

Technology Plan
July 1, 2007-June 30, 2010

Greenfield Public Schools

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Background Information

Community:

Greenfield (pop. 18000+ in 2000) is located in the Connecticut River Valley at the eastern foot of the Mohawk Trail in Western Massachusetts, 85 miles west of Boston and 45 miles north of Springfield. Previously governed by a town manager, a five-member board of selectmen, and a 27-member council, it became the Commonwealth's newest City on July 1, 2003, when a mayoral form of government was adopted and Ms. Christine Forgey was elected the city's first mayor. She assumed office on July 1, 2003 along with a new Town Council consisting of nine councilors, one from each of the city's nine precincts and four at-large members.

Greenfield is the county seat of Franklin County and home of Greenfield Community College. Situated in the most rural county in Massachusetts, Greenfield does not fit the description of "rural" in that population numbers roughly 850 people square mile. According to the 2000 US Census report, the composition of the population is characterized as: 92% Caucasian, 2% African American, 1% American Indian, 2% Asian/Pacific Islander, 4% Hispanic, and 3% Other.

Greenfield Public Schools:

There are eight schools in the Greenfield School District:

- Four elementary schools (Federal Street, Green River, Four Corners, and Newton) serving Kindergarten through grade 5,
- One pre-school (Academy of Early Learning at North Parish), combining public school functions with services of the federally funded Head Start Program for children ages 3 to 5 from eligible families,
- One Middle School (GMS) for grades 6 through 8 (about 450 students),
- One four-year comprehensive High School (GHS) for grades 9-12 (about 500 students), accredited by the New England Association of Schools and Colleges. In 2005-06, approximately 83% of the GHS senior class moved on to facilities of higher education: 46% to four-year colleges or universities, 37% to two-year colleges, and 2% to technical schools. Of the remainder, 11% entered the workforce and 3% enlisted in the military.
- Poet Seat is a DOE-approved (Department of Education) substantially separate day school for middle and high school students with emotional disabilities. Poet Seat offers a free and appropriate alternative education program to students within the Greenfield School District. Additionally, students tuition in from other school districts.

Overview of the Planning Process

The Greenfield Public Schools (GPS) *District Technology Plan (2007-2010)* that follows below is specific to GPS and represents an update of the three-year District Technology Plan in effect during July 1, 2004 through June 30, 2007. It was modified with input from our community of stakeholders, consisting of:

- Local school Principals and Technology Committees;
- The District Technology Sub-Committee, comprised of the District Technology Coordinator and local technology teachers;

- "Tech Corp" teachers from each school who are responsible for maintaining and updating local school Web sites;
- School librarians/library media specialists;
- The District Network Administrator and technician in consultation with the District Technology Coordinator
- District Administrators including the Superintendent, Director of Curriculum and Instruction, Director of Student Services, and Director of Business Services;
- School Committee Members;
- Representatives from Mayor's Office; and
- Parents/Guardians

In addition, we consulted both the Educational Technology Advisory Council *Massachusetts STAR* (School Technology and Readiness) *Chart* (<http://www.doe.mass.edu/boe/sac/edtech/star.xls>) and the *Draft Revised Massachusetts Recommended K-12 Instructional Technology Standards* (http://www.doe.mass.edu/edtech/standards/itstand_draft.doc) in drawing up plan specifics.

District Mission Statement

The mission of the Greenfield Public Schools, in active partnership with students, their families, individual citizens, and established groups within the community, is to educate students to meet the challenges and responsibilities of a rapidly changing and diverse world.

We recognize that every child is deserving of equal opportunities to maximize his or her potential, and we encourage all students in their pursuit of excellence.

District Vision Statement

The vision for the Greenfield Public Schools is to maintain early education programs that provide a basis for student success as students advance through each educational level. We must provide intensive educational programs so that teachers can maintain high expectations for all students.

The curriculum is a continuum of learning that emphasizes literacy and numeracy skills. Skills learned within the content areas will be applied by students in authentic situations. Students will be able to think critically, solve problems and communicate effectively in their environment. We expect students to be socially responsible and develop respect for themselves, peers, and citizens in their world.

Students will be able to use a variety of resources, including the latest in technology to deepen their acquisition of life skills to become life long learners.

District Improvement Plan: Goal 5 (Technology)

The Superintendent of the Greenfield Public Schools and District Administrative Team established five major improvement goals for the District. These goals set a common purpose, guide educational practice, prioritize improvement targets, and document progress.

To increase student learning, the District Improvement Plan (DIP) seeks to:

1. Focus and align school improvement and individual departmental goals to raise achievement for all students.
2. Design and adopt a curriculum assessment and accountability system that is consistent across the District and leads to improved student achievement.
3. Ensure that instruction responds to the learning needs of each student and leads to the achievement of essential outcomes.
4. Increase parental and community involvement in order to maintain safe and orderly schools.
5. Promote initiatives that provide school staff, teachers, principals, and administrators with the capacity to integrate technology effectively into curricula and instruction that are aligned with challenging academic content and Massachusetts curriculum standards through such means as high quality professional development training.

