Chelsea Public Schools
Technology Plan

2012-2015

Chelsea Public Schools
500 Broadway
Chelsea, Massachusetts 02150

Table of Contents

The Role of Technology in Education Reform

Introduction

Effective and appropriate integration of technology is key to continued educational reform in Chelsea in order to offer opportunities to improve educational experiences for young people, their parents, their teachers, and their community alike.

The school district has taken a forward view on technology integration having initiated computer activities at all of the schools for many years. The schools, which were designed to provide access to the Internet, improve intra-district connectivity, and institute a host of other technological advances, provide excellent opportunity for students, teachers, and administrators.

Chelsea is aware of the rapidly changing nature of technology and its components. The district continues to take a long term perspective on the issue by updating the previous three-year plan and designing a mechanism by which the plan will be reviewed and updated, as necessary.

This plan and the subsequent review process has been offered by the Technology Committee, a group of teachers, administrators, and district staff with a diverse and comprehensive view of effective technology integration. The Committee developed a strategic plan in order to identify the needs of the district and to foster the appreciation of the role of technology in reform efforts. The vision statement offered by the Technology Committee follows:

> (1) Technology can contribute to the learning environments and provide opportunities for all students and provide sound and productive learning and work environments for faculty and staff;
> (2) The district's capacity to use technology appropriately is linked to its core functions for systematic reform at both the district and the school levels:
> establishing purpose and direction; developing a learning community; providing learning opportunities; and documenting processes and results.
> (3) Emphasis is given to the technology-rich learning opportunities and environments, not merely to the matching of specific technology applications or software to specific instructional objectives.

Background

Developed in 2011 by the District Leadership Team, the vision of Chelsea Public Schools is:

By June 30, 2016, Chelsea Public Schools will be a model for other school districts in the way we utilize reflective practice and leverage family and community partnerships to ensure that ALL students achieve at high levels, think critically, and graduate from our school system college and career ready.

The mission of the district is:

Student success is our job and we will do whatever it takes.

The values are:

- *All children can learn.*
- *The life and mind of every student are precious and it is our job to take students from where they are to where they need to be.*
- *Results matter more than intentions and it is the job of all the adults in the community to help children achieve academic success, high aspirations, and the skills they need to be successful.*
- *The diversity of our school community (race, ethnicity, ability, and socio-economic status) is a source of strength and a resource for the education of all learners.*

These statements provide the cornerstone of real education reform in Chelsea. Teachers and administrators are involved in curriculum development and professional on an ongoing, continual basis. Professional development opportunities are provided throughout the school year and a core group of lead teachers, proficient in content and adept at teaching teachers, maintain and support professional development opportunities within the schools on a daily basis.

Teachers and administrators are involved in curriculum development, serving on Curriculum Committees, which analyze, monitor, and revise what is to be taught in each content area in each grade throughout the system.

The Technology Plan for Chelsea is an integral component of the realization of the vision of the district. The major components of technology integration include: acquisition of hardware and software, professional development for staff, curriculum development, and ongoing support to implement curriculum and professional development in all classrooms.

We envision schools where technology is used by the teacher and learner to the fullest extent possible to enhance the instructional processes and provide increased educational opportunities for our special populations, including English Language Learners and Students with Disabilities. It is technology which will enable students to access and process information, think creatively and critically, solve problems, communicate effectively and live and work productively in the twenty-first century.

The Technology Plan acknowledges that the classroom of tomorrow must extend beyond the traditional boundaries of the classroom and school building. With the rapid advancement of the information age in which we live it is essential that learning be seen as a lifelong process and one which can not take place in isolation from the local and global community.

Basic skills are reinforced by applications that are both intellectually exciting and rewarding. A diverse and comprehensive group of dedicated professionals served on the Technology Committee, the recommendations of which form the basis of the Technology Plan.

Our vision is guided by the major goals of Chelsea Public Schools and are supported by the following practices:

- Consistent, ongoing, and proven professional development activities;
- Teaching is at its best a collegial endeavor and this collegiality must be supported;
- Curriculum content must be identified and assessed;
- Student achievement must be assessed on an ongoing basis using authentic measures.

The increase in technology will affect all aspects of the district including teaching and learning, professional development, and school-based and district-wide administration.

Chelsea Public Schools serves students in (1) the Mary C. Burke Elementary School Complex, which is made up of four schools and houses more than 1800 students in grades one through four; the Williams Middle School complex, made up of two schools, The Joseph A. Browne School and the Eugene Wright Science and Technology Academy, and houses more than 1,100 students, (3) The Clark Avenue Middle School which houses more than 500 students, (4) Chelsea High School, which houses over 1,300 students and (5) The John Silber Early Learning Center for early childhood education, housing over 800 students.

2.1 School/District and Community Demographics

Chelsea is historically one of the poorest and most educationally-disadvantaged school system in the commonwealth. More than one-third of all families with children under the age 18 have incomes below the poverty line. Thirty-six percent of all households in the city subsist on income of less than $ 15,000 annually, which is below the national average. Thirty-seven percent of the adult population does not hold a high school diploma. The unemployment rate in the city hovers near 25 percent.

Of the 5692 students enrolled in the system in 2011, more than 90 percent are minorities, including 81 percent who are Hispanic, two percent who are Asian and seven percent who are Black. More than 55 percent of the student population has a first language other than English and nearly a quarter of all students cannot perform ordinary class work in English.

2.2 Technology Planning Process

In November 1993, the Technology Task Force was founded. The goal of the task force at that time was to develop a long range plan for the use of technology as it related in the short-term to the architectural needs of the new school construction project and in the long-term as it related to both improved efficiency and efficacy of the instructional and management components of the district. Chelsea teachers who have used technology to impact learning in the district were tapped to serve on the Technology Task Force. Based on teachers' research and experience and recommendations from technology consultants, the committee developed a mission and vision statement that defined the technology infrastructure required for these school buildings.

The Committee provided significant input for the planning process and recognized the importance of ongoing review. The committee is now comprised of technology staff members and technology specialists, and administrators. This plan is reviewed, assessed, and updated on a regular basis to ensure technological improvements are incorporated into the schools and are seen as additions to daily school operations.

2.3 Community of Stakeholders and Resources Linkages

Technology Partners

As the district continues in its integration, Chelsea continues to reach out to appropriate parties, including teachers, educational consultants, and technology professionals, including local and state-wide businesses and other organizations.

Chelsea has been slowly making the transition from a manufacturing-based economy to an information-based economy. There have been several initiatives within the city of Chelsea which play a critical role in the emergence of technology in the schools:

The Massachusetts Information Technology Center, which processes all state tax forms, has become a working partner in Chelsea High School's emerging curriculum and has expressed an interest in forming a similar partnership with the Williams School, which is located across the street from the facility;

Bunker Hill Community College has partnered with Chelsea High School to form an agreement in which students may earn simultaneous high school and college credit by taking courses at both sites. As Bunker Hill has opened a satellite campus in Chelsea, internal discussions have begun focusing on how to increase such agreement;

Comcast , Inc. has provided an institutional network for data and video transmission between all city buildings and departments, including the schools, and provided free Internet access to schools used to augment bandwidth for all school buildings .

