teacher grade books and on-line grade reporting
Electronic IEP's and special education reporting
Health record management
Parent access to monitor their children's progress
Customizable screens and reporting for individual districts
Training and Support

District Administrative and Management Goals:

1. Continue to expand the use of technology to improve communication within and among all school buildings, staff and central office administrators.
2. Expand access of the student information system access to classroom data entry of attendance, grade book and grades.
3. Expand the current student information modules to include Special Education IEP and Case Management, Health Record Module, Parental Internet Access.
4. Expand the record keeping capabilities of special needs data.
5. Use technology to enhance all record keeping.
6. Ensure that all school buildings and administrative offices will have the capacity to acquire information and perform document processing applications i.e.: forms management, database creation, spreadsheet creation, on-line communication.

7. Use technology to coordinate the distribution and sharing of all educational resources among all buildings and district personnel i.e. student data, educational research, curriculum resources.
8. Use technology to facilitate systematic assessment of curriculum, instruction and learner achievement.
9. All Cumberland attendance, entry, withdrawal, discipline action, discipline infraction, grading, and calendars coordinated in the X2 Aspen system and AESOP System.
10. Provide staff training for X2 Aspen users.
11. Provide Teacher and Parent access to X2 Aspen student information.

Conclusion:

Technology promotes cooperative learning, active participation, project based learning and exploratory learning. Students need to use technology to be independent learners and create their own knowledge. They will use software to organize their work, browse the web to produce presentations that incorporate video, sound and graphics. Students engage in peer writing and editing using technology. Collaboration is possible without leaving the classroom through the use of technology.

The technology plan in the Cumberland Public Schools is an ongoing commitment to our students, staff and administrators. With this plan focus on the use of technology will enhance teaching and learning in Cumberland and contribute to the improvement of student achievement.

Resources

Rhode Island Department of Education (RIDE)
http://www.ride.ri.gov
National Educational Technology Standards for Students (NETS for Students)
http://cnets.iste.org.students/s_stands.html
National Educational Technology Standards for Teachers (NETS for Teachers)
http://cnets.iste.org.teachers/t_stands.html
Technology Standards for School Administrators
http://osx.latech.edu/tssa
Guide to Developing the Technology Plan Schools and Libraries Division
http://www.sl.universalservice.org/apply/step2.asp
National Educational Technology Plan
http://www.ed.gov/about/offices/list/os/technology/plan/index.html

Technology Budget:

Technology			SC Approved 2010 Budget	Proposed 2011 Budget
Salaries				
Technology Director			86,520.00	86,520.00
Network Manager			53,251.00	53,251.00
District Support Technician			20,000.00	40,000.00
Data Manager Stipend			10,000.00	10,000.00
Overtime			0.00	5,400.00
			169,771.00	**195,171.00**
Purchased Services				
53406	Purchase Services	Licensing & Software	0.00	110,787.00
53406	System wide Other Tech Services		25,000.00	15,000.00
53301	Staff Training		3,000.00	3,000.00
54311	Repairs of Equipment HS		3,000.00	3,000.00
	Repairs of Equipment McCourtMiddle		2,000.00	2,000.00
	Repairs of Equipment NC Middle		2,000.00	2,000.00
	Repairs of Equipment - Elem		3,000.00	3,000.00
	RINET Services		0.00	99,909.00
			38,000.00	**238,696.00**
Materials & Supplies				
56101	Office Supplies - Systemwide		200.00	0.00
56101	Computer Supplies		5,000.00	5,000.00
			5,200.00	**5,000.00**
Equipment				
57305	Office Equipment		0.00	650.00
57309	Computer Equipment	Systemwide	100,000.00	5,797.44
57309	Computer Equipment	Middle	0.00	39,197.00
57309	Computer Equipment	Elem	0.00	31,279.00
57309	Computer Equipment	HS	0.00	3,725.55
			100,000.00	**80,648.99**
Dues				
58101			**300.00**	**300.00**

88,524.00	Elem	Totals on proposed leasing options	
31,278.48		21,612.69	
61,168.00	MS		

Totals Budget	**313,271.00**	**541,428.68**