



CHATHAM CENTRAL SCHOOLS

Technology Plan

2008-2011

Historical Summary

Chatham Central School District is completing its three-year Technology Plan that was developed in 2005. Many changes have occurred within the District with regard to the use and access of technology during the implementation of the 2005-2008 plan.

Some of these changes include:

- At least two digital learning labs provided in each of the three buildings
- SmartBoards and LCD projectors issued to educators with proper training
- Clusters of multiple computers provided to individual classrooms
- Internet access within the classroom through the WAN
- Technology training opportunities offered both on campus and off
- Software funding to purchase both lab and site licenses for the various buildings
- Summer curriculum funding to work on projects such as technology curriculums as well as electronic portfolio projects
- The encouragement of home-school connection through the use of technology based programs such as school notes and teacher webpages.

However, this is merely a beginning for our District. Many of the initial recommendations need to be adapted to meet changing technological needs, others simply weren't met due to the extent of funding necessary, and others yet need additional time to be met. Therefore, we will now set forth the goals for technology within our current plan. No longer will we make recommendations in regards to our District's technological advancement. Instead, we will set forth goals and objectives that will be evaluated. Our hope is that through a process such as this we will ensure that we are not only meeting the goals of technology, but ensuring that we are promoting the highest levels of instruction and productivity. Our plan is to create a living document that will reflect our ever-changing and improving technological state, and continue to modify our plans to improve the quality and quantity of technology for the Chatham Central School District community.

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1. Introduction

In an ever-changing world, the Chatham Central School District community accepts and affirms the need for a strong technological skill base for both students and educators alike. Therefore, with that governing thought, we have come to develop a new technology plan that affords our students every opportunity to understand technology, to apply their technological knowledge and to connect with and create from the technology at hand. We further understand that in order to provide these meaningful educational experiences, it is crucial that our educators are provided with the ongoing professional development opportunities that will allow them to continue to lead by example. As such, we are proposing a plan that focuses on integration of technology into the daily curriculum through clear goals and objectives and an evaluation process that will allow us to reach our fullest potential as a community.

The four areas developed within this section are as follows:

1. Demographics
2. Priorities - Strategic Plan Goals & Research Conclusions
3. Technology-Related Policies & Regulations
4. Current Status of the Use of Technology in the District

Demographics

The Chatham Central School District is a rural school district with a population of approximately 1,370 students. The District is located in upstate New York in Columbia County, on the eastern border of the city of Albany. The District has one elementary school, one middle school, one high school and operates the Public Library.

Priorities

The plan will work to achieve the District's Strategic Plan Goals through application of our District's educational philosophy and current research conclusions. The District's Strategic Plan Goals for 2007-2008 are:

Strategic Plan Goals

K-12 Common Theme #7- Provide building level technology support, training, hardware, software and access for the benefit of students; including the establishment and maintenance of an improved District website that is useful, welcoming and interactive.

Strategy #4- We will develop and maintain a technology program to help its students and the District meet the challenges of an ever-changing world.

Throughout the District, the integration of technology within the school community is a primary goal. From staff development goals, to home-school connections, to creating a technology program that actively involves technology within the daily curricular experiences, Chatham is striving district-wide to incorporate technology. As a result,

there is an overarching theme of technology within the District's Strategic Plan, as well as, plans for each of the individual schools.

The Mary E. Dardess Elementary School will focus their goals on staff development for the use of technology within the classroom and the digital learning lab. The entire District, will address the creation of a more interactive and welcoming website to increase the home-school connections as well as focusing on creating and maintaining a technology program that will increase our students' fluency with technology and more readily prepare them for the changing world around them.

Regardless of the academic level, it is apparent that technology is and will remain a goal within the District's Strategic Plan in the coming years. Chatham realizes the importance of computer literacy skills for all students and, therefore, will continue to work to provide the most comprehensive technological education possible.

Current Research Conclusions

The research concerning the implementation of technology within the classroom is limitless. Each year, hundreds upon hundreds of studies are conducted, thousands of hours are spent researching and writing and yet the overall conclusion is the same, technology literacy is a skill that all students must possess in order to be successful members of the society into which they are to enter. Therefore, it is incumbent upon every district to provide a technological education that is both sound in skill and supported by such research.

In 2003, Oseas and Wood published an article entitled, "Multiple Literacies: New Skills for a new Millennium." In it they speak to the need for education in such new literacies as media literacy, visual literacy, information literacy and so on. These literacies that they speak to are actually the ability to "identify and analyze messages imbedded in a number of different modalities, as well as the capacity to use these media to create and express their own message" (Aspen Institute, 1997). It is the ability to seek information from a number of sources, understand that information and then transfer that information to their own thoughts and ideas. Thus, the ability to critically analyze, synthesize and evaluate information from a number of sources including the internet, television, magazines and so on. In doing so, these students will become the "informed citizens" that they will need to be. Therefore, it is the duty of the education system to ensure that these new literacies are being taught in conjunction with, reading, writing and arithmetic.

They, further, go on to question how educators will instruct in such literacies if they themselves are not technologically literate. It is the job of educators to lead, guide and ultimately mentor their students on how to be technologically literate. Therefore, we must first become literate ourselves through quality staff development and supported implementation.

In the same year as Oseas and Wood's study, "A New Culture of Teaching for the 21st Century" was published. In it, Wiske speaks to the need to change the way we think about teaching in the K-12 schools in light of the benefits that technological innovation

affords. He goes on to discuss the importance of “changing the culture of education” and how educators will shape the impact of technology in schools. He discusses the need to change education from teacher-centered to learner-centered, to work on higher-order thinking skills, to provide challenging problems that require independent inquiry and how by incorporating technology within our curriculum we can do all of these things.

However, he also speaks to how change such as this is difficult to achieve and how in order for it to be successful we will need to ensure that collaboration between educators takes place, that schools are supplied with a technical infrastructure, that appropriate technical personnel are hired, and that school policies support such change (74). As he says, “integrating new technologies need not require radical change in education goals and methods. Indeed, teachers often start by incorporating new tools into familiar practices” (76). Therefore, with the right attitude and support, technology can be integrated and students and educators alike will benefit from such change.

The research concerning technology and its impact on education just goes on and on, from Tomei’s discussion into planning the integration of technology into the classroom, to Moore’s discussion into the effects of technology on assessment, to finally the study done at Virginia Tech on the importance of preparing the educators of the future to be effective producers and consumers of interactive technologies, there is no limit to the questions surrounding and the conclusions drawn about the importance, effect and necessity of technology.

Therefore, after an exhaustive study of the research surrounding technology, the conclusion remains that developing ways to incorporate technology within our current school climate is imperative. As David T. Gordon’s book states in its title, The Digital Classroom: How Technology is Changing the Way We Teach and Learn, we must accept and embrace the changes facing us in light of the ever increasing technological changes of our society as a whole.

Technology-Related Policies and Regulations

All District policies and educational regulations have been adhered to in the creation of this technology plan. These include such things as the District’s Internet and Acceptable Use Policy, the Chatham Public Library Internet Use Policy and the Board of Education’s policy regarding instructional technology. These policies govern all technological use within the District including educator/staff use as well as student use. As such, these privileges can be revoked at any time for incompliance with said policies and regulations.

Appendix A- District Technology Related Policies & Regulations

Current Status of the Use of Technology in the District

Hardware

At the conclusion of the 2005-2008 Technology Plan time period, we have identified the following hardware in place within the District:

- Between one and eight computers are in each classroom; with an average of four in most.
- Approximately 20 Smartboards are in use within the District; with at least five at the elementary level and ten at the secondary level.
- Approximately 70 LCD projectors are in use; either with a Smartboard or independently.
- A Local Area Network at each school is in use in conjunction with 22 servers.
- Digital cameras have been purchased and are in use throughout the District, as well as, three DVD video recorders
- Scanners have been purchased and are in use throughout the District buildings.
- 30 DANAs that run Palm OS Software and have both infrared and wireless capabilities are in use. These are housed with a wireless laser printer and a desktop computer for back-up.

Connectivity

Internet access for the District was accomplished by installing three TI based WAN protected by a robust filtering system. Each building then serves as the data center for that location. Fairpoint is our internet service provider. Internet service is available via network connections from every room in the District. A single, unified electronic E-Mail system has been implemented across the District to facilitate district-wide communication as well as communication with the community and world as a whole. Both our transportation facility and maintenance department are linked via fiber optics to the District.

Content

The following types of digital content are being used for instruction as well as for administrative purposes throughout the District:

- Six stationary computer labs are accessible throughout the buildings. These labs are equipped with 20 or more student computers and some are also equipped with LCD projectors and Smartboards for instructional purposes. In addition, the elementary school has one lab that is staffed with a certified teacher that has implemented a technology curriculum within said lab and works with classes on curriculum related technology projects. The middle school and high school each have an open lab that is staffed by teaching personnel.
- Smartboards are in use throughout the three buildings; with at least one per grade level in the elementary school and four or more in each of the secondary buildings.
- A part-time communications specialist was hired by our District from Questar III. He has reviewed and redesigned the current webpage in collaboration with Questar technology support to ensure the website meets the District goal to be an effective communication tool that represents our District in a professional

way. A subcommittee was formed through the District Technology Committee. This subcommittee has met regularly with the communications specialist and is providing input into the development of a reconstructed site. As part of this construction, there will be more student photos and artwork, a more easily identifiable navigation process, links to the various libraries and resources as well as links to teacher-created pages.

- Multiple software programs are in use throughout the District including, Microsoft Office and the Keys program, Kidspiration and Inspiration, Timeliner, Map Maker, Storybook Weaver, Kid Pix, Read 180, Pearson Successnet, Google Earth, Brainpop and Brainpop Jr., Enchanted Learning, ABC Teach, Scholastic Online, Geometer's Sketchpad, Finale and Dreamweaver. Through programs such as these, the curriculum is being supported in numerous ways, such as:
 - In math, the secondary students are using Geometer's Sketchpad to complete a LOGO project, using a motion detector to capture and then identify the equations related to the motion of a slinky and are using various technologies to relate to statistics.
 - In science, the secondary students are using GPS navigation systems to complete a scavenger hunt related to the core content, as well as implementing the use of technology to analyze weather patterns. In the elementary school, technology is being incorporated in 4th grade's Hudson River Project in which the students research an insect, electronically graph trout growth and use other technologies as well.
 - In language arts, the elementary students are using technology, such as PowerPoint, to develop research presentations on everything from Frogs and Butterflies to Nutrition to the American Revolution. The use of PowerPoint continues into the secondary level with a culmination of the Senior Exhibitions (high school senior research project) in which many students use PowerPoint as their presentation format. Some elementary students are even creating movies using MovieMaker as their research presentation format.
- Webquests are becoming an additional instructional tool within the curriculum. Elementary teachers attended professional development on site and are developing and implementing webquests within the curriculum for the purpose of guiding research.
- Other teacher-created materials are being developed for use within the classrooms. From advanced organizers to internet based lessons, the use of online sights for foundation as well as enrichment learning is taking place throughout the district.
- Within the English as a Second Language program, technology is integrated daily within all four areas of ESL acquisition- reading, writing, speaking and listening. Journal writing, digital imagery, research, voice recognition, graphic organizers, search engines, video streaming, PowerPoint, Publisher, Photoshop, music, daily news, current events and other innovative technological practices are in use regularly.
- In Chatham Middle School, the DANA computers are being used for word processing and keyboarding. However, they do have crossover capabilities for science instruction and recently were used on a class field trip to the Clark Art

Museum in Massachusetts. During the trip the students successfully completed an art scavenger hunt using the DANAs as their guide.

