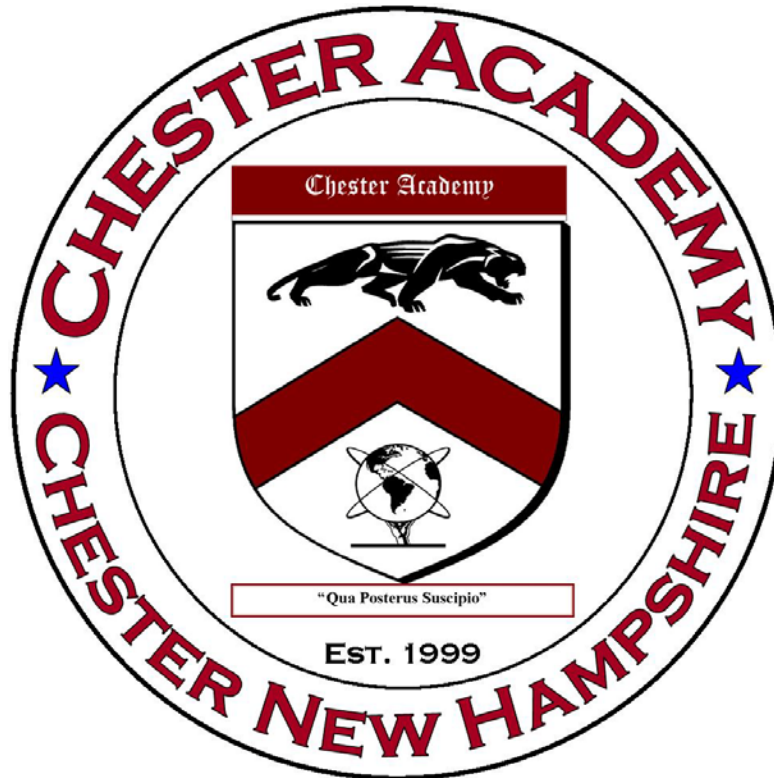


CHESTER ACADEMY



Three Year Technology Plan

Covered years 2007 - 2010

Chester, NH

SAU – 82

SAU Superintendent: Dr. Victor Petzy

Principal: Leslie Leahy

Director of Technology: William Cavanaugh

School Board Members: Catherine Treanor, Valerie Weider, Michael Romick, Matthew Stover, Royal Richardson

1. Introduction

It is the goal of Chester Academy that all members of the school community will be contributing and productive citizens, prepared for life and livelihood and able to meet future challenges. In the future, students will see technology used in many ways that can only be imagined at the present time. Entry level jobs in many fields require technological skills.

The State of New Hampshire and the education community recognizes the need to prepare students for the challenges of the 21st century. The State of New Hampshire's Department of Education has produced State Standards which identifies broad, measurable results for students. School districts have been charged with using these tools to develop educational experiences for their students. An integral part of this process is the integration of technology throughout the curriculum.

Envisioning the Chester School District of the future, each classroom will have eight computers and complimentary peripheral equipment, every teacher will have a personal computer, two computer labs will exist for student's use, and the school and community will have access to the world through the district network. As we strive towards our optimum vision of technology our intermediate goals are threefold. First, to achieve equity in the use of technology by providing two computers in every classroom. Secondly, all staff members will show growth in their efforts to integrate technology into the curriculum. Finally, a connection to the Internet will be established and a web page from Chester will provide a wealth of information about the school to the community.

The implementation of this plan will cultivate a learning environment where every teacher, student, administrator, community member, has easy access to the kind of technology, solutions, and know-how that can transform information into the powerful ideas and knowledge needed to nourish a learning society.

2. Background Information

The incorporation of technology as a teaching & learning tool includes not only computers, but the use of sound, video, and telecommunications. These tools used by well-trained staff, will spearhead educational reform and enhance student's curiosity and desire to learn. Technological tools will enable students to increase retention of information and encourage them to apply their knowledge to solve problems. Teachers will be able to provide a wide range of experiences beyond textbooks and written assignments. Distance learning opportunities and internet access will help teachers provide lessons that promote the use of higher order thinking skills and collaborative problem-solving. Another benefit to the incorporation of technology throughout the district will be the streamlining of many non-teaching, clerical, and administrative tasks. Improved communications between administration, staff, parents, and residents within our school district and a reduction in the "paper trail" will be the result. We anticipate the use of technology will greatly improve the quality and depth of student work and provide

an environment where all students, including those at-risk and those with special needs, can become successful students and take pride in their efforts and ownership of their education. Students of Chester Academy will have the skills to succeed and desire to excel in their school career, be well-prepared for employment and their roles as citizens, and have the tools to continue to learn throughout their lives.

