

**MILTON PUBLIC SCHOOLS  
MILTON, MASSACHUSETTS**



**TECHNOLOGY PLAN  
2010-2013**

## **Executive Summary**

The Milton Public Schools Technology Plan covers years 2010-2013. The plan takes into consideration the benchmarks and standards covered in the following Massachusetts Department of Education documents:

- 1) **Massachusetts Recommended PreK-12 Instructional Technology Standards** (<http://www.doe.mass.edu/edtech/standards/itstand.pdf>) describing the skills PreK-12 students should know when using technology;
- 2) **Local Technology Plan Benchmark Standards for the Year 2003** (<http://www.doemass.org/edtech/techplan/07-10guidelines.pdf>) a publication that helps districts set realistic goals for their Local Technology Plans, and
- 3) **Massachusetts STaR (School Technology and Readiness) Chart** (<http://www.doe.mass.edu/boe/sac/edtech/star.html>) a table that summarize in list form technology integration benchmarks (reference points) Massachusetts school districts should achieve by 2006-2007.

## **Benchmark 1**

### **Commitment to a Clear Vision and Implementation Strategies**

Mission Statement – The mission of the Milton Public Schools is educate, challenge, and empower all students to be productive, caring, and contributing members of society.

Vision Statement – The Milton Public School district is a dynamic educational community that challenges all students to thrive and achieve. Our schools provide a well-funded teaching and learning environment in state-of-the-art facilities. In partnership with the community, we equip our students with the skills and knowledge necessary to adapt and contribute to a changing world.

## **Expectations for Student Learning Milton High School graduates will**

- Read Critically in many contexts.
- Respond to a variety of literature
- Write effectively using language appropriate for the purpose and audience
- Communicate ideas and information clearly
- Reason effectively and employ problem-solving skills
- Participate in and evaluate work in the fine and performing arts
- Examine and analyze social problems from a global perspective
- Use appropriate technology to solve problems
- Apply scientific concepts to demonstrate an understanding of the natural world
- Demonstrate an awareness of and ability to practice health-enhancing behaviors
- Contribute to the community as a responsible citizen
- Demonstrate good character by appropriate behavior
- Practice sound work habits
- Show understanding for people and their ideas

## **Students Rights and Responsibilities**

### **It is the students' right to**

- Attend school until graduation at public expense
- Have the use of free textbooks needed in the course of study
- Assist in the making of decisions affecting life in school
- Express opinions verbally or in writing in a respectful manner
- Expect that school will be a safe place to gain an education
- Be represented by an active student government selected by open school elections

### **It is the students' responsibility to**

- Attend school daily, except when ill, and to be on time to all classes
- Assume full responsibility for the care of the facility and instructional materials
- Complete the prescribed course of study
- Express opinions and ideas in a respectful manner, not offending or slandering others

- Be aware of all rules and regulations for behavior and conduct yourself accordingly
- Participate in student government by running for office or voting for the best candidates
- Make your problems known to the teaching or administrative staff by meeting privately with them or representatives who will act in your behalf
- Assume that until a rule is waived, altered, or repealed, it is in full effect

### **Technology Accomplishments 2007-2010**

Installed an SES line for greater Internet capacity and scalability

Every classroom has at least 1 computer connected to the Internet

All computer labs have an LCD projector and SmartBoard

Installed computerized point of sale systems in all cafeterias

Implemented AlertNow parent notification system

Installed library automation in all schools

Implemented email archival for entire district

New, robust firewall and Internet content filter installed

Continued to acquire additional computers and replace aging computers for a total of approximately 1150

Replaced several aging application servers

Pierce Middle School established a computer writing lab

Installed tapeless backup system for entire district

Acquired and integrated approximately 40 additional SmartBoards system wide

## **Technology Goals 2007-2010**

Implement a program of 20% annual replacement of system wide computer inventory i.e. replace 230 of the approximately 1,150 computers per year so that no computer is in service for over four years

Replace 1 server per year

Implement virtual technology for servers

Automate attendance procedures at the secondary level with ID/swipe cards

Purchase additional computers to improve the student to computer ratio

Upgrade our firewall to improve intrusion and virus detection and content filter to maintain CIPA compliance

Purchase and install a SmartBoard projection system, including a ceiling mounted LCD projector, speakers, and DVD/VCR, in every classroom in the Milton Public Schools

Purchase an automated computer and software inventory program

Continuing to offer a wide array of technology related professional development

Continue to enhance our assistive technology equipment to accommodate the needs of our special needs students

Regularly update the Milton Public Schools' web site including locations where students can access the internet during non-school hours.

