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**THE BENJAMIN FRANKLIN CLASSICAL
CHARTER PUBLIC SCHOOL**

Franklin, Massachusetts

**TECHNOLOGY
PLAN
2007-2012**



*Annual Supplement to The Massachusetts Department of
Education's Online Technology Plan and BFCCPS 5-Year
Technology Plan*

**Compiled By:
The Benjamin Franklin Classical Charter Public School
Technology Committee of the Board of Trustees
December-May 2007**

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TECHNOLOGY COMMITTEE MEMBERS

Richard Frongillo-Chairman

Dr. Kevin O'Malley-Head of School

Ben Benjamin-Director of Fine and Performing Arts and Webmaster

Laurie Owens-Computer Support Specialist

Pat Fairbanks-Director of Pupil Services

Artur Duque-Grade 6 Faculty

We are fortunate to have committee members representing nearly every major technology area as it applies to our school's computer network. The committee consists of programmers, operating system experts, wiring specialists, networking experts and system administrators. We also are fortunate to have non-technically trained people that have taken on responsibility for guiding us through various administrative issues, researching funding opportunities, assisting faculty with using our computer system and doing various research projects.

Committee members are responsible for specifying and procuring hardware, software, network components and all other necessary gear. The Chair of the Committee is also responsible for creating and staying within a specified budget each year. Our Computer Support Specialist is paid to be physically at the school to attend to day-to-day maintenance issues such as routine printer and computer malfunctions, to answer general questions and assist in other ways during the regular school day.

Several committee members also assist in programming duties to assist in the school's Administrative Plus, Grade Quick, and eSped programs as well as enable the staff to comply with DOE data submission requirements be they on paper, electronic submissions or the use of DOE Smart Forms through the Internet.

The committee is also fully responsible for the setup, configuration, administration and maintenance of all XP systems and logons as well as the school's Intranet, Website, and teacher homework sites.

Introduction:

Education reform in Massachusetts and throughout the country has placed a great challenge in the hands of schools such as the Benjamin Franklin Classical Charter Public School (BFCCPS). Rapid changes in both the educational front, and in society at large, require technology to be an integral part of the school curriculum and our everyday lives.

It becomes our challenge to create a vision of technological growth within our school while all the while maximizing our resources. Perhaps of equal or greater importance is the need to inspire and encourage the professional development of our faculty without whom technological growth within our walls will not occur. We must remain focused in our effort to transform our understanding of the use of technology in education. The technological transformation of the Information Age is upon us and cannot be ignored. Innovations in the ways we transfer, deliver, and interpret information are changing rapidly.

This document will describe how the Benjamin Franklin Classical Charter Public School will complete our challenges in the next 5 years.

MA DOE Local Technology Plan Guidelines:

In order to be eligible for E-Rate discounts, as well as federal and state technology funding, every school district is required to have a long-range strategic technology plan approved by the Department of Education. School districts must have their plans on file locally, including a full description of their implementation strategies. Each year, to approve school districts' technology plans, the Department asks districts to report on the progress they have made in implementing their plans through the Department's secure web portal.

In 2000, to help districts develop purposeful plans, the Department worked with technology stakeholders across the state to develop a set of recommended guidelines called "Local Technology Benchmark Standards for 2003". These guidelines represent recommended conditions for the effective integration of technology into instruction.

In 2001, the Board of Education established the Educational Technology Advisory Council (ETAC) to advise the Department on issues relating to the use of technology in schools. ETAC developed the [School Technology and Readiness \(STaR\) Chart](#) to illustrate the "complex set of interactions of people, materials and dimensions" that are involved in using technology effectively in schools. ETAC believes that the STaR Chart represents "the beginning of a new strategic plan for Massachusetts to improve student learning with the use of technology." Based on the recommendations of the STaR Chart and advice from stakeholders across the Commonwealth, the Department has developed this new set of guidelines for schools to use in technology planning. These guidelines are not mandated but rather recommended benchmarks **1** for districts to meet by the end of the school year 2006 to 2007. The Department will use these guidelines to gauge the progress of districts' implementation in order to approve their technology plans annually.

Benchmark 1

Commitment to a Clear Vision and Mission Statement

- A. The district's technology plan contains a realistic and clearly stated set of goals and strategies that align with the district-wide school improvement plan. It is committed to achieving its vision by the end of the school year 2006-2007.
- B. The district has a technology team with representatives from a variety of stakeholder groups. The technology team has the support of the district leadership team.
- C. Budget
 - 1. The district has a budget for its local technology plan with line items for technology in its operational budget.
 - 2. The budget includes staffing, hardware, software, professional development, support, and contracted services.
 - 3. The district leverages the use of federal, state, and private resources.
- D. Evaluation
 - 1. The district evaluates the effectiveness of technology resources toward attainment of educational goals on a regular basis. Prior to purchasing the district assesses the products and services that are needed to improve teaching and learning.
 - 2. The district's technology plan includes an evaluation process that enables the district to monitor its progress in achieving its technology goals and to make mid-course corrections in response to new developments and opportunities as they arise.

Benchmark 2

Technology Integration

- A. Teacher and Student Use of Technology
 - 1. (a) Outside the Classroom
At least 85% of teachers use technology everyday, including some of the following areas: lesson planning, administrative tasks, communications, and collaboration. Teachers share information about technology uses with their colleagues.
 - (b) Within the Classroom
At least 85% of teachers use technology appropriately with students each week, including some of the following areas: research, multimedia, simulations, data interpretation, communications, and collaboration.
 - 2. At least 85% of students from grades 5 to 8 show proficiency in all the Massachusetts Recommended PreK-12 Instructional Technology Standards for Grades 5 to 8.
 - 3. At least 90% of teachers are working to meet the proficiency level in technology, and by the school year 2006-2007, 60% of teachers will have reached the proficiency level as defined by the Massachusetts Technology Self-Assessment Tool (TSAT) [2](#).
 - 4. The district has a CIPA -compliant Acceptable Use Policy (AUP) regarding Internet use.
- B. Staffing
 - 1. The district has a full-time equivalent (FTE) district-level technology director/coordinator.
 - 2. The district provides one FTE instructional technology teacher per 40-80 instructional staff.
 - 3. The district has one FTE person dedicated to data management and assessment.