DIP Goal 5, which focuses exclusively on technology, flows from the District Vision statement. It makes formal and concrete what is real and already happening in the Greenfield Public Schools. Technology integration is so much a part of what students, teachers, staff, principals and administrators do every day to support District initiatives and realize instructional goals and objectives. This goal (which is almost identical in wording to **Goal 4, Section 2402 Purposes and Goals**, U.S. Department of Education *Enhancing Education Through Technology Act of 2001* (<http://www.ed.gov/policy/elsec/leg/esea02/pg34.html>), not only documents what we do, it also provides guidelines for increased technology stability and growth.

Technology Vision and Mission Statements

GPS remains committed to using technology to support academic achievement as it strives to realize existing District instructional goals and to strengthen academic programs in place at each school. Technology helps us accomplish these goals by providing teachers with a rich assortment of tools to customize instruction, address individual learning styles and adapt instructional materials to a wide range of ability levels. When effectively integrated into the curriculum, it provides students with increased opportunities for:

- Real-world math and science applications
- Writing
- Publishing
- Research
- Engagement
- Motivation
- Modeling
- Learning outside the school day
- Contact with experts, professionals, and mentors
- Immediate targeted feedback on their work

District technology helps inform instructional practice. Teachers use computers, Smart Board interactive whiteboards, LCD projectors, digital still cameras, digital video cameras, scanners, calculators, science probes, text-to-speech readers, Internet Web sites, flash drives, and other technology tools to:

- Engage students through rich and varied multimedia content (such as audio, video, images, animation)
- Customize instruction
- Address individual learning styles
- Reinforce content
- Remediate struggling learners
- Challenge advanced learners who want to move ahead
- Gather and disaggregate student performance data to monitor efforts (both individual and class) and inform instruction
- Model and illustrate complex processes
- Communicate with students and parents

GPS Technology Vision Statement

The Greenfield Public School District prepares its students to be responsible, creative, contributing members of a 21st century global community where information technology is a universal tool in everyday life.

GPS Technology Mission Statement

The Greenfield Public School District's technology mission is to provide appropriate technology for accurate data collection and opportunities in all academic disciplines for staff and students to learn and apply technology skills. By using technology in teaching and learning, teachers, staff and students will demonstrate:

- Proficiency in the use of computers and applications as well as the concepts underlying hardware, software and connectivity;
- Ability to use technology for research, problem-solving, and communication;
- Responsible use of technology; and
- Understanding of ethics and safety in using electronic media according to the benchmarks developed by the state of Massachusetts.

Why do we need a Tech plan?

In keeping with the *Technology Planning* guidelines stipulated by the Schools and Libraries Program of the Universal Service Fund, commonly known as "E-RATE" (<http://www.usac.org/sl/applicants/step02/technology-planning>), i.e., the discount program administered by the Universal Service Administrative Company (USAC) under the direction of the Federal Communications Commission (FCC), Greenfield Public Schools must base its requests for services purchased with Schools and Libraries support discounts on an "approved technology plan."

Technology Plan Core Elements

An approved Technology Plan must contain the following five core elements:

I. Technology Goals:

"The plan must establish clear goals and a realistic strategy for using telecommunications and information technology to improve education..."

(USAC, <http://www.usac.org/sl/applicants/step02/technology-planning>)

I.A. Technology Goals: Context for Action

The *GPS District Technology Plan (2007-2010)* revises and updates the Technology Plan in operation from July 1, 2004 through June 30, 2007. That earlier plan outlined a commitment to utilizing technology for teaching, learning, data gathering and assessment in support of the District Vision and Mission. It forms the foundation upon which this current three-year plan is based.

Briefly summarized, the goals for 2004-2007 state that Greenfield School District will strive to:

- Integrate current technology into our classrooms in regular instruction.
- Develop an Instructional Technology Curriculum that is fully integrated with the Massachusetts Instructional Technology Standards and the Curriculum Frameworks.
- Provide instruction in the acceptable and ethical uses of information technology.
- Strictly enforce the Acceptable Use Policy.
- Provide access and training to students who can benefit from using assistive technology.
- Provide access to information, technology tools, and resources both during and outside of school hours through District and School Web sites and the PowerSchool Student Information Management System.
- Provide fast, reliable Internet access, a stable and secure network, a functioning television cable delivery system, and adequate hardware, software and electrical service.
- Support annually the continued maintenance and upgrading of technology software and hardware.
- Provide easy and equitable access to information technology and technological support.
- Closely monitor developing technologies to take advantage of new resources in a timely manner for the benefit of teachers, staff, students and administrators.
- Provide teachers and staff with creative professional development opportunities, including online learning, tutoring and mentoring, and options to attend professional conferences to advance to advance their current level of expertise and equip them with technology skills to meet their next challenges.
- Make technology integration support available at all levels.
- Maintain a District technology team consisting of stakeholders (teachers, curriculum coordinator, instructional technology specialist, network specialist, administrators, library media specialist, school committee members, parents and community representatives) who will meet regularly and evaluate, revise and implement the District Technology Plan.