2.1 School, District and Community Demographics

Chester Elementary School is a 1st – 8th grade school of 655 students, located 20 miles west of Manchester. The school serves students from the small, rural town of Chester and in fact is the only school in town. Chester Elementary is a feeder school for Pinkerton Academy. Most parents work outside of this small town, many commuting to the industrial areas of Manchester or Portsmouth. There is very little to connect the people of this town, except for their children, the school, and a strong PTA. There are few businesses or industries to contribute to the tax base. Per pupil expenditures is \$7,580.00. School enrollment has increased dramatically in the last five years, from 419 students in 1998-1999 to 655 students in the 2008-2009 school year. In 2006 the school withdrew from SAU-14 and formed its own SAU (SAU-82). The SAU office is located in the same building as the school. In the summer of 2009 a portable classroom building will be setup for public Kindergarten

2.1 Past and Present Status

In recent years, parents and educators have recognized the growing importance of educational technology, but budgetary constraints have made it difficult to implement any full-scale programs or to plan adequately for the future. The majority of the school district's money earmarked for technology has come from the operating budget. Since the operating budget primarily covers salaries, our school has turned to the PTA and special fund raisers, such as the collecting of aluminum cans and AT&T learning points to augment funds for much needed hardware and software. Parents and/or teachers also donated many computers.

Despite our modest expenditures, strides have been made. In the early days of computers, Apple IIe's and PCs were the mainstay of technology. Programs emphasized drill and practice. Primary users were those teachers and staff who had previous experience and training outside the district. In 1996 the computer curriculum consisted of two quarters of computer instruction in grades five through eight. Instruction included care and use of the computer, use of prepared software and basic programming. In 1997 there was a plan to provide a more formal course of study in computer education for students in grades one through eight given a fixed schedule. The eight graders were able to earn high school credit in the amount of .5 units to apply toward graduation after successfully completing the course.

Currently, the School has one 30 station static lab, 3 rolling notebook wireless labs, and 12 Linux thin client stations. They are all networked and connected to a Windows 2003 active directory environment. Every classroom has two PC's for teacher and student use.

Our librarian also has three computers for the automated card catalog. Chester School has a Technology Integration Instructor. It is she that presents new software suggestions to teachers with regard to technology projects, which enhance lessons and student presentations. She also provides training for the staff after school, on specific skills. All teachers are required to use the Student Information System (WEB-2-School) grading module for progress reports, and the Excel spreadsheet for their budget requests.

2.2 District Technology Vision Statement

The vision of the Chester School District is to prepare our community of students, teachers, and administrators to meet the challenges of living and working in the 21st century. Based on the New Hampshire State Frameworks, Goals 2000, and the SCANS report, educators and administrators will improve learning and teaching practices to meet the demands of this ever-changing world. Technology will be integrated across all subject areas and at all grade levels. Educators and administrators will be supported in this endeavor with ongoing staff development, equal access to equipment, as well as time to develop new lessons integrating technology into the learning process. The versatility of technology will aid teachers in developing instructional practices which will meet the needs of diverse learners.

Technology will be utilized for accessing, organizing, presenting and communication information. In addition, technology will be utilized in acquiring critical skills such as problem solving, working interdependently, inspiring and enhancing creativity.

All learners will be able to access information through the use of telecommunications and other technological resources. They will organize and interpret data on and off line. Technology will be used as an integral part of the curriculum areas as outlined in the Curriculum Frameworks. Staff support will be provided to assist teachers in locating appropriate software, preparing lessons, and facilitating technology use for instruction and student presentation.

Current, appropriate hardware, networking, and software will be acquired and maintained. Educators and administrative staff will receive on-going appropriate training and support in the area of record keeping, lesson planning, student and curriculum assessment, communications, attendance reporting, scheduling, health reports, and financial data processing.

Technology will provide a method of communication between town offices and schools. Town and school libraries will be linked by technology, providing further access to additional information resources. Community educational technology courses and access to resources will be provided. Point of access for residences to schools will be made available.

In summary, the technology vision and the goals of the Chester School district include five main areas:

1. Students will be prepared to meet the challenges of living and working in the 21st century.

2. Learners will utilize technology in their educational pursuits.
3. Integrated technology will enrich teaching, learning, and assessment within the Chester School District.
4. Hardware, networking, software, and instruction of educators and administrative staff provide efficiency and accountability within the Chester School District.
5. A link between community and school will exist.

3 Current Status

3.1 Staff Assessments of Technology Skills

In review of the Staff Assessment Survey, a general picture of the current state of technology use unfolds. Strengths and weaknesses will drive future professional development and the acquisition of hardware, software, and networking.

