

# F. W. Parker Charter Essential School Technology Plan September, 2007-June, 2010

(Updated March, 2008)

## Mission Statement and Implementation Strategies

- A. The Parker School seeks to integrate the use of technology into all aspects of the life of the school in order to enhance teaching and learning and provide students with the skills required in our technology-dependent society. Students use technology across the curriculum for research, communication, problem solving, and to foster critical thinking and analysis skills. Teachers are expected to use technology effectively in their own work and in their work with students and to receive training appropriate to that end. The school seeks to provide ready and equal access to technology for all students, faculty and staff. The Parker School is committed to achieving the vision represented by this plan and modification to this plan based upon ongoing future evaluations. *(See C. Needs Assessment and F. Evaluation.)*
  
- B. The Parker School's Technology Team consists of: the Technology Coordinator, the Librarian, the Director of Student Services, the Nurse, the Faculty Technology Liaison, and a representative from each of the teaching domains (Arts and Humanities, Math/Science/Technology, Spanish, and Wellness. It is the responsibility of the Technology Team to ensure the school's compliance with the Children's Internet Protection Act requirements, to evaluate the effectiveness of the school's technology program, and to make recommendations for the continued development of technology resources.
  
- C. Needs Assessment
  - 1. The school monitors the technology marketplace for improvements in the features of products used at the school, in order to improve teaching and learning.
  - 2. The school monitors the technology marketplace for new product introductions with features potentially useful to meeting the academic goals of the school.
  - 3. Needs assessments are integrated with evaluation of effectiveness of technology already used at the school. *(See F.3 Evaluation – One Example)*
  
- D. The school has a CIPA - compliant Acceptable Use Policy (AUP) for Internet and Network use. The Policy was adopted by the Board of Trustees, the faculty, and the school's parent community. The AUP is evaluated and updated as needed. *(See Appendix B Parker Computer Use Policy)*
  
- E. Current Resources and Technology Budget
  - 1. The school has budgets for its technology plan FY 2007 – FY 2010 with line items for technology in its operational budget. *(See Appendix A Budgets (Operating and Capital, Updated March, 2008)*

*Student computers:* The school has a plan to increase student computer inventory in FY 2007 – FY 2010. In FY 2008, 20 high-capacity computers will be added for its expanded facility. New computers will be added in FY 2010. The decision whether to discard the oldest (procured 2004) of the school's student computers will be evaluated in Feb. 2009. In FY 2007 the oldest computers - procured in FY 2004 - were given an extension of useful life by the installation of additional electronic memory.

*Administrative computers:* The school's inventory of administrative computers - procured in FY 2004 - has had useful life extended by the installation of additional electronic memory and larger, flat panel monitors. With few exceptions these computers continue to be adequate for administrative tasks. New administrative computers will be procured for computational and graphics intensive tasks where warranted.

*Infrastructure Use (servers, firewalls, etc.):* The school's inventory of servers procured FY 2006 is expected to remain – with upgrades - adequate through FY 2010. An evaluation is planned to consider upgrading the server operating systems to Windows Server 2008 in order to better accommodate Windows Vista workstations. Wireless – 802.11 b/g - was installed in the school in the spring of 2007. The network switching infrastructure will be upgraded and wireless expanded FY 2007-FY 2009. A new network core switch will be procured FY 2007. Network Access Control will be installed to gate increasingly diverse electronic devices now entering the market place.

2. The budget includes staffing, professional development, and support. Internet services are in the technology budget. Telephone services are not included in the technology budget.
3. The school makes large hardware and software purchases by means of contracts negotiated by the State of Massachusetts. The school has a courtesy Comcast video connection. The school's health office has received grant support for its technology needs (computer, software, and training). The school continues to rely on community resources for technology support, donations of equipment, and services. These resources have allowed us to develop an expanded technology program of far higher quality than would be possible otherwise.
4. The school has applied for E-rate reimbursement. The technology plan is not dependent on discounts and reimbursements provided by E-rate.