In view of the rapid development cycle of new technologies and services and the resource-intensive demands imposed on our equipment by the requirements of multimedia-based

instructional content and Web-based streaming media, and in keeping with the guidelines set for in Goal 5 (Technology) of the GPS District Improvement Plan, the GPS technology plan for 2007-2010 adds to technology goals for 2004-2007 with the creation of *five broad technology objectives*. Each objective is measurable, data driven, and attainable. Each has associated Key Actions (achievement strategies), Performance Indicators (benchmarks to measure specific aspects of performance), a list of People Responsible for implementation, and Timelines for expected completion.

I.B. Technology Goals: Action Plan

GOAL FIVE: Promote initiatives that provide school staff, teachers, principals, and administrators with the capacity to integrate technology effectively into curricula and instruction that are aligned with challenging academic content and Massachusetts curriculum standards through such means as high quality professional development training.

Objective 1: Work toward meeting the Revised Massachusetts Recommended K-12 State Instructional Technology Benchmark Standards

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Review and revise elementary, middle, and high school technology program to improve alignment with technology curriculum frameworks	Elementary, middle, and high school benchmarks established and recorded and distributed to Technology Instructional Technology teachers at the elementary, middle, and high schools	<ul style="list-style-type: none"> District Technology Coordinator; Instructional Technology teachers 	07/01/07-06/30/10
Provide keyboarding instruction to students in grades 3-8	Student type 25 words per minute by grade 6	<ul style="list-style-type: none"> Instructional Technology teachers 	09/07-06/30/10
Establish District-wide benchmarks for technology integration	Benchmarks established	<ul style="list-style-type: none"> District Technology Coordinator; Instructional Technology teachers 	07/01/07-06/30/10
Identify, develop and use instruments to assess student technology performance according to established benchmarks	Instruments established	<ul style="list-style-type: none"> District Technology Coordinator; Instructional Technology teachers 	07/01/07-06/30/10
Integrate technology into classroom activities in support of differentiated instruction to meet the needs of diverse learners	Teachers use technology to differentiate instruction and support classroom teaching	<ul style="list-style-type: none"> Classroom teachers 	07/01/07-06/30/10

Objective 2: Offer professional development training for faculty and staff in technology use and applications to support teaching, learning, assessment, technology integration, and parent communication

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Implement technology professional development training	Train elementary, middle, and high school faculty and staff in key District applications including Moodle (an online course management system)	<ul style="list-style-type: none"> • District Technology Coordinator • District Technology Instructional Technology teachers; • Consultants as needed 	07/01/07-06/30/10
Provide access to updated research in teaching and learning through electronic and digital means	Provide Internet and video-conferencing course access for out-of-District professional development opportunities for teachers, staff and administrators	<ul style="list-style-type: none"> • District Technology Coordinator • District Technology Instructional Technology teachers; • Consultants as needed 	07/01/07-06/30/10
Mentor District technology integration specialists	Elementary, middle, and high school faculty and staff use technology, software applications and email in support of student learning	<ul style="list-style-type: none"> • District Technology Coordinator • District Technology Instructional Technology teachers; • Consultants as needed 	07/01/07-06/30/10
Provide online learning opportunities	Administrators, teachers and staff use <i>GPSK12Online</i> for online course delivery and to supplement classroom instruction	<ul style="list-style-type: none"> • District Technology Coordinator 	01/08-06/30/10
Develop a District Staff AUP (Acceptable Use Policy)	Staff AUP developed	<ul style="list-style-type: none"> • District Technology Coordinator 	01/08-06/30/10

Objective 3: Provide and maintain hardware and software to support academic programs and initiatives

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Identify and use hardware and software in support of teaching and learning	<ul style="list-style-type: none"> • Teachers complete Technology Use Survey identifying how they use technology for lesson planning, administrative tasks communications, collaboration, student instruction, and data-driven decision-making • District Technology Coordinator and Instructional Technology teachers share information about with their respective building principals and teachers 	<ul style="list-style-type: none"> • District Technology Coordinator; • Instructional Technology teachers 	07/01//07-06/30/10
Review and revise hardware and software installations in District in consultation with teachers, staff and administrators	Regular use of hardware and software in labs, classrooms, and administrative offices	<ul style="list-style-type: none"> • District Technology Coordinator • Network Administrator; and • Network Technician 	07/01//07-06/30/10
Keep pace with emerging technologies	<ul style="list-style-type: none"> • District Technology Coordinator and Instructional Technology teachers attend conferences, workshops and presentations addressing the benefits of technology integration for teaching and learning • District Technology Coordinator and Instructional Technology teachers share information about emerging technologies with building principals and fellow teachers 	<ul style="list-style-type: none"> • District Technology Coordinator; • Instructional Technology teachers 	07/01//07-06/30/10

Objective 4: Use the Internet to communicate with Administrators, Teachers, Staff, Students, Parents and Community Members