Acquire technology integration staff to assist teachers in using the available technology to better their teaching capabilities

Increase the computer technology support staff to decrease the ratio from approximately a 1 to 575 to 1 to 200 ratio which will improve response time for students and faculty.

Continue to evaluate the system's technology resources to ensure the budget contains sufficient funding for hardware, software, maintenance and instructional staffing, contracted services, and professional development to meet district curriculum objectives.

Maintain sufficient antivirus, spam, and worm protection.

### **District Technology Team**

The Milton Public Schools' technology team is comprised of a diverse group of educators, staff, and concerned citizens. These include:

Bob Pattison	IT Director
John Phelan	Assistant Superintendent
Michael Goodless	High School Teacher
Paul Arenburg	High School Teacher
Sally Rush	High School Teacher
Margaret Gibbons	Nurse Director
Dr. John Drottar	MHS Principal
Greg Forge	Middle School Teacher
Joanne Bonner	Middle School Media Specialist
Debra Fidrocki	Elementary Teacher
Noa Lai	Elementary Teacher
Kathy LaPierre	Elementary Guidance

### **Budget**

The Milton Public Schools' annual budget includes specific technology related line items for staffing, hardware, software, professional development, support, and contracted services. All technology expenditures are made with the goal of supporting district curriculum. We stretch these funds as far as possible by complying with Chapter 30B of the Massachusetts General Laws. By means of the federally funded E-rate program we obtain telephone service and internet access at a 41% discount. Through SMARTer Kids Foundation grants we receive discounts on SmartBoards and LCD projectors. We've also made use of funds from generous benefactors to increase our technology footprint.

### **Evaluation**

A committee of educators, technology administrators, and other stakeholders analyzes and compares the plan with expenditures to

determine the success of implementation. The committee then makes recommendations to improve the plan and the implementation. Additionally, an annual survey is administered to the teaching staff to assess future professional development needs and wants particularly in the area of technology.

## **Benchmark 2 Technology Integration**

- A. The Milton Public Schools are committed to integrating technology into the curriculum. Significant professional development is offered to the staff to increase their familiarity and comfort level with the available technology. The goal is to increase the percentage of staff that uses technology in the classroom every day to at least the 85% benchmark.

Although it is estimated that 85% of staff use some type of technology outside the classroom in the following areas: lesson planning, administrative tasks, communications, and collaboration, the percentage of in class usage is somewhat lower, approximately 75%. We intend to increase that percentage to 90% by the end of the 10-11 school year.

We are working to attain a goal of at least 85% of students from grades 5 to 8 showing proficiency in all the Massachusetts Recommended PreK-12 Instructional Technology Standards for Grades 5 to 8.

By administering the Massachusetts Technology Self-Assessment Tool (TSAT) to all teachers, we are able to accurately gauge the technology proficiency level in the staff and shape our professional development to address the areas that need improvement. The ultimate goal is to have all teachers at the proficient level, but by 10-11 75% at proficient level.

The Milton Public Schools Internet Acceptable Use Policy is as follows:

Internet access is now available through the Milton Public Schools' computer network. The purpose of this is to support the educational program by providing students and teachers with access to unique resources available through the Internet and the World Wide Web. All

uses of Milton's Internet access and computer facilities must be in support of and consistent with the objectives of the educational program.

Access to the Internet is a privilege, not a right. Adherence to these Internet guidelines is a condition for a student's access to the Internet. School officials may cancel a student's access at any time if this privilege is abused. Inappropriate conduct on the Milton Public Schools Internet access will be subject to disciplinary action as deemed appropriate and necessary by the principal or his designee and will result in the immediate suspension of all access privileges. All students who use Milton's Internet access are expected to read and follow these guidelines. By signing the handbook receipt, parents and students are stipulating that they have read these guidelines and agree to adhere to them.

All student use of the Internet is to be conducted under faculty supervision. However, faculty members are not expected to monitor a student's use at every moment. Every student is expected to take responsibility for his or her appropriate use of the Internet.