Staff response indicates they are most comfortable with those items in which they have had the longest exposure and most instruction. The use of audio/visual equipment and the use of computers in professional productivity and classroom management are areas to which teachers have reported the highest frequency of use.

Of the teachers who have access to home computers, most reported a general level of satisfaction with access regarding technology. Teachers now have M/S Windows, Apple, and Linux laptop computers available to them for take-home use. This reinforces our professional development objectives.

The staff also indicates a moderate level of satisfaction with the types of software available. Three areas of particular dissatisfaction are design, presentation, and learning management technologies. These types of programs are not currently available to all teachers nor are they offered as professional development. Satisfaction ratings would increase by adding professional development options for teachers and administrators in these three areas.

A significant number of teachers and administrators indicate a low level of satisfaction with access to computers, labs, and multimedia resources. This response may be due to the limited number of computers in the classroom (average of two per classroom). A mini computer lab exists as part of the school library on a flexible schedule, which should help with teachers requesting access to the lab.

The area of greatest dissatisfaction was around school ISP. New ISP capabilities at the Chester School have just recently been updated. With the purchase of a four new broadband IP's, more students will have fast, better access to the Internet this year.

Staff knowledge of computer use indicates 50% have some skill in the use of computers in the classroom. Professional development courses over the past two years have provided instruction to assist teachers in developing their skill level. This year, staff have the opportunity to attend technology training sessions after-school and on teacher workshop days. A concerted effort has been made to identify and instruct those staff members with little computer expertise. Monitoring is on-going to determine the most

effective method for supporting the professional development of teachers. This information would help tailor coursework for their professional needs and the particular needs of their students.

3.2 Inventories of Software and Hardware

3.2.1 Software

From the late 1980's Apple computers, first generation Macs and 286's, had limited capabilities and were less user friendly than today's computers. Software choices were limited to drill and practice and word processing programs which were the mainstay of educational software selections. In 1994, with the purchase of PC's, our software choices became more varied and curriculum based. Last year, a Linux Server and thin clients were purchased and installed in the library for student's use. Emphasis was placed on programs involving critical thinking, cooperative learning and curriculum needs. Jr. High Students are now compiling a digital portfolio for review each year.

3.2.2 Hardware

Technology changes so quickly that even purchases of three years ago are not longer effective. The current computer inventory shows the majority of machines in our school are PCs with a few Linux thin clients, and Apple notebooks. A technology goal is to continually purchase thin client computers until a ration of five students to one computer is accomplished for the district.

Hardware: Inventory of current computers & peripherals.

3	<i>Windows 2003 Servers</i>
1	<i>Linux Application Server</i>
1	<i>Network Storage Server</i>
1	<i>Moodle Server</i>
38	<i>Student/Teacher Windows XP Wireless Notebooks</i>
25	<i>Linux Netbooks</i>
8	<i>Mac. Notebooks</i>
12	<i>Linux Thin Clients</i>
59	<i>Student Windows XP Workstations</i>
96	<i>Teacher Windows XP Workstations</i>
11	<i>Standalone older student classroom computers</i>
24	<i>Network Laser Printers</i>
2	<i>Internet filter appliance</i>
10	<i>Multi-port 10/100 switches</i>
4	<i>Multi-port 1000 gig switch</i>
2	<i>5 port router</i>
8	<i>Battery backup units</i>
4	<i>802.11G access ports</i>
4	<i>Scanners</i>
1	<i>42" mobil plasma screen</i>
5	<i>LCD Projectors</i>
3	<i>Notebook rolling security cabinets</i>

3.2.3 Network and Telecommunications Capacities

Most of the computers in the building are attached to the LAN. A variety of networking equipment and software has recently been purchased. The static lab (30 Computers are capable of using Windows or Linux. The administrators, SAU employees, SPED, and Office Staff have remote access capabilities. Our current ISP is Comcast. The building has 4 IP's for access to the WEB via broadband. We have a redundant fiber optic back-bone and run the LAN on 10/100 hubs. The Linux thin clients use a 1gig. switch.

3.2.4 Web filtering

Chester Academy's web filtering service lets us know how and why things are blocked. Not only do we monitor and read the contents of our blocked site lists, but we also make it easy to filter the site content, rather than block them completely.

Logs of all network and Internet activity are kept for the entire school year. This includes staff and students.

The two Linux boxes (IP Cop) service and appliance we use contains these methods of content filtering that can mix and match according to our needs:

- Categorized lists of banned sites that we update
- Our own lists of absolutely banned or absolutely allowed sites
- Group filtering setups that will let us filter different groups of students and staff different ways
- Weighted Phrase Filtering that lets us add our own rules and set our own threshold levels
- Filtering according to PICS protocols
- Configurable filtering of common file extensions
- Configurable filtering of URL content
- Filtering by IP address, including not allowing any IP addresses at all
- Filtering of entire domains, parts of web domains, or single web pages

Web filtering is not 100% so it is also the school policy that no student may access the Web without an adult present. E-mail, IM, and music/video streaming is not allowed at anytime by any student in the school.