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
District Web site	Maintain and regularly update District Web site with information for Administrators, Teachers, Staff, Students, Parents and Community Members	<ul style="list-style-type: none"> District Technology Coordinator 	07/ 1/07-06/30/10
School Web sites	Maintain and regularly update School Web site with information for Administrators, Teachers, Staff, Students, Parents and Community Members	<ul style="list-style-type: none"> Tech Corp representative at each school 	07/01/07-06/30/10
Activate and use PowerSchool for Parents	All high school and middle school parents and guardians have access to their child(ren)'s grades, attendance, Daily Bulletin, class assignments	<ul style="list-style-type: none"> District and State SIS (Student Information Services) Coordinators 	At high school already; 09/07 for Middle School
Use PowerSchool to share student information with administrators, teachers and support staff	<ul style="list-style-type: none"> PowerSchool "Admin access" given to support staff (including psychologists, mediation specialists, behaviorists, curriculum coordinators, nurses, SPED personnel); Parents can logon a teacher's name within the PowerSchool "Grades and Attendance" screen be forwarded to a page to send email to classroom teacher (if they have a local email client installed on their computer) 	<ul style="list-style-type: none"> District and State SIS (Student Information Services) Coordinators 	At high school already; 09/07 for Middle School
Participation in a Web-based state-wide data warehouse	Upload local assessment and other data into the state data warehouse	<ul style="list-style-type: none"> District Technology Coordinator SIS Coordinator/ State 	07/01/07-06/30/10

Objective 5: Maintain network stability and data integrity throughout the District

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Provide redundant backup services	Integrate additional external storage media devices as needed to hold user data	<ul style="list-style-type: none"> Network Administrator and Technician 	07/01/07-06/30/10
Network intrusion prevention	Install firmware, security, and software version updates as they become available	<ul style="list-style-type: none"> Network Administrator and Technician 	07/01/07-06/30/10
Safeguard user data	<ul style="list-style-type: none"> Maintain building-level firewalls to keep out network intruders; Install and regularly update antivirus and anti-spyware software 	<ul style="list-style-type: none"> Network Administrator and Technician 	07/01/07-06/30/10
Acquire, maintain, and improve effective technology infrastructure to expand technology access for teachers, students, staff and administrators	Add additional data jacks and switches to accommodate increased need in classrooms and offices	<ul style="list-style-type: none"> Network Administrator and Technician 	07/01/07-06/30/10
Improve access to SIS database for teachers, staff and administrators	Install and maintain PowerSchool SIS updates and patches for improved performance and added security	<ul style="list-style-type: none"> Network Administrator and Technician 	Installed 07/06; upgrades as released 2007-2010
Apply a TCO (Total Cost of Ownership) model to District technology to identify multimedia equipment needs, evaluate usage costs and options, and purchase products that reflect District Vision and Mission	Annual technology budget will include cost of hardware and software plus usage, installation and setup, maintenance, support, licensing, personnel and professional development training	<ul style="list-style-type: none"> Director of Business Services; District Technology Coordinator 	11/2007-6/30/10

II. Strategies:

"The plan must have a professional development strategy to ensure that staff know how to use these new technologies to improve education..."

(USAC, <http://www.usac.org/sl/applicants/step02/technology-planning>)

II.A. Strategies: Context for Action

At GPS, technology is a key resource for teachers and a critical tool for students. This resource:

- Figures prominently at all levels of ***curriculum and instruction***, helping with:
 - Content delivery, e.g., Virtual High School at the high school
 - Math instruction, e.g., Scott Foresman SuccessNet, Math Facts in a Flash math drills, Web-based MCAS reviews, graphing calculators
 - Process writing
 - Internet-based research
 - Authentic science experiments
 - Remediation for students not meeting grade level expectations
 - ELL (English Language Learner) second language acquisition instruction
 - Student Services support, both in terms of drafting student IEPs (Individual Education Plans) and differentiating instruction for students needing special accommodations.
- Facilitates prescriptive instruction by helping us manage, organize and analyze student performance data in keeping with the District mandate of data-driven instruction at every level. Technology tools monitor the implementation of curriculum, identify student strengths and weaknesses, and help teachers pinpoint areas that need additional instruction or review. For example, we use:
 - ***TestWiz*** to analyze aggregate and sub-group MCAS scores
 - ***Microsoft Excel*** to compare student performance on multiple assessments
 - ***RISO*** to analyze student performance on math tests.
- Serves as a communication tool. The District Web site (<http://www.gpsk12.org>) helps us get the word out about local events and initiatives. We regularly post reminders, updates, and general information regarding school menus, MCAS schedules, professional development trainings, District policies, School Committee happenings, Staff contact information and newspaper articles celebrating student and District achievements. Our Web portal to the PowerSchool Student Information database provides parents and teachers with easy access to student information.
- Assists with the business of District administration. For example, we use District technology each day to keep personnel records, financial records, billing information, SPED records, our Student Information System, grades, school library holdings, food services information, Teacher Professional Development Points, Paraprofessional Training Points, and so much more.