All student e-mail and other Internet files and records may be accessed and examined by administrators for educational and administrative purposes, including the need to insure that these guidelines are being followed. Administrators will also cooperate in providing access to student e-mail and Internet files and records to law enforcement authorities when appropriate. Students should not assume that their use of the Milton Public Schools Internet will be private.

The Internet is accessible to the public. Unfortunately, this includes people who want to make contact with students for inappropriate reasons or under false pretenses. The Milton Public Schools cannot screen the Internet for all such inappropriate applications. Consequently students must be cautious and prudent about supplying personal information and arranging personal meetings. Students should never arrange a personal meeting with someone whom they meet on-line without parents' or guardians' knowledge and approval. Students should promptly inform their teacher or administrator about any on-line communication that the student feels is threatening, harassing, or otherwise inappropriate.

Students are expected to abide by generally accepted rules of Internet etiquette as well as rules of school decorum. These include common courtesy and the avoidance of vulgar or offensive language.

The following are unacceptable uses of Milton's Internet access:

1. Posting private or personal information about another person
2. Attempting to log on through another person's e-mail account or to access another person's files
3. Accessing or transmitting obscene or pornographic material
4. Posting chain letters or spamming, i.e., sending unsolicited or annoying messages to large numbers of people
5. Participating in communications that facilitate any form of criminal activity, such as, but not limited to, the illegal sale or use of drugs or alcohol, gang activity, sexual harassment, threats, or any other forms of intimidation
6. Plagiarizing any material; the rules for plagiarism that are stated in this handbook are also applicable to students' use of the Internet
7. Infringing copyrights, i.e., inappropriately reproducing or transmitting material protected by copyright
8. Participating in any and all commercial activities that are not directly related to the educational purposes of the Milton Public Schools, unless specifically approved in advance by the school's administration

The Milton Public Schools disclaim all liability for the content of material that a student may access on the Internet, for any damages suffered in the course of or as a result of a student's Internet use, and for the consequences of a student's Internet use. Students may, however, be disciplined and may face academic consequences as well as prosecution for violating this policy.

This policy can be found on the internet at

[http://www.edline.net/files/7c0b073fd763af5c3745a49013852ec4/MP\\_S\\_AUP.doc](http://www.edline.net/files/7c0b073fd763af5c3745a49013852ec4/MP_S_AUP.doc)

The Milton Public Schools employs internet content filtering through Merrimack Education Center. Their CIPA certification is as follows:

MECnet ("MECnet") hereby certifies that its Content Control System: MecGUARD ("MecGUARD") complies with the requirements of the Children's Internet Protection Act ("CIPA").

Specifically, MECnet includes Upstream Filtering, a technology protection measure that protects against Internet access to websites containing visual depictions which are considered to be obscene, child pornography or harmful to minors, as those terms are defined by CIPA, by blocking access to websites that contain such visual depictions. Upstream Filtering does this by filtering Internet access through a list of blocked websites (the "block list"), which is updated daily by MECnet. If there is an attempt to access a website that is on the block list, the Internet user is informed that access to that website has been blocked.

While MECnet uses its best efforts to maintain and update the block list to prevent Internet access to websites containing visual depictions which are considered to be obscene, child pornography or harmful to minors, MECnet cannot guarantee that Upstream Filtering will block access to each and every website that may contain such visual depictions. If you find that Upstream Filtering failed to block access to a website that contained visual depictions which are obscene, child pornography or harmful to minors, please notify MECnet immediately.

- B. Technology staffing for the Milton Public Schools consists of 1 FTE IT Director, 2 FTE Computer Technicians, 1 FTE district wide data management staff person, and 6 FTE technology teachers.

The **IT Director** job description is:

**Position Purpose:**

The purpose of this position is to develop, plan, implement, support and manage the Information Technology and to oversee the Personal Computer and network support for the Milton Public Schools; performs all other related work as required. The Information Technology Director is responsible for maintaining and improving the efficiency and effectiveness of all areas under his/her direction and control.

**Supervision:**

*Supervision Scope:* Performs technical and highly responsible duties requiring a high level of initiative, creativity and independent judgment

in managing and supporting the district's computer network, personal computers, data security, and infrastructure.