#### F. Evaluation

- 1 The school used informal surveys to evaluate the effectiveness of its technology resources through 2007 and will continue to do so 2007-2010.
- 2 The Technology Team will conduct periodic evaluations 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. (*See C. Needs Assessment*)
- 3 *One specific example:* In February 2008 the school determined that outfitting classrooms in the new modular wing with (previously planned) analog TVs was no longer appropriate, given the Federally mandated changeover in 2009 to HDTV broadcasting, convergence of video and computing capability in mid-level computers,

and more powerful and capable LCD projectors at lower price points. Instead the school will procure mobile desk carts, media-capable computers, and LCD projectors for dual purpose use.

## Technology Integration and Literacy

In the previous Technology Plan FY 2004 – FY 2007 the Parker School adopted benchmarks for technology use within the school which were achieved by June, 2007. The benchmarks for computer literacy will apply unchanged for the next 3 years. The benchmarks for hardware and software will be revised to reflect advancing state-of-the-art standards. The Technology Team continually evaluates the use of technology in and out of the classroom, and will identify intermediate benchmarks in September, 2008.

### A. Technology Integration

#### 1. Outside the Classroom

At least 90% of Parker teachers will use technology every day, including some of the following areas: lesson planning, administrative tasks, communications, and collaboration. Teachers share information about technology uses with their colleagues at regularly scheduled times. It is mandated that teachers shall read and respond to email daily.

#### 2. Within the Classroom

At least 90% of Parker's teachers will use technology appropriately with students each week, including some of the following areas: research, multimedia, simulations, data interpretation, communications, and collaboration.

### B. Technology Literacy

1 At least 90% of students in grade 8 will show proficiency in all the Massachusetts Recommended PreK-12 Instructional Technology Standards for Grade 8.

2 At least 100% of teachers are working to meet the proficiency level in technology, and by the school year 2010-2011, 90% of teachers will have reached the proficiency level as defined by the Massachusetts Technology Self-Assessment Tool (TSAT).

### C. Staffing

1 The school has a full-time equivalent (1 FTE) Technology Coordinator. The Technology Coordinator and the Technology Liaison serve as technology instructors for the school's staff. Together they identify instructional technology needs and resources for professional development.

2 The school's librarian (.5 FTE) manages the school's library and information resources, and provides direct instruction to students on the use of technology information. Instruction on the use of computers is provided to students by 1 FTE teacher in Directed Studies.

3 The school has three administrative assistants who share the management of the school's data and assessment, FTE .5.

## Technology Professional Development

The Parker School has a three stage process conducted annually for teacher professional development on the use of technology in order to maintain standards. The first stage involves an assessment of the current technological comfort level and ability of teachers and staff using a modified DOE Technology Self Assessment Tool and follow up internal surveys of teachers. The second stage involves targeted trainings to bring all teachers and staff up to a base level of technological comfort and skill. This allows the third stage to begin. The school provides high quality training to teachers on effective use of technology for teaching and learning. The school expects to maintain the following standards:

- A. At least 90% of district staff has participated in 25 hours of high-quality technology professional development covering technology skills and the integration of technology into instruction.
- B. Technology professional development will be sustained and ongoing and include coaching, modeling best practices, district-based mentoring, and study groups. The professional development includes concepts of universal design and scientifically based and 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 Tool. The Technology Team will review the levels of competencies in the Massachusetts Technology Self-Assessment Tool on an annual basis.
- D. Teachers and administrators are encouraged to consider their own needs for technology professional development, using the technology self assessment tools provided by the Massachusetts Department of Education and similar tools.

## Accessibility of Technology

### A. Students per Instructional Computer

- 1 The school maintains an average ratio of three students per high-capacity, Internet-connected computer. Based on recent trends the school anticipates that an increase in the use of personal laptops at the school will increase overall usage of computers as Parker. *(See A.2 next)*
- 2 The school provides students access to portable and/or handheld electronic devices appropriate to their grade level. The school provides AlphaSmarts to students for classroom and home use.

The school permits students to use their personal laptops in school for academic purposes. This increases the inventory of Instructional Computers available to students. An increase in the use of personal laptops was noted subsequent to the introduction of wireless in the spring of 2007.

- 3 The school has deployed a single universal desktop design for school workstations regardless of make, model, or year of procurement, in order to maximize access to the general education curriculum for all students. Attention is given to the special

needs of students with disabilities, beginning with a needs evaluation at the beginning of students with disabilities first month at Parker.