- In our Encore classes, technology is being infused as well through such activities as:
 - Within the technology program, the students work on Robolab through which they use software to program a Lego robot to accomplish certain tasks.
 - In music, instructors are using instruments and technology to write and record music similar to that of STOMP. They also create newsletters about composers, music, and instruments.
 - In art, the students are using programs such as Photoshop to create cover illustrations and designs for various projects in core areas.
 - Through the library, students are being exposed to and working with online databases such as Grolier, IPAC and World Book Online. At the secondary level they are also beginning to do some Podcasting of their research findings.
 - Technology is infused extensively within the Foreign Language classes, including the use of Webquests, PowerPoint, Publisher and Word for research and inquiry-based learning projects.
- Students graduating the eighth grade must meet the expected New York State Technology Outcomes.
- Within the Elementary School's Computer Club, the third and fourth graders are working with Movie Maker to create virtual tours of both the elementary and middle school buildings. These projects incorporate the use of digital imagery, internet images, music and transitions to create a visual tour of the buildings for incoming kindergarteners and fifth graders.
- Chatham High School is currently offering two year-long courses in The Project Lead The Way sequence. These two foundation courses are Design and Drawing for Production and Principals of Engineering. Design and Drawing for Production satisfies the New York State Education requirement for one year of Fine Arts. In addition, two more year-long courses in the sequence, Digital Electronics (which is also a foundations course) and Civil Engineering and Architecture (which is considered a specialization course) will be in place for fall 2008. A second teacher will be trained and certified this summer.
- Additional business and office software is used in the District for administrative purposes.

Professional Development

The District firmly believes in providing educators with the necessary tools to properly execute the instruction of students. Therefore, it is imperative to provide the necessary training to implement technology effectively and efficiently within the school community. As a result, the District has taken the following actions to ensure such success:

- During the 2005-2008 Technology Plan years, a number of in-service technology related courses have been offered. These courses include; webpage design, Smartboard training, Microsoft Office, Kidspiration, webquest design, Powerpoint, Excel, and Successnet training.

- The District supports the use of Questar III for both on site and satellite technology training for all staff.
- The District provides for educators to attend off site technology conferences (e.g., NYSCATE, Heidi Hayes Jacobs' Curriculum Mapping, NERIC Regional Technology Awareness Day, etc.) and to receive training in assistive technology and curricular software programs and applications (e.g., Techpaths, Adobe Photoshop, Podcasting etc.).

Technology Support Staff

- The District Instructional Technology Department consists of a network systems engineer, who serves as the department director, and two network system support aides. In July 2008 the department will be reconfigured to have two network systems engineers, with one serving as the director, and one network support aide. The network systems engineer's primary responsibility is the monitoring, operation, configuration and debugging of computer network systems. The new network engineer will also be required to analyze and diagnose network hardware and software problems, research and install new computer network hardware and software systems and products and train new users on new software and equipment, and will serve as a back-up to the director (i.e., Columbia County Civil Service Commission). The District network systems support aide is responsible for managing the helpdesk along with completing tasks at the aide level in addition to completing any duties set forth in support of the network system engineer.
- Computer lab teaching assistants at the Chatham Middle School and Chatham High School supervise operations within the computer labs.
- Technology teachers deliver technology curriculum through required curriculum at Chatham Middle School and elective technology courses at Chatham High School.
- The Chatham High School currently has one teacher certified to teach The Project Lead The Way courses. A second teacher will be trained and certified this summer.
- The Chatham Elementary School has a computer lab instructor who works directly with the grade level teachers to create and implement technology based projects related directly to the curriculum. This instructor also assists with technical needs for assemblies and special events.

2. Technology Plan Objectives

Chatham Mission Statement

The mission of the Chatham Central School District community is to nurture and challenge students to become self-directed learners who contribute positively to a culturally diverse world.

Technology Mission Statement

The technology mission of the Chatham Central School District community is to integrate technology effectively into our school community in order to best support our core curriculum and to develop strong computer literacy skills within our students, while remaining flexible enough to meet individual student needs by allowing for differentiation within that same community.

Objectives and Action Items

Objective #1- To actively promote integrating technology within our curriculum while developing a strong set of computer literacy skills within the student population

It is critical that Chatham Central School District's students are able to access information, manipulate data, synthesize concepts and creatively express ideas to others using textual, video and audio formats. Therefore the instruction of technology will come as it is used effectively as a teaching strategy in the classroom. By teaming the power of technology to deliver and manage information with the strength of skillful teachers who guide students toward increasingly refined judgments regarding information, optimal environments for learning are realized.

As such our intention is to promote the use of technology in all areas of education from the physical environment, through learning activities, to evaluation. In doing so, we will create learning that is self-guided and student-centered, allows for multiple instructional strategies and differentiation, allows for student collaboration and synthesis of information, and will transfer beyond a particular lesson or subject area. In turn it will create students that are engaged, self-motivated, computer literate and are the next generation of digital citizens.

2008-2009	2009-2010	2010-2011
Action Item 1.1 Ensure our Computer Technology Scope and Sequence is aligned with the National Educational Technology Standards and the NYS Computer Technology Standards, is current and is distributed to all educators and teaching staff alike. (See Appendix B). Scope and Sequence will be reviewed yearly to reflect changes in both standards as well as Strategic Goal needs.	same	same
Action Item 1.2: Review and revise Technology Education Plan for elementary students; align with the NYS Technology Standards and apply these skills through a hands-on approach.	Implement additions and changes to the Technology Plan K-4 for at least one topic area.	Implement additions and changes to the Technology Plan K-4 for at least two topic areas.

Action Item 1.3: Continue to develop strong technology curricula for use in the digital learning labs (See Appendix C).	same	same
Action Item 1.4: Work within grade levels and core area teams to develop and implement technology based lessons that can be shared between educators for at least one unit.	Work within grade levels and core area teams to develop and implement technology based lessons that can be shared between educators for at least three units.	Work within grade levels and core area teams to develop and implement technology based lessons that can be shared between educators for at least five units.
Action Item 1.5: Continue to expand our libraries to become state-of-the-art media centers that can support technology within the classrooms to emphasize technology operations and concepts as well as supportive communities and ongoing professional learning.	same	same

Appendix B- District Scope and Sequence K-12

Appendix C- Elementary Computer-based Technology Curriculum

Objective #2- To support and maintain an infrastructure that allows students and educators alike to readily access technology and the online learning community; therefore actively promoting the use of online tools and resources, collaboration both within and beyond the walls of the traditional school and a respect for the online communication and tools that are available.

The digital classroom is no longer a hope for the future, but a reality facing all educators. Days of instruction limited to the educator and students within a single classroom have passed and we are now facing the challenge of educating the digital citizens of the future and preparing them for the society into which they will play a vital role.

Therefore, we need to ensure that the door technology opens remains so by making certain that access to the “world classroom” is readily available. As such, the infrastructure that has been implemented must be maintained. Access to our local WAN as well as the internet maximizes the sharing of instructional support materials and media throughout the district. Moreover, the WAN connects students, staff, and community residents to the national electronic “superhighway,” the National Research and Education Network. This connection to the Internet enables users to access, information, services and other individuals located all over the world. This same WAN also provides a means for communication between District buildings, home & school, as well as individual classrooms. In essence, this infrastructure establishes an effective system for receiving, transferring and utilizing all the resources within the district.

2008-2009	2009-2010	2010-2011
Action Item 2.1: Maintain WAN within District and update as necessary to ensure proper functioning of email, filter, firewall and common drives.	same	same
Action Item 2.2: Review and update District website regularly and reevaluate quarterly to provide greatest community interest and increase school-home connection.	same	same
Action Item 2.3: Ensure enough server space exists for educators to load student/parent accessible websites to increase school-home connection. Make use of teacher-supported sites (Teacherweb, Scholastic) for such space.	same	same
Action Item 2.4: Identify and sustain technology personnel needed to maintain successful technology systems within the District (i.e. second network technology engineer position).	Identify and sustain technology personnel needed to maintain successful technology systems within the District (i.e. technology liaisons for each of the three buildings).	Identify and sustain technology personnel needed to maintain successful technology systems within the District (i.e. technology integration specialist for the District).

Objective #3- To create, implement and maintain a quality staff development program that allows educators to train with new technologies and programs as well as helps them to implement and maintain those programs within their classrooms.

Research supports that the only way to truly access the vast potential of technology is through educators that are confident with and excited about implementing technology within their instruction. In order to develop these skills within educators it is imperative that they receive the technological training and support necessary. This training must be comprehensive and on-going, it must be offered multiple times throughout the school-year, it must relate directly to needs identified by educators and it must have direct correlation to the needs of the classroom.

Therefore, it is critical that there be a quality program to ensure that all of these criteria are met. Those individuals developing said program are charged with creating, evaluating and maintaining quality staff development and as such the staff development provided will be effective, efficient and worthwhile to all involved.

2008-2009	2009-2010	2010-2011
<p>Action Item 3.1: Revise implementation and maintenance of a Professional Development Program, to include how it will be accessed by educators and what the outcomes should be. This will include the structure for applying to present training, requesting specific training presentations, a review process with which to provide feedback and a system for follow-ups to ensure implementation.</p>	same	same
<p>Action Item 3.2: Evaluate such programs by educators and administrators alike. Include a yearly review of sessions offered, feedback provided and survey individuals in attendance for implementation progress.</p>	same	same
<p>Action Item 3.3: Explore creative opportunities to promote and support our faculty and staff concerning the implementation of technology within the classroom (i.e., development of a Technology Support Program).</p>	Review and restructure, if necessary, a Technology Support Program to reflect the addition of technology liaisons to the three buildings.	Review and restructure, if necessary, the current Technology Support Program to reflect the addition of the technology integration specialist to the District.

Objective #4- To provide the necessary hardware and software throughout the District to provide educators, administrators and staff alike with the necessary tools to promote the highest levels of student learning possible.

Technology is not an abstract concept and therefore requires opportunities for use in order to find success. This being said, it then follows that in order for a school community to promote the use of technology within it, that same technology must be available at all levels, to meet all needs. Whether the need for technology is individual use, small group or whole-class instruction, the need for adequate resources to be available is imperative. Therefore, technology must be provided and maintained both in and out of the classroom.

The presence of such technology provides students with opportunities to investigate a “classroom” which exists far beyond the walls of a traditional school. It allows them to create knowledge that is complete with higher order thinking skills, problem-solving skills, meaning, perspective and transferable to the future. Beyond this, creating

students and staff that are technologically literate and can adapt to the growing needs of an ever-changing society.

With the use of quality software, providing educational experiences that are self-directed in both pacing and content level, allow for instant feedback, provide access to unlimited research materials, meet the needs of gifted students, special education students and vocational students and provides for the integration of multiple resources to be used in delivery of curriculum.

2008-2009	2009-2010	2010-2011
Action Item 4.1: Provide and maintain classrooms with adequate numbers of computers for student learning.	same	same
Action Item 4.2: Provide and maintain classrooms with LCD projectors and SmartBoards (at least one per grade level). Ensure that those projectors are properly mounted on ceilings for both safety as well as instruction.	Increase numbers to at least half of the District classrooms.	Increase numbers to at least two-thirds of the District classrooms.
Action Item 4.3: Maintain at least two electronic learning labs in each school building for the use of staff and students alike. Add a lab at the Chatham High School to accommodate additional Project Lead The Way offerings. Create and maintain a portable laptop lab in each of the secondary buildings for instructional use across content area classes.	Continued maintenance and upgrading, if necessary, of the stationary and portable laptop labs in each building.	Continued maintenance and upgrading, if necessary, of the stationary and portable laptop labs in each building.
Action Item 4.4: Provide and maintain Student Information System and programs that support instruction, such as student records, instructional materials and electronic grade books. Include research and evaluation of various programs as well as plans for funding in upcoming year's budget. Review, evaluate and select new Student Information System to be implemented next year.	Begin implementation of new Student Information System and initial phase out of present Student Information System.	Final implementation of new Student Information System per NYS regulations.