II.B. Strategies: Action Plan

To ensure the successful integration of technology tools for teaching, learning, assessment, and data management, each school has a local technology team consisting of representatives from a variety of stakeholder groups, including teachers, administrators, parents/guardians, members of the wider community, PTO personnel, the library media teacher and members of the business

community. In addition, the Technology Coordinator and school technology teachers meet 3-4 times each year to discuss local and District technology needs. The Technology Coordinator also meets weekly with the District Network Administrator, Network Technician and Student Information Services Coordinator to discuss technology issues and needs. Finally, the District Technology Coordinator has both the ear and support of the District Executive Leadership team at weekly E-Team (Executive-Team) meetings.

To underscore technology initiatives in District, we also have identified a ***Professional Development Action Plan*** in Goal 5 of our District Improvement Plan, complete with Key Actions, Performance Indicators, Person(s) Responsible and Timeline for completion. This Professional Development Plan aligns with our objective to: ***Offer professional development training for faculty and staff in technology use, and applications to support teaching, learning, assessment, technology integration, and parent communication.*** Please refer to: **Section I.B. Goals: Action Plan (Technology Objective 2)** above for more information.

We anticipate that by the end of the school year 2009-2010, at least 85% of all District staff will have participated in several forms of District-sponsored high-quality technology professional development training covering technology skills and the integration of technology in classroom instruction.

The District Technology Coordinator offers small group and one-one-one training throughout the District in various applications including TestWiz, Microsoft Word, Microsoft Excel, Inspiration, Smart Board tools, RISO assessment, Web Page Building, MathFacts in a Flash, Web-based email, the new online math curriculum for Elementary and Middle School teachers, and resource rich educational Web sites, such as Marco Polo Internet Content for the Classroom. In addition, the District SIS Coordinator offers training in PowerSchool, PowerGrade (District Grading System) and PowerSchool Teacher (tools for teachers), and PowerSchool Parent (Web access for parents who want up-to-date information concerning student grades, assignments, Daily Bulletins, daily attendance and more). These hands-on trainings are sustained, ongoing and delivered through workshops, informational presentations, coaching sessions, best practices modeling, one-on-one mentoring, and study groups. The District-wide technology professional development approach incorporates concepts of universal design and methods reinforced by findings obtained from scientifically-based research.

The professional development training that we implement in District (see ***Section II. Strategies*** above) is determined, in part, by perceived needs at each school and also by District needs identified by the District Director of Curriculum and Instruction. In addition the training we implement comes about from teacher responses to the Massachusetts ***Technology Self-Assessment Tool*** (http://www.doe.mass.edu/edtech/standards/sa_tool.html) Survey. To date, we have not surveyed teachers on a consistent basis. Plans are in the works to administer the TSAT survey to all teachers and staff at least once a year starting in Fall 2007.

Beginning in spring 2007 and continuing annually thereafter in both the fall and the late spring, District teachers and administrators will also be asked to complete the ***NEW Technology Use Survey***, available online through the Massachusetts DOE ***MassONE*** Web site. This brief survey is designed to assist schools and Districts in the collection of data for their technology plan

implementation reports and for grant writing. It will also help assess levels of technology competency and identify areas needing additional training.

Best Practice Illustrations of Technology Integration in District Schools

When District schools were asked to give examples of successful technology integration, they responded as follows:

- **Federal**

- Classroom Web pages
- Teachers followed up the Smart Board technology trainings by integrating the technology in their respective classrooms and using the boards with students
- Using digital cameras to celebrate learning

- **Four Corners**

- Participation in Webcasts to support the curriculum
- Smarter Kids Foundation Grant for Smart Board integration
- Student PowerPoint projects
- iMovies
- PTO grants

- **Green River**

- WMECO grant for *Urban Geometry: What Shape is Your Town In?* (Classroom Teacher: Donna Cycz)
- Michael Jordan Physical Fitness *Dance Revolution: Can you feel the Beat?* (Classroom Teacher: Donna Cycz) Students used pedometers and computer software to monitor and chart data on physical health

- **High School**

- American Studies end-of-year projects use PowerPoint in the authentic assessment section of final projects.
- Science Fair entries use technology for presentations.
- Library received a \$5,000 grant, which will be used in part during Black History month to help with PowerPoint presentations by the English department.
- The health class completed *Project Ignition* after receiving a grant. Students used technology to do their mock car crashes and video.
- In the GHS CAD class students draw up plans for a variety of projects, e.g., the scoreboard donated by the alumni association.
- Foreign language uses the computer labs to converse with penpals in other schools.
- GHS students go into the local community and use digital cameras and other equipment to gather information for news stories. They use school technology to present their stories. They also work with GCTV (the local community TV station) to do presentations.
- The Weather, Climate and Meteorology class uses technology for teaching and student work.

- The Journalism class uses the Internet and other installed software applications to produce the school newspaper.
- The GHS Student Yearbook is all online and is a class offered to our students.
- Greenfield High School's Web Site is developed and maintained by students enrolled in the high school Web design class.
- CSI (Crime Scene Investigation), a new class offered by the GHS Science Department, is technology-based.