Benchmark 3

Technology Professional Development

- A. By the end of the school year 2006-2007, at least 85% of district staff will have participated in 45 hours of high-quality technology professional development covering technology skills and the integration of technology into instruction.
- B. Technology professional development is sustained and ongoing and includes coaching, modeling best practices, district-based mentoring, and study groups. The professional development includes concepts of universal design and scientifically based, researched models.
- C. Professional development planning includes an assessment of district and teachers' needs. The assessment is based on the competencies listed in the Massachusetts Technology Self-Assessment Tool³. The Department, the Educational Technology Advisory Council and stakeholders will review the levels of competencies in the Massachusetts Technology Self-Assessment Tool on an annual basis.

Benchmark 4

Accessibility of Technology

- A. Students per Instructional Computer
 - 1. The district has an average ratio of fewer than five students per high-capacity, Internet-connected computer. The Department will work with stakeholders to review the capacity of the computer on an annual basis. (The ultimate goal is to have a one-to-one, high-capacity, Internet-connected computer ratio.)
 - 2. The district considers students' access to portable and/or handheld electronic devices appropriate to their grade level.
 - 3. The district has established a computer replacement cycle of three years or less.
- B. Technical Support
 - 1. The district makes a commitment to provide timely in-classroom technical support with clear information on how to access the support, so that technical problems will not cause major disruptions to curriculum delivery.
 - 2. The district provides a FTE network administrator.
 - 3. The district provides at least one FTE person to support 100-200 computers. Technical support can be provided by dedicated staff or contracted services.

Benchmark 5

Infrastructure for Connectivity

- A. Internet Access
 - 1. The district provides connectivity to the Internet in all classrooms in all schools including wireless connectivity, if appropriate.
 - 2. The district provides bandwidth of at least 10/100 MB to each classroom.
- B. Networking (LAN/WAN)
 - 1. The district provides a minimum 10/100 MB Cat 5 switched network and/or 802.11b/g wireless network.
 - 2. The district provides services for secure file sharing, backups, scheduling, email, and web publishing, either internally or through contracted services.
- C. E-Learning Environments
 - 1. The district encourages the development and use of innovative strategies for delivering specialized courses through the use of technology.
 - 2. The district deploys IP-based and or ISDN-based connections for access to web-based and/or interactive video learning on the local, state, regional, national, and international level.

3. Classroom applications of e-learning include courses, cultural projects, virtual field trips, etc.

Benchmark 6

Access to the Internet outside the School Day

- A. The district maintains an up-to-date web site that includes information for parents.
- B. The district works with community groups to ensure that students and staff have access to the Internet outside of the school day.
- C. The district web site includes an up-to-date list of places where students and staff can access the Internet after school hours.

In developing these benchmarks, we used the Massachusetts STaR Chart (School Technology and Readiness Chart) developed by the state's Educational Technology Advisory Council (ETAC). Derived from the chart created by the CEO Forum and adapted by Texas, the STaR Chart was adapted locally in collaboration with district technology directors. The Massachusetts Department of Education has incorporated indicators from the STaR Chart into these benchmarks, as shown in the table below.

| Benchmark Standards | STaR Chart Indicators |
|---------------------|------------------------|
| Benchmark 1-A | Column L |
| Benchmark 1-B | |
| Benchmark 1-C | Column O |
| Benchmark 1-D | |
| Benchmark 2-A | Columns B, D, E, and G |
| Benchmark 2-B | Column N |
| Benchmark 3-A | |
| Benchmark 3-B | Column I |
| Benchmark 3-C | |
| Benchmark 3-D | |
| Benchmark 4-A | Columns R and V |
| Benchmark 4-B | Column M |
| Benchmark 5-A | Column S |
| Benchmark 5-B | Column U |
| Benchmark 5-C | Column T |
| Benchmark 6-A | |
| Benchmark 6-B | Column R |
| Benchmark 6-C | Column R |

Mission Statement:

Primary Mission Statement:

The mission of the Benjamin Franklin Classical Charter Public School is to assist parents in their role as primary educators of their children by providing the children with a classical academic education coupled with sound character development and opportunities for community service.

The founding parents established a public school that emphasizes character education, service, and academic depth. Faculty promotes character traits that are universally respected and academic content that American schoolchildren should know. Parents participate as full and active partners in all aspects of the school's mission.

Technology Mission Statement and Goals:

The Benjamin Franklin Classical Charter Public School will help students to develop technological skills, which will allow them to successfully, and confidently, function in an evolving information centered society. This plan will provide students the opportunity to gain and apply knowledge through technology.

The Benjamin Franklin Classical Charter Public School will continue to provide high quality professional development, which allows educators to integrate new and existing technology into the curriculum and to provide students with the most progressive learning opportunities available.

Through the overarching principles of our Technology Mission, BFCCPS has established the following goals for technology:

- To aid all our students in becoming skilled, knowledgeable, independent, and self directed learners to succeed as responsible citizens, and effective workers in the 21st century.
- To provide increased opportunities for individualization, group activities, cooperative learning, thematic studies, and varied learning techniques through technology.
- Empower teachers as facilitators of an active and productive learning environment that uses technology as a tool.
- Enable teachers and administrators to more effectively share knowledge, resources, and problem solving techniques with other colleagues around the world.
- Improve administrative, classroom, and staff management efficiencies through the use of technological tools.
- Enhance communication between administration, teachers, parents, students, and the community through technology.
- Expand the learning environment beyond the 'classroom walls' through technology.