3.2.5 AUP Staff and Students

Chester Academy requires all Students and Staff to read and sign a yearly revised Acceptable use policy. New AUP's for grade level targets will be used for the 2009-2010 school year.

Acceptable Use Policy for Chester Academy Students, Teachers, and Administrative Staff

General Principles

Use of the public Internet by students, teachers, and school employees is permitted and encouraged where such use is suitable for educational purposes and supports the educational and administrative goals and objectives of Chester Academy. The Internet is to be used in a manner that is consistent with the school's standards of conduct and as part of the normal execution of a student's education, a teacher's instruction, and a school employee's job responsibilities.

- School-provided Internet/Intranet and e-mail privileges, like computer systems and networks, are considered Chester Academy resources, and are intended to be used for educational and administrative purposes only.
- Chester Academy e-mail accounts, Logon IDs and web pages should not be used for anything other than school-sanctioned communications. Chester Academy reserves the right to determine the suitability of transmitted information.
- Students, teachers, and employees should be aware that any usage, including distributing or receiving of any information, school-related or personal, may be monitored for unusual activity, security, and/or network management reasons.
- Correspondence via e-mail is not guaranteed to be private. Official communications of a sensitive or confidential nature should not be sent via e-mail.
- It should be made clear to recipients that opinions expressed by individuals are not necessarily those of Chester Academy.

Conditions of Use

The following practices are considered *unacceptable*, and may be subject to disciplinary action, including written warnings, revocation of access privileges, and in some cases, termination of enrollment or employment. Chester Academy also reserves the right to report any illegal activities to the appropriate authorities.

- Visiting Internet sites that contain obscene, hateful or otherwise objectionable materials; sending or receiving any material that is obscene, defamatory, or that is intended to annoy, harass, intimidate, or violate the civil rights another person.
- Sending and receiving unusually large e-mails or attachments; sending or forwarding electronic chain letters.
- Chatting or Instant Messaging
- Spending time on non-educational or non-scholastic business.
- Soliciting e-mails that are unrelated to school activities, or soliciting non-school business for personal gain or profit.
- Representing personal opinions as those of the school.
- Using the Internet or e-mail for gambling or illegal activities.
- Making or posting indecent remarks, proposals or materials.
- Uploading, downloading or otherwise transmitting commercial software or copyrighted material in violation of its copyright.
- Downloading any software or electronic files without implementing virus

protection measures that have been approved and/or prescribed by the school administration.

- Intentionally interfering with normal operation of the network, including the propagation of computer viruses, or sustained high volume network traffic, which substantially hinders others in their use of the network.
- Revealing or publicizing confidential or proprietary information, which includes, but is not limited to: school databases and the information contained therein, computer software, computer network access codes and student personal information.
- Examining, changing or using another person's files, output or user name without explicit authorization.
- Other inappropriate uses of Internet/Intranet or network resources that may be identified by school administration or the network administrator from time to time.

William B Cavanaugh Jr.
Director of Technology
Chester Academy

Please sign the form below and return to the computer lab at the beginning of the school year.

Student Slip

I have read and understand the above "Acceptable Use Policy" as presented by the Chester School Board. I agree to adhere to the conditions outlined above. I understand this form needs to be handed in prior to any Internet access.

Student Name _____ Home Rm. _____

Student Signature _____ Date _____

Parent or Guardian Signature _____

Date _____

~ *I do not give my consent for the above mentioned student access to the Internet.*

Any Parent or Legal Guardian wishing to keep a student off the Internet please checkmark the box above, and contact Mr. Cavanaugh at cavanaughb@chesteracademy.org or call (603)-887-3621

Staff Slip

I have read and understand the above "Acceptable Use Policy" as presented by the Chester School Board. I agree to adhere to the conditions outlined above. I understand this form needs to be handed in prior to any Internet access.

Name _____

Position _____

Signature _____

Date _____

3.2.6. Network and E-mail Accounts

All teaching, administrative and office support staff have individual network accounts with password protection. The staff is also assigned e-mail accounts from the Chester Academy web server at chesteracademy.org. All Activity on the LAN and e-mail is monitored for use. As noted all staff must sign the AUP each school year. E-mail is web based and is accessible from home.