2.4 Vision Statement of Technology

Chelsea's comprehensive approach to technology integration addresses several critical issues:

Teaching and Learning

In order to effectively integrate technology into the fabric of the school, teachers require increased professional development opportunities focusing on (1) technology's application to classroom learning and (2) technology's application to school and classroom management. Chelsea employs a comprehensive professional development system. The professional development program is founded on three key principles:

- Teachers must know well the subjects they teach;
- Teaching is a collegial endeavor that relies upon a network of support;
- Effective change occurs when there are intensive development workshops, seminars, and follow-up programs of support in classrooms.

The very classroom teachers who must make a curriculum work have been well-invested in this philosophy, creation, and implementation; they have developed the systems and habits to sustain continuous curricular improvement and perennial personal growth.

The Chelsea School Department has made a long-term commitment to comprehensive staff development. This commitment is embodied in collective bargaining agreements. Teachers are eligible for tuition reimbursement at an accredited institution of higher education.

The program of professional development that guides the district is the lead teacher model. These lead teachers continue training programs, support, classroom work by co-teaching with colleagues, demonstrate ideas and methods in classrooms, conduct workshops and seminars, and serve as key members of the district-wide staff development committee.

There are Lead Teachers assigned to specific schools and Lead Teachers assigned to specific grades across the district. In each school, technology specialists in each building serve the role of lead teacher providing professional development and ongoing support to their peers, troubleshooting hardware and software issues, and performing routine installations.

Technology is viewed as a tool to promote high learning standards for all students.

Students will use the computers in class as tools for independent projects, interactive teaming and to work with students in other classes or to use information from another course of instruction.

Through the school local area network (LAN), students will access the Internet, the library catalog, productivity tools, and many other on-line resources. Students will access the LAN for independent research, interactive learning and cross curricular workgroups. Teachers will also access the same resource materials as the students and on-line materials for project work to provide help, answer, questions or review progress.

Technology will be integrated into the curriculum. Teachers and students will use appropriate technology to solve problems, gain access to a wide variety of resources within and beyond the school, and to demonstrate their proficiency in all content areas. Teachers and students will have access to necessary support systems, including human and other resources, which will facilitate technology integration.

The district established a code of conduct in regards to software/hardware use and the Internet.

In each classroom, classrooms teachers have access to a computer which is viewed as an integral teaching tool. The district has a commitment to providing sufficient technical support to manage, maintain, and, when appropriate, upgrade equipment. As a result, teachers, administrators, and other staff will be able to concentrate on integrating functioning and sound technology into the curriculum. For instance, teachers can access a wide variety of on-line resources through the WiFi network using their desktop or laptop computers. In addition, attendance and grades are maintained and monitored using the X2 Aspen student information system.

By the end of this technology plan, we expect the following:

- Teachers will have continued access to increased professional development led by building-based technology professionals and outside experts;
- Teachers will have access to transportable technology to assist with maintaining lesson plans, attendance records, grades and other notes;
- Teachers understand the use of and have ready access to the District's LAN, WiFi, and video interface;
- Teachers will understand the use of the X2 Aspen Student Information System;
- Teachers will understand the use of and have access to electronic mail. The collegiality of teaching is reinforced through the ongoing discussion of lesson plans and development of interdisciplinary curriculum.
- Teachers will understand the use of and have access to create multi-media presentations in classrooms and in larger contexts.

A sound technology plan is an emerging document. Chelsea's plan will be reviewed on a regular basis to ensure goals are met and achieved and new goals and objectives are set to reflect progress to date and continue to chart a realistic technology program.

For instance, technology components to be examined within the next three years include:

Distance Learning, which can be used to increase learning opportunities for all students and can be used locally for students who may be out of school for an extended periods of time;

Automation of existing school data networks to streamline bell schedules, bring networked precision to clocks, and deliver audio and video to any classroom in the wide area network.

School Building Administration

Technology will be used as a tool to improve the administration of schools and the school district. Therefore, it is essential that principals, assistant principals, project directors, and other administrators are as familiar with technology as are specialists and classroom teachers. To make this shift, administrators will require access to high-quality professional development and follow-up support.

We expect the following by the completion of this plan:

- Administrators will continue to have access to high-quality professional development which focuses on the use of technology in the classroom and as an administrative tool;
- Administrators will increase the collegiality of professional development by setting examples to professional staff in school buildings;
- Administrators will have access to high quality hardware and software that allows more efficient school administration, i.e., Electronic mail, Data bases for attendance, behavior, and other pertinent issues, class schedules, etc. and increased communication with other schools within the district and central office;
- Administrators will continue to assess their technology needs and explore appropriate tools;

School-based and district-wide technology assessment teams will continue to monitor progress of the technology plan and offer ideas on improving it.

District-wide administration

Chelsea has reorganized its Parent Information Center, the district-wide office that manages student registration, system-wide transportation, student lunch status, attendance, and enrollment records.

As part of this reorganization, appropriate technologies were explored which could handle the above tasks and offer a method of ongoing communication between the Parent Information Center's central location and each school in the city.

Based on the assessment and the district's experience with the previous Student Management System , the district purchased the X2Aspen system, offered additional professional development to staff, and fully implemented the system, district-wide. The following goals are expected to be achieved by the end of this plan:

- System-wide policies and procedures will be articulated for non-instructional educational tasks, i.e., attendance, enrollment, registration, etc.
- Professional development will be offered to all users of the Student Management System to ensure uniformity of data entry, including appropriate use of the system, and purity of student records.

As the plan will be reviewed on a regular basis by teachers and administrators, the following principles will provide the basis for ongoing plan review:

1. Technology will be incorporated into the curriculum to improve classroom teaching and learning. Technology will be used as a chalk board, writing tablet, pen and pencil, calculator, scissors, paste, typewriter, camera, and video recorder. In this way technological products will be used to accomplish tasks such as composition, computation. Students and teachers will have ready access to multimedia environments, writing tools, and production capabilities located in all learning environments. Students and teachers will use computer-based tool software and tool-based lessons. They will have access to networked systems extending from the classroom to the building, and beyond.

2. Technology will be used to create and deliver curriculum and instructional elements. Technology can play a major role in the design, development, delivery, and evaluation of the interdisciplinary instructional materials. Teachers will use technology to present information to students and challenge students to learn specific knowledge. Students will also use technology to demonstrate their understanding of specific knowledge and to apply knowledge to new and different problem-solving situations.

3. The Computer Lab and the Library/Media Center will become the "integrated information hub" of the school . This use of technology will help to reduce the isolation of the classroom and remove the walls or barriers to communication. Technology can make possible communication between classrooms, throughout the school building, to other buildings, and to the world at large. In this way the flow of information in schools will significantly change. The network will link all schools and deliver services to end users (students, faculty, staff, and parents).

Previously a majority of research time was spent in acquiring information and minimum time manipulating it. Technology makes possible to spend a minimum of the time acquiring information and a majority of time manipulating it.