The Benjamin Franklin Classical Charter Public School will ensure that staff and administrators have continual opportunities to improve their professional skill by:

- participation in the Staff Development Day Workshops, which incorporate underlying principles of active, cooperative and interdisciplinary learning.
- offering technology based courses and conferences Continuing Education Budget.
- creating technology workshops based on teacher and/or administrative requests.
- making available curriculum workshops for those interested in developing the integration of technology into their curricula.
- peer collaboration to share expertise/assistance as new technologies are introduced to the system.
- exposure to emerging new technologies as they relate to the curricula of various academic disciplines.

The Benjamin Franklin Classical Charter Public School will ensure that school administration continues to utilize and support technology by:

- providing human resources to support the curriculum and instructional goals.
- establishing routine methods for review, revision, upgrade and maintenance of existing practices and equipment.
- developing a school budget, which includes realistic appropriations for technology upgrade and support, and actively seeking alternative sources of funding to supplement town funds (E-Rate, grants, donations).
- enabling efficient and effective control of operational information.

The Benjamin Franklin Classical Charter Public School will ensure that the parents of our students will be able to utilize the schools technology for communication with the school's staff and/or for the access of district information by:

- enabling parents by providing information via the Benjamin Franklin Classical Charter Public Schools Web Site: <http://www.bfccps.org> They will have the opportunity to leave e-mail messages for, and ask questions of, teachers/administrators. This will offer an improved communication system between parents and staff.
- promoting technology based student and adult education programs to enable parents to feel more comfortable utilizing the new educational tools.
- making our computer facilities available to students and parent outside school hours

If we are to achieve these lofty goals we must foster an atmosphere of success through our desire to incorporate technological change in a proactive manner. We cannot be bystanders in today's global technological revolution.

Vision Statement:

Our world is continuously evolving into an information age highly dependent upon modern technology. It is the vision of the Benjamin Franklin Classical Charter Public School to provide our students, faculty, and staff alike with the technological tools, skills and knowledge required to fully engage themselves as responsible citizens and competitive workers in our rapidly changing society.

Current Skills Assessment:

Skills, Knowledge and Attitudes:

The entire faculty was surveyed at the beginning of the 20065-2007 school year in preparation for the development of this five year plan using the TSAT survey. 75% of those surveys were returned. Responses came from all parts of our faculty including administration, special education, fine and performing arts, foreign language, elementary teachers and middle school teachers.

In general, faculty skills and interest in gaining skills ranged widely. Some common attitudes included needing professional development to better use the new computer technology we have. In addition, faculty members think adding a computer technology component to their curriculum can enhance their curriculum. Faculty believes they need more Professional Development to learn computer skills and create curriculum incorporating computers in the classroom.

Our student's skills were not surveyed. Evidence and teacher input from the TSAT suggests that student skills vary widely as well. Students currently use computers for word processing and research and as independent workstations to practice skills. Many students use email at home and a number of students use computers for multimedia presentations of projects.

Current Curriculum Status and Specific Curriculum Goals:

Our current curriculum contains no computer technology competencies. Being a resource for the school's curricula content, the Core Knowledge Sequence is silent on computer technology skills. Similar to skills in several other areas of our curriculum, we need to define the computer skills our students need to learn. We will incorporate the following Massachusetts Instructional Technology Standards to enhance our Core Knowledge sequence:

Instructional Technology Standards:

Standard 1. Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.

GRADE LEVEL EXPLORATORY CONCEPTS AND SKILLS PREK – 4

1.1 Develop basic skills for using hardware and applications (e.g., open/close a file, navigate using scroll bars, arrow keys, special keys, and mouse).

1.2 Use correct terminology for basic components of a computer system (e.g., monitor, keyboard, disk, printer, mouse), and develop understanding of their basic functions.

1.3 At district and teacher's discretion explore and develop keyboarding skills. (The district determines whether students will learn touch typing or simply become familiar with the keyboard functions.)

1.4 Explore basic formatting features of a word processing program (at teacher's discretion).

1.5 Explore and understand the basic function and purpose of a database.

1.6 Explore and understand the basic function and purpose of a spreadsheet.

1.7 Collaborate with classmates to use teacher-selected Web sites.

1.8 Collaborate with classmates and teacher to send a class e-mail message (at discretion of district and teacher).

1.9 Collaborate with classmates and teacher to create a slide presentation with existing template.

1.10 Explore the use of drawing and painting applications for class projects (at teacher's discretion).

Massachusetts Recommended PreK – 12 Instructional Technology Standards _
November 2001 _ Page 6

GRADE LEVEL PERFORMANCE INDICATORS GRADES 5 – 8

By the end of 8th grade students should:

(Continue to address earlier skills as needed.)

1.11 Identify components of a computer system, understand their functions, and use appropriate terminology in speaking about them (e.g., operating system, hard drive, memory, window).