Action Item 4.5: Provide and maintain necessary assistive technology hardware and software to ensure equality to all learners and assist them in meeting their IEP and/or 504 goals and objectives, to include a system for completing assistive technology evaluations.	same	same
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Appendix D- Inventory of District Hardware & Software Programs

Objective #5- To ensure that adequate funding is provided to not only create, but implement, support, evaluate and refine technology programs, to provide necessary hardware and software and to employ personnel to maintain and update all technology systems.

Effective planning for technology necessitates those fiscal resources be identified on a continual basis so as to provide resources in an effective way. A strong support structure must also be created to ensure funding is not only provided, but applied to support the most beneficial outcomes in both learning and productivity. In planning and allocation of resources, we must maintain a balance so as to assure our investment is yielding the highest returns possible.

Therefore, as technology is an ever-changing field and it will need continued funding within a district; upgrades are not only necessary but are mandatory for continued success, hardware eventually becomes old and outdated and needs to be replaced and staff and personnel will need continued training in order to meet those changing needs. This being true, it holds then, that a district must make the commitment to willingly accept those costs as on-going and take the necessary steps to ensure that proper funding is available.

2008-2009	2009-2010	2010-2011
Action Item 5.1: Provide adequate budgetary funds for technology hardware and software in support of objective four.	same	same
Action Item 5.2: Continue to provide adequate budgetary funds for staff development both on site and through conferences such as: NYSCATE, Questar training, Superintendent's Day training and peer training. (As a direct support of objectives one and three.)	same	same

Action Item 5.3: Provide adequate budgetary funds for the hiring and maintaining of staff for technology systems as well as for staff development in support of objective two.	same	same
Action Item 5.4: Actively seek out grant opportunities for the District as a whole as well as for "trailblazing" educators that will implement new strategies and technologies using funds acquired.	same	same
Action Item 5.5: Budget for Co-Ser to borrow assistive technology from TRE or other sources as well as providing for training of new and current local assistive technology specialists (LATS) with this technology.	same	same
Action Item 5.6: Provide adequate budgetary funds for cost of purchasing and implementing new Student Information System for the 2009-2010 school year in support of objective four.	Provide adequate budgetary funds for continued use of SASI Student Information System concurrent with implementation of new Student Information System.	Provide adequate budgetary funds for final implementation new Student Information System, maintenance and technological support of said system.

Appendix E- Technology Budget

3. Planned Technology Acquisition and Telecommunications Services Projection

As an integral piece of our three year Technology Plan, the District has developed the following projection to ensure the continued implementation of technology as well as enhanced telecommunication services to the District community. As such, a vital component of this projection is the maintenance of our local WAN. With the hiring of a second network systems engineer, we can assure our community continued maintenance and upkeep of the WAN. As a secondary measure, we will be working towards finding a new internet service provider; although currently no competitor to Fairpoint currently exists in our area.

As a communications tool and as an instructional tool, email and internet are a key element to the successful implementation of technology. Therefore, it is imperative that we plan for the continued support of our broadband system and upgrade as necessary. Over the next three years, educators will be making use of such sites as Brainpop and Brainpop Jr., Enchanted Learning, ABC Teach, United Streaming and

Pearson Successnet. These sites are providing educators with the most current curriculum content and resources and as such must perform well regardless of the time of day.

Secondly, we will focus on the acquisition of new hardware to support additional stationary and portable labs. The Chatham High School will add a lab in direct support of Project Lead the Way. Along with this, both the Chatham High School and Chatham Middle School will receive a portable laptop lab that will allow all content areas greater access to technology and thus improve integration into the NYS standardized curriculum. In addition, the District will begin research into providing a dual format system for technology. We will begin to explore the addition of Macintosh computers to our current PC systems. One such study will be the acquisition of Mac laptops for educator and staff use. A comparison of programs, software, and hardware with relation to cost effectiveness will take place as the investigation develops over the coming years.

In support of our students with Individual Education Programs (IEP) and 504 Plans, we will focus on providing Assistive Technology that will support said students in meeting their individual goals. In order to provide comprehensive services, a number of technologies will be evaluated for potential use. Some of these technologies for secondary students may be: Ipods, the Read and Write Gold program (with a site license for the secondary buildings), books on etext (also a site licensed program) to work in conjunction with Ipods or MP3 players, and PDA's to assist students with organizational issues.

Within the elementary community, some of the assistive technology to be considered include: LoTTIE kits (which would be used with the ASTs). These low tech tools would benefit the Academic Support Teachers initially, and then eventually move to the regular education classroom. However, the goal would be to purchase materials and set aside funds to replenish kits as necessary without the need to requisition once a year.

Although, we have set forth these items within the projection, there needs to be an understanding that as technology changes and the plan is evaluated from year to year, that these projections might be altered. Flexibility in regards to our needs must be considered just as the overarching needs of our student base change from year to year.

4. Evaluation Methods

New York State Standards for Technology

1. Engineering design is an iterative process involving *modeling* and *optimization* used to develop technological solutions to problems within given constraints.
2. Technological tools, materials, and other resources should be selected on the basis of safety, cost, availability, appropriateness, and environmental impact; technological processes change energy, information, and material resources into more useful forms.
3. Computers, as tools for design, modeling, information processing, communication, and system control, have greatly increased human productivity and knowledge.

4. Technological systems are designed to achieve specific results and produce outputs, such as products, structures, services, energy, or other systems.
5. Technology has been the driving force in the evolution of society from an agricultural to an industrial to an information base.
6. Technology can have positive and negative impacts on individuals, society, and the environment and humans have the capability and responsibility to constrain or promote technological development.
7. Project management is essential to ensuring that technological endeavors are profitable and that products and systems are of high quality and built safely, on schedule, and within budget.

National Educational Technology Standards

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.
- d. identify trends and forecast possibilities.

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. develop cultural understanding and global awareness by engaging with learners of other cultures.
- d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry.
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. process data and report results.

4. Critical Thinking, Problem-Solving and Decision-Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- c. collect and analyze data to identify solutions and/or make informed decisions.
- d. use multiple processes and diverse perspectives to explore alternative solutions.

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.
- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems and operations.

Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.

Evaluation of this new program will take place quarterly by the Technology Committee. Data will be collected from students, educators, administrators and staff alike, through surveys and questionnaires, in regards to the various goals that relate to them. Once the data is compiled, the Technology Committee will then analyze the data for strengths and weaknesses within the individual goals, as well as, the success of the plan overall. Once deficiencies are identified, the Technology Committee will then make suggested revisions to be put in place in order to maximize future success.

The Review Committee will consist of at least one administrator, two educators from each of the buildings (elementary, middle and high school), at least three teacher's aides, and a community member (either parent or school board member past or present). We will also involve the school community by continuing to align the plan with our District Strategic Goals, which are reviewed annually by a committee made up of educators, administrators and parents alike.

Each year the committee will compile a summary of their findings. Included will be an analysis of overall strengths and weaknesses of the current technology program and its implementation, a synopsis of any completed technology goals and recommendations for the coming year. These findings will be presented to the Chatham Central School District Board prior to the budget hearing, so as to ensure funding is available for continued implementation of the plan.

The Technology Committee is comprised of 28 members representing a cross-section of the school community. The original plan was drafted during the summer of 2007. The Technology Committee then met in the fall and throughout the winter to review and discuss the plan and to identify areas of focus. Once those areas of focus were determined, we then broke into sub-committees to work more directly on obtaining the necessary information to complete the plan. Those committees focused on: the District Website, Assistive Technology, the Technology Curriculum K-12 and Student Information Systems.

In developing this plan, we used many features of our evaluation process. The Technology Curriculum Subcommittee received input from all subcommittees. The Technology Curriculum Subcommittee surveyed the entire faculty/staff to find out the current use of technology within the classrooms and their needs present and future. From this information we were able to identify not only the strengths of the current technology use, but also the weaknesses and this enabled us to create a three-year plan that would directly support instruction and integration into the curriculum.

The Technology Committee met as a whole to review the final draft plan. Once finalized, the plan will go before the Chatham Board of Education. The Technology Committee will continue to meet and revise this plan to keep it current and be

reflective of the District's ever-changing state of technology. Therefore, we are confident that our current evaluation method will directly support the ongoing implementation of our District Technology Plan. Although it is written for the next three years, we feel that this is a "living document" and as such it will continue to change and grow to reflect the changes in technology and education throughout the coming years.

Appendix F- Technology Surveys

Appendix G- 2007-08 Technology Committee

Technology Plan

2008-2011

Appendix A

District Technology Related Policies
& Regulations

INSTRUCTIONAL TECHNOLOGY

The Board of Education recognizes its responsibility to ensure that district staff and students have access to up-to-date technological materials and equipment. As used in this policy, "technology" refers principally to electronic materials and equipment, such as computers, telecommunications, lasers and robotics, as available.

The following reflect the district's goals for students regarding instructional technology:

1. to foster an atmosphere of enthusiasm and curiosity regarding new technology and its applications;
2. to heighten each student's familiarity and/or working knowledge of current technological materials/equipment;
3. to provide equal access to district technological materials/equipment and to instruction in their implementation;
4. to ensure that the various technologies are utilized in a variety of applications, and are not restricted to one subject area or one location in the schools; and
5. to promote district educational goals through the use of such technology(ies).

In order to achieve the above-stated goals, the Board shall seek the advice of representatives from groups utilizing technology in pursuit of district goals (i.e., Board members, administrators, teachers, support staff, parents, and students). In addition, the Board directs the Superintendent of Schools to equip district schools with appropriate and up-to-date hardware/software, to schedule "hands-on" inservice activities for district staff, and to implement suggestions from the above representatives and the instructional materials planning committee, within budgetary constraints.

Adoption date: February 29, 2000

Internet/Computer Use Policy

(Adopted by Board of Education 10/19/99)

(Revised April 2005)

The Board of Education is committed to optimizing student learning and teaching. The Board considers student access to a computer network, including the Internet, to be a powerful and valuable educational and research tool, and encourages the use of computers and computer-related technology in district classrooms solely for the purpose of advancing and promoting learning and teaching. All users of the district's computer network and the Internet must understand that use is a privilege, not a right, and that use entails responsibility.

ADMINISTRATION

1. The Superintendent of Schools shall establish regulations governing the use and security of the district's computer network. All users of the district's computer network and equipment shall comply with this policy and those regulations. Failure to comply may result in suspension or revocation of computer access privileges, and in other disciplinary measures as defined by the district's Code of Conduct.
2. As designated by the Superintendent of Schools, the *Instructional Support Coordinator* shall oversee the district's computer network.
3. The *Network Administrator* shall monitor and examine all network activities, as appropriate, to ensure proper use of the system.
4. The *Instructional Support Coordinator* shall be responsible for disseminating and interpreting district policy and regulations governing use of the district's network at the building level with all network users.
5. The *Instructional Support Coordinator* shall provide employee training for proper use of the network. The Coordinator will ensure that staff, supervising students using the district's network, provide similar training to their students, including providing copies of district policy and regulations governing use of the district's network.
6. The *Network Administrator* shall establish a system to ensure that all disks and software loaded onto the computer network have been scanned for computer viruses.
7. All student agreements to abide by district policy and regulations and parental consent forms shall be kept on file in each respective school.
8. The building principal will serve as the building-level coordinator for the District system, approve building-level activities, ensure teachers receive proper training in the use of the system and the requirements of this policy, establish a system to ensure adequate supervision of students using the system, maintain executed user agreements, and be responsible for interpreting the District Acceptable Use Policy at the building level.