4. Technology will be used to improve administrative management functions of the school. Technology will be used to improve day-to-day school and school district administrative and management activities, including attendance, general school management tasks, record keeping, and communications.

Current Status

3.1 Students and Staff Assessment of Technology Skills, Knowledge, and Attitudes

The staff indicated in a technology survey, a strong desire for training. Training has been offered during a 10 week long technology training sessions during the first part of the school year and another strand in the Spring of school year 2010-11. An overwhelming number of teachers participated during this training, and a summer session was offered.

We also conducted another technology survey to indicate what applications teachers thought would improve learning, and to assess their own skill level and student use of technology. More than 222 professional staff responded to the survey. Most of faculty felt overwhelming in support of technology as a tool to improve teaching and learning. The majority felt that their interest were in the areas of publishing and productivity, research technologies and telecommunications.

During the spring of 2011, we conducted a survey to indicate what type of technology training should be offered in the next school year. The following are the results of such survey:

Topic	Responses
Advanced Excel	31
Advanced Word	25
Cloud Communication with Google	18
Creating Student e-Portfolios	29
Digital Photography	20
Technology Bootcamp for Educators	22
Introduction to Access	6
Introduction to I-movie	32
i-Safe Internet Safety	4
MA ESE Technology Literacy Standards	12
MassOne	9
Online Teaching Resources	48
Podcasting	16
PowerPoint	32
SMARTBoard Training	72
Student Response Systems	11
Thinkfinity	8
Using and Creating Comics for Education	15
Using Kurzweil and Book Share to Assist Students	25
Web 2.0 in the Classroom	14
Assistive Technology: Using Text to Speech	17
Using Google Earth in Science and Social Studies	15
Discover Streaming Resources	19
Advanced Discovery Streaming	10
Using and Creating SMART Notebook Lessons	42
Activities Using Kidspiration and Inspiration	18
Internet Safety and CyberBullying	7
LEGO Robotics	16
Google for Educators	35

3.2 Inventories

Inventory: Middle and Elementary Schools

Classroom Stations.

A work station provides high-speed access to all forms of information, display of computer and video images, electronic mail, and routing to other computers in the room. The station consists of a high end computer with video input capability; data and video projector; and DVD drive . It is connected by Ethernet to the school network. This station can perform the following functions:

- Run any and all computer programs, for instruction, productivity, data access, project-building, locally or over the network, to an individual or to the entire class.

- Display and record video and sound in digital form, from cable television, video tape, digital movie files, or camera; to an individual, small group, or entire class.

- Serve as a teacher presentation station and/or student production station.
- Connect to school wide electronic mail and administrative record-keeping system.

Classroom Computers.

At least 3 computers installed in each classroom and teaching area and connected to the school ethernet network,. These computers are used for the day-to-day functions of students and teachers: word-processing, accessing information, practicing the basic skills, working on group projects, and so forth. Teachers may also use the laptops outside of school from time to time to continue their work from home and to access the school network.

Specialized Workstations.

Students, teachers, and administrators will have access to carefully-designed setups specific to a certain functions, such as engineering stations in tech ed.; an animation station in the art room; two music composition and synthesis systems; two graphics composition and layout systems; three science lab instrument interface systems; four student multimedia production stations. These are used by students, individually or in small groups, to carry out more complex project work. Each includes a powerful personal computer and appropriate peripherals; most are connected to the school network with Ethernet.

Servers.

Servers provide the network services and run the network operating system. They provide places for students and teachers to store their individual and group work; they keep the various electronic library and curriculum materials, including digital video images; they manage the administrative records of the school. Each file server is accessible, with appropriate privilege level and password, from any computer in the school.

Printers.

Printing will be silent, laser-quality, on plain paper, and accessible from anywhere on the network. Middle and High School classrooms will have their own printers; and the elementary classrooms will share a printer located near their connecting doors.

Peripherals.

Some classrooms will need certain peripherals to do their work, and the need for peripherals will be assessed by building principals in consultation with the district's administrator of technology.

Inventory: High School

Technology at the Chelsea High School will assist staff and students in making a difference in education. Personal computers will touch the life and learning of every student who attends the school, and will play a major role in preparing them for the twenty-first century. Rather than use computers simply to deliver instruction, we will use computers to help students learn how to learn, to solve their own problems, and to gain access to a wide variety of resources within and beyond the school. We expect students to be active and enthusiastic users of technology, who use computers to create their own multi-media projects and presentations that demonstrate technological proficiency and deep understanding of content.

Each classroom at Chelsea High School will be equipped with computers that are capable of connecting the teacher with many sources of information, and each instruction area will contain the capability of using the computer connected to a data/video projector for large-group presentations. A Technology Facilitator will "coach" teachers to develop the skills necessary to make this transition.

Technology will be infused into all areas of curriculum and throughout the building, including: (1) the core content areas, (2) the library media center, (3) technology labs, and (4) specialty rooms.

(1) Core content areas:

Each classroom is equipped with a teacher workstation, student computers, and printer. All computers contain productivity tool software and other software. All computers are capable of sound input and output, full-motion video on screen, 1 GB of RAM,CPU 1.0-2.0 GHZ, Macintosh G4 or G5 . All computers have access to appropriate software for science, social studies, mathematics, literature, and writing.

In addition, each science classroom is equipped with a multimedia teacher presentation station, student computers, each with lab interfaces and probes, and an appropriate collection of multimedia science software. All computers in the science areas are capable of sound input and output, 1 GB of RAM, CPU 1.0-2.0 GHZ, Macintosh G4 or G5 .

Teachers will have access to curriculum materials that incorporate computer-controlled video, text, graphics, diagrams, and photographs that help them present to the entire class concepts in all disciplines.

(2) Library/ Media Center:

The library is the media and information center for the entire school. It will house and organize many of the electronic reference resources that are available to students and teachers throughout the building. The library staff will maintain on-line information including electronic resources, facts-on-file, and text reference works that can be accessed by computer in school. Students will also be able to use the computer stations in the library itself to conduct their research and develop their papers and projects. All of the library's resources will be cataloged electronically, so students and teachers can search it from anywhere in the school or at home. The library hours will exceed the regular school day schedule and encourage students to perform independent research and complete other school assignments.

Librarian stations, one of which also acts as a circulation desktop, operate library management software that allow searching of the collection and tracking of circulation. They also provide a complete set of productivity applications for the library staff.

(3) Technology Labs.

Labs enhance student exposure to technology and encourage teachers and students to take advantage of a variety of technological options. Labs have been set aside for Web Development ,Desktop Publishing, Business, Language Lab and Computer-Assisted Design.

The Technology Labs are equipped with appropriate computers to access the on-line curriculum. The labs consist of computer stations running full-function software and productivity applications. These stations use a 17 or 20 inch color display, sound input and output, and full-motion video on screen. A teacher station consists of the same computer connected to a projection system that allows the image to be placed on an eight foot screen for viewing by an entire class. The software includes page layout, computerized typesetting, freehand drawing, and animation software. Each of these computers has sound input and output, and full-motion video on screen capability.