- 4 The school continually evaluates the advancing technology state-of-the-art for means to increase usability, equivalent access, and interoperability.
- 5 The school plans to increase its inventory of digital projectors in order to reach the goal of one projector per classroom. Digital projectors have proven essential to curriculum delivery. The need for electronic whiteboards currently is considered not as immediate as the need for digital projectors. This may change as the price and capabilities of electronic whiteboards changes.
- 6 Parker's experience is that the lifetime of older computers may be extended with inexpensive upgrades. Accordingly the school has established a computer replacement cycle of about six years.

#### B. Internet Access

- 1 The school provides wired and wireless connectivity to the Internet in all classrooms in the school.
- 2 The school provides bandwidth of at least 10/100 Mb/s to each classroom. The school plans to increase wired bandwidth in classrooms to 10/100/1000 Mb/s by FY 2010. All computers procured since 2005 are capable of handling 1 Gb/s wired network connections. (See *Appendix A Budgets*)

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

- 1 The school has a 1 GB/s Cat 5e switched network backbone.
- 2 The school provides services for secure file sharing, backups, scheduling, email, and web publishing, internally and through contracted services.

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

- 1 The school works with families to ensure that students have access to the Internet outside of the school day. The school provides about 10 hours per week before and after school access for students to computers and the library.
- 2 The school maintains an up-to-date web site that includes information on resources for parents and members of the community. (See <http://www.parker.org>)

#### E. Staffing for Technical Support

- 1 The school's Technology Coordinator serves as the school's full-time network administrator.
- 2 The school 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.
- 3 The Technology Coordinator teaches and supervises students who provide

technology support during the school day. The student group is known as the *tekru*.

### **E-Learning and Communications**

- A. The school actively seeks and encourages the development and use of innovative strategies for delivering coursework through the use of technology. The school makes known to its faculty the innovative strategies developed by their peers.
- B. Faculty regularly use web-based and interactive video learning from sources on the Internet.
- C. Classroom applications of e-learning include cultural projects and virtual field trips.
- D. The school maintains an up-to-date web site that includes information on resources for parents and members of the community. (See <http://www.parker.org>)
- E. The school complies with federal and state law for archiving electronic communications produced by its staff and students. The school informs staff and students that any information distributed over the district or school network may be a public record. (See *Appendix B Parker Computer Use Policy*)

### **Appendices**

**Appendix A Budgets (Operating and Capital, Updated March, 2008)**

**Appendix B Parker Computer Use Policy**

## Appendix A Budgets (Operating and Capital, Updated March, 2008)

**TECHNOLOGY OPERATING BUDGET (PROJECTED)**  
**FISCAL YEARS 2008, 2009, 2010**  
**JULY 1, 2007 TO JUNE 30, 2010**

<u>Item:</u>	Prepared by: Harry Jacobson	Date: March 10, 2008	FY2008	FY2009	FY2010
Summer tekru help					
	Total, for Summer tekru help		\$1,712	\$1,798	\$1,887
Small Equipment					
	Total, for Small Equipment		\$11,600	\$12,180	\$12,789
Equipment maintenance					
	Total, for Equipment Maintenance:		\$6,000	\$7,425	\$11,340
Facilities maintenance					
	Total, for Facilites Maintenance		\$500	\$788	\$827
Media supplies (assumes printer cartridges and paper in other budgets)					
	Total, for Media Supplies:		\$1,150	\$1,313	\$1,378
Software Maintenance agreements					
	Total, for Software Maintenance Agreements		\$1,033	\$1,628	\$1,709
Internet subscription					
	Total, for Data Link subscriptions:		\$8,040	\$8,757	\$9,195
			=====	=====	=====
	TOTAL:		\$30,035	\$33,887	\$39,125