- 1.12 Identify and use basic features of a computer operating system (e.g., format/initialize disks, access information on size and format of a file, create folders on local hard drive).
- 1.13 Save a file to the desktop, the hard drive, and external storage spaces (e.g., floppy disk, CD-ROM, virtual electronic space).
- 1.14 Select a printer and print a document with appropriate page setup and orientation.
- 1.15 Operate peripheral equipment (e.g., scanner, digital camera, camcorder).
- 1.16 Develop efficient keyboarding technique.5
- 1.17 Identify and use editing and formatting features of a word processing program (e.g., centering, line spacing, margins, cut and paste, fonts, styles, spelling, page numbers).
- 1.18 Insert images (e.g., graphics, clip art, tables) from other files into word processed document.
- 1.19 Describe structure and function of database and identify components (e.g., record, field).
- 1.20 Create an original database, defining field formats and adding new records.
- 1.21 Perform simple operations in a database (e.g., browse, sort, search, delete, add data).
- 1.22 Describe structure and function of spreadsheet (e.g., cells, rows, columns, formulas) and apply formatting features.
- 1.23 Create an original spreadsheet, entering simple formulas.
- 1.24 Produce simple charts from spreadsheet.
- 1.25 Identify and use navigation features of browser (e.g., “go,” “back,” “forward”).
- 1.26 Using a browser, “bookmark” a Web site for future reference.
- 1.27 Identify basic elements of a Web site (e.g., URL, hyperlinks, site map, etc.).
- 1.28 Copy an image from a Web site into a file on the desktop; write a correct citation caption in keeping with copyright law.
- 1.29 Using e-mail, create and send a message. (Student use of e-mail is determined by district policy and may be a class-wide activity if students do not have individual accounts.)
- 1.30 Open an e-mail attachment and save it to the desktop. (District discretion

applies.)

1.31 Use correct terminology in speaking about electronic communications (e.g., browser, search engine, online).

1.32 Create a slide presentation using appropriate applications.

1.33 Identify and use drawing and painting applications as appropriate for class projects.

1.34 Identify appropriate applications for a classroom project.

Massachusetts Recommended PreK – 12 Instructional Technology Standards _
November 2001 _ Page 8

Standard 2. Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.

GRADE LEVEL EXPLORATORY CONCEPTS AND SKILLS PREK – 4

2.1 Follow classroom rules for responsible use of computers.

2.2 Develop understanding of the school's rules for safe and ethical Internet use. (Use of Internet in this grade span is under close supervision and determined by district policy.)

2.3 Explore practices for evaluating Web sites (District policy determines Internet use.)⁷

2.4 Develop understanding of how the computer is a tool for learning.

2.5 Explore issues of ergonomics and safety in using computers.

Massachusetts Recommended PreK – 12 Instructional Technology Standards _
November 2001 _ Page 11

GRADE LEVEL PERFORMANCE INDICATORS GRADES 5 – 8

By the end of 8th grade students should:

(Continue to address earlier skills as needed.)

2.6 Explain and demonstrate understanding of classroom rules regarding responsible use of computers (responsible behavior around equipment, respect for other people's work and appropriate collaborative behavior).

2.7 Explain and demonstrate ethical and legal behavior in copying files, applications, and media.

2.8 Explain potential problem of computer viruses and exercise caution in

opening e-mail attachments from unknown sources. (Use of e-mail is at district discretion.)

2.9 Explain safe practices for sharing personal information via e-mail and the Internet. (Use of e-mail is at district discretion.)

2.10 Explain proper e-mail etiquette. (Use of e-mail is at district discretion.)

2.11 Describe and demonstrate knowledge of the school's Acceptable Use Policy, and know the consequences of violating that policy.

2.12 Validate a Web site for authenticity (e.g., find site sponsor, author, and date the site was last updated).⁸

2.13 Explain how media and technology can be misused to distort or exaggerate information.

2.14 Write correct citations for text and images gathered from electronic sources. Understand that use of materials is limited by the fair use rule of copyright law.

2.15 Develop an awareness of the issue of ergonomics (e.g., Repetitive Stress Injuries) and how to use equipment safely.

Standard 3. Demonstrate ability to use technology for research, problem-solving, and communication. Students locate, evaluate, collect, and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

GRADE LEVEL EXPLORATORY CONCEPTS AND SKILLS PREK – 4

3.1 Explore and develop understanding of how to gather information from a variety of electronic sources, including teacher-selected Web sites, CDROM encyclopedias, and automated card catalog.¹¹

3.2 Explore the use of application programs (e.g., word processing, database, spreadsheet) for organizing information into charts, tables, and diagrams.

3.3 Explore the use of content-specific tools to enhance understanding of curriculum content (e.g., environmental probes, sensors, robotics, simulation software, and measuring devices).

3.4 Collaborate with classmates and teacher in creating a multimedia presentation to communicate learning with others.

3.5 Collaborate with classmates and teacher to exchange e-mail with another classroom (at discretion of district and teacher).

Massachusetts Recommended PreK – 12 Instructional Technology Standards _
November 2001 _ Page 14

GRADE LEVEL PERFORMANCE INDICATORS GRADES 5 – 8

By the end of 8th grade students should:

(Continue to address earlier skills as needed.)

3.6 In keeping with the research process outlined in Standard 24 of the *English Language Arts Curriculum Framework*, identify electronic sources of information (e.g., Internet, CD-ROM, online periodical databases, and online catalogs).

3.7 Use search engines effectively to find relevant, unbiased, and current information on a subject. (Standard 2 performance indicators apply—i.e., evaluate Web sites and write correct citations for sources.)

3.8 Organize information that is collected using a variety of tools (e.g., spreadsheet, database, saved files).

3.9 Communicate results of research and learning with others using the most appropriate tools (e.g., desktop-published or word-processed report, multimedia presentation).¹²

3.10 Manipulate data using charting tools and graphic organizers (e.g., concept mapping, flow charting, and outlining software) to connect ideas and organize information.

3.11 Under teacher's guidance, and at discretion of district, use e-mail to communicate with others (e.g., students in other classrooms, experts in a subject, teachers).

Professional Development:

The administration and technology committee have jointly identified and created training opportunities for faculty to gain computer competency skills. The Board of Trustees along with the Head of School has formed a Professional Development Committee to work with the staff and administration in further identifying professional development needs.