(4) Specialty Rooms

Art Rooms and Music Rooms are equipped with appropriate hardware and software. Students and teachers in the art rooms can access the collections of the Louvre, the National Gallery of Art, and their own works through an interactive video system that incorporates text analysis, full-color renditions of paintings and sculpture, and commentary on art history, all able to be searched by computer. Music teachers use this system to teach music theory, music analysis, and music appreciation, using software that does MIDI sequencing, musical notation, and analyses of musical performances. This system incorporated the classroom piano, record and cassette tape player.

3.2.1 Software

Software is catalogued by the Technology specialist who keeps a an inventory of all the software in each building. In addition, the library specialist keep an inventory of the video materials, and every classroom teacher has access to various educational applications . Every computer in each of the building is protected with an anti-virus software and access control program.

Each school has the ability to connect to the Library Server , Internet, and access digital material. In Chelsea, the addition of technological resources and access to the Internet has enabled us to provide access to materials in a variety of formats. The Media Center's print collection catalog is computer based so that students, starting at the elementary level, are learning to find books using a computer system.

3.2.2 Hardware

The Technology Director will be responsible for maintaining an inventory of all hardware. The Library media specialist is responsible for maintaining an inventory of all audio visual materials. Chelsea Public Schools maintains an inventory that reflects the use of computers in each department.

3.2.3 Facilities &3.2.4 Network/Telecommunications Capacities

Chelsea has had a commitment to incorporating technology into the curriculum for some time. Prior to the construction of the new school buildings, technology staff was hired in several school buildings. An investment was made in shared equipment which traveled around school buildings on carts. Professional development was initiated.

Before the fall of 1996, there was some access to technology. Students had access to the Integrated Learning System, which provided individualized, computer delivered and managed instruction in basic skills. Teachers received professional development initially to understand the curriculum organization and able to monitor student progress. At the High School level, 4 computer lab were networked ranging from Desktop Publishing to Cad Systems.

The school buildings are all networked and connected through a fiber backbone. Chelsea has been implementing an aggressive program to upgrade the capacity and condition of their school and to increase the level of technology. For instance:

- All classrooms are equipped with 4-7 data ports and video ports with the possibility of adding three more in the future pending funding;
- The High School is equipped with 7 Technology labs-ranging from Desktop Publishing to Language labs , Library Media Center, TV and Video Studio and an Email Server that serves the entire district ;
- The Middle Schools have 2 technology labs, 2 computer labs with 30 stations each, a Library Media Center, and a Video Network;
- The Elementary School Complex houses 4 computer labs with 26 multimedia stations, Library Media Center, and a Video Network;
- All the buildings have access to the Internet through the Wide Area Network;
- Internet link to the Internet Service Provider upgraded with 250 Mbps line.

Every school has the ability to receive educational programs through our video network and broadcast to every classroom. All the schools are connected through a WAN using a fiber backbone.

3.3 Assessment of Current Curriculum Status and Technology Initiatives in Relationship to Education Reform

In Chelsea, teachers continue to design an emerging curriculum that is integrated horizontally and vertically. In other words, what is taught in grade six picks up where grade five left off, and subject areas relate to one another. Heterogeneous groups have been fully embraced at the elementary level and in the middle schools. Educational technology in Chelsea enhances all the systematic nature of the reform taking place. Technology is instrumental in developing and help to support the professional development efforts.

Curriculum committees for each core content area have studied the Curriculum Frameworks as a base for curriculum development. In addition, the Frameworks for Science and Technology have been made available to all Curriculum Committees. Technology is incorporated across the Chelsea curriculum.

3.4 Assessment of existing Professional Development Activities and Structures

Professional development is critical to education reform. The Chelsea Schools has initiated an innovative professional development program that draws on best practices identified over the last eight years.

Chelsea continues to offer many professional development courses during the school year and the summer.

Every school year, we offer three cycles of technology training . Most of these courses are skill training courses that cover the immediate needs.

The following technology are some of the courses that were offered to all professional staff during 2011-2012:

- Integrating Technology;
- Inspiration;

- Kidsinspiration;
- United Streaming and Brain Pop;
- Visual Presentation Technology
- Introduction to Kurzweil
- Thinkfinity
- Discover Streaming Resources

In addition, technology support positions have been initiated at every school building. These positions support teachers in technological proficiency and integrating technology into the curriculum.

3.5 Assessment of Current Technology Support Staff

The Chelsea School Department has made an effort to provide appropriate staffing levels to implement the technology goals.

Descriptions of all Technology Staff positions follow.

Director of Technology

The Administrator of Technology provides overall direction to and leadership within the school system in the use of computers and other technology in education.

Responsibilities:
- Responsible for the entire technology infrastructure in the Chelsea Public Schools.
- Manages all hardware related computing support activities in the district, including administrative computing, hardware maintenance, network operations, and central services;
- Coordinates long range planning to ensure continued viability of the technology infrastructure;
- Coordinates any required district wide special (nonrecurring) support functions (e.g., major software or hardware upgrades).
- In conjunction with Educational Technology Specialist, establishes all required technology policies, regulations and procedures;
- Supervises other technology staff, including Network Administrator and Technology Specialists.

Network Administrator

The network administrator is responsible for maintaining and administrating the network for all buildings.

Responsibilities:
- Supervises the daily operation of all centralized services, including electronic mail, network services and file services;
- Supervises connectivity with system central database;
- Supervises all maintenance functions required of all computers, printers, network hardware and related equipment;
- Coordinates training and support efforts at each school.

Application Support Administrator
Responsibilities:

- Supports records management activities
- Supports data reporting and analysis activities
- Develops written documentation of processes and procedures and disseminate application updates or technical information to appropriate staff.

Technology Specialist (lead teachers positions)
(1 Middle School, 2 Elementary)

The technology specialists will be the system administrator in each school building and will focus on technology as part of the education process and for integrating computers into the curriculum. Leveraging both skills based and an interdisciplinary based approach, and working very closely with teachers and administrators, the Technology Specialists help to formulate technology plans and programs.

Responsibilities:
- Responsible for planning and implementation at assigned building;
- Consults and trains staff for integration of technology into curriculum;
- Train teachers-prepare for and deliver after-school courses for teachers;
- Trouble shoot--on-site software and hardware support;
- Consult and work with Administrator of Technology to identify appropriate software to support the curriculum;
- Acts as a system administrator for the LAN in conjunction with Network Administrator;
- Researches and tests use of appropriate software and other technology programs.

Technology Lab Teachers
(3 at Middle School for the technology labs)

The Technology lab teachers at the Middle School will be responsible for developing a program using a modular approach to different types of technologies. In this type of lab, students will spend the majority of their classroom time completing instructional activities. The space in the lab will equipped with all material, tools and technological equipment that student will require to complete the learning activities.

Responsibilities:
- Prepare students for entry into advanced secondary technical program;
- Teach courses in different technologies;
- Maintains and makes recommendation according the technical modules to be taught;
- Consult--work with Technology Specialist to identify appropriate needs in the Tech labs.