ACCEPTABLE USE AND CONDUCT

1. Access to the district's computer network is provided solely for educational purposes and research consistent with the district's mission and goals. As directed by the instructional staff, students will have access to the computer system during school hours. Computer access by students beyond the normal school day may be approved by the building principal.
2. Use of the district's computer network is a privilege, not a right. Inappropriate use may result in the suspension or revocation of that privilege. During a period of suspension, alternate means of providing a student access to information or communications required by a course of study will be provided.
3. Each individual in whose name an access account is issued is responsible at all times for its proper use.
4. Users may have access to e-mail. Elementary students may access e-mail through a classroom account under the direct supervision of the classroom teacher. Secondary students may be provided with an individual e-mail account solely for educational purposes with the approval of the Computer Network Coordinator, and with written permission from their parents or guardians. Chatham staff members will be provided with individual e-mail accounts. Other acceptable uses of the Internet, such as web browsing, will be guided by teachers' instructional plans. Parents may specifically request that their children not be provided access to the Internet by notifying the building principal in writing. Alternative activities that do not require Internet access will be provided for these students.
5. All network users will be issued a login name and password. Administrative *and staff* passwords must be changed periodically and student passwords will be changed as needed.
6. All network users are expected to abide by the generally accepted rules of network etiquette. This includes being polite and using only appropriate language. Abusive language, vulgarities and swear words are all inappropriate.
7. Network users identifying a security problem on the district's network must notify the appropriate teacher, principal, *Network Administrator or Instructional Support Coordinator*. Under no circumstance should the user demonstrate the problem to anyone other than to the district official or employee being notified.
8. Any network user identified as a security risk or having a history of violations of district computer use guidelines may be denied access to the district's network.

PROHIBITED ACTIVITY AND USES

The following is a list of prohibited activities concerning use of the district's computer network. Violation of any of these prohibitions may result in a suspension or revocation of a user's access to the computer network, and in disciplinary measures as defined by the district's Code of Conduct. District computer system users may NOT:

1. Use the District system for commercial purposes, defined as offering or providing goods or services for personal profit. Students may not use the District system to purchase products or services. To the extent that it does not interfere with the operation of the system, staff may purchase items at their own risk on their own time.

2. Use the system for political lobbying. District employees and students may use the system to communicate with their elected representatives and to express their opinion on political issues.
3. Infringe on any copyrights or other intellectual property rights, including copying, installing, receiving, transmitting or making available any copyrighted software on the district computer network without proper licensing agreements.
4. Use the network to receive, transmit or make available to others obscene or sexually explicit material.
5. Use the network to receive, transmit or make available to others messages that are racist, sexist, abusive or harassing to others.
6. Use or attempt to use another user's account or password.
7. Attempt to read, delete, copy or modify the electronic mail (e-mail) of other system users or deliberately interfere with the ability of other system users to send or receive e-mail.
8. Forge or attempt to forge e-mail messages.
9. Engage in vandalism. Vandalism is defined as any malicious attempt to harm or destroy district equipment or materials, data of another user of the district's network or of any of the entities or other networks that are connected to the Internet. This includes, but is not limited to, creating or placing a computer virus on the network.
10. Use the network to send anonymous messages or files.
11. Use the network to receive, transmit or make available to others a message that is inconsistent with the district's Code of Conduct.
12. Reveal the home address, telephone number or other personal information of any system user.
13. Intentionally disrupt network traffic or crash the network and connected systems.
14. Install personal software or use personal disks on the district's computers or network without the permission of the supervising teacher.
15. Use district-computing resources for fraud or any illegal or illicit activity.
16. Steal data, equipment or intellectual property.
17. Gain or seek to gain unauthorized access to any files, resources or computer or phone systems, or vandalize the data of another user.
18. Wastefully use finite district resources such as:
 - downloading large files unless absolutely necessary. If necessary, users will download the file at a time when the system is not being heavily used and immediately remove the file from the system computer to their personal computer.

- posting chain letters or engaging in “spamming”. Spamming is sending an annoying or unnecessary message to a large number of people.
- subscribing to educationally or professionally irrelevant discussion group mail lists.

19. Use or attempt to use the network while access privileges are suspended or revoked.

20. Use the network in a fashion inconsistent with directions from teachers and other staff and generally accepted network etiquette.

21. Change any system feature without prior authorization from the Computer Network Coordinator.

NO PRIVACY GUARANTEE

All users of the district’s computer network should not expect, nor does the district guarantee privacy for electronic mail (e-mail) or any use of the district’s computer network. The district reserves the right to access and view any material stored on district equipment or any material used in conjunction with the district’s computer network.

SANCTIONS

All users of the district’s computer network and equipment are required to comply with the district’s policy and regulations governing the district’s computer network. Failure to comply with the policy or regulation may result in suspension or revocation of computer access privileges, and in disciplinary measures as defined by the district’s Code of Conduct.

In addition, illegal activities are strictly prohibited. Any information pertaining to or implicating illegal activity will be reported to the proper authorities. Transmission of any material in violation of any federal, state or local law or regulation is prohibited.

DISTRICT RESPONSIBILITIES

The district makes no warranties of any kind, either expressed or implied, for the access being provided. Further, the district assumes no responsibility for the quality, availability, accuracy, nature or reliability of the service or information provided. Users of the district’s computer network and the Internet use information at their own risk. Each user is responsible for verifying the integrity and authenticity of the information that is used and provided.

The district will not be responsible for any damages suffered by any user, including, but not limited to, loss of data resulting from delays, non-deliveries, mis-deliveries, or service interruptions caused by its own negligence or the errors or omissions of any user. The district also will not be responsible for unauthorized financial obligations resulting from the use of or access to the district’s computer network or the Internet.

Further, even though the district has implemented safeguards to regulate access and information, these methods do not provide a foolproof means of enforcing the provisions of the district policy and regulation.

GUIDELINES REVIEW

The guidelines set forth in this document will be reviewed periodically and are subject to revision.

CHATHAM PUBLIC LIBRARY INTERNET USE POLICY

Welcome to the Chatham Public Library's Public Access to the Internet Program. To maximize Internet availability, and to ensure fair accessibility for all, please follow these rules and procedures:

1. Internet access is available on a public computer for all users of the Chatham Public Library. Please fill out a library registration card and read and sign the Internet Policy if you have not already done so. The library's access is intended primarily as an information resource. Minors, (children under 18 years of age), desiring to use the Library's Internet must provide written consent by their parent/guardian; and their parent/guardian shall be responsible for setting and conveying to their children the standards their children should follow when utilizing the Library's Internet, which may be more restrictive than the prohibited uses set forth below.
2. The Internet allows users to connect to networks of resources outside the library. The Chatham Public Library has no control over these resources nor does the library have complete knowledge of what is on the Internet. Information on the Internet may be reliable and current or it may be inaccurate, out-of-date, or unavailable at times. Library patrons use the Internet at their own discretion. **The Internet may contain material that is inappropriate for viewing by children.**
3. The following uses of the Library's Internet access are inappropriate and prohibited:
 1. Transmission of defamatory material.
 2. Unauthorized copying of copyrighted material.
 3. Plagiarism.
 4. Receipt or transmission of obscene material; which shall mean any material in written, pictorial or other form concerning sexual or excretory organs or actions that predominately appeal to the prurient interest of adults, which is patently offensive to prevailing standards in the adult community as a whole, and is without redeeming social value.
 5. Receipt or transmission by or to a minor of material sexually indecent to minors; which shall mean any material in written, pictorial or other form concerning sexual or excretory organs or actions that predominately appeal to the prurient interests of minors, which is patently offensive to

prevailing standards in the adult community as a whole with regard to that which is suitable material for minors, and is without redeeming social value to minors.

6. Destruction or alteration of another's materials or files; vandalism of equipment; or tampering with computer hardware or software.

Failure to utilize the Library's Internet access and/or the Library's computers appropriately may result in revocation of Internet use and/or Library use privileges. Uses that are also unlawful may also result in criminal and/or civil proceedings.

4. When reserving and using the computer:
 - a) You may reserve the Internet access computer up to one hour a day and up to seven days in advance. Exceptions made for special circumstances.
 - b) Additional time may be available on a walk-in basis. If someone else is waiting to use the Internet, you must limit your use to one hour.
 - c) Latecomers forfeit the unused portion of their reserved time. Latecomers will lose their entire time if over fifteen minutes late.
 - d) All users must sign in before beginning to use the computer.
5. The Library staff will assist patrons with Internet use if time permits. Books and other materials about the Internet will be made available. If you have difficulty in using the Internet, we can refer you to local Internet classes. Because of library scheduling, Internet-trained staff may not always be available.
6. **Before you may use your own software or discs on library computers**, they must be scanned for viruses by a member of the Library staff. This will prevent computer viruses that are common on public computers. You may purchase a formatted disc at the main desk for \$1.00.

Warning: Although we use a virus-checker on the library's computers, this will not completely protect you from the chance of getting a virus. Software downloaded from the Internet may contain a virus and you need to have virus-checking software on your own computer. As a matter of fact, any time you use a disk in a computer, other than your own, you have a chance of getting a virus.

The Library is not responsible for any damage or loss of data that may occur while using the library computers.

7. The Chatham Public Library is authorized to set and post fees to cover the cost of computer paper and ink cartridges.
8. Food and drink are prohibited at computer stations.

9. The computer may be switched on and off by library staff only. Patrons must operate the computer within the menu system; (users are not allowed to operate at the DOS level prompt.) Please report any computer or printer problems immediately to the staff.
10. The Librarian has the right to request anyone to leave the computer station if inappropriate behavior is evident. In addition, anyone identified as a security risk or having a history of violations of district technology guidelines may be denied access to the library's networks. Please exit computer applications prior to exiting system. If you are having trouble, notify the staff.
11. CD ROM's are available at the desk. Please hold by edges only as fingerprints and dust can damage the programs.

Chatham Public Library
Internet/Computer Use Agreement

I have read the Computer Public Access Policy and agree to abide by the guidelines listed above.

Name (Print)

Date

Signature

Adopted by: Board of Education
Date: October 8, 2002
(Revision of Item #7 on February 10, 2004)

Chatham Public Library

**CONSENT FOR MINORS' INTERNET USE
(If applicable)**

I, _____, the parent/guardian of _____
(Print Name) (Print Minor's Name)

acknowledge that I have received and read the Library's Internet Use Policy and I give permission for my son/daughter to use the Library's Internet.

I have discussed the Library's Internet policy with my child and agree to have my child abide by all the terms of the policy. I and my child understand and agree that a violation of the Library's policy may result in the Library's revocation of Internet use and/or Library use privileges, and other appropriate action.