Recognizing the diverse skills of our faculty, a range of trainings will be identified and created to best help faculty gain the skills they need. The needs were obtained from the faculty/staff surveys from the end of the 2005-2006 school year.

Faculty will include plans for gaining any computer competency skills they lack within their yearly individual professional development plans. In addition, faculty will be accountable to their supervising administrator for making reasonable progress toward gaining their grade level computer competency skills.

In addition, the school will seek out from within the faculty numerous individuals to assist in 'championing' the vision of bringing technology into the classroom. These faculty members act as an advocate for the faculty and students in matters pertaining to technology use and acquisition at the BFCCPS.

Specific Basic Competency Goals for Faculty:

Use of Productivity Software All Faculty Members

- Word Processing (Microsoft Word)
- Presentation Design (Microsoft PowerPoint)
- Spreadsheet Design (Microsoft Excel)
- Database Design (Microsoft Access)
- Web site design and maintenance (Microsoft FrontPage)
- Evaluation Forms, Progress Reports, IEP's, 504's (ESPED)
- Test Wiz
- Grade reporting and record-keeping (Grade Quick)
- Academic Support Software (Lexia, Type to Learn, TechnoKids,
- Music Software (SmartMusic, Finale NotePad)

Basic Internet Skills

- Internet Browser Use (Microsoft Internet Explorer) or (Mozilla)
- Search Engine Use (Google)
- Researching and Saving websites for educational use
- Use the projector and screen to display computer images to an entire class

Networking Skills

- Access a faculty server, create, save and print documents from a server
- Submit administrative forms via a network. i.e. attendance, field trip forms, report cards (Administrator Plus)

Email (First Class Public Email System)

- Compose, send, read, delete, print and save email messages
- Attach documents to an email message
- Forward an email message
- Access School Calendar
- Sign up for class times for wireless lab or media lab

- Projector and screen sign-up

MassONE

The Department of Education's MassONE is the Commonwealth's set of web-based tools for communication, collaboration, and curriculum planning, which are designed to support PreK-12 standards-based teaching and learning.

- Getting to MassONE
- Profile Tools
- Administrative Tools: Setting Up Your classroom
- My Folder/VHD
- Communication in MassONE – Using the Forums
- The Calendar Tool
- Creating Standards-Based Lessons
- Surveys and Online Assessments
- Teaching and Learning Resource (TLR)
- Tips and Tricks for Getting Help

Current Inventories:

Hardware

Media Lab

The Media Lab has 24 Dell OptiPlex 170L MicroTower computers with flat panel monitors. These come equipped with Pentium 4 processors, 512 MB Ram, 80 GB hard drives, CD-RW, and DVD. The software is MS Windows XP Professional and MS Office 2003 Professional Enterprise.

The Media Lab also houses a ceiling-mounted projector and screen.

Library Computer Lab

The library is equipped with two computers of the same variety found in the Media Lab.

In addition, the library is home to 25 Dell laptops with Pentium 4 processors. These laptops run MS Window XP Professional and MS Office 2003 Standard Edition. These laptops are stored in locked rolling carts for easy access to other locations.

The Library Lab also houses a ceiling-mounted projector and screen.

Classrooms

Each classroom has two computers of the same variety found in the Media Lab.

Music and Auditorium

The music room has one computer of the same variety found in the Media Lab. In addition, it has three IBM Think Centre Pentium 4 computers with 256 MB Ram. The auditorium has a ceiling mounted projector for lectures and presentations.

Administrative

The school has seven administrative computers of the same variety found in the Media Lab.

The administrative file server is a Dell PowerEdge Server, 2.5 GHz machine with a 60 GB hard drive and 1.5 GB memory running Windows Server 2000.

Printers

Most classrooms are equipped with a color inkjet printer. Other classrooms have networked laser jet printers. The library has two networked laser jet printers: an HP5 and a Dell 1700N. The Special Education office has a networked HP5 laser jet printer. The main office has a networked HP 4200N laser jet printer. The Media Lab has a networked HP 2430N laser jet printer. The principal's office has a networked HP 1022N laser jet printer.

Uninterruptible Power Supplies

An APC uninterruptible power supplies protects the file server, e-mail server, firewall, network hubs and telecommunications gear.

Firewall

The school uses a firewall to protect the school network from unfiltered Internet traffic. The firewall filters traffic in and out of the school according to set policies, authenticates users before they are allowed to access the Internet and filters web site content thereby blocking access to inappropriate material by our users.

Hubs

Four 24-port network hubs connect the all client computers and servers to the school network.

Modems

A Cable modem is used to connect the firewall with our ISP.

Network/Telecommunications

The school is fully networked. All computers are directly connected to the school network. The computers have direct and continuous high speed Internet access. A firewall is used to block all Internet access from school computers.

E-mail for faculty and staff is also available from any school PC as is the school's private Intranet site (aka 'Ben').

The school network cable plant is a star topology consisting of at least two runs of Category 5 UTP cabling to each classroom. Most classrooms have the capability of four 10Mb/sec data drops using the cabling in place. The use of mini-hubs in several classrooms allows more computers to connect using the data drops currently in place. The newer modular classrooms each have 4-5 runs of Category 5 UTP cabling giving them the ability to have 8-10 10 Mb/sec data drops available without any additional communications gear. Administrative office space also has multiple runs of Category 5 UTP cabling allowing for ample data drops in each office area. All Category 5 cable runs from each end point terminate in the computer closet at a modular patch panel. Three 24 port unmanaged 10baseT hubs in the computer closet serve to connect all computers to the network. A firewall is used to isolate the school network from the Internet. The

firewall connects to a cable modem with a high speed (upload speed of 768 Kbps and download speed of 6.0 Mbps) 'always on' connection to the Internet.