3.6 Expenditures for Technology during the Past two Years

Technology is acquired though various form of funding that includes the local school budget as well as state and federal grants. In order to upgrade the network infrastructure in each school building, local and grant funds were used to achieve this goal. In addition other funds came from the school funds so that we could meet our goal of refreshing computer hardware at each school building. For FY 13, the emphasis is more on maintaining the network infrastructure to support technology integration at all school buildings.

The following is a summary of the expenditures over the last two years:

	FY11	FY12
Total	$ 848K	$ 800 K

The planning process for technological integration is tied closely to budget preparations. All technology expenditures will be reviewed by the district's Administrator of Technology who will make recommendations to the Assistant Superintendent for Finance and Operations. This centralization will assist the district in meeting several of its goals:

- Hardware and software purchases will be consistent and complementary throughout the district, thereby supporting overall curriculum reform;
- Hardware and software will support professional development thereby allowing Teachers increased opportunities to improve teaching and learning in classrooms;
- Encourage long-range planning for technology needs;

Program Goals and Technology Initiatives in Support of Education Reform

4.1 Administrative and Management Goals and Initiatives

Goal: All administrators, teachers, and support staff will use technology to collect, save , and share information for decision-making, educational management and student assessment.

Objective 1. Facilitate information exchange via voice, video and data within the system and between the district and external learning resources..

Initiative	Leadership	Timeline
Prepare the network infrastructure that would support information exchange through data, voice and video	Technology Director and Network Administrator	Ongoing
Establish a detailed criteria and process for deciding what equipment will be acquired to support use in each department	Technology Director, Applications Support Administrator and Network Administrator	Ongoing
Provide network software and required professional development	Technology Director and Network Administrator	Ongoing
Maintain VoIP	Technology Director and City of Chelsea MIS Director	Ongoing
Replace VM Unity Server	Technology Director and City of Chelsea MIS Director	Spring 2011
Upgrade AD Servers	Technology Director and Network Adminstrator	Spring, 2013
Install Wireless Connectivity at CHS and Middle School	Technology Director and Network Adminstrator	Summer, 2011- Fall, 2012
Upgrade and replace switches at Cisco Core and VoIP Switches	Technology Director and Network Adminstrator	Fall 2014
Upgrade Internet Bandwidth to 500 MBps	Technology Director and Network Adminstrator	Summer, 2014

Objective 2. Standardize hardware & software use for all the departments.

Initiative	Leadership	Timeline
Establish standards for hardware and software administrative use	Technology Director, Applications Support Administrator and Network Administrator	Ongoing
Provide consistent and sound professional development opportunities for all staff members who have access to district-wide hardware and software (i.e.,. student records, attendance, etc.)	Technology Director, Applications Support Administrator and Network Administrator	Ongoing

Objective 3. Automate, standardize, and centralize and a student information network.

Initiative	Leadership	Timetable
Maintain fiber WAN infrastructure for connecting all the schools buildings	Technology Director and Network Administrator	Ongoing
Develop a redundant system to ensure continuation of equipment in case of technical emergency.	Technology Director and Network Administrator	Ongoing
Continue professional development for administrative, professional, and clerical staff on the potential uses of the existing Student Management Information System.	Technology Director and Application Support Administrator	Ongoing
Procure a new Student Assessment System	Technology Director and Application Support Administrator	Ongoing

4.2 Communication and Information goal and Initiative

Goal: All students and staff will have adequate and timely access to the computer hardware, digital content, and connectivity necessary for teaching and learning.

Objective 1. All classrooms will have access to appropriate software, E-mail, and the Internet.

Initiative	Leadership	Timetable
Continue to update the District-Wide Internet Server and Intranet.	Technology Director and Network Administrator	Ongoing
Implement strategies for training in the areas of communication supported by building-based technology specialists.	Technology Director and Technology Specialist	Ongoing
Upgrade existing Library System	Technology Director and Application Support Administrator	Fall, 2012
Replace /Upgrade email server	Technology Director and Application Support Administrator	Spring, 2011

Objective 2. Automate the Library Media Centers to become the information hub of the school.

Initiative	Leadership	Timetable
Build a line item in the technology budget for periodical subscription	Technology Director and Librarians	Ongoing

Provide access in all classrooms library's software subscriptions and Patron's Catalog server.	Technology Director and Librarians	Ongoing

Objective 3. Every classroom will have access to the school data and video Network with connection to the city's cable subscriber for educational programs .

Initiative	Leadership	Timetable
Maintain the data and video network infrastructure	Technicians	Ongoing
Construct a line item in the budget for video materials	Librarians	Ongoing
Implement wireless laptop connectivity in the classroom	Technology Director and Technology Specialist	Ongoing
Maintain filtering software subscription compliant with the Children's Internet Protection Act (CIPA)	Technology Director and Network Administrator	Every year renewal

4.3 Instructional and Curriculum goals and Initiatives

Goal: All students will use appropriate educational technologies to acquire the skills, knowledge and understanding as required by the Massachusetts Curriculum Frameworks.

Objective 1. Provide adequate technology access to students and teachers to create and deliver appropriate and challenging curriculum in all classrooms to all students.

Initiative	Leadership	Timetable
Increase the district's computer/student ratio to reflect category A or B computers. Maintain the staff/computer ratio of 1:1	Technology Director, Technicians, and Network	Ongoing
Support classroom teachers to use Technology effectively	Technology Specialist	Ongoing
Continue professional development through after-school seminars and in-school support	Technology Specialist	Ongoing
Provide Distance Learning transmission services	Technology Director and Network Administrator	FY 2013
Purchase and maintain productivity software.	Technology Director , Technology Specialist, Network Administrator, and Technicians	Ongoing

Objective 2. Encourage ongoing planning, evaluation, and implementation of technology as a tool to enhance learning.

Initiative	Leadership	Timetable
To continue developing a developmentally-appropriate curriculum for all students that encourages high levels of academic achievement	Technology Director and Technology Specialist	Ongoing
At the elementary schools, students will become acquainted with the technology. Students will learn how computers are used to gather, manipulate and create information. At the Middle Schools, students will develop the knowledge acquired in the Elementary Schools and use technology to gather, manipulate , present information and explore other types of technology. At the High School level, students apply instructional technology in different learning situations.	Technology Specialist and Technology Teachers	Ongoing

.

Objective 3. Students and teachers will use technology to support student performance.

Initiative	Leadership	Timetable
Students will work on complex tasks that develop their academic capacities at all levels	Technology Specialists	Ongoing
Teachers will receive training in Assistive Technology and UDL	Assistive Technology Liaison	Ongoing
Offer training on emerging technology (Smart boards and others)	Technology Specialists	Ongoing

Goal 4. Students will learn to work with technology in a cooperatively setting.

Initiative	Leadership	Timetable
Technology components will be incorporated throughout and across the curriculum to encourage high levels of academic achievement at all levels	Technology Specialist	Ongoing

4.4 Staff competency goals in support of Learning and Education Reform Initiatives

Goal: Provide opportunities to acquire skills needed to use technology effectively.