*Supervision Received:* Works under the general supervision of the Superintendent. Once projects are assigned and priorities are set, works with considerable latitude and independent judgment and action. This position is subject to review and evaluation according to the district's personnel plan.

*Supervision Given to Others:* Has supervisory responsibility for PC Technicians, Data Processing Specialists and student interns. Responsible for hiring, firing and disciplining employees.

**Job Environment:**

Regularly drives to various schools in the district. Occasionally attends out-of-district technical training seminars and conferences.

Operates automobile, computers, printers, scanners and other peripherals, telephone, and other standard office equipment.

Has frequent contact with school system staff, vendors, consultants, equipment donors and the general public. Most contacts involve discussing data, network or PC problems or discussing products/services with vendors and negotiating prices for products and services.

Has access to confidential department information.

**Essential Functions:**

Develops, plans and implements the overall strategic goals of the Milton Public Schools' data, network, and desktop systems. Evaluates, recommends, and implements changes to current and future requirements to meet the district's needs. Develops the technology budget plan.

Maintains and ensures the integrity of the School System's student and staff databases. Responsible for collection, extraction from student and staff information system, reviews for accuracy, certification, and transmission of all district data required for state reporting.

Ensures the seamless sharing of data between all software utilized by the Milton Public Schools, with the student information system as the data pivot point for nurse's software, library, grading, cafeteria, emergency alert system, and any other system used in the future.

Installs, configures and maintains the school system's network. Administers the networks. Monitors network performance. Performs system backups on internal and external network servers. Designs and supports server systems and supporting software.

Supervises the support, monitoring, testing and troubleshooting of hardware and software problems pertaining to the LAN and WAN with approximately 1300 workstations. Recommends and schedules repairs. Supervises the end-user support for all LAN and WAN based applications and the installation and configuration of workstations.

Supervises the installation, configuration and maintenance of the school system's operating systems. Analyzes and resolves problems associated with server hardware and applications software. Detects, diagnoses, and repairs server related problems and desktop systems.

Directs, establishes, plans and implements the policies and procedures to support the organization's PC support services. Manages the deployment, maintenance, support and upgrade of servers, desktop PCs, hardware, software, operating systems and distributed printers.

Manages the installation of new software releases, system upgrades, evaluation and installation of patches and resolution of software related problems. Performs system backups and recovery. Maintains data files and monitors system configuration to ensure data integrity.

Translates educational requirements into technical specifications and solutions.

Ensures compliance with federal E-Rate reimbursement program

Performs audits and reviews systems and practices to ensure compliance with procedures, regulations and standards

Continually finds new ways to utilize the existing fiber optic cable between all town/school buildings, including Internet connection sharing, application sharing, centralized email, etc.

Ensures security for all sensitive files with NTFS group and user permissions.

Maintains the integrity of the entire WAN and secures the network from external threats through a firewall and monitoring all attempted connections.

Keeps the network virus free with virus prevention/detection software by scanning all PC's for viruses and downloading the most current virus definitions nightly. Receives virus activity via email.

Actively participates in planning, configuring and implementing the technology infrastructure and equipment in school building project(s).

Maintains a current inventory of all computers, operating systems, software and software licenses.

Ensures compliance with Children's Internet Protection Act with the use of a firewall and content filtering.

Performs similar or related work as required, directed or as situation dictates.

### **Recommended Minimum Qualifications:**

#### Education, Training and Experience:

Bachelor's degree in computer science; seven to ten years of computer and networking experience; any equivalent combination of education and experience.

#### Special Requirements:

Microsoft Certified Systems Engineer

#### Knowledge, Ability and Skill:

*Knowledge:* Knowledge of Ethernet, Windows NT, 2000, XP, 2003, Vista and MacIntosh computers. Knowledge of Linux software. Strong knowledge of data management, networking, routers and switches.

*Ability:* Ability to train others and to provide user support. Ability to analyze and solve problems. Ability to make quick, important decisions. Ability to manage a network of at least 1500 nodes.

*Skill:* Excellent communication, interpersonal and analytical skills. Strong organizational skills. Strong technical skills. Skill in all of the above listed technology, tools and equipment.

The **Computer Technician's** job description is:

**Position Purpose:**

The purpose of this position is to provide technical support for personal computers and related networks for the Milton Public Schools; performs all other related work as required. The Computer Support Technician is responsible for maintaining and improving upon the efficiency and effectiveness of all areas under his/her direction and control.