Software

Operating Systems

Most computers at the school are running the MS Windows XP Professional operating system.

Standard Client Software

Standard software loaded on all client computers (classroom and administrative) consists of:

Microsoft Office 2003 Professional Enterprise

Microsoft Internet Explorer

Symantec Antivirus

Adobe Acrobat Reader

Servers

One server functions as our e-mail server, and also as a host for the school's private Intranet site. Software resident on this machine consists of MS Windows Server 2000, First Class Email, and Norton Antivirus Live Update Administrator.

Another server is currently used for the storage of administrative documents. In addition, it is used to securely administer various system wide functions.

Educational Software

Network versions of educational software include TechnoKids, Type to Learn 3, Geometers Sketchpad, Inspiration, Lexia Beginning Reading, Lexia Strategies for Older Students, Primary Reading, Encarta and Encarta Kids.

E-Mail

Centrinity's First Class software is used for public E-mail system. Within the school, access is through a desktop client. Access from home is available both as a desktop client or browser-based interface.

Internet Site (www.bfccps.org)

Our Internet Service Provider hosts the school's public Internet site. The BFCCPS Webmaster is responsible for the administration of the school web site.

Needs Assessment:

Software Acquisition Plans

Administrative

Continued data entry and execution of our administrative software package to address basic student database needs and required DOE reporting needs to be updated annually. This would include student demographics and health records. This package conforms to the Massachusetts IMS initiatives and electronic reporting requirements.

The addition of Grade Quick's grading and report card has been successful for Grades 5-8 and will need to be installed and operational for Grades K-4.

Operational

In order to deal with the unforeseen system failures that occur over time, a commercial grade file server backup and recovery package will be maintained over the term of this technology plan. In addition, acquisition of appropriate utility programs to

aid in diagnosing and repairing problems relating to computer hardware, network hardware and software, file structures, etc. will be addressed.

Library

Modernization of the school library including acquiring a library automation package minimally capable of electronic card catalogs, resource (books, CD's, audio tapes, videos, etc.) checkout and check in and identification of delinquent returns will be pursued. The school is also continuing the installation and development of the Minuteman Library System.

The school's collection of educational CD's and other electronic research technologies including electronic databases and encyclopedias will be expanded and greater use of the Internet as complimentary research tool encouraged.

Instructional

The school will continue to expand on its current set of standard software installations in the classroom, library and administrative areas.

Individual classrooms will remain able to purchase grade appropriate software as determined by the faculty. Such purchases will be funded from the annual book and supply purchasing budgets already allotted to each classroom.

Specialty software titles for web site design, desktop publishing, computer programming and other advanced skills will be procured as integration into the curriculum of such skills progresses.

Hardware Acquisition Plans

General

As our hardware begins to age we will replace equipment on a regular basis. The need for replacement is our highest priority. As equipment ages, failures will become more common. Repairing old machines becomes more cost ineffective the older the machine is. In addition, the hardware requirements of modern software packages we will continue to acquire will become greater with each passing year. The older machines will simply no longer effectively run the new packages.

Our infrastructure of files servers, network components and other communication gear will need to be carefully watched and assessed as time passes. Improvements in the capacity of administrative, classroom, web hosts, e-mail servers and Intranet file servers will need to be made as computing power or storage needs increase. As with any computer or peripheral device, failures may increase as the components age, requiring their replacement.

Network capacities including wiring plant, hubs, firewall and Internet bandwidth needs will also be monitored on a regular basis so that capacity improvements can be made as required.

Now that all classrooms and administrative areas have their basic computer needs fulfilled, we will begin a cycle of removing and replacing the oldest equipment. It is currently recommended that computers 3 years or older be replaced with the then current technology. Every attempt should be made to spread these replacements out over the years so we are not faced in any given year with a need to replace a large number of devices. Note that this replacement cycle needs to be carefully reviewed at least yearly to be certain our needs continue to be met.

The same replacement cycle will hold true for monitors, printers and scanners, all of which degrade over time and fall into disrepair.

All computers, printers, monitors, etc. purchased will be from recognized first tier 'name brand' manufacturers that are sponsored and listed by the State of

Massachusetts as vendors. Less expensive ‘clones’ will be avoided since historically the quality of these machines have caused repeated failures and in the end greater expense to the school than reliable first quality devices.

The school will build an inventory of spare parts and machines to allow for quick turnaround on the repair or replacement of failed devices. Appropriate storage facilities will be identified to securely store such inventories.

Computer Lab

A requirement for our ability to move forward with a meaningful technology plan is the existence of a facility to train our faculty and students alike. Computer skills are learned by doing. A computer lab where group instruction and hands on practice can occur was installed at the end of the 2004-2005 school year.

The school has equipped the computer lab with ergonomically correct computer furniture, chairs, lighting and ventilation. The lab is equipped with modern multimedia computer systems, printers, scanners, appropriate networking components, and other related equipment.

The computer lab will be used for instructional sessions for students and faculty alike. The lab will also be made available to students and faculty for individual or group projects including activities such as school newspaper publication, Intranet design and publishing, computer programming, etc.

The lab will also be available before and after school, within staffing and facility access constraints, for student or faculty activities such as a computer club. In addition, individual students may use the supervised computer lab for school related activities (homework, project preparation or other computer skill sharpening) in order to give equal access to technology to all our students.

Classrooms

Classrooms currently have two computers each resulting in a classroom student: computer ratio of approximately 22:2. Classrooms will be equipped with additional modern multimedia networked computers to bring the student: computer ratio in the classroom to more realistic levels. With the creation of the computer labs, each classroom will need additional computers to begin to bring our student: computer ratio closer to the federally and state recommended 5:1 ratio. Even with the establishment of a computer lab we must continue to monitor the overall student: computer ratio and continue to move towards the federal and state guidelines.