- **Middle School**
 - GMS TV Studio
 - Students work with PowerPoint to learn basic animation techniques.
 - Digital video projects
 - Students access the PearsonNet math Web site for online tutorials, instruction, and practice.
 - Teachers use the RISO bubble sheet technology to grade and assess student performance on math tests

- **Newton School**
 - Online research and planning using Scott Foresman ELA technology supports
 - Increased data analysis by staff using TestWiz and Microsoft Excel

- **Poet Seat**
 - Staff brings in their personal digital cameras, and in the spring, staff and students put together a Poet Seat Yearbook.
 - Monthly newsletter
 - School Web site

III. Needs:

"The plan must include an assessment of the telecommunication services, hardware, software, and other services that will be needed to improve education..."

(USAC, <http://www.usac.org/sl/applicants/step02/technology-planning>)

III.A. Needs: Context for Action

Based on our District computer inventory (See *Appendix C: District Computer Inventory by School*) and the computer specifications enumerated by the Massachusetts DOE for years 2004 to 2007, GPS has a mix of Type A, B, and C computers. It's clear from problems experienced while trying to run particular programs in District that Type B and C computers are problematic.

Type B computers have between 126 to 256 MB RAM and either Pentium 3 (PC) or G3 (Macintosh) processors. Type C computers have less than 128 MB of RAM and Pentium 2 or Power PC 604e or lower processors. These computers are too RAM-poor and processor-challenged to meet the multimedia and streaming media needs of the bulk of our instructional content.

For example, both Type B and Type C computers will not run ESRI's *ArcGIS* in one of the high school computer labs. This processor-intensive and memory-demanding Geographic Information System application allows users to view and query maps created with other Arc products and perform map-based spatial analysis. Two of three computer labs at the Middle School lack adequate hardware to run *Google Earth* and *PearsonNet's* Web-based math instruction tutorials. They also have problems running Web-based Adobe Flash-enriched educational games.

The computers in one of our elementary school labs would benefit from additional RAM (20 workstations @ \$100 per system to increase installed RAM from 256MB to 640MB) and a new server (estimated @ \$4500). Adding more RAM would allow students to run more than one application at a time (e.g., both a Web-browser and a word processor). Finally, the PC servers at each of our elementary schools and Poet Seat would benefit from hard drive replacements to improve system performance. Each server requires two mirrored drives, estimated at \$200 per drive for a total cost of \$2400 for all six facilities.

III.B. Needs: Action Plan

Reality "bytes" in unexpected ways when districts confront the real cost of technology. There is more to successful integration than just the price of computer hardware, software and networking equipment. The computers must also run the applications that support classroom curriculum.

Technology budgets should include costs for annual licensing fees, maintenance agreements, and teacher/staff training. Plus there are expenses associated with installation and setup, Internet content filtering, anti-virus signature updates, and replacement parts.

Our goal is to replace our Type C and B computers and grow our technology resources as soon as funds permit! The technology committees at several of our schools have indicated interest in adding new computers, wireless access points, Smart Boards, scanners, digital cameras, and LCD projectors to their technology inventory. But it's not easy purchasing new equipment when shrinking budgets limit what we can spend.

To plan realistically for educational technology integration, we will begin using a TCO (Total Cost of Ownership) business model. This model factors in *direct* costs (such as purchase price, management, support, and training), *hidden* costs (such as those incurred by usage, installation and setup, licensing, personnel, and professional development training), and *indirect* costs (such as the time our District Technology Coordinator and network technicians spend dealing with as the frustrations users experience when they must work with slow, under-powered, RAM-challenged computers).

We are also seeking funds to replace aging hardware through an **Annual Capital Budget for Technology**. We have proposed two options for this Capital Budget:

Plan A: Calculates hardware costs on a **25% total replacement each year** (even though warranties on our systems expire after 3 years).

Hardware	Cost per unit	Total Replacement
1) With 800 computers in district, we should replace: 200 computers	\$900.00	\$180,000.00
2) With 12 servers, we should replace: 3 servers	\$4000.00	\$12,000.00
3) With 18 LCD projectors, we should replace: 4 LCD projectors	\$1200.00	\$4800.00
4) 25 network printers, we should replace: 6 each year	\$1200.00	\$7200.00
5) Infrastructure consisting of switches, wiring, backup UPS devices	\$2500.00	\$2500.00
Total		\$206,500.00

Plan B. Calculates hardware costs on a 33% total replacement each year (since warranties on our computer systems expire after 3 years).

Hardware	Cost per unit	Total Replacement
1) With 800 computers in district, we should replace: 267 computers	\$900.00	\$240,300.00
2) With 12 servers, we should replace: 3 servers	\$4000.00	\$16,000.00
3) With 18 LCD projectors, we should replace: 6 LCD projectors	\$1200.00	\$7200.00
4) 25 network printers, we should replace: 8 each year	\$1200.00	\$9600.00
5) Infrastructure consisting of switches, wiring, backup UPS devices	\$2500.00	\$2500.00
Total		\$275,600.00

IV. Resources (Budget):

"The plan must provide a sufficient budget to acquire and support the non-discounted elements of the plan: the hardware, software, professional development and other services that will be needed to implement the strategy."