**Supervision:**

*Supervision Scope:* Performs technical and responsible duties requiring initiative and independent judgment in supporting the school system's computer network and personal computers.

*Supervision Received:* Works under the general supervision of the IT Director. Once projects are assigned and priorities are set, works with independent judgment to solve problems and determine the appropriate course of action.

*Supervision Given to Others:* None.

**Job Environment:**

Work is performed under typical office conditions; the noise level is moderate. Essential functions are regularly performed without exposure to adverse environmental conditions. May occasionally attend technical training seminars. Frequently drives to various schools in town at which time the employee may be exposed to outside weather conditions. May occasionally be called during off-shift times to attend evening meetings and to check equipment.

Operates automobile, computers, printers, scanners and other peripherals, telephone, and other standard office equipment.

Has frequent contact with school system staff, vendors, equipment donors and the general public. Most contacts involve discussing network or PC problems.

Has access to confidential department information.

Errors could result in delays or loss of service, damage to equipment, and possible personal injury or injury to other employees.

**Essential Functions:**

(The essential functions or duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.)

Installs, configures, and supports Macintosh computers with multiple third party applications.

Installs, configures and supports IBM PCs with Microsoft Office Suite.

Installs operating systems and applications for computer labs using third party hosting software.

Instructs school staff on presentation station usage and Internet connectivity.

Prepares and calibrates Smart Boards and LCD projectors for computer based presentations.

Diagnoses and resolves network connectivity issues by analyzing TCP/IP, WINS, DHCP and printer configuration.

Installs and configures networking hardware, wireless networks with the 802.11B standards, Cat 5 cables, port jacks, switches, and hubs.

Installs and configures various desktop hardware, printers, scanners, and expansion cards.

Provides support for LAN based applications.

Administers and maintains user account information in an NT Domain environment.

Configures and administers email accounts for 500 end users.

Provides tutorial aids and instructional support for school staff and elementary school labs.

Backs-up critical files for end-users during software re-installations.

Maintains, cleans and inspects over 700 desktop computers.

Orders computer supplies for schools pending Principal's approval.

Maintains inventory of computers and logs related statistics to a centralized database.

Disposes of non-functional PCs and monitors by taking them to a recycling facility.

Regular attendance and punctuality at the workplace is required.

Performs similar or related work as required, directed or as situation dictates.

### **Recommended Minimum Qualifications:**

#### Education, Training and Experience:

Associate's degree plus three to four years of computer and networking experience; or any equivalent combination of education and experience.

#### Special Requirements:

A+ Certification

#### Knowledge, Ability and Skill:

*Knowledge:* Knowledge of Ethernet, Windows NT 2000 and MacIntosh computers.

*Ability:* Ability train others and to provide user support. Ability to analyze and solve problems. Ability to work on multiple projects/tasks at one time.

*Skill:* Excellent communication, interpersonal and analytical skills. Strong organizational skills. Strong technical skills. Skill in all of the above listed technologies, tools and equipment.

#### Physical Requirements:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential

functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Tasks may involve extended periods of time at a keyboard or workstation. Certain tasks require vision and hearing. Must be able to communicate verbally. Requires the ability to operate, maneuver and/or control the actions of equipment, machinery, tools, and/or materials used in performing essential functions. May be required to lift objects weighing up to 75 pounds.

### **Benchmark 3 Technology Professional Development**

#### **PROFESSIONAL DEVELOPMENT GOALS**

Milton's Professional Development program is a framework for our professional staff to build on existing skills and practices and to learn new strategies that directly contribute to an increase in student achievement. Through this program we are developing a more collaborative atmosphere while improving our work environment.

Specifically, the goals of our Professional Development program are:

- To increase student achievement
- To provide teachers and administrators with professional growth opportunities
- To increase teachers' and administrators' content and subject-matter knowledge
- To improve teachers' instructional practices
- To develop and align Milton's curriculum with the Massachusetts Curriculum Frameworks and to develop a Standards Based Curriculum
- To foster a collaborative atmosphere among our professional staff

The Milton Public Schools Professional Development program incorporates the priorities identified by the Milton Educators Association and the Milton Public Schools Professional Development Committee. These priorities are the areas of curriculum development, teaching methodology, diversity, and technology.