Miscellaneous Peripheral Devices Needed

- Video Cameras
- Additional Computer Video Projection System
- Smart Boards
- Tablet PC’s for administration
- TV/VCR/DVD Equipment

Budget:

The Finance and Technology Committees of the Benjamin Franklin Classical Charter Public School have developed a budget for this technology plan. The following line items for technology are included in its 2007-2008 operational budget:

| | |
|----------|---|
| Software | |
| | Misc Software, i.e. Math Software for grades 3 - 8, Lexia Reading Fluency |
| | Symphony Math |

| | |
|---------------------------|---|
| | Boardmaker Add-Ons |
| | Imaging software (remote install) |
| Hardware & Equipment | |
| | 3 desktop computers & Office (Replacements and/or additions) |
| | New PCs for new staff directors |
| | Spam Filter |
| | Universal Power Supply |
| | 1 DVD players for 5-8th |
| | 1 VHS players for 5-8th |
| | 1 Sony 27" Flatscreen TV (tube set) includes shipping |
| | 1 27" TV cart for 5th - 8th grade, belt & shipping |
| | 6 HP LJ black/white Printers |
| Testing Software | |
| | Testwiz/ERB software upgrade |
| | TerraNova data converted to testwiz readable |
| | Testwiz.net Internet version |
| Supplies | |
| | Ink cartridges and toner |
| | Misc: access point for 5-8; cables, hubs, |
| | Tech Supplies & Licenses, portable screen, flash drives for teachers, (OT: stick kids \$80) |
| Recurring Annual Expenses | |
| | Rediker Administrator's Plus Support Contract |
| | Rediker Grade Quick Support & Maintenance Contract |
| | eSped Service |
| | Sonic Wall Internet Filter Subscription |
| | First Class Support and Maintenance |
| | Comcast Internet Service Provider |
| | MidPhase |

Program Evaluation:

As previously stated, technology is a dynamic environment and a huge part of the future at the Benjamin Franklin Classical Charter Public School. The specifics of today's projected technology goals that are described by this plan will certainly change over the next five years. It is assumed that this plan will be subject to a process of revision and annual updating as necessary.

The Technology Committee of the Board of Trustees will revisit this plan each spring before the budget planning process. The focus will include progress toward meeting the state technology benchmarks, changes in curriculum, changes in technology, changes in policy at the local, state, national level, changes in financial circumstances and any other developments that have occurred. Any revisions to the plan will be brought to the Head of School and the Board of Trustees for review.

Appendix:

Acceptable Use Computer Policies

The school maintains separate acceptable use policy agreements for students, faculty and staff. All students, parents, guardians, faculty and staff are required to sign a copy of this agreement before access to the school's computer network is allowed. Copies of each agreement are included in this document's appendices.

9/05

BFCCPS Computing Systems Student and Parent Contract

Print

Student

Name(s): _____

Overview of Use of the Computer Network and Internet

BFCCPS strongly believes in the educational value of the Internet and recognizes its potential to support and enrich the curriculum and student learning process. Our goal in providing this service is to promote educational excellence by facilitating resource sharing, innovation, and communication. BFCCPS will make every effort to protect users from any misuses or abuses as a result of their experiences with the Computer Network and through it, the Internet.

Along with the advantages associated with access to computers and people all over the world come disadvantages, such as the availability of material that may not be considered of educational value in the context of the school setting. BFCCPS has taken precautions to restrict access to controversial materials. However, on a global network it is impossible to control the quality of all materials published there and an industrious user may indeed discover materials that are controversial. BFCCPS firmly believes that the importance of access to the valuable information available on the Internet far outweighs the concern that users may access material that is not consistent with the educational goals of BFCCPS. Students are expected to take full responsibility for personal actions and will use the BFCCPS computers and Internet for approved educational purposes only.

Definition:

The Computer Network is defined as the BFCCPS computers, printers, servers, routers, hubs, and any other devices that are attached to the local area network. It also includes networks and equipment not owned by BFCCPS but which is connected to the BFCCPS network. This definition includes the Internet. This definition also includes software in the form of operating systems, application software, stored text and data files regardless of source and content.

Acceptable Use:

The use of the school's computers and Internet connections is a privilege, not a right. Inappropriate use will result in a cancellation of that privilege. Inappropriate use of the Internet or school computer facilities can be a violation of local, state and federal laws, and users can be prosecuted for violating those laws.

Unacceptable use includes but is not limited to the following:

1. Vandalism to computer network. This includes any attempt to tamper with, harm or destroy the computer system, the hardware, the software, or the data of another student or any other agencies or networks that are connected through the computer network and through it, the Internet. This includes, but is not limited to, the uploading or otherwise willful destruction or modification of computer files, programs or hardware.
2. Degrading or disrupting the computer network or system performance
3. Unauthorized tampering or modification of user profiles, passwords and computer setup
4. Disruption of the computer network in any way
5. Using the computer network for any illegal activity, including the violation of copyright or other contracts
6. Using the computer network for financial or commercial gain
7. Visiting a "Chat Room"
8. Using telnet

9. Downloading and installing programs from the Internet
10. Adding, moving, renaming, deleting any folders or files on the computer network without permission
11. Executing or installing personal application software
12. Revealing names, home addresses, personal card codes, passwords and personal phone numbers of students or of any other person
13. Taking disks or CD's owned or licensed by the BFCCPS from the school buildings
14. Taking unauthorized copies of disks or CD's owned or licensed by the BFCCPS from the school buildings
15. Wastefully using finite resources.
16. Gaining unauthorized access to resources or entities
17. Violating rules of common sense or etiquette

Parent (or Guardian) Contract

As the parent or guardian of this student I/we have read this contract together with my child and understand that access to and utilization of the School Computer Network and Internet access is designed for educational purposes. I/we understand that it is impossible for the school to restrict access to all controversial materials. I/we pledge to honor all conditions set forth in this contract and understand that failure to do so may result in loss of privileges and disciplinary actions. I/we hereby give my/our permission for my child to use the Computer Network and Internet at BFCCPS.