(USAC, <http://www.usac.org/sl/applicants/step02/technology-planning>).

IV.A. Resources (Budget): Context for Action

GPS has a an operational budget for its Technology Plan with line items for staffing, hardware, software, professional development, maintenance and support, and contracted services. The District will continue to support these line items every year. In 2006-07, the Town funded a level

services Technology budget, leaving us little room for growth. We anticipate a similar budget for 2007-08, but if funds permit we would like to purchase one laptop, LCD projector and Smart Board interactive whiteboard for each school in the district.

Description	Quantity	Cost Per Unit	Total Cost
Laptop computer	8	\$2200.00	\$17,600.00
Smart Board with Stand	8	\$1900.00	\$15,200.00
LCD Projector	8	\$2800.00	\$22,400.00
Total			\$55,200.00

IV.A.I. District Technology Budget*

Description	FY05 Adopted	FY06 Adopted	FY07 Adopted
Professional Tech Services	\$10,000.00	\$7,500.00	\$7,500.00
Professional Dues	\$0.00	\$3700.00	\$1270.00
Staff Development	\$1000.00	\$4500.00	\$0.00
Service Contract-PowerSchool	\$38,000.00	\$23,000.00	\$23,000.00
Service Contract-eSpEd	\$7,000.00	\$6,300.00	\$6,300.00
Service Contracts	\$38,000.00	\$48,100.00	\$52,260.00
Instructional Supplies	\$1250.00	\$1,200.00	\$900.00
Technology Supplies	\$4,500.00	\$4,500.00	\$15,000.00
Conference Travel	\$500.00	\$0.00	\$0.00
Technology Equipment	\$17,460.00	\$4,000.00	\$4,000.00
Leased Equipment	\$10,000.00	\$10,000.00	\$10,000.00
Total	\$127,710.00	\$112,800.00	\$120,230.00

*This chart represents a non-labor cost accounting. Total annual District Technology expenditures also include the cost of a full time District Technology Coordinator, a full time Network Administrator and a full time Network technician.

IV.A.II. Technology Coordinator's Budget

Description	FY05 Adopted	FY06 Adopted	FY07 Adopted
Printing/Binding-Director	\$400.00	\$1,000.00	\$1,000.00
Postage-Director	\$500.00	\$500.00	\$625.00
Professional Tech Services-Director	\$0.00	\$0.00	\$0.00
Professional Dues-Director	\$400.00	\$400.00	\$140.00
Equipment Repairs-Director	\$100.00	\$0.00	\$0.00
Periodicals-Director	\$500.00	\$500.00	\$100.00
Technology Supplies-Director	\$150.00	\$0.00	\$0.00
Copier Supplies-Director	\$0.00	\$0.00	\$200.00

Description	FY05 Adopted	FY06 Adopted	FY07 Adopted
Office Supplies-Director	\$2,000.00	\$2,000.00	\$1,800.00
Conference/Travel-Director	\$500.00	\$700.00	\$0.00
Technology Equipment-Director	\$1,300.00	\$1,300.00	\$0.00
Leased Equipment-Director	\$2,386.00	\$2,386.00	\$2,386.00
Total	\$8,236.00	\$8,786.00	\$6,251.00

GPS leverages the use of federal, state, and private resources wherever possible. In addition to obtaining some support from grant funding, it makes every effort to secure E-RATE discounted services. Moreover, it takes advantage of Massachusetts Comm-PASS (Commonwealth Procurement Access and Solicitation Site), the Web-based state procurement system for bids involving goods and services valued over \$50,000 (<http://www.comm-pass.com/>).

The GPS budget for technology line items has increased over the years with the hiring of a District Technology Coordinator in July 2005 to "develop and maintain a program of computer education that uses to the best advantage the computer capabilities of the district toward achieving educational excellence" and the reinstatement of Technology teachers in the elementary and middle schools who are responsible for implementing an instructional technology curriculum aligned with the Massachusetts Curriculum Frameworks.

Additionally, we point with pride to the numerous successes we've had integrating technology solutions for teaching, learning, data management and information sharing. These include:

1. Improving District network stability and data integrity. We replaced several firewall appliances, added new switches and servers, improved backup facilities, and brought our student information management system in-house for added security.
2. Providing students, teachers, and administrators with hardware and software solutions to support academic programs and initiatives, e.g., a RISO management system to support both the formative and summative assessment needed to differentiate instruction and increase student achievement.
3. Adding RAM in several older workstations to improve performance and enable users to work more efficiently.
4. Installing a lab of 25 new computers at the Middle School, plus adding 5 computers to Newton computer lab and 12 handheld graphic calculators to the High School;
5. Adopting instructional programs with strong Web-based resources to supplement and extend classroom instruction in our elementary and middle schools.
6. Promoting faculty and staff tech professional development to support teaching, learning, assessment, and technology integration. Trainings, which took the form of presentations, hand-on workshops, small group instruction and Webinars, focused on SMART Boards, Excel, email, MathFacts in a Flash, TestWiz, Inspiration, RISO, Web page design, and data-driven assessment.
7. Maintaining up-to-date District (<http://www.gpsk12.org>) and school Web sites with information for students, teachers, staff, administrators and parents.
 - i. Academy for Early Learning at North Parish (<http://www.gpsk12.org/earlylearning/academy4earlylearning.html>)
 - ii. Federal Street (<http://pages.mhlearningnetwork.com/kmarchbanks/>)