Objective 1. Administrative , instructional and clerical staff will gain the skill to use technology effectively.

Initiative	Leadership	Timetable
Assessment of training needs will continue to be performed; ongoing training opportunities will be offered to meet the needs of the administrative and clerical staff on the implementation of the SIS application to manage student data	Applications Support Administrator and Student Management Administrator	Ongoing
Offer instructional staff various courses on technology from the novice to the advanced level	Technology Director and Technology Specialist	Ongoing

Objective 2. All schools will have support from a Technology Specialist and/or a member of the Technology Department.

Initiative	Leadership	Timetable
Maintain and upgrade hardware and software	Technicians and Network Administrator	Ongoing
Maintain and upgrade LAN and WAN equipment	Network Administrator	Ongoing
Purchase maintenance agreements for servers, routers ,switches, and administrative software	Technology Director, Network Administrator and Applications Support Administrator	Ongoing
Purchase instructional supplies	Technology Director, Network Administrator and Technology Specialist	Ongoing

Technology Design

5.1 Software Priorities

5.1.1 Administrative and Management

The school district will move towards using Microsoft Office for all the administrators, directors and secretaries. Virus protection software will be installed on all networked workstations. Microsoft Outlook will be the client for the Internet mail. Mac users will use the Apple client.

We will still use a centralized system with connections to the current student management system.

5.1.2 Communications and Informational Access

Classroom workstations will have Microsoft Office licenses. Firefox and Safari browsers will be used for the Internet. All workstations will have the ability to connect to an Internet for browsing and e-mail. Teachers will receive an email account in our system.

Every node will be connected to a library catalog server to access materials catalogued and a Library's subscription for all non print materials.

5.1.3 Instructional and Curricular Software

Our main objective is to provide our staff the opportunity to be involved in all phases of software acquisition. Actual selections of software titles should be reviewed and recommend by curriculum committees in respective content areas.

5.2 Hardware, Facilities and Network Priorities

The Chelsea Public Schools envision a computing environment that combines the academic (i.e., curriculum and teaching) and administrative systems (e.g., e-mail and conferencing) with building management subsystems (e.g., environmental controls and maintenance management) using a single wiring plant and head end infrastructure. The network should be able to support multiple platforms at each school facility. In addition, the Chelsea Public Schools must be capable of participating of participating in what is rapidly expanding into a worldwide communication network, whenever possible existing national and international technical standards must be adopted.

5.2.1 Hardware: Workstations and Peripherals

There are a variety of workstation options throughout the district designed to provide the most effective learning environments for all students. Options include a range of computers, including laptops, which have capacity to be connected to the LAN. These computers are used for the day-today functions of students and teachers: word-processing, accessing information, practicing the basic skills, working on group projects, and so forth. Teachers may also use the laptops outside of school from time to time to continue their work from home and to access the school network. Each workstation should be at minimum have the following capabilities:

- Intel Pentium 4 or Apple Intel Duo Core ;
- 1 GB RAM;
- 100 MB of Hard Disk space.

More advanced configurations will exist where appropriate, particularly in labs and specialty rooms, which will be connected to the school network with Ethernet.
Servers, provide the network services and run the network operating system. Each file server is accessible, with appropriate privilege level and password. Library and administration servers are powerful computers and have optical and magnetic volumes; student and faculty servers are less-powerful computers. The capabilities of each file server will be at minimum as follows:

- 1 TB mirrored;
- Intel Xeon or Apple Quad Core server
- 4 GB RAM

5.2.2 Facilities: Network Design

Computer and Video Wide Area Network (WAN)

At the end of 2006, all the schools were connected through a fiber WAN. The purpose of a fiber inter networking component was to provide the following capabilities for the schools:

- System-wide curriculum and instructional support;
- System-wide student assignment and student record data base;
- System-wide administrative and management including E-Mail;
- Central monitoring and control building subsystems;
- System-wide library and instructional materials;
- Capability to develop and incorporate distance learning opportunities for the students and citizens of Chelsea.
- Implementing IP Telephony

5.2.3 Building and Classroom wiring: Standards

The installation of a Local Area Network is capable of supporting 10/100/1000 Base-T Ethernet devices in each school building. The number of potential computer LAN termination points, and active nodes for each school building is shown in the following chart.

School	Number of Drops	Active Nodes
Berkowitz	220	151
Hooks	239	163
Kelly	189	120
Sokolowski	252	182
Clark Ave	205	120
Browne School	272	187
Wright School	250	184
Chelsea High School	1029	634
Early Learning Center	250	110

The network shall consist of file servers with each file server accommodating on or more workgroups, 1 Library Card Catalog Server, workstations, network printers, e-mail server, and Internet Server, and other software applications.

In order to reduce traffic within workgroups and ensure optimum performance and reliability, the Ethernet network is divided into Ethernet VLANS via Ethernet-Ethernet switches and routers capable of TCP/IP at minimum.

Potential key areas of the school network are computer and specific technology labs in the Elementary Schools, Middle School and High School; science labs in the Middle School and High School; the Library Media Center in each school facility; CAD and GIS at the High School. Each school building should include an automated card catalog that is accessible school wide via the LAN, and a school-wide electronic mail system.

To enhance LAN logical security and usability, some devices such as file servers and network printers and shall be hidden, password protected, or encrypted from certain users or groups.
The network design should meet the following specifications:

Head End Description

The main distribution for the LAN in each school facility is located in the Media Center. This location houses the distribution patch panels for the LAN cabling inside two-to-three enclosed locking cabinets.

All Ethernet hardware and switches shall be housed inside a locking cabinet.

For security reasons, each school's file server shall be located at the head end room, the servers will be headless, and the school's system administrator shall perform routine management of the servers via remote control communications package.

Cabling overview

All cabling shall be Level 5e , 6 or better configured with RJ-45 outlets that are always home run back to the MDF or IDF.

Installation guidelines

No splices or sub distribution points should be used. For distances exceeding 100 meters an Intermediate Distribution Frame shall be required. All information outlets and patch panel shall be wired with EIA/T IA T568B wiring sequence. Wherever possible, primary cable routing paths should follow the logical structure of the building Cable that is run above suspended ceilings shall be supported by either a cable tray or cable hangers. In order to minimize Electromagnetic interference, a vendor shall adhere to the following minimum distance requirements:

- Five inches from power lines of 2KVA;
- Twelve inches from high voltage lighting;
- Nine inches from power lines of 5KVA;
- Thirty-nine inches from transformers and motor;
- Belden P/N 1457A or approved equivalent shall be installed. New cabling shall meet or exceed the electrical characteristics of the specified cable. All teachers wall plates shall be configured with RJ-45 and video distribution outlets. MOD TAP wall plates shall be used for this configuration. Student wall plates shall be configured with RJ-45 outlets that are always home run drops to the MDF.

A labeling procedure shall be developed. All mylar materials shall be used for labels.