DATED:

(Parent/Guardian Signature)

Technology Plan

2008-2011

Appendix B

K-12 Scope & Sequence

K-12 Computer Technology- Scope & Sequence

Kindergarten	Kindergarten	Kindergarten
<p>Demonstrates appropriate care of equipment and identifies potential hazards to equipment operation (magnetic fields, moisture, abuse) with assistance.</p> <p>Uses basic vocabulary when referring to hardware (printer, monitor, mouse, keyboard)</p> <p>Recognizes and uses with assistance alphabet/number keys, spacebar, backspace, enter and shift.</p> <p>Turns a workstation on/off with assistance</p> <p>Demonstrates, with assistance, the appropriate procedures for printing a document.</p> <p>Uses a mouse</p> <p>Appropriately handles storage media with minimal assistance (disk, cd-rom).</p>	<p>Starts and exits software programs with assistance.</p> <p>Participates in teacher-directed learning activities on the computer, including entering simple text (name, basic words, sentences) and graphics with assistance.</p> <p>Participates in teacher-directed learning activities on the computer that involve using data to create a chart with assistance.</p> <p>Uses basic vocabulary when referring to software (click, button, open, close, save, print).</p> <p>Prints a word processing file with assistance.</p>	<p><i>A Student:</i></p> <p>Understands that he/she cannot use software from home on classroom computer workstations.</p> <p>Respects the privacy of the electronic information and property of others.</p> <p>Knows that there are rules to follow when using technology.</p>

Content Standard #1: Is a proficient user of hardware and Technological tools	Content Standard #2: Is a proficient user of software	Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments
<p style="text-align: center;">Grade 1</p> <p>Demonstrates appropriate care of equipment and identifies potential hazards to equipment operation (magnetic fields, moisture, abuse).</p> <p>Uses basic vocabulary when referring to hardware (printer, monitor, drives, mouse, keyboard, cursor & icons).</p> <p>Turns a workstation on/off and logs in with assistance.</p> <p>Uses a mouse</p> <p>Recognizes and uses the following keys: alphabet/number keys, spacebar, backspace, enter, delete, arrows, period, question mark and shift.</p> <p>Appropriately handles storage media with minimal assistance (disk, cd-rom).</p> <p>Has an awareness of location of some keys on left/right sides of keyboard.</p> <p>Prints documents independently</p> <p>Has an understanding that files can be stored/found in a directory and accesses those files with assistance.</p>	<p style="text-align: center;">Grade 1</p> <p>Starts and exits software programs with minimal assistance.</p> <p>Saves work to a folder with assistance.</p> <p>Uses basic vocabulary when referring to software (program, file, click, button, open, close, save, print, disk, shut-down, folder).</p> <p>Uses basic presentation software with assistance.</p> <p>Prints a word processing file with assistance.</p> <p>Uses word processing, desktop publishing, graphic images and data programs with assistance.</p>	<p style="text-align: center;">Grade 1</p> <p><i>A Student:</i></p> <p>Understands that he/she cannot use software from home on classroom computer workstations.</p> <p>Respects the privacy of the electronic information and property of others.</p> <p>Knows that there are rules to follow when using technology.</p>

<p>Content Standard #1: Is a proficient user of hardware and Technological tools</p>	<p>Content Standard #2: Is a proficient user of software</p>	<p>Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments</p>
<p style="text-align: center;">Grade 2</p> <p>Demonstrates appropriate care of equipment and identifies potential hazards to equipment operation (magnetic fields, moisture, abuse).</p> <p>Uses basic vocabulary when referring to hardware (printer, monitor, drives, mouse, keyboard, cursor icons, scanner and digital camera).</p> <p>Turns a workstation on/off and logs in</p> <p>Starts a program using an icon & necessary software</p> <p>Recognizes and uses the following keys: alphabet/number keys, spacebar, backspace, enter, delete, arrows, period, question mark and shift.</p> <p>Appropriately handles storage media (disk, cd-rom).</p> <p>Has an awareness of location of some keys on left/right sides of keyboard.</p> <p>Prints documents independently</p> <p>Uses directory to locate and access files.</p>	<p style="text-align: center;">Grade 2</p> <p>Starts and exits software programs.</p> <p>Saves work to a folder.</p> <p>Accesses work from folder with assistance.</p> <p>Uses basic vocabulary when referring to software (program, file, click, button, open, close, save, print, disk, shut-down, icon, drag, folder).</p> <p>Uses basic presentation software with assistance.</p> <p>Imports graphics from clip art and files with assistance.</p> <p>Prints work independently.</p> <p>Applies character formatting to selected text (font, size, color, bold) with assistance.</p> <p>Runs a spell check on work with assistance.</p>	<p style="text-align: center;">Grade 2</p> <p><i>A Student:</i></p> <p>Understands that he/she cannot use software from home on classroom computer workstations.</p> <p>Respects the privacy of the electronic information and property of others.</p> <p>Knows that there are rules to follow when using technology.</p>

Content Standard #1: Is a proficient user of hardware and Technological tools	Content Standard #2: Is a proficient user of software	Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments
<p style="text-align: center;">Grade 3</p> <p>Demonstrates appropriate care of equipment and identifies potential hazards to equipment operation (magnetic fields, moisture, abuse).</p> <p>Appropriately handles storage media (disk, cd-rom, flash drive).</p> <p>Students demonstrate and understanding of left/right keys on the keyboard and begins to use them.</p> <p>Prints documents independently</p> <p>Uses directory to locate and access files.</p> <p>Uses a scanner to scan media and save it to a directory file or storage media with assistance.</p>	<p style="text-align: center;">Grade 3</p> <p>Opens, saves and closes a file independently.</p> <p>Saves work to a network folder with assistance.</p> <p>Uses basic vocabulary when referring to software (program, file, click, button, open, close, save, print, disk, shut-down, icon, drag, folder, cd-rom, email).</p> <p>Uses basic presentation software.</p> <p>Uses graphics and digital images.</p> <p>Prints work independently.</p> <p>Uses a publishing program to design and produce documents (newsletter, flyer)</p> <p>Composes, sends and receives email with assistance.</p> <p>Runs a spell check on work with assistance.</p>	<p style="text-align: center;">Grade 3</p> <p><i>A Student:</i></p> <p>Respects the privacy of the electronic information and property of others.</p> <p>Demonstrates proper etiquette for electronic communications.</p> <p>Develops an awareness of the influence of technology on society.</p> <p>Understands that there are laws that guide the use of software.</p>

<p>Content Standard #1: Is a proficient user of hardware and Technological tools</p>	<p>Content Standard #2: Is a proficient user of software</p>	<p>Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments</p>
<p style="text-align: center;">Grade 4</p> <p>Demonstrates proper finger position and stroking on home row keys.</p> <p>Demonstrates an understanding and begins to use proper key strokes on keys above and below home row.</p> <p>Enters a paragraph using the tab key to indent.</p> <p>Identifies and demonstrates the appropriate use of available technology.</p> <p>Uses a directory to locate and access files (both hard drive & disk).</p> <p>Uses a scanner to scan media and save it to a directory file or storage media.</p> <p>Uses a digital camera and can access information from the camera's storage device with assistance.</p>	<p style="text-align: center;">Grade 4</p> <p>Uses software-related vocabulary when referring to software (cd-rom, world wide web, internet, bookmark, download).</p> <p>Uses desktop publishing program templates to design and produce various documents (sign, banner).</p> <p>Uses available software to manipulate data with assistance.</p> <p>Uses search strategies to retrieve information from cd-roms and bookmarked internet sites (webquests).</p> <p>Composes, sends and receives email using classroom account.</p> <p>Uses commands (spell check) independently.</p> <p>Applies paragraph formatting to selected paragraphs (line spacing, justification) with assistance.</p> <p>Uses presentation software, graphics & digital images.</p> <p>Saves work to a network folder.</p> <p>Formats text using visuals (clip art, tables) with assistance.</p>	<p style="text-align: center;">Grade 4</p> <p><i>A Student:</i></p> <p>Respects the privacy of the electronic information and property of others.</p> <p>Demonstrates proper etiquette for electronic communications.</p> <p>Develops an awareness of the influence of technology on society.</p> <p>Understands that there are laws that guide the use of software.</p>

Content Standard #1: Is a proficient user of hardware and Technological tools	Content Standard #2: Is a proficient user of software	Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments
<p style="text-align: center;">Grade 5</p> <p>Demonstrates ability to chain key strokes to form words.</p> <p>Enters 10-20 words per minute with efficiency and accuracy.</p> <p>Uses special keys (e.g. control, alt, shift) in combination with other keys efficiently and accurately.</p> <p>Enters a paragraph using the tab key to indent.</p> <p>Uses a directory to locate and access files (hard drive, disk, cd-rom).</p> <p>Resolves difficulties with technology (troubleshooting) to accomplish required tasks with assistance.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p>	<p style="text-align: center;">Grade 5</p> <p>Uses software-related vocabulary when referring to software (cd-rom, world wide web, internet, bookmark, download).</p> <p>Uses desktop publishing program templates to design and produce sign, banner, newsletter.</p> <p>Uses search strategies to retrieve information from cd-roms and the internet.</p> <p>Performs a search on the World Wide Web with assistance.</p> <p>Use cd-roms and bookmarked internet sites to research topics.</p> <p>Use available software to manipulate data, solve real-life problems and express thoughts.</p> <p>Uses commands (spell check, thesaurus) independently.</p> <p>Applies paragraph formatting to selected paragraphs (line spacing, justification).</p> <p>Uses presentation software, graphics & digital images to complete classroom tasks.</p> <p>Saves work and accesses it from a network folder.</p> <p>Uses word processing software when writing a multi-paragraph document.</p>	<p style="text-align: center;">Grade 5</p> <p><i>A Student:</i></p> <p>Respects the privacy of others' electronic information and property.</p> <p>Demonstrates proper etiquette for electronic communications.</p> <ul style="list-style-type: none"> • E-mail • Servers • Services • Networks <p>Explores how technology influences societal, health, economic and scientific issues.</p> <p>Understands that there are laws that guide the use of software.</p> <p>Identifies careers that use technology.</p>

<p>Content Standard #1: Is a proficient user of hardware and Technological tools</p>	<p>Content Standard #2: Is a proficient user of software</p>	<p>Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments</p>
<p style="text-align: center;">Grade 6</p> <p>Enters 15-30 words per minute with efficiency and accuracy.</p> <p>Uses a directory to locate and access files (hard drive, disk, cd-rom, flash drive).</p> <p>Identifies and demonstrates the appropriate use of available hardware.</p> <p>Resolves difficulties with technology (troubleshooting) to accomplish required tasks.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p> <p>Uses network resources with assistance.</p>	<p style="text-align: center;">Grade 6</p> <p>Follows directions to use computer software.</p> <p>Uses publishing programs and computer graphics to design and produce documents, flyers, banners, calendars and newsletters.</p> <p>Uses available software to manipulate and chart data.</p> <p>Applies character formatting to selected text (bullets, superscript, subscript).</p> <p>Uses search strategies to retrieve information from cd-roms and bookmarked internet sites.</p> <p>Performs a search on the World Wide Web.</p> <p>Uses commands (spell check, thesaurus) independently.</p> <p>Uses cd-rom, internet sites and email correspondence to research classroom topics.</p> <p>Express thoughts using basic presentation software, graphics and digital images.</p> <p>Saves work to an individual electronic portfolio.</p> <p>Uses appropriate software to solve problems.</p> <p>Uses word processing and publishing software to compose and edit multi-page documents (lab reports, essays, creative writing).</p>	<p style="text-align: center;">Grade 6</p> <p><i>A Student:</i></p> <p>Respects the privacy of others' electronic information and property.</p> <p>Discusses the reasoning behind the current legal ramifications involving:</p> <ul style="list-style-type: none"> • Producer's right to ownership • Unauthorized use of a product <p>Practices the ethics of legal citation of electronic information</p> <p>Demonstrates proper etiquette for electronic communications.</p> <ul style="list-style-type: none"> • E-mail • Servers • Services • Networks <p>Explores how technology influences societal, health, economic and scientific issues.</p> <p>Explains the use of technologies in occupations.</p> <p>Identifies careers in current and emerging technologies.</p>