Student from grade 5 on up are also given a secure logon account. This account is password protected and follows them until grade 8. Passwords are changed yearly at the beginning of each school year. Logon ID are based on student ID numbers and do not change. This ID is also used with the student grading system (Web2School) and lunch program. All student LAN and Web activity is logged and kept on file for the entire school year. This log is made available to any parent who would like to review this data. Students are also required to sign the AUP before Internet access is allowed. Parents are given the opportunity to read the AUP each year and decide if Internet activity is allowed

4 Technology Initiatives and Goals

4.1 Communication and Information Access Goals

Communication and information access are key to realizing the success of this technology plan. It is crucial to provide access to local and global information sources by establishing communication with all aspects of the educational, local, and global community. Information will be shared and awareness of school programs will be raised. Within the school district, communication will improve the management of the

administrative flow of data. Access to on-line resources for all community members will enhance life-long learning.

Goals:

- Facilitate exchange, via network, between district educators, parents, community members and town officials
- Establish point of access for exchanging and retrieving current on-line information for students, staff, and community members.

Objectives:

- Use telecommunications to enhance curriculum and instruction at all levels
- Provide the educational community with on-line access to current research and information
- Provide educators, school council, and school board technological access to current issues on education
- Use of distance learning
- Provide the district with equal access to instructional computer software across the network
- Utilize technology to enhance school and community relations
- Encourage and expand use of technology in the community
- Expand communications between school, parents, administrator, and town officials
- Provide staff with wide area network access from their homes
- Provide staff with Internet ready e-mail service

4.2 Instructional and Curricular Technology Goals

It is our belief that technological resources should be used to enhance and enrich instruction and learning. Technology is not a separate discipline but a tool to support the content areas. Technology does not dictate curriculum but rather our curriculum drives our technological choices. Students must become actively engaged in the learning process and its applications to the real world while teachers become facilitators of learning. Towards this end, technology, the curriculum frameworks, and standards developed by national professional organizations, such as National Council of Teachers of Mathematics, should be guidelines to every curriculum initiative in the district.

Now in the 21st century, we are aware that the workplace is ever-changing. With this in mind, it is important to realize that the instructional and curricular goal is to integrate the use of technology into all aspects of instruction and curriculum. It should never be static but always evolving. Advances in teaching and learning, as well as improved hardware and software, will dictate periodic updates and revisions. It is also important to realize that this plan is dependent upon sufficient funds and on-going professional development, support and time. These elements are necessary for our staff to learn how to successfully utilize new technology tools and techniques. Adequate time must be provided for planning and developing units that integrate technology into the curriculum.

Equitable access to technology tools by all staff and students is essential if we are to achieve our educational goals. As curricula is developed, adaptability to student learning

styles, physical abilities and limitations must be taken into account. Assistive devices will be available to assure all students have the same learning opportunities through the use of technology. A variety of software, appropriate for a wide range of learners, must be provided to facilitate student learning according to his/her educational plan.

In order for the technology goals to be realized, it is necessary that certain skills be achieved by students at each grade level. These skills reflect the district's mission and vision statements. Many government and educational reports consider these same competencies necessary for life in the 21st century. The Technology Plan's instructional and curricular goals will ensure students are competent in using the tools necessary for the communication age.

Access to technology by parents and other community members will increase Chester citizens' knowledge and skills, and maximize the use of the computer lab by the people who ultimately pay for it. It is also possible to start a local Adult Education program, since none presently exist, which would provide revenue from fees for classes in desktop publishing, web searching, word processing, instructional database, spreadsheets and the like.

Goal

- Integrate the use of technology into all aspects of instruction and curricula for effective communications, critical thinking and problem solving which will enable students to become productive citizens

Objectives:

- Provide software to enhance student's skills for working both independently and in collaborative groups.
- Provide software to develop critical thinking and problem solving skills
- Provide hardware and software that is able to adapt to the physical and intellectual needs of each learner
- Integrate technology into the instructional process
- Assure student mastery of grade level competencies
- Provide resources for students retrieval and interpretation of information from various sources
- Provide the tools and instruction necessary for students to expand research skills, and explore diverse ideas
- Follow ethical guidelines when using technology

4.3 Professional Development Goals

Technology in our schools has helped change the traditional role of the teacher from the deliverer of knowledge to that of a facilitator assisting students in building their own knowledge. However, before this can be fully accomplished, we must prepare teachers for their new role. At the Chester School these three concepts were used to introduce technology to the teachers. Everybody learns better when: (1) there is a reason for the

work, (2) new knowledge connects to prior knowledge, and (3) when able to work with others and learn from peers.

This year, the district's staff has made definite gains in professional development in technology. However, to be effective over the long term, professional development needs to be on-going and based on real work. Teachers will need to receive hands-on technology instruction and time to work collaboratively on projects that integrate technology into the curriculum.

Goals:

- Increase teaching staff proficiency in technology to support student learning and skills, and curriculum integration based on educational reform initiatives
- Increase teaching staff proficiency in technology to support classroom management in areas such as student assessment, reporting student progress, and record keeping.