The following procedures is in place to implement network projects:

- Upgrade existing hardware and connect to the network
- Test file servers
- Cable guidelines and specifications procedure
- Reporting Documents provided by a vendor to document TDR reports for any installed cable drop that do not pass the certification process.
- Warranties will be stipulated in vendors contract
- Documentation shall be provided by a vendor to include the following:
- Detailed description of network configuration
- Detailed graphic's based representation of network configuration
- Detailed graphic's based representation of Head End equipment configuration
- Detailed chart that indicate each room, outlet id, segment , hub id, port number and device

Computer Network System Manager Network Training:

- Familiarize the system manager with the network hardware and software configuration;
- Demonstrate methods of cross-connecting and procedure for activating and deactivating drops;
- Instruct the system manager with methods and procedures for updating and maintaining network records and documentation;
- Work with the system administrator to create a logical and physical map of the network and all the devices;

Implement an Operating System Training for Technology specialist to cover the following:

- Perform a general overview of the operating system and capabilities:
- Familiarize the system manager with creating users and groups:
- Recommend sample directory structures for file servers:
- Recommend and demonstrate backup procedures.

5.3 Operations, Maintenance, and Upgrade

Operations:

The School Department has already began to create policies for the use technology in the schools. Each school building has a set procedure that indicate the installation of hardware, software and creating new users for the network. Each technology specialist has the responsibility of disseminating all of these information.

Maintenance:

As we keep adding more devices to the network, support and maintenance request will increase. We have already placed a line item in each school year budget to alleviate some of these problems. We have already hired one more technician in FY 02 to alleviate this problem.

Upgrade:

Yearly upgrades of hardware will be a priority in the Technology budget. We already have started upgrading existing hardware purchased in the last three years and connect it to the network. Where is feasible, adding or replacing components will be closely matched with specific technology goal.

Technology Implementation Action Plan

Introduction

The following describes all the activities that will be addressed in of our Technology Plan.

6.1 Software Procurement and Development

Each school will have a line item for instructional supplies specifically to buy software and other supplies in each school. In addition, the district wide budget will also provide software procurement to address software acquisition at the district level. Before purchasing software, teachers should be able to preview software.

Activity	Timetable	Responsibility	Cost
Procurement and installation of key integration of software (ILife MS Office, Kid Pix, Timeliner, Inspiration, Geometer Sketchpad, Simon SIO, etc.)	FY 12 - FY 15.	Technology Specialist , Technology Director and technicians.	MS Office -$ 60/seat (all administrative and teachers' stations); -
Support Assistive technology and Reading Program	Ongoing Activity	Assistive Technology Liaison and Technology Specialists	Lexia Reading Software – $120/ seat; Annual fees $ 3300.00/year Kurzeill – $ 2500/year Soliloquy- $ 1500 per school

			Intellitools- $ 2500/year QReads - $ 2500 Fast Math- 3000/per year SRI – 1000/per year
Maintain library automation software (Follett) Upgrade Library System	FY 12-FY 15 FY 13	Applications Support Administrator and Librarians	$ 500 /per building (Librarian's line item) $ 975/year per building
Convert SPED application to X2 Aspen Sped module	FY 12	Sped Staff and Applications Support Administrator	$ 8,000 0/per year
Support and installation of telecommunications software	Ongoing	Technicians , Director of Technology, and Network Administrator	Free Software(Firefox, Safari, and MassONE)
Maintain current Student Management Software (X2 Aspen) System	FY 12-15	Applications Support Administrator and Director of Technology	$ 58,000/per year $
Support of testing analysis software to analyze MCAS testing data	Ongoing	Applications Support Administrators and Lead Teachers	TestWiz Net – $5600 Prosper - $ 1400 Grade Reading Assessment - $ 1000
Install and procure antivirus and internet filtering software compliant with the CIPA guidelines	FY 12-FY 15	Network Administrator and Technology Director	Norton Antivirus Enterprise Edition- $ 14/per seat Internet Filtering Subscription $ 500/per building
Provide and support email accounts for all Chelsea's school staff	Ongoing	Technology Specialist, Director of Technology, and Network Administrator	Free email client
Maintain and support Food Services Software to replace the current System (Horizon system)	FY 12- FY 15	Application Support Administrator, Network Administrator, and Technology Director	$ 1,400 / year

6.2 Hardware, Facilities, and Network.

6.2.1 Hardware

Activity	Timetable	Responsibility	Cost
All computers in the	FY 12-FY15	Director of Technology and	

classrooms and labs will be capable of high speed internet (Schools will be connected through the WAN backbone to the High School. Additional backup lines will be used through Comcast)		Network Administrator	Fiber Internet Access Switched Ethernet Service 500 MBPS or more $ 8166 per month ($ 98000.00) ERATE Funds and school budget
Upgrade teachers and students hardware to meet Category A or B dictated by Mass DOE standard	FY 12-FY15	Director of Technology ,Network Administrator, and Technicians	Approximately 700 new computers at $850 per computer will be replaced within 4 years. The rest of the computers will be upgraded (memory, hard drives, etc) to meet either Category A or B $ 150,000 per year
Facilitate and support the implementation of wireless technology in the classroom. Replace and upgrade 3 wireless carts each year	FY 12-FY15	Director of Technology , Network Administrator	$ 30,000 per year for wireless cart $ 7,500 per year Chromebooks or IPads
Implement and support Distance Learning applications	FY 12-FY15	Director of Technology and Network Administrator	Seek ERATE funding and other grant opportunities
Replace and Upgrade network printers	FY 12-FY15	Director of Technology ,Network Administrator, and Technicians	$ 1450 per network printer. 8 printers at a cost of $ 21,750 (Burke Complex,); $ 129 per classroom laser printer- 100 printers

6.2.2 & 6.2.3 Facility – Network

Activity	Timetable	Responsibility	Cost
Maintain a fiber WAN backbone connecting all schools to support voice, data , and video	FY 12-FY15	Director of Technology and Network Administrator,	$ 9,800/year
Upgrade main core switch support VoIP 10/100/1000 connectivity or better. Replace all VOip routers.	FY 15	Director of Technology and Network Administrator,	$50K -200K -ERATE FUNDS
Upgrade network to include audio, video, clock and paging	FY 15	Director of Technology and Network Administrator,	Video- 100K Clock and Paging 150K

PRI leased lines cost(local and long distance) for VoIP project shared percentage with City	FY 12-FY 15	Director of Technology	$ 36000/per year – Telephone budget –
Centrex lines/long distance, cellular cost for school buildings without VoIP Access	FY 12-FY 15	Director of Technology	$ 12-24000.00 – Telephone budget- ERATE funds $ 24000.00 – Cellular cost – Telephone budget – ERATE FUNDS
All classrooms and administrative offices will have adequate network wiring capable of supporting the hardware necessary for high speed internet and network access- All schools have adequate wiring, but we will soon make an assessment to implement and change category 5 wiring to category 6	FY 12-FY 15	Director of Technology and Network Administrator,	$ 120/ 200 per drop
Upgrade and Install AD Network Servers. Replace Library Server Plan Server Virtualization Project	FY 13 FY 13	Director of Technology and Network Administrator	FY 13, $ 15,000 (High School, Williams School Complex, and Burke Complex); $ 7500.00
Maintain existing firewalls at the High School, Williams Complex, Clark Ave School, and Burke Complex	FY 12- FY 15	Director of Technology and Network Administrator	$ 10,000