Content Standard #1: Is a proficient user of hardware and Technological tools	Content Standard #2: Is a proficient user of software	Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments
<p style="text-align: center;">Grade 7</p> <p>Enters 25-45 words per minute efficiently and accurately.</p> <p>Uses a directory to locate and access files (hard drive, disk, cd-rom, flash drive & within an internet link).</p> <p>Uses network resources.</p> <p>Identifies and demonstrates the appropriate use of available hardware.</p> <p>Resolves difficulties with technology in order to accomplish required tasks.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p>	<p style="text-align: center;">Grade 7</p> <p>Uses software-related vocabulary (keyword, search, search engine, link, bullet, database, download, spreadsheet, field).</p> <p>Follows directions to use computer software.</p> <p>Uses publishing programs and computer graphics to design and produce documents, flyers, banners, calendars and newsletters.</p> <p>Uses page layout features (headers, foots, margins, orientation) to format documents.</p> <p>Uses templates to create and edit simple databases with assistance</p> <p>Create and format spreadsheets with assistance (cell size, justification, numeric formatting)</p> <p>Use spreadsheet data to create charts (bar, line, pie) with assistance.</p> <p>Performs a search on the World Wide Web.</p> <p>Uses commands (spell check, thesaurus, search, replace) independently.</p> <p>Uses cd-rom, internet sites and email correspondence to research classroom topics.</p> <p>Manages desktop files including capturing and sending text and files.</p> <p>Uses appropriate software to solve problems.</p> <p>Uses available software to plan, produce and make a presentation.</p> <p>Uses available software to communicate database and spreadsheet information with assistance.</p>	<p style="text-align: center;">Grade 7</p> <p><i>A Student:</i></p> <p>Discusses the reasoning behind the current legal ramifications involving:</p> <ul style="list-style-type: none"> • A citizen's right to privacy (knowing when and who accesses personal information). • Unauthorized use of stored, personal information (e.g. personal, business and organizational). <p>Practices the ethics of legal citation of electronic information</p> <p>Demonstrates proper etiquette for electronic communications.</p> <ul style="list-style-type: none"> • E-mail • Servers • Services • Networks <p>Explores how technology influences societal, health, economic and scientific issues, as well as how these influence the development and use of technology.</p> <p>Explains the use of technologies in occupations.</p> <p>Identifies careers in current and emerging technologies.</p>

Content Standard #1: Is a proficient user of hardware and Technological tools	Content Standard #2: Is a proficient user of software	Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments
<p style="text-align: center;">Grade 8</p> <p>Enters 45+ words per minute efficiently and accurately.</p> <p>Uses a directory to locate and access files (hard drive, disk, cd-rom, flash drive & within an internet link).</p> <p>Uses network resources.</p> <p>Identifies and demonstrates the appropriate use of available hardware.</p> <p>Resolves difficulties with technology in order to accomplish required tasks.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p>	<p style="text-align: center;">Grade 8</p> <p>Uses all aspects of spreadsheets (creates, formats data, manipulates data, formats charts).</p> <p>Manages desktop files.</p> <p>Refines a search on the World Wide Web.</p> <p>Uses appropriate search engines and parameters.</p> <p>Performs a search to locate information and conduct research.</p> <p>Captures and sends text, graphics and sound.</p> <p>Captures and sends files with attachments</p> <p>Uses cd-rom, internet sites and email correspondence to research classroom topics.</p> <p>Uses basic presentation software in conjunction with other software (spreadsheets, databases and video capture).</p> <p>Uses appropriate software to solve problems.</p> <p>Uses available software to plan, produce and make a presentation.</p> <p>Uses available software to communicate database and spreadsheet information.</p>	<p style="text-align: center;">Grade 8</p> <p><i>A Student:</i></p> <p>Discusses the reasoning behind the current legal ramifications involving:</p> <ul style="list-style-type: none"> • Public domain vs. copyrighted • Copyrighted vs. Copy protected • Current issues on software licensing • A citizen's right to privacy (knowing when and who accesses personal information). • Unauthorized use of stored, personal information (e.g. personal, business and organizational). <p>Practices the ethics of legal citation of electronic information</p> <p>Demonstrates proper etiquette for electronic communications.</p> <ul style="list-style-type: none"> • E-mail • Servers • Services • Networks <p>Explores how technology influences societal, health, economic and scientific issues, as well as how these influence the development and use of technology.</p> <p>Explains the use of technologies in occupations.</p> <p>Identifies careers in current and emerging technologies.</p>

Content Standard #1: Is a proficient user of hardware and Technological tools	Content Standard #2: Is a proficient user of software	Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments
<p style="text-align: center;">Grades 9 & 10</p> <p>Uses network resources to access information.</p> <p>Identifies and demonstrates the appropriate use of available hardware.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p>	<p style="text-align: center;">Grade 9</p> <p>Uses enhanced features of word processing and spreadsheet software to compose and edit reports.</p> <p>Uses software-related terminology (table, linking).</p> <p>Creates and/or uses computer graphics to enhance a document or produce a product.</p> <p>Performs search to locate information and conduct research.</p> <p>Uses graphics and digital images.</p> <p>Incorporates spreadsheets, charts, graphs and/or images created in other programs in their work.</p> <p>Uses technical tools to analyze, synthesize, evaluate and present information.</p> <p>Critically analyzes materials obtained from electronic resources (web page evaluation).</p> <p>Uses available software to plan, produce and present a multi-media presentation.</p> <p>Uses available technology to refine and gain a better understanding of appropriate career and college options.</p>	<p style="text-align: center;">Grade 9</p> <p><i>A Student:</i></p> <p>Respects the privacy of others' electronic information and property.</p> <p>Analyzes how societal, health, economic and scientific issues influence the development and use of technology.</p> <p>Uses data (personal, public domain, copyrighted and copy protected) legally and ethically with respect to:</p> <ul style="list-style-type: none"> • Software licensing • User's right to privacy • Authorized use of stored data (personal, business and organizational).

<p>Content Standard #1: Is a proficient user of hardware and Technological tools</p>	<p>Content Standard #2: Is a proficient user of software</p>	<p>Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments</p>
<p style="text-align: center;">Grades 9 & 10</p> <p>Uses network resources to access information.</p> <p>Identifies and demonstrates the appropriate use of available hardware.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p>	<p style="text-align: center;">Grade 10</p> <p>Uses enhanced features of word processing and spreadsheet software to compose and edit reports.</p> <p>Uses software-related terminology (table, linking).</p> <p>Creates and/or uses computer graphics to enhance a document or produce a product.</p> <p>Performs search to locate information and conduct research.</p> <p>Manipulates spreadsheet data to analyze numerical data and create charts.</p> <p>Uses functions in a spreadsheet.</p> <p>Links spreadsheet data to word processing documents.</p> <p>Uses graphics and digital images.</p> <p>Critically analyzes materials obtained from electronic resources (web page evaluation).</p> <p>Uses technical tools to analyze, synthesize, evaluate and present information.</p> <p>Uses available software to plan, produce and present a multi-media presentation.</p> <p>Uses available technology to refine and gain a better understanding of appropriate career and college options.</p> <p>Uses word processing and desktop publishing software to compose and edit multi-paged documents (lab reports, essays, research papers, creative writing).</p>	<p style="text-align: center;">Grade 10</p> <p><i>A Student:</i></p> <p>Respects the privacy of others' electronic information and property.</p> <p>Analyzes how societal, health, economic and scientific issues influence the development and use of technology.</p> <p>Uses data (personal, public domain, copyrighted and copy protected) legally and ethically with respect to:</p> <ul style="list-style-type: none"> • Software licensing • User's right to privacy <p>Authorized use of stored data (personal, business and organizational).</p>

<p>Content Standard #1: Is a proficient user of hardware and Technological tools</p>	<p>Content Standard #2: Is a proficient user of software</p>	<p>Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments</p>
<p style="text-align: center;">Grades 11 & 12</p> <p>Uses network resources to access information.</p> <p>Identifies and demonstrates the appropriate use of available hardware.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p>	<p style="text-align: center;">Grade 11</p> <p>Uses enhanced features of word processing and spreadsheet software to compose and edit reports.</p> <p>Uses software-related terminology (table, linking).</p> <p>Creates and/or uses computer graphics to enhance a document or produce a product.</p> <p>Performs search to locate information and conduct research.</p> <p>Manipulates spreadsheet data to analyze numerical data and create charts.</p> <p>Awareness of primary and secondary database sorts.</p> <p>Uses functions in a spreadsheet.</p> <p>Links spreadsheet data to word processing documents.</p> <p>Uses graphics and digital images.</p> <p>Critically analyzes materials obtained from electronic resources (web page evaluation).</p> <p>Uses technical tools to analyze, synthesize, evaluate and present information.</p> <p>Uses available software to plan, produce and present a multi-media presentation.</p> <p>Uses available technology to refine and gain a better understanding of appropriate career and college options.</p> <p>Uses word processing and desktop publishing software to compose and edit multi-paged documents (lab reports, essays, research papers, creative writing).</p>	<p style="text-align: center;">Grade 11</p> <p><i>A Student:</i></p> <p>Respects the privacy of others' electronic information and property.</p> <p>Analyzes how societal, health, economic and scientific issues influence the development and use of technology.</p> <p>Uses data (personal, public domain, copyrighted and copy protected) legally and ethically with respect to:</p> <ul style="list-style-type: none"> • Software licensing • User's right to privacy <p>Authorized use of stored data (personal, business and organizational).</p>

<p>Content Standard #1: Is a proficient user of hardware and Technological tools</p>	<p>Content Standard #2: Is a proficient user of software</p>	<p>Content Standard #3: Demonstrates knowledge of current legal, ethical, and global issues resulting from the use of technological developments</p>
<p style="text-align: center;">Grades 11 & 12</p> <p>Uses network resources to access information.</p> <p>Identifies and demonstrates the appropriate use of available hardware.</p> <p>Uses technical tools to demonstrate his/her ability to analyze, synthesize, evaluate and present information with assistance (digital camera, scanner, cd-rom, video editing, microphones, etc).</p>	<p style="text-align: center;">Grade 12</p> <p>Uses enhanced features of word processing and spreadsheet software to compose and edit reports.</p> <p>Uses software-related terminology (table, linking).</p> <p>Creates and/or uses computer graphics to enhance a document or produce a product.</p> <p>Performs search to locate information and conduct research.</p> <p>Manipulates spreadsheet data to analyze numerical data and create charts.</p> <p>Awareness of primary and secondary database sorts.</p> <p>Uses technical tools to analyze, synthesize, evaluate and present information.</p> <p>Uses available software to plan, produce and present a multi-media presentation.</p> <p>Uses available technology to refine and gain a better understanding of appropriate career and college options.</p> <p>Uses word processing and desktop publishing software to compose and edit multi-paged documents (lab reports, essays, research papers, creative writing).</p>	<p style="text-align: center;">Grade 12</p> <p><i>A Student:</i></p> <p>Respects the privacy of others' electronic information and property.</p> <p>Analyzes how societal, health, economic and scientific issues influence the development and use of technology.</p> <p>Uses data (personal, public domain, copyrighted and copy protected) legally and ethically with respect to:</p> <ul style="list-style-type: none"> • Software licensing • User's right to privacy <p>Authorized use of stored data (personal, business and organizational).</p>

Technology Plan

2008-2011

Appendix C

Elementary Technology
Curriculum K-4

Elementary K-4 Computer Skills Checklist

2007-2008

Kindergarten Computer Skills



Basic Computer Skills




- ___ Verbally identify computer parts
 - ___ keyboard
 - ___ monitor
 - ___ screen
 - ___ “the brain”
 - ___ printer
 - ___ mouse
 - ___ mouse pad
 - ___ headphone jack
- ___ Starts a program using an icon
- ___ **X close program**

Word Processing Skills

- ___ Locate and use function keys
 - ___ shift
 - ___ spacebar
 - ___ enter
 - ___ backspace/delete
- ___ Type first & last name
- ___ Type simple sentences
 - ___ Capital letter at the beginning of sentence
 - ___ Period at the end of the sentence
- ___ Print work
- ___ Insert page boarder
- ___ Use graphics in a document
 - ___ insert
 - ___ resize
 - ___ move

Programs

-  Kidspiration2
-  Scholastic Keys-Write

-  Early Learning Toolkit
-  Kid Pix4 Delux
-  Type to Learn Jr.