Objectives:

- Develop integrated curriculum in conjunction with state standards
- Gain the necessary technology skills to assure student mastery of grade level competencies
- Utilize technology as a tool for individualizing instruction to meet the needs of diverse learners
- Use electronic assessment and classroom management tools
- Use technology to access current issues on education
- Improve communication with parents through the use of technology
- Introduce teachers to emerging technologies

4.4 Administrative and Management Goals

In the summer of 2006, Chester Academy became its own SAU and hired a new Superintendent. Since that time, the Chester school has been going through the process of evaluating present systems of operation, defining operational policies and procedures, and transitioning from the previous leadership to the new one.

This process not only includes defining roles and responsibilities but also how information is processed. The hardware necessary to operate the SAU and School office has been purchased and is currently in use. New software needed to do student records, health records, attendance, grading, and NH DOE reports has been purchased. Administration will seek to further coordinate software and hardware to assure compatibility with the SAU in administrative and management areas. Staff is currently gaining necessary skills to use technology to improve administrative and management effectiveness.

Some work remains ahead in order to realize the administrative and management goal. With support resources and instruction the district will be able to incorporate and integrate new systems to achieve the vision of the future outlined in the Technology Plan.

Goal

- Increase administrative staff proficiency in technology to support record keeping, communication, scheduling, and financial data processing.

Objectives:

- Provide technology to improve effective administration and management of the Chester School's day-to-day operations.
- Provide electronic communication between the Chester School and the SAU office for the flow of administrative data
- Establish electronic communication between Chester school and the State Department of Education to send and receive information
- Use common cross platform software to allow transmission and access to data on student records, financial data, curriculum frameworks, health records, cafeteria reports, library services, student ID cards and other common records
- Provide on-going professional development and support to all administrative personnel to ensure all technologies are used to their intended purpose

4.5 Funding Goals

Funding has been provided for through the district's operation funds, and with gifts and donations of equipment. Basically the money invested in technology falls into these major categories: work station purchases, support staff training, and software.

To move this plan forward, the district will need to solicit funding from other sources. The goals established in the technology plan relative to funding will provide the district with the additional resources necessary to bring the vision to reality for the students in the Chester School District.

Goal:

- In addition to improving district allocations, outside funding sources will be sought.

Objectives:

- Develop strategies to maximize fundraising efforts
- Explore Federal Grant Sources, such as Fund for Innovation, FIRST programs, Special Education grant 94-142, Title I grants, and the National Science Foundation
- Explore computer companies grant programs, such as Tandy Corp., IBM Corp., Commodore Business Machines Inc., Nike and Microsoft Corp.
- Explore Foundations for possible educational technology grants, such as Carnegie Corp., The Ford Foundation, and the Lily Endowment Fund

4.6 Technology Committee

The Technology Committee is comprised of Technology Department staff, primary and middle-level teachers, the Principal and one School Board member. New members are picked at the beginning of every school year. The committee’s goal is “to promote and integrate all forms of technology to enhance learning and higher-level thinking across all grades and throughout the curriculum”. Some endeavors this year include evaluating replacement student information systems, exploring new grant opportunities and the advising on the development of the 3-year Technology Plan required by the NH Department of Education. The committee meets once a month before the next scheduled school board meeting. A meeting notice is sent out to staff members and parents who may want attend.

The following is a list of Technology Committee members.

Technology Director	W.Cavanaugh
Principal	L. Leahy
Teacher	S. Hilliard
Teacher	B. Hanna
Curriculum Coordinator	M. Holms
Technology Integration Specialist	S Kessler
Director of SPED	J. Ruiz
School Board Member	C. Treanor
Library/Media Specialist	S. Warnke

5 Technology Design

5.1 Requirements

The technology design must be flexible allowing for upgrade and growth and rapid change occurring in technology require our design to easily handle new advances. As users become more proficient, the technology must grow with them so as not to limit what can be accomplished.

Since the focus of our resources should be on teaching and learning, basic criteria for all hardware and software should include ease of use and economy of support. Attention to human factors in the selection of hardware and software will help ensure that technology is as easy to use as possible and that it requires a minimum of intervention from technical support staff. Ease of use and economy of support can reduce training and support costs and improves productivity and acceptance.

The LAN for the Chester School district will provide Internet access as well as interconnectivity between the school and the SAU office. The building will also have compatible LAN networking. Each administrator, grade level specialist and support personnel will have a computer, appropriate software and network access. The school’s network will be designed to handle the optimum capacity of the school. Students with special needs will have access to appropriate hardware and software to meet their learning differences according to their individual educational plans.