6.3 Operations, Maintenance, and Upgrades

Activity	Timetable	Responsibility	Cost
Maintenance agreement for VoIP servers, and switches	FY 12- FY 15	Director of Technology and Network Administrator	$ 52000 per FY (Basic Maintenance for switches, routers, VoIP components –ERATE funds)
Upgrade memory and hard drive on computers;	FY 12- FY 15	Director of Technology ,Network Administrator and Technicians	$ 3000 per FY
Upgrade OS on computers	FY 13	Director of Technology ,Network Administrator and Technicians	$ 14000
Upgrade network OS	FY 13	Director of Technology and	FY 13 $ 5,500

		Network Administrator	
Maintenance Web site	Ongoing	Applications Support Administrator Director of Technology and Network Administrator	FY 12-15 IT staff
Purchase technology supplies	Ongoing	Technology Specialist and Director of Technology	School budget

6.4 Professional Development

As described, Chelsea is committed to the incorporation of technology into all of the schools' educational, administrative and management functions. This infusion of technology will present an opportunity to enrich faculty and staff learning opportunity. Our district will provide a training program in technology for our staff which is based on the assessment of faculty and staff needs. The major focus for Year 1 will be to provide training in computer literacy as well as to form a program for professional development for the true integration of technology into the curriculum.

Activity	Timetable	Responsibility	Cost
Principles of Universal Design Introduction to MS Excel Introduction to PowerPoint Advanced MS Word Advanced MS Excel Microsoft Access Appleworks: Using Spreadsheets and Databases Assistive Technology Training The Internet: Making Teachers Connections Multimedia Authoring Network Resources at the Burke Elementary Complex Microsoft Office for the clerical staff Boardmaket Technology Enhancement for Middle School Teachers Introduction to Kidsinspiration Introduction to Lexia	These courses are offered during the Summer, Fall, Winter and Spring	Each Technology Specialist is responsible for one of these training courses	Various grants

.

6.5 Additional Human Resources

The district will need to use additional support to run efficiently its network, and at the same time provide support to teachers and administrators.

Activity	Timetable	Responsibility	Cost
Contracted web master	Ongoing	Technology Director	$6000/per year (FY 06- 09

Staffing Planning

Staff	*2012-13*	*2013/14*	*20014/15*
Director of Technology	1	1	1
Network Administrator	1	1	1
Applications Support Administrator	1	1	2
Webmaster	.5	.5	1
Integration Technology Specialist	4	4	4
Technology Teacher	2	2	3

Job Descriptions

Technician

Responsibilities

Provides district-wide hardware maintenance support computers and peripherals
Provides computer/peripheral installation support
Provides troubleshooting

Applications Support Administartor/Web Master

Responsibilities

Maintains Internet services and responsible for implementing policies and procedures for web publishing. Train staff in the use of the Internet for web publishing.

6.6 Securing Funding

Through these funds we will be able to increase our technology personnel and meet our goals presented earlier. Although not considered primary sources of technology funding, the technology staff, supported by district-wide staff, will continue to seek out opportunities to supplement funding for technology initiatives. In addition, Boston University continues to seek external funds to increase professional development and learning improvements for teachers and students in Chelsea.

6.7 Budget Summary

Year One 2012-13(800K) **Year Two** 2013-14 (848 K)

We will continue to purchase additional computers in the classroom. Student will continue to expand their knowledge and communicating with others around the world. At the end of this scenario, there will be at least 4-5 computers in the classroom for student use and 1 for the teacher, also wireless carts will be available for instruction accessing the new wireless access point network. Upgrades will be considered during Year One at the High School ,and other infrastructure upgrades at the other schools . Student immersion will be completed in Year One. At this time, feedback from student and teachers will determine future goals. During these two years, will ensure that every classroom at middle and high school level have a data/video projector. Also, in Year Two we'll start planning to replace switching core located at the High School.

Monitoring, Evaluation, and Revision of Technology Plan

7.1 Monitoring and Evaluation Process

Evaluation and monitoring of the Technology Plan is ongoing. The Technology Task Force will be responsible for evaluating progress, monitoring program developments, and proposing technology plan updates each year. Individual curriculum committees will make discipline-related recommendations. The number of workstations and other Audio Visual material purchased will be reported. Surveys to teachers and staff will provide information the state requests and provide information to revise the plan.

Professional Development

Evaluations of each training event will be filled out by staff for assessment of training event and to assist with future planning.

Technology and the Curriculum

Mini-grant program will demonstrate successful implementations of technology into the curriculum. A technology fair will be held yearly that demonstrates actual applications of technology within the curriculum.

7.2 Incorporation of Evaluation for Ongoing Planning

Formulation of a Task Force of no more than five people who will oversee the implementation, and assist in the developing of the next year action plan. The Task Force will meet every other month. Sub-committees to the Task Force will be formed to oversee the four initiatives: Administration and Management; Communication and Information; Instructional and Curricular; Professional Development.

7.3 Process of Reporting to the Stakeholders

Annual Science/Technology Fair
Documenting the successes of the mini-grant program and share with stakeholders
Reports in the school and local newspaper

7.4 Process and Timeline for Ongoing, Long-Term Planning

In the Third Year of our plan, we will begin an inclusive strategic planning, similar to the process that enabled us to formulate this technology plan.

E-Rate List

FY 03-04

Local and Long Distance Calls
Cellular Service
Internal Connections at Clark Ave School (1 3508 G and 6 48 ports 3550 switches)
Internet Service

FY 04-05

Local and Long Distance Calls
Cellular Service
Internal Connections at the Burke Complex (1 3508 G and 6 48 ports 3560 switches)
Internet Service

FY 05-06

Local and Long Distance Calls
Cellular Service
Internal Connections at District Office, Clark Ave. School and Williams School Complex (IP Telephony project)
Distance Learning Project
Internet Service

FY 06-07

Local and Long Distance Calls
Cellular Service
Internal Connections (IP Telephony project , High School and Shurtleff Early Learning Center)
Distance Learning Project
Internet Service

FY 07-08

Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Internal Connections (IP Telephony project, Berkowitz School , Kelly School , Sokolowski and Hooks School)
Basic Maintenance Internal Connections
Distance Learning Project
Internet Service

FY 08-09

Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Basic Maintenance Internal Connections
Internet Service

FY 09-10

Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Basic Maintenance Internal Connections
Internet Service
Internal Connections at Sokolowski , Kelly , Berkowitz, Wright , Browne, Clark Ave, and ELC schools

FY 10-11

Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Basic Maintenance Internal Connections
Internet Service

FY 11-12

Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Internet Service

FY 12-13

Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Internet Service

FY 13-14

Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Internet Service

FY 14-15
Local and Long Distance Calls- Includes PRI service and Centrex Services
Cellular Service
Internet Service
Internal Connections –Core Upgrade and VoIP routers