Grade One Computer Skills







Basic Computer Skills

- ___ Verbally identify and complete worksheet using all computer parts
- ___ Turn monitor and computer system on and off
- ___ Log on with user name & password
- ___ Locate, save, and retrieve documents from student folder

Word Processing Skills

- ___ Locate and use function keys
 - ___ shift
 - ___ spacebar
 - ___ tab
 - ___ enter
 - ___ backspace/delete
- ___ Type & print simple sentences
 - ___ Capital letter at the beginning of sentence
 - ___ Spacebar once between words & twice between sentences
 - ___ Backspace/delete to edit
 - ___ Period/question mark at the end of the sentence
- ___ Print work
- ___ Insert page boarder
- ___ Use graphics in a document
 - ___ insert
 - ___ resize
 - ___ move

Programs

-  Kidspiration2
-  Scholastic Keys-Write
-  Scholastic Keys-Show
-  Storybook Weaver
-  Kid Pix4 Delux
-  Type to Learn Jr.



Grade Two Computer Skills

Basic Computer Skills

- ___ Verbally identify and complete worksheet using all computer parts
- ___ Turn monitor and computer system on and off
- ___ Log on with user name & password
- ___ Locate, save, and retrieve documents from student folder with assistance

Word Processing Skills

- ___ Type & print simple sentences
 - ___ Capital letter at the beginning of sentence
 - ___ Spacebar once between words & twice between sentences
 - ___ Backspace/delete to edit
 - ___ Period/question mark at the end of the sentence
- ___ Backspace/Delete to edit incorrect letters in the body of text
- ___ Highlight text to edit
- ___ Insert words into sentences and letters into words
- ___ Center align text
- ___ Change font size, style, & color
- ___ Edit work
 - ___ Cut, copy, paste
- ___ Insert page boarder
- ___ Use graphics in a document
 - ___ insert
 - ___ resize
 - ___ move
- ___ Scanning pictures with assistance







Internet Skills

- ___ Bookmarked favorites

PowerPoint Skills

- ___ Insert slide
- ___ Insert text
- ___ Insert graphics from file
- ___ Insert digital pictures
- ___ Choose a background
- ___ Reorganize slides
- ___ Set up a show

Programs

-  Kidspiration2
-  Scholastic Keys – Write
-  Scholastic Keys – Show
-  My Amazing Human Body
-  Stationary Studio
-  Type to Learn Jr.



Grade Three Computer Skills

Basic Computer Skills

- ___ Verbally identify and complete worksheet using all computer parts
- ___ Turn monitor and computer system on and off
- ___ Log on with user name & password
- ___ Locate, save, and retrieve documents from student folder

Word Processing Skills

- ___ Type, edit, & print simple sentences & paragraphs
- ___ Capital letter at the beginning of sentence

- ___ Spacebar once between words & twice between sentences
 - ___ Backspace/delete to edit
- ___ Period/question mark at the end of the sentence
- ___ Backspace/Delete to edit incorrect letters in the body of text
- ___ Highlight text to edit
- ___ Insert words into sentences and letters into words
- ___ Align text
- ___ Change font size, style, & color
- ___ Edit work
 - ___ Cut, copy, paste
 - ___ use spell check
- ___ Insert page boarder
- ___ Use graphics in a document
 - ___ insert, move, resize,
- ___ Scanning pictures with assistance

Drawing Skills

- ___ labeling
- ___ stamping
- ___ exporting

Publisher Skills

- ___ Insert, move, and resize text box
- ___ Insert from file, move, and resize graphic
- ___ Create a tri-fold document










Keyboarding Skills

- ___ Demonstrate an awareness of home row keys

Internet Skills

___ Bookmarked favorites

Programs

-  Kidspiration2
-  Scholastic Keys – Write
-  Scholastic Keys – Show
-  Microsoft Publisher
-  Kid Pix4 Delux
-  DK Eyewitness Children’s Encyclopedia
-  Writer’s Companion
-  Stationary Studio
-  Jumpstart Typing

Grade Four Computer Skills

Basic Computer Skills

- ___ Verbally identify and complete worksheet using all computer parts
- ___ Turn monitor and computer system on and off
- ___ Log on with user name & password
- ___ Locate, save, and retrieve documents from student folder

Word Processing Skills

- ___ Type, edit, & print documents
 - ___ Capital letter at the beginning of sentence
 - ___ Spacebar once between words & twice between sentences
 - ___ Backspace/delete to edit
 - ___ Period/question mark at the end of the sentence
- ___ Backspace/Delete to edit incorrect letters in the body of text
- ___ Highlight text to edit

- ___ Insert words into sentences and letters into words
- ___ Align text
- ___ Change font size, style, & color
- ___ Edit work
 - ___ Cut, copy, paste
 - ___ use spell check
- ___ Insert page boarder
- ___ Use graphics in a document
 - ___ insert, move, resize
 - ___ Insert graphics from file
 - ___ Insert digital pictures
- ___ Use Draw capabilities
- ___ Use Word Art

Spreadsheet Skills

- ___ Demonstrate knowledge & use of spread sheet terms and skills
 - ___ cell
 - ___ row
 - ___ column
 - ___ fill down
 - ___ fill right
- ___ Copy & paste cells
- ___ Create graph
- ___ Apply color to rows, cells, & columns
- ___ Insert graphics into a cell

PowerPoint Skills

- ___ Insert slide
- ___ Insert text
- ___ Insert graphics from file or digital picture
 - ___ Move & resize
- ___ Choose a background
- ___ Reorganize slides
- ___ Set up a show

Publisher Skills

- ___ Insert, move, and resize text box
- ___ Insert from file, move, and resize graphic
- ___ Create a business card










Keyboarding Skills

- ___ Demonstrate an awareness of home row keys
- ___ Demonstrate proper fingering of all keys

Internet Skills

- ___ Bookmarked favorites
- ___ Use on-line search techniques to solve problems

Programs

-  Kidspiration2
-  Microsoft Word
-  Microsoft Excel
-  Microsoft Publisher
-  Scholastic Keys – Show
-  Writer’s Companion
-  Kid Pix4 Delux
-  Stationary Studio
-  Jumpstart Typing

Technology Plan

2008-2011

Appendix D

Inventory of District Hardware &
Software Programs

Inventory of District Hardware and Software Programs

This appendix will provide a summary of the capacity to access and use technology for teaching and learning within the district. It includes both the hardware available as well as the software programs in use.

Hardware:

School Building	Total Computers	Total Printers
High School	253	63
Middle School	306	83
Elementary School (MED)	259	94

District Wide Hardware:

Smartboards	20
LCD Monitors	70
DVD Cameras	3
Digital Cameras	7

Software Programs:

High School

Program	Use:
Dreamweaver	Classroom Instruction
Flash	Classroom Instruction
Blue J	Classroom Instruction
Photoshop/Illustrator	Classroom Instruction
Autodesk 2008	Project Lead the Way

Middle School

Program	Use
Type to Learn	Classroom Instruction
Microsoft Office	Classroom Instruction
Inspiration	Classroom Instruction
Star Reader	Classroom Instruction
Integrate Pro	Classroom Instruction
Accelerated Reader	Classroom Instruction
WebWhacker	Classroom Instruction
The Print Shop Deluxe	Classroom Instruction
Crossword Magic	Classroom Instruction
Adobe Illustrator	Classroom Instruction
Adobe Photo Shop	Classroom Instruction
Adobe Page Maker	Classroom Instruction
Math Blaster 2	Classroom Instruction
HyperStudio	Classroom Instruction
Aldus Home Publisher	Classroom Instruction

True Type Master Set	Classroom Instruction
Code: Europe	Classroom Instruction
Fraction Munchers	Classroom Instruction
American Heritage Dictionary	Classroom Instruction
Creative Writer	Classroom Instruction
Math Shop	Classroom Instruction
Where is Carmen Sandiego?	Classroom Instruction
Math Shop Jr.	Classroom Instruction
Sam	Classroom Instruction
At Ease	Classroom Instruction
Word Search Deluxe	Classroom Instruction
The Chessmaster 3000	Classroom Instruction
FileMaker Pro	Classroom Instruction
New Math Blaster Plus	Classroom Instruction
Number Munchers	Classroom Instruction
Encarta 2000	Classroom Instruction
Robolab	Classroom Instruction
Mr. Circuit	Classroom Instruction
The Oceans	Classroom Instruction
Maps and Globes	Classroom Instruction
Wacom ArtPad	Classroom Instruction
Grolier Multimedia Encyclopedia	Classroom Instruction
Plato	Classroom Instruction
ChemClipArt	Classroom Instruction
Understanding Math&Meas., & Geom.	Classroom Instruction
Accelerated Math	Classroom Instruction
Star Math	Classroom Instruction
Science Kit	Classroom Instruction
Solar System Book	Classroom Instruction
Auto-Sketch	Classroom Instruction
Print Shop Deluxe	Classroom Instruction
Tabz & 3D Modeling	Classroom Instruction
Understanding Enger	Classroom Instruction
Portfolio 5	Classroom Instruction
Ancient Egypt	Classroom Instruction
Ancient Greece	Classroom Instruction
Renaissance	Classroom Instruction
Middle Ages	Classroom Instruction
Early American History	Classroom Instruction
Roman Empire	Classroom Instruction
Resource Pro	Classroom Instruction
Touchdown Math	Classroom Instruction
Greatest Moments of Our Time	Classroom Instruction
A Field Trip To the Sea	Classroom Instruction
A Field Trip To the Sky	Classroom Instruction
Elements of Language	Classroom Instruction
TI Graph Link	Classroom Instruction
Encarta 2001	Classroom Instruction

The Print Shop	Classroom Instruction
Trudy's Time & Place House	Classroom Instruction
Dragon Naturally Speaking	Classroom Instruction
L&H Kurzweil 3000 (5)	Classroom Instruction
Earth Science Concepts	Classroom Instruction
Clicker 4	Classroom Instruction
Penfriend	Classroom Instruction
Word Search Companion	Classroom Instruction
TextBridge Pro Millennium	Classroom Instruction
Prairie Explorer	Classroom Instruction
The Oregon Trail	Classroom Instruction
Encarta Deluxe 2003	Classroom Instruction
My First Amazing World Exp.	Classroom Instruction
I Love Science	Classroom Instruction
Eyewitness Encyclopedia space	Classroom Instruction
Sammy's Science House	Classroom Instruction
Disney's Learning Skills	Classroom Instruction
Stickybear Math 1 Deluxe	Classroom Instruction
Stickybear Math II Deluxe	Classroom Instruction
Travel the World with Timmy	Classroom Instruction
Native Americans People of the Forest	Classroom Instruction
Native Americans People of the Northwest Coast	Classroom Instruction
Native Americans People of the Plains	Classroom Instruction
Native Americans People of the Desert	Classroom Instruction
Model Smart	Classroom Instruction
Where Does My Money Go?	Classroom Instruction
ThinkWave Educator	Classroom Instruction
Adobe Photoshop 7	Classroom Instruction
Finale 2004	Classroom Instruction
Basic Mathematics	Classroom Instruction
Mathematics A Database	Classroom Instruction
The Geometer's Sketchpad	Classroom Instruction
The Lost Formulas	Classroom Instruction
Animal Doctor	Classroom Instruction
Versal Tiles	Classroom Instruction
Measurement & Scale	Classroom Instruction
Rubric Creator & Record Keeper	Classroom Instruction
Ancient Greece	Classroom Instruction
Ancient Egypt	Classroom Instruction
Middle Ages	Classroom Instruction
Renaissance	Classroom Instruction
Writer's Companion	Classroom Instruction
Curious George Learns Phonics	Classroom Instruction
Space Academy	Classroom Instruction
Everything Weather	Classroom Instruction
A Field Trip to the Sky	Classroom Instruction
A Field Trip to the Rainforest Deluxe	Classroom Instruction
The Letterbugs Get Ready to Read	Classroom Instruction