The Chester School will have a networked lab, which will accommodate the largest class size allowing for one computer per student. Each classroom, grade level as well as all specialists, will have sufficient points of access, capable of accommodating voice, video and data network access student and teacher.

Software will be selected according to curriculum standards. By providing a powerful network, capable of running numerous networked applications simultaneously, we hope to reduce software costs while increasing software titles available to staff and students. The network administrator via networked management software to abide by licensing agreements will monitor software usage.

5.2 Goals and Initiatives

Goal:

- Create a dependable LAN which will be connected to the WEB.

Objectives:

- Provide an appropriate backbone to meet present and future needs of the school
- Provide appropriate up to code electrical wiring to accommodate all electrical equipment in every room of the new building

5.3 Implementation Plan

Goal:

The Superintendent, Principal, and Technology Director will provide general leadership.

Objectives:

- Purchases hardware and peripherals to meet Technology Design Requirements
- Establish a district-wide committee to assess, plan, and design LANs and WAN chaired by the technology coordinator
- Investigate, evaluate and recommend networking strategies
- Build the infrastructure for WAN
- Establish the Chester School district as a point of access to the Internet including the purchase, installation, and maintenance of a central resource (file server) for processing, and obtaining common information
- Expand the district's WAN network to include town government, public library, and homes.

5.4 Specifications

5.4.1 Hardware and Software Minimum Specifications

Up to date PC's and thin client workstations on a regular 4 year cycle program.

Since the focus of our resources should be on teaching and learning, basic criteria for all hardware and software should include ease of use and economy of support.

5.4.2 Network Specifications

LAN Backbone – Category 5 or fiber optics

LAN to Nodes –Category 5 or Enhanced Category 5

WAN – Cabling able to support graphical applications

Network Operating System - Windows Server 2003 and Linux Server

Application Support – Windows and Linux applications

Security – Support NTFS file protection, virus control, and automatic backup software

Communication Services – Provide graphical user interface based on E-mail and Internet services

Remote Access – Support remote web based access during off hours

5.4 Maintenance, Operation and Upgrades

Goal:

The Technology Director will provide operations, maintenance, and upgrade leadership

Objectives:

Assess hardware and software capabilities yearly

Upgrade software and hardware as needed

Anticipate and identify problems with faculty, students and administration

Research feasibility of in-house vs. service contract for maintenance of equipment

Consult outside help as needed to solve problems. The Technology Department is a year

round operation with full time Technology specialists, Technology Aid, Technology

Integration Specialist, and a Media Specialist. The majority of maintenance and upgrades

are done during the summer months. Other maintenance is done during the School

vacations. One major goal of the Technology Dept. is to keep the LAN available 24/7.

Develop a good Disaster recovery program.

5.3 Implementation Plan

Most of the major computer equipment is on a 4 year life cycle. This allows the school to keep up-to-date and spread the cost of replacement over a 4 year period.

6.0 Implementation of the Technology Plan

6.1 Communication and Information Access

1) Leadership

The Principal will provide general leadership. The Technology Director, school board members, town officials and public librarians, for achieving communication and information access goals will provide coordination.

2) Activities

Provide hardware and software for information access

Instruct the educational personnel in the use of technology to access information

Purchase necessary on-line service accounts

Create and periodically update a web page to enhance community relations

Purchase, install an upgrade network licenses for instructional software

Provide staff with necessary accounts for accessing WAN from home

Provide E-mail services for WAN users accessible through the Internet

Explore options for providing distance learning and teleconferencing opportunities for students, staff and the community.

6.2 Instructional and Curricular Planning

1) Leadership

The principal will provide general leadership. The integration of technology for the Chester School will be implemented by the Technology Director, technology integration specialist, classroom teachers, specialists in Art, Music, Media, and special needs support staff.

2) Activities

Purchase multimedia equipment for the computer labs and classrooms

Connect multimedia equipment to LAN

Collaborate with teachers to write curriculum guidelines integrating technology

Collaborate with all support personnel for the recommendations of software and hardware to meet the need of diverse learners and multiple intelligence's

Evaluate and pilot recommended software

Purchase appropriate software to integrate technology into all aspects of the curriculum including grade level competencies

6.3 Professional Development

1) Leadership

General leadership will be provided by the Principal. The integration of technology for the Chester school will be accomplished by the Technology Director, technology integration specialist, classroom teachers, specialists in art, music, media, and special needs support staff.