In moving toward the goal of 85% of district staff having participated in at least 45 hours of technology professional development we offer an extensive and varied array of technology professional development.

To assess the effectiveness and to plan the future offerings we administer a course evaluation form at the end of every training session.

**MILTON PUBLIC SCHOOLS  
MILTON, MASSACHUSETTS**

**PROFESSIONAL DEVELOPMENT**

**WORKSHOP EVALUATION FORM**

**WORKSHOP:** \_\_\_\_\_

- 1 Strongly Agree
- 2 Moderately Agree
- 3 Neither Agree Nor Disagree
- 4 Moderately Disagree
- 5 Strongly Disagree

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1 Information was relevant:                       | 1 | 2 | 3 | 4 | 5 |
| 2 Workshop was interesting:                       | 1 | 2 | 3 | 4 | 5 |
| 3 I will be able to use<br>information in my job: | 1 | 2 | 3 | 4 | 5 |

Comments:

Suggestions:

**Return your completed evaluation form to the workshop facilitator.**

Annually we administer the Massachusetts Technology Self-Assessment Tool or the Milton Public Schools Computer Technology Needs Assessment. The results of these surveys are utilized to shape the direction of future technology professional development offerings.

**COMPUTER TECHNOLOGY NEEDS ASSESSMENT**

**Name:** \_\_\_\_\_

**Please Return Survey to Michael Goodless at Milton High School by:**

**Windows Operating System  
Computer Operations**

		<b><u>Please</u></b>
1	use mouse: click, point, drag, right click	<b>1 Com</b>
2	start/launch a program	<b>2 Com</b>
3	open an existing document	<b>3 Son</b>
4	resize windows	<b>4 Ne</b>
5	scroll through windows	<b>Assist</b>
6	maximize, restore, minimize, close windows	<b>5 Ne</b>
7	use menus and dialog boxes	
8	use Help	
9	switch between programs	
10	change windows properties: background, appearance, screen saver	
11	organize data	
12	create, name, and move folders	
13	name and save files to a specific location	
14	save to a floppy disk	

**Please list any other areas of interest at the end of this survey**

### Internet, Search Engines, & E-Mail

**Plea**  
**1 Con**  
**2 Con**  
**3 Son**  
**4 Need**  
**Assist**  
**5 Need**

15	identify the browser type	
16	use browser toolbar buttons - back, forward, reload	
17	use and organize bookmarks	
18	access a particular web address	
19	set up and use presentation station in your classroom	
20	send a web page	
21	perform a search using a search engine such as Google	
22	send e-mail & add an attachment	
23	retrieve e-mail & open an attachment	
24	use and organize an address book	
25	copy, paste, and save a picture or text from a web page	

**Please list any other areas of interest at the end of this survey**

### Word Processing (Word)

**Plea**  
**1 Con**  
**2 Con**  
**3 Son**  
**4 Need**  
**Assist**  
**5 Need**

26	enter and edit text	
27	cut, copy, paste, and move text	
28	modify font size, style, and color	
29	create headers and footers	
30	set and adjust margins, page orientation, line spacing	
31	use spell check	
32	insert page break	
33	show/hide non-printing characters	
34	bold, italicize, and underline text	
35	insert bullets or numbers	

36	find and replace text	
37	print and print preview document	
38	create a table	
39	align text left, right, center, and justify	
40	save document with different name	

**Please list any other areas of interest at the end of this survey**

**Spreadsheets (Excel)**

**Plea**  
**1 Con**  
**2 Con**  
**3 Son**  
**4 Ne**  
**Assis**  
**5 Ne**

41	enter text and numbers	
42	enter formulas	
43	modify cell size and alignment	
44	apply number and font formats	
45	use AutoSum, Average, Min, and Max functions	
46	create , rename, delete, spreadsheets	
47	revise formulas	
48	copy and move data	
49	insert, modify, and delete rows and columns	
50	use references (absolute and relative)	
51	sort data	
52	preview and print spreadsheets	
53	print headers and footers	
54	rotate and indent text	
55	create charts	
56	modify charts (adding titles and legends)	
57	create an Excel Database	
58	query a database	
59	sort and filter a list or database	