**TECHNOLOGY CAPITAL BUDGET (PROJECTED)**  
**FISCAL YEARS 2008, 2009, 2010**  
**JULY 1, 2007 TO JUNE 30, 2010**

<u>Item:</u>	Prepared by: Harry Jacobson	Date: March 10, 2008	FY2008	FY2009	FY2010
Academic Computers 20 in FY2008, 25 in FY2010			\$15,660	\$0	\$21,581
Administrative Computers 4 per year			\$3,132	\$3,289	\$3,453
Infrastructure Computers (servers, firewalls, etc.)			\$0	\$0	\$2,500
Network infrastructure					
	Core switch FY2008, wireless expansion		\$9,137		
	Edge switches FY2009, FY2010			\$9,000	\$34,140
	Network Access Control approved FY2007			\$17,500	
Audio Visual (video and computer projectors)					
	TV/Computer Projectors for modular FY2008		\$11,908		
	TV/Computer Projectors for 11 classrooms FY2009			\$10,580	
	TV/Computer Projectors for 11 classrooms FY2010				\$11,109
Phone infrastructure			\$23,507	\$0	\$0
			=====	=====	=====
	TOTAL:		\$47,684	\$40,368	\$51,202

## Appendix B Parker Computer Use Policy

# Parker Computer Use Policy

*The Parker School offers Internet access to its students, faculty, and staff. Access to the school network and Internet service is a privilege, not a right. The intent of this policy is to ensure that users utilize this access in a manner consistent with the purpose of providing this Internet service.*

As a member of the Parker School community, I will

- Respect the privacy, safety and confidentiality of myself and others by neither disclosing nor disseminating personal information on the Internet. This shall include email, chat rooms, and all forms of direct Internet communications.
- Respect computer and network equipment. I will not alter or access computer or network configurations without the knowledge and consent of the Network Administrator(s).
- Not download or install software, music or other programs from the Internet onto a school computer.
- Understand that software piracy is a federal offense, and that Parker's network may not be used for copying, downloading, distributing, or storing commercial software not licensed by the Parker School.
- Abide by copyright laws and not plagiarize the works of others.
- Understand that I am a representative of Parker on the Internet and so will display the decorum, control, and respect necessary to maintain credibility and respectability for both the school and myself.
- Understand that I am responsible for all activity on my account, even if I am not the one behind the keyboard; and for this reason I will keep my account secure and not share my password with anyone else. I will not knowingly use some else's computer account.
- Understand that Parker is an educational community, and that as such our educational function is our paramount mission. Therefore I will defer my recreational activities to times outside academic hours and to any fellow students or staff needing access for academic work or projects.
- Understand that my actions on the Internet can have far-reaching consequences. I will therefore make deliberate decisions not to engage in behavior that might adversely affect the safety, security, or well-being of myself or be perceived by harassment by others.
- Abstain from accessing inappropriate web sites or computer games that include pornography, obscene images or language or are considered harmful to minors as defined by the Children's Internet Protection Act (aka CIPA).

- Ask questions regarding computer procedures when I do not know how to do something. Further, if I am unsure of what the consequences of a particular process might be, I will ask before acting.

It should be further understood that users of Parker computing and networking resources cannot assume absolute privacy. Users should expect that network connections will be monitored and computer files may be inspected. *Any information distributed over the school network may be a public record.*

Comments:

CIPA requires that all computers in a school or library must install and use Internet filters to protect users against visual depictions that are harmful, as defined by the Act. Minors, defined as children under the age of 17, cannot for any reason, request that the filters be turned off.

The Parker School has installed filters to comply with this mandate. In addition, faculty members do monitor student use of the computers, and proactively guide students to make appropriate choices. The School, however, does not warrant the effectiveness of the Internet filter and cannot be held liable for damages.

*Violations of this policy include but are not limited to:*

- *Deliberate access to inappropriate material on the Internet and World Wide Web*
- *Unauthorized online access including "hacking" and other unlawful activities*
- *Unauthorized disclosure, use, and dissemination of personal information*
- *Persistent non-academic use of e-mail, chat rooms, and instant messengers*

*The Parker School reserves the right to deny, revoke or suspend specific user privileges and/or to take other disciplinary action, including suspension or expulsion from school, for violations of this policy. Additionally, all handbook regulations apply to the use of the school's Internet service. In the event that there is a claim that a student has violated any of the guidelines in this policy he or she will be provided with written notice of the suspected violation and an opportunity to be heard. The Parker School will advise appropriate law enforcement agencies of illegal activities conducted through the school's Internet service. The Parker School also will cooperate fully with local, state and/or federal officials in any investigation related to any illegal activities conducted through the school's Internet service.*