2) Activities

Provide continuing hands-on technology instruction
Provide instruction on the use of technology to improve classroom management, assessment, and record keeping
Provide instruction on the utilization of multimedia to enable students of all abilities to produce productions
Provide instruction on the use of telecommunications
Provide instruction in the use of the network
Provide instruction on the use of hardware and software for special learners
Provide time and support to develop grade level integrated curriculum units and projects that utilize technology
Provide staff the opportunity to visit other schools, attend out-of-district conferences, workshops, and seminars
Provide instruction on using the network to record and disseminate classroom records, such as attendance, report cards, and assessment

6.4 Implications for Staffing

1) Leadership

General leadership will be provided by the Principal, Technology Director, technology integration specialist, and technology committee.

As we implement this plan there will not only be an increase in the amount of hardware and software installations but also an increase in the need for staffing. The need for a technical support person, separate from the technology coordinator is a must. In this capacity, this position is able to assist students and teachers with hardware difficulties, as well as install software and perform basic troubleshooting and routine maintenance.

Maintenance and repairs will become more costly with additional equipment and users. The technical support person must be certified in repairs of PC platform as well as in network maintenance.

The magnitude, complexity, and investment required of the Chester School District Technology Plan warrants the need for this position. While constructing a complex technological network system there must be a continuation of strong technological support for the entire community. To meet these challenges, coordination of efforts and support of personnel is imperative.

6.5 Administration and Management

1) Leadership

General leadership will be provided by the Principal. Effective administration and management goals will be achieved by the Technology Director and Principal.

2) Activities

Assess administrative needs and purchase appropriate hardware and cross platform software
Install communication links and develop administrative database
Maintain a central file server for processing and obtaining common information
Utilize the current administrative FAX to electronically transfer data throughout the district using dedicated phone line
Provide instruction on the use of software and hardware to improve administrative management
Provide instruction on the use of E-mail for the office support staff

6.6 Funding

1) Leadership

General leadership will be provided by the Principal, the Business Manager, the Technology Director, and Technology Integration Specialist.

2) Activities

Research and apply for grants
Attend workshops on grant writing and information seminars
Develop corporate partnerships to support technology and related projects
Communicate with local fundraising groups supporting education

7. Monitoring, Evaluation and Revision of Technology Plan

7.1 Establish and Implement Monitoring and Evaluation Process

The goal of monitoring and evaluation will be to collect information on what has occurred and to analyze the information gathered. Achievements will be recognized, obstacles or weaknesses identified and progress monitored to provide an adjusted method of realizing the district's goals.

The critical questions are---

- Is the implementation process proceeding as planned?
- What is the impact of the initiatives on student performance in school and classroom management?

Evaluation of all professional development activities will occur. Attendees will complete a written evaluation instrument. The Technology Committee will meet regularly throughout the year to assess the progress of year one.

7.2 On-Going Evaluation for Future Planning

The process for incorporating evaluation information is to identify the baseline data critical for ongoing technology planning efforts and documenting the implementation

progress. The district will develop an effective process for identifying baseline data to be compared to evaluation data at various stages of implementation

Revisions of the timelines in the original plan will take place annually, after analyzing the current year's action plan. This information will drive the year two and future action plans.

7.3 Reporting to Stakeholders and the Public

Planning status information will be shared with stakeholders and the public on a continuous basis. The technology planning team will use data gathered during the evaluation process to communicate progress to the stakeholders and the public. Implementation milestones will be sighted, problems and obstacles will be identified. The Chester School community will be informed of challenges as well as achievements in order to generate creative problem solving and a sense of ownership. Data generated from an annual need assessment will be the document used for an annually written newsletter apprising the public of the status of the technology plan.

8.0 Budget and Timeline

Budget for technology in the school will be done each fall to accommodate the following school year needs. Every effort will be made to get fair and complete bids on any capital equipment and software purchases. This also involves keeping up-to-date on the evolution of hardware and software. Most of the major computer equipment is on a 4 year life cycle. This allows the school to keep up-to-date and spread the cost of replacement over a 4 year period.

Budget for 2007-2008 School year

290	Staff Development	\$4,100
330	LAN Management	\$15,177
430	Repair Equipmet	\$3,116
610	Supplies	\$3,927
640	Books	\$0
641	Reference Books	\$199
645	Periodicals	\$0
650	Software	\$5,650
733	New Furniture	\$0
734	New Equipment	\$2,250
737	Replace Furniture	\$0
738	Replace Equipmet	\$9,639
Technology Total		\$34,492

*Budget for 2008-2009 School year

290	Staff Development	\$5,100
330	LAN Management	\$15,688

430	Repair Equipmet	\$2,000
610	Supplies	\$5,180
640	Books	\$175
641	Reference Books	\$0
645	Periodicals	\$0
650	Software	\$265
733	New Furniture	\$290
734	New Equipment	\$21,600
737	Replace Furniture	\$0
738	Replace Equipmet	\$13,800
Technology Total		\$64,098

**As of 2/2009 the 2008-2009 numbers have not been approved*

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 Chester Academy