**Please list any other areas of interest at the end of this survey**

**Plea**  
**1 Con**

**Presentation Program (PowerPoint)**

**2 Com  
3 Son  
4 Ne  
Assis  
5 Ne**

60	create a presentation	
61	create a slide	
62	enter and edit data	
63	format text	
64	view a presentation in normal, slide sorter, and slide show view	
65	navigate between slides	
66	reorder slides	
67	apply a design template	
68	apply a color scheme	
69	change slide layout	
70	apply animation	
71	apply sound	
72	apply slide transition	
73	insert clip art	
74	save a presentation	
75	use AutoContent Wizard	
76	print slides and handouts	

**Please list any other areas of interest at the end of this survey**

**Graphic Organizer (Inspiration)**

**Plea  
1 Con  
2 Con  
3 Son  
4 Ne  
Assis  
5 Ne**

77	create a diagram	
78	enter main idea or theme	
79	add ideas to diagram	
80	space and nudge symbols on screen	
81	use symbol palette	
82	resize symbols and graphics	
83	format font type, style, and size	

84	align text	
85	change effects - line thickness, line color, etc.	
86	import graphics for symbols	
87	use template library	
88	create an outline	
89	print document	
90	save document	

**Please list any other areas of interest at the end of this survey**

**Technology Integration into the Curriculum**

**Please**  
**1 Con**  
**2 Con**  
**3 Son**  
**4 Ne**  
**Assist**  
**5 Ne**

91	use productivity software (Word, Excel) and presentation/graphics programs (PowerPoint, Inspiration) to create multimedia lesson plans	
92	develop model projects for students as examples of effective use of technology	
93	demonstrate search strategies to find meaningful, valid, and relevant data on the Internet	
94	use online tutorials for MCAS, SAT or AP examination preparation	
95	create classroom or project web pages that include text, graphics, and hyperlinks	
96	design rubrics or scoring guides using online utilities	
97	design and post a Web Quest	
98	present a lesson or involve students in collaboration on a SmartBoard	
99	use an LCD projector for lessons, presentations or student projects	
100	share curriculum relevant online resources, publications, and tutorials with students	

**Other Areas of Interest for Technology Professional Development**

## **Benchmark 4 Accessibility of Technology**

### **A. Hardware Access**

The ratio of type A/B computers to students is approximately 3.5 to 1. We will continue to strive to reach the goal of a 1 to 1 ratio.

Due in part to the sophistication of software programs and the expanding student curriculum needs we plan to implement a program of 25% annual replacement of system wide computer inventory i.e. replace 290 of the approximately 1,150 computers per year so that no computer is in service for over four years.

The district utilizes SmartBoards and LCD projectors, Kurzweil and other software, and speaker systems in the many of the classrooms to make the curriculum more accessible to a greater number of students.

### **B. Internet Access**

All classrooms in the Milton Public Schools have at least one Internet connected computer with network connectivity speed of at least 100MB.

### **C. Networking (LAN/WAN)**

The district's network infrastructure consists of 1GB fiber optic connections between all six schools and between all wiring closets within the schools. The desktops are connected by CAT5 cabling and at least 100MB switches.

We utilize several district wide files servers for all staff and student document storage. All documents and applications are backed up daily by an IBM tapeless backup system.

All staff members are provided with an email address. Email is accessible from any Internet connected computer. The email account also provides scheduling capabilities, file storage, web posting, and an MCAS practice test generator. Staff is also able to post material on the web through the use of Edline. All email accounts are also archived by Merrimack Education Center, as required by law.

## **D. Access to the Internet Outside the School Day**

Besides specific times that school computers are available after school hours for Internet use, there is a list of community locations that offer computers with Internet access on our website.

## **E. Staffing**

The Milton Public Schools employs 2 FTE computer technicians and 1 FTE district wide IT Director. Due to strict computer based policies which limits both staff and students access to certain areas of the computer, support calls for operating system problems have been significantly reduced. Periodic e-mails are sent to all staff reminding them of the procedure for reporting problems. When a problem does occur, the process for reporting it has been streamlined to be as efficient as possible. The best and easiest way to report a problem is by sending an email to the help desk. The technicians are immediately notified that there is a new work order. The technician will then assess the situation and take a course of action that may include: immediately solving the problem, notifying another technician if the situation is in another building, or notifying the IT Director. If the problem is beyond the capabilities of our staff, we have several vendors that provide outstanding, immediate on-site technical support. Unfortunately, we have only 1 computer technician for every 575 computers. We are working diligently to improve that ratio in the coming years.