Math Essentials	Classroom Instruction
A Field Trip to the Sea Deluxe	Classroom Instruction
Learn About Life Science: Plants	Classroom Instruction
Learn About Earth Science: Weather	Classroom Instruction
Math Essentials	Classroom Instruction
WJ III Compuscore	Classroom Instruction
The Print Shop	Classroom Instruction
Puzzle Power	Classroom Instruction
Visual Communicator	Classroom Instruction
International Inspirer	Classroom Instruction
Mapmaker's Toolkit Deluxe	Classroom Instruction
Timeliner Deluxe	Classroom Instruction
Aspects of Religion	Classroom Instruction
Exploring World Religions	Classroom Instruction
SuperSpell K-7	Classroom Instruction
SuperSpell Grammar 1	Classroom Instruction
SuperSpell Grammar 2	Classroom Instruction
Accelerated Grammar & Spelling	Classroom Instruction
IntelliScore	Classroom Instruction
Band In A Box	Classroom Instruction
Homestudio	Classroom Instruction
Chemistry	Classroom Instruction
Weather & Climate	Classroom Instruction
Habitats of the World	Classroom Instruction
States of Matter	Classroom Instruction
Fast Math	Classroom Instruction
Math Missions	Classroom Instruction
Music Ace Network	Classroom Instruction
CARS Series 1 and II Books A-H	Classroom Instruction
Dragon Naturally Speaking	Classroom Instruction
Car Builder Delux	Classroom Instruction
Home Designer Pro	Classroom Instruction
Type to Learn 3	Classroom Instruction
Decisions Decisions {Building a Nation,Ancient Empires, Feudalism}	Classroom Instruction
Monster Maker	Classroom Instruction
Oscer The Ballonist and the Secrets of the Forest	Classroom Instruction
Legends of the Americas	Classroom Instruction
Graph Master	Classroom Instruction
Physical Science Concepts: Energy	Classroom Instruction
Physical Science Concepts:Matter	Classroom Instruction
Word Problem Square Off	Classroom Instruction
Interactive Resources	Classroom Instruction
Rain Forest	Classroom Instruction
Pinnacle Studio Plus	Classroom Instruction
Podium	Classroom Instruction

Elementary School

Program	Use:
Math Blaster 7-9	Classroom Instruction
Math Blaster 9-12	Classroom Instruction
Scholastic Keys	Classroom Instruction
Kidspiration 2	Classroom Instruction
Children's Encyclopedia	Classroom Instruction
GeoComputer	Classroom Instruction
Graph Club	Classroom Instruction
HStudio	Classroom Instruction
Jump Start k-2	Classroom Instruction
Keative Komix	Classroom Instruction
Math Carnival	Classroom Instruction
MindPoint	Classroom Instruction
My Amazing Human Body	Classroom Instruction
Reader Rabbit	Classroom Instruction
RoboLab	Classroom Instruction
Stationary Studio	Classroom Instruction
Tool Factory	Classroom Instruction
Type to Learn Jr.	Classroom Instruction
Writer's Companion	Classroom Instruction
Grolier	Classroom Instruction
Community Construction	Classroom Instruction
Successnet	Classroom Instruction
Jumpstart Typing	Classroom Instruction
Story Book Weaver 5	Classroom Instruction
Microsoft Office	Classroom Instruction
Learn About Animals	Classroom Instruction
Learn About the Human Body	Classroom Instruction
Learn About Astronomy	Classroom Instruction
Learn About Dinosaurs	Classroom Instruction
Learn About Plants	Classroom Instruction
I.E. Destination Neighborhood	Classroom Instruction
Monster Math Maker	Classroom Instruction
Ice Cream Truck	Classroom Instruction
Cosmic Reading Journey	Classroom Instruction
Splish Splash Math	Classroom Instruction
Kid Pix	Classroom Instruction

Technology Plan

2008-2011

Appendix E

District Technology Budget

2008-2009 Projected Budget
Supervisor: Giles Felton
Technology Department

		Total District Enrollment:					
				1,314			
Budget Account	Description	2006-2007 Actual	2007-2008 Budget	2008-2009 Budget	Dollar Change	%Change	Justification
2630-150-00	Instructional Salaries	-	-	12,000.00	12,000.00	#DIV/0!	Contractual pay: After-school professional develop
2630-160-00	Non-Instructionl Salaries	112,664.72	123,725.00	142,240.00	18,515.00	14.96%	Reclassify one Technology Aide to Systems Engine
2630-200-01	Hardware/Furniture-DW	-	-		-	#DIV/0!	
2630-200-02	Hardware, Med	-	-		-	#DIV/0!	
2630-200-03	Hardware, Cms	-	-		-	#DIV/0!	
2630-220-01	Aidable Hardware - DW	112,105.89	107,470.00	96,671.00	(10,799.00)		
2630-220-02	Aidable Hardware, MED	1,740.00	-		-	#DIV/0!	
2630-220-03	Aidable Hardware, CMS	1,388.86	-		-	#DIV/0!	
2630-220-04	Aidable Hardware, CHS	2,000.00	-		-	#DIV/0!	
2630-400-01	Computer Repairs - Contra	35,638.05	35,000.00	35,000.00	-	0.00%	
2630-409-01	Conferences & Travel	9,999.59	10,000.00	10,000.00	-	0.00%	
2630-450-01	Materials & Suppl Dis-Wid	3,627.11	5,000.00	5,000.00	-	0.00%	
2630-450-02	Material & Supplies MED	8,473.63	7,000.00	7,000.00	-	0.00%	
2630-450-03	Material & Supplies M/S	6,875.11	8,000.00	8,000.00	-	0.00%	
2630-450-04	Material & Supplies H/S	2,328.13	8,000.00	-	(8,000.00)	-100.00%	
2630-460-01	Instruct Hardwareware - DW (Aidable)	4,122.89	21,000.00	31,799.00	10,799.00	51.42%	
2630-460-02	Instruct Software - MED	7,501.14	7,500.00	7,500.00	-	0.00%	

2008-2009 Projected Budget
 Supervisor: Giles Felton
 Technology Department

Budget Account	Description	2006-2007 Actual	2007-2008 Budget	2008-2009 Budget	Dollar Change	%Change	Justification
2630-460-03	Instruct Software - CMS	6,653.67	7,500.00	7,500.00	-	0.00%	
2630-460-04	Instruct Software - CHS	9,745.00	9,745.00	9,745.00	-	0.00%	
2630-490-01	BOCES Services	-	-		-	#DIV/0!	
Total 2630:		324,863.79	349,940.00	372,455.00	22,515.00	6.43%	

Technology Plan

2008-2011

Appendix F

Technology Surveys

Technology Plan Survey

1. Have you implemented technology into your classroom in any way?
Yes No

If yes, please check the boxes below for the hardware/software you have implemented and add any description you feel is necessary.

Technology Implemented	Yes	Description
Student Computers & Number of _____	<input type="checkbox"/>	
Smartboard	<input type="checkbox"/>	
LCD Projector	<input type="checkbox"/>	
Software Programs	<input type="checkbox"/>	
Internet Sites	<input type="checkbox"/>	
Online Databases (i.e. Grolier/World Book Online)	<input type="checkbox"/>	
Microsoft Word	<input type="checkbox"/>	
Microsoft Powerpoint	<input type="checkbox"/>	
Microsoft Excel	<input type="checkbox"/>	
Microsoft Publisher	<input type="checkbox"/>	
Microsoft Movie Maker	<input type="checkbox"/>	
Microsoft Publisher	<input type="checkbox"/>	
Other Technologies	<input type="checkbox"/>	

2. Please share any specific projects within your curriculum which incorporate technology?

3. What technology staff development training have you participated in at the district, or provided off-site through the District?

4. What staff development training do you wish or require at this time?

5. Do you feel there is adequate technology available within your building?
Yes No

If no, what would you like to see more of?

Technology Plan Evaluation Survey

1. Have you implemented technology into your class instruction in any way?

Yes No

If yes, what kinds of things are you doing?

2. Do you feel adequate staff development has been offered for technology?

Yes No

If no, what things would you like to have offered?

3. Is there adequate technology available within your building?

Yes No

If no, what would you like to see more of?

4. Do you feel the administration is supportive of the technology initiatives within your building?

Yes No

If no, what changes would you like to see in the future?

5. Are you comfortable with the Technology Scope and Sequence?

Yes No

If no, what kinds of changes do you think are necessary to find that comfort?

Technology Plan Evaluation Survey

1. Has your teacher been using technology in your classroom?

Yes

No

If yes, what kinds of things is he/she doing?

If no, what kinds of things would you like to be doing?

2. Is there enough technology available within your building? (computers, digital cameras, scanners, software, etc).

Yes

No

If no, what would you like to see more of?

3. Do you feel you are learning what you need to in regards to technology?

Yes

No

If no, what changes would you like to see in the future?

4. What suggestions do you have for teachers in the use of technology in the classroom?

Technology Plan

2008-2011

Appendix G

2007-08 Technology Committee

Technology Committee 2007-08

Members:

Kevin Botsford, Elementary School Language Concepts Special Education Teacher, Grades K-2
Larry Burud, Middle School Assistant Principal
Shawn Caldwell, High School Technology Teacher
Rebecca Clingempeel, Elementary School Teacher, Grade 2
Jack Costello, Middle School Teacher, Grade 6, and President of Chatham Teachers' Association
Giles Felton, Network Systems Engineer and Director of Instructional Technology
James Flanagan, High School Math/Computer Teacher
Tracey Fuller, Middle School Math Teacher, Grades 7/8
Wendy Fuller, Chatham Public Library Director
Ann Gainer, Elementary School Librarian
Marie Irving, Questar III, Data Analyst
Regina Kekis, Middle School Spanish Teacher, Grades 7/8
Roberta Keller, Middle School Math Teacher, Grade 6
Kristine Mackowski, Middle School Special Education Teacher, Grade 6
Diane Malecki, School Business Administrator
Deborah Martino, Middle School Teaching Assistant
Phyllis McGill, Assistant Superintendent for Educational Services
Kathleen Nichol, Middle School Technology Teacher
April Phelps, Questar III, Data Analyst
Owen Poland, High School Social Studies Teacher
Paula Ptaszek, Elementary School Computer Teacher
Wayne Rose, Board of Education Member and Taconic Hills Director of Instructional Technology
Darren Rosenbaum, High School Social Studies Teacher
Jean Scheriff, Director of Pupil Services
Jeff Selby, Middle School Librarian
Karen Southard, Network Support Aide
John Thorsen, High School Assistant Principal
Patrice Tomaso, High School Art Teacher
David VanLeeuwen, High School Math Teacher
Nicole Wrigley, Middle School Special Education Teacher, Grade 5