Signature Section:

Please print the parent's or guardian's full name _____

I/we hereby give my/our permission for my/our child to access the Internet at School.

Parent or Guardian's Signature: _____

Date: _____

Student's Signature _____ Date: _____

Student's Signature _____ Date: _____

Student's Signature _____ Date: _____

Student's Signature _____ Date: _____

Teacher Internet Acceptable Use Policy

Educational Purpose:

Teachers shall use the Internet system for educational purpose. Educational purpose includes BFCCPS activities and projects or limited high-quality self-discovery activities.

Limitations on Non-Educational Activities:

Teachers shall not use the Internet system for the following non-educational activities:

- a. Teachers shall not use the Internet system for commercial purposes, defined as offering or providing products or services.
- b. Teachers shall not use the Internet system for political lobbying except to analyze legislative measures and communicate their opinion to elected officials via the Internet.

Teacher's Responsibilities:

Teachers will educate students about the acceptable use of the Internet system to ensure that the educational activities meet the learning objectives of the BFCCPS program.

Teachers shall:

- a. Provide general supervision of students when they are using the Internet.
- b. Enforce the BFCCPS Internet Acceptable Usage Policy.
- c. Select material that is appropriate in light of the age of the students and that is the relevant to the course objectives outlined in the BFCCPS curriculum.
- d. Preview the materials and sites they require or recommend students access to determine the appropriateness of the material contained on or accessed through the site.
- e. Provide guidelines and lists of resources to assist their students in channeling their research activities effectively and properly when they are accessing the Internet independently.
- f. Assist their students in developing the skills to ascertain the truthfulness of information, distinguish fact from opinion, and engage in discussions about controversial issues while demonstrating tolerance and respect for those who hold divergent views.

Technical Services provided Through the BFCCPS Internet System:

Teachers have access to the following technical services:

1. **Public E-mail.** Our **public** email system, First Class, will allow users to communicate with people throughout the world. Users will also be able to subscribe to mail lists to engage in group discussions related to educational subjects. Teachers will obtain a First Class account and will use it to for educational purposes.
2. **World Wide Web.** The Web provides access to a wide range of information in the form of text, graphics, photographs, video, and sound, from throughout the world. The Web is a valuable research tool for teachers.
3. **Newsgroups.** Newsgroups are discussion groups that are similar to mail lists. Teachers shall have access to selected newsgroups that relate to subjects that are appropriate to the educational purpose of the BFCCPS program.
4. **Internet Relay Chat (IRC).** IRC provides the capability of engaging in "real-time" discussions. Teachers will have access to IRC only for specifically defined educational activities.

Teacher Access to the Internet System:

- a. Teachers shall not access material using the Internet system that has been deemed inappropriate for school use. Inappropriate material is defined as:

- Dangerous information -- information that if acted upon could cause damages or presents a danger of disruption.
 - Criminal information – information that advocates or condones the commission of unlawful acts including instructions on breaking into computer systems; child pornography; drug dealing; gang activities; etc.
 - Inappropriate language -- obscene, profane, lewd, vulgar, rude, disrespectful, threatening, or inflammatory language; harassment; personal attacks, including prejudicial or discriminatory attacks; or false or defamatory material about a person or organization.
 - Information that is inappropriate in an educational setting or violates school rules
- b.** Teachers shall not post defamatory, inaccurate, abusive, obscene, profane, sexually oriented, threatening, offensive, or illegal material to the Internet.
 - c.** Teachers shall not use inappropriate language in email message. Inappropriate language is defined as obscene, profane, lewd, vulgar, rude, disrespectful, threatening, or inflammatory language; harassment; personal attacks, including prejudicial or discriminatory attacks; or false or defamatory material about a person or organization.
 - d.** Teachers shall not send “spam”. Spam is sending an annoying or unnecessary message to a large number of people, such as chain letters.
 - e.** Teachers shall not deliberately attempt to disrupt the computer system performance or destroy data by spreading computer viruses or by any other means. These actions are illegal

Plagiarism and Copyright:

- a.** Teachers shall not reproduce copyrighted material without explicit permission.
- b.** Teachers shall not plagiarize Teachers shall stay within the bounds of the fair use doctrine of copyright law and must cite the source of information taken from the Internet.

The Disciplinary Process:

Internet access is being provided to teachers for an educational purpose and access should not be denied, restricted or suspended without due process:

- a.** Teachers shall receive a notification about an alleged AUP violation and will be allowed to tell his or her side of the story to make sure that no injustice was done.
- b.** BFCCPS may suspend access to the Internet system upon any violation of the AUP.
- c.** Violation of the (board disciplinary code) when using the Internet system will be handled in accord with the code.
- d.** Suspicion of illegal activity when using the Internet system or violation of the law will result in the appropriate legal authorities being contacted to handle the situation.

BFCCPS Liability

BFCCPS shall not assume responsibility if a teacher causes harm to another person or organization as a direct result of using the Internet. BFCCPS shall not be responsible for losses sustained by users resulting from the Internet system. These losses could involve loss of data, an interruption of services, or reliance on the accuracy of information maintained on the system or accessed through the system. Educators and teachers should make a personal back up of material contained on the computer system.

I have read the Teacher Internet Acceptable Use Policy. I will fulfill my teacher responsibilities in accordance with the Teacher Acceptable Use Policy.

Teachers Signature _____ Date _____