## **Benchmark 5 E-Learning and Communications**

The Milton Public Schools actively encourages the development and use of innovative strategies for delivering specialized courses through the use of technology by offering professional development to hone these skills. No where are these skills more evident than in the lessons developed using the SmartBoard and related software to deliver curriculum in a way that holds the students' attention and really get them involved. Countless teachers use the Internet to deliver rich content in the form of live web casts.

The Milton Public Schools website ([www.miltonps.org](http://www.miltonps.org)) is one of our most ambitious projects in recent years. The site has recently

undergone a major upgrade and contains all the information that the community is looking for in an easy to navigate interface.

We also employ a service called Edline. Edline provides the leading web hosting solution for K12 education. Used by thousands of schools in all 50 states and numerous countries, Edline has been recognized in Newsweek Magazine, on Fox & NBC television, and in countless newspapers across the country.

Edline receives more favorable media coverage than any other K12 web hosting solution for a reason:

**Edline does far more than host web pages with general school information—Edline makes it easy to host the classroom, team, club and committee web pages that contain the daily, mission-critical information families need:**

- **Private, secure student-specific reports**, such as missing homework assignments, daily grades and attendance.
- **Class-specific content**, such as homework assignments, test dates, resources and photographs.
- **Team, club and other group specific material**, such as practice schedules, committee meetings, and production deadlines.
- **General school information**, such as news, daily announcements, lunch menus and athletic scores and events.

Whether schools use Edline to host their school home page or to supplement their school site with class, team and club home pages, Edline increases parent involvement, raises student achievement and saves paper-based operating expenses.

**Edline is a comprehensive, K12-specific web hosting solution with a proven track record of success, scalability and security.**

- Every school, class, team, club, staff group and parent group receives its own website with no page or traffic limits.
- Edline's unique "one click" publishing protocol allows teachers and administrators to publish reports seamlessly from a variety

of sources, including most third party student information and gradebook systems.\*

- Every student, parent, teacher and administrator receives a unique user account for personalized security, permissions and access (essential for making private information available at your school's website).
- The public can view general school information at any time without a password, but private information is visible only to visitors that login with a screen name and password. Email alerts notify parents, students and teachers of critical new information available at your school's website (attendance, grade reports, policies, etc.).
- Navigation is quick. For example, each person's unique "combined calendar" displays shortcut links to homework, test dates and events from all of their class and activity web pages, such as their classes, teams, clubs, etc.

### **Edline was designed to be easy for teachers and staff in a K12 setting:**

Edline sets up quickly and there is no need to retype or recreate information. Users cut and paste into Edline, or type directly onto an Edline page. Teachers and administrators can also easily publish content.

- Teachers upload pre-existing content (homework, photos, news, etc.) from existing common desktop software to Edline web pages using just a browser – no FTP or HTML is required.\*
- With one click, teachers can publish grades, attendance and progress reports from third party gradebook software applications to their Edline classroom websites. †
- Administrators can publish private reports to Edline from existing third party student information systems (SIS). ‡

### **Milton Public Schools Edline Statement of Purpose**

The Milton Public Schools are assembling for the first time in one location a vast quantity of information to assist students, families, and teachers. Using the web-based Edline program, we intend to improve communication between school and home so as to enhance student

achievement. This new collaboration is a work in progress designed to encourage teachers to take technological risks in the interest of educational excellence. There is a general understanding that web pages, as well as their timeliness, will vary based on teachers' schedules and the availability of the technology.

A computer lab at Milton High School is available before and after school for students to use the Internet for research and other projects. There are links on our website to the Milton Public Library which also has computers available for use by students during non-school hours.

The district also utilizes the AlertNow parent notification system to communicate important information quickly and effectively by email, phone or both. It has been an invaluable tool in improved communication with parents.

The Milton Public Schools contract with Merrimack Education Center to comply with federal, state and local law by archiving electronic communication produced by its staff. Student and staff are notified several times through out the year and by disclaimer in the footer in every email that any information distributed over the district or school network may be a public record.