- iii. Four Corners (<http://pages.mhlearningnetwork.com/deballard/>)
- iv. Green River (<http://pages.mhlearningnetwork.com/greenriver/index.html>)
- v. Greenfield Middle School
(<http://pages.mhlearningnetwork.com/gmsweb/index.html>)
- vi. Greenfield High School (<http://www.greenfieldhighschool.org/ghs/>)
- vii. Newton School (<http://www.newtonschool.homestead.com/>)
- viii. Poet Seat (<http://pages.mhlearningnetwork.com/eblumgarten/index.html>)
8. Growing a District culture wrapped around using technology for formative assessment to improve student achievement. We have been busy cleansing District data sets for uploading to the State Data Warehouse slated to go live in early 2007.
9. Closely monitoring emerging technologies (such as podcasting, blogs, wikis and even social networking) to take timely advantage of new opportunities and resources for the benefit of students, teachers and staff.
10. Facilitating video-conferencing at the high school and television cable delivery systems at both the high school and middle school;
11. Taking advantage of both free and Open Source software to supplement our existing application inventory and provide teachers and students with more tools to use for teaching and learning (See *Appendix D: Software Inventories*). In addition to the District-wide installation of several applications free for download (including Adobe Acrobat Reader, Adobe Flash Player, Adobe Shockwave Player, Aladdin Expander, and Apple QuickTime) we have also installed:
 - i. **Gimp**, a freely distributed Open Source image manipulation program for photo retouching, image composition and image authoring;
 - ii. **Google Earth** a free geography software package from Google, combining Google Search tools with satellite imagery, maps, terrain and 3D buildings
 - iii. **Moodle**, a Web-based Open Source classroom management system for online/distance learning; and
 - iv. **Picasa**, Google's free software to locate and manage computer photos, modify and add special effects to digital photos, and share photos with others via email, Web, and print
 - v. **TestWiz** from dataMetrics, licensed by the Massachusetts DOE and freely available to all public and charter schools in Massachusetts for MCAS test data analysis.

IV.B. Resources (Budget): Action Plan

Regrettably, limited District funding for technology makes it difficult for us to meet the constantly increasing demands of technology-enriched teaching and learning. As a result, we are seeking approval for a capital Budget for Technology to supplement annual line item expenditures. If this capital budget is approved, we will have more resources available to replace aging equipment, install memory upgrades and support technology-related line items in the budget. Furthermore, by establishing a plan for a regular and consistent technology replacement cycle of four years or less based on a Total Cost of Ownership (TCO) model, we hope to begin replacing outmoded equipment on a steady basis.

Materials and Services Procured through the E-rate Discount Program

With the Telecommunications Act of 1996, the Federal Communications Commission (FCC) adopted an Order in May 1997 creating the E-RATE program to ensure that eligible schools and libraries have affordable access to Telecommunication Services (local and long-distance calls), Internet Access, and Internal Connections (networking infra-structure and equipment). Under the program, schools receive discounts ranging from 20% to 90%. Based on calculations that take into account rural/urban status, total number of students at the school, and the total number of students eligible for the National School Lunch Program, the discount rate for Greenfield Public Schools is roughly 75%. That means that GPS is required to pay only \$0.25 for every dollar invoiced for Internet and telephone service.

Compliance with Chapter 30B of the MA General Laws

In general, Chapter 30B (<http://www.mass.gov/ig/igch30b.htm>) applies to contracts for supplies and services, surplus supply disposition, and the acquisition and disposition of real property. For supplies and services, with certain exceptions, Chapter 30B provides for:

- Use of good business practices for contracts under \$5,000.
- Solicitation of three quotes for contracts in the amount of less than \$25,000.
- Competitive sealed bids or proposals for contracts in the amount of \$25,000 or more.

Chapter 30B prescribes procedures for the disposition of surplus supplies with a value of \$5,000 or more, and for the acquisition and disposition of an interest in real property with a value of \$25,000 or more. Greenfield Public Schools is aware of Chapter 30B procedures and also of the role OSD (Operational Services Division) plays in overseeing the purchase of IT (Information Technology) Equipment, Supplies and Services for Hardware and Network Integration Services, Software and Telecommunications equipment (http://www.mass.gov/portal/index.jsp?pageID=agccandagid=osdandagca=aboutandagcc=ao_whatwedo). We have also complied with the requirement to acquire an FCC (Federal Communications Commission) Registration Number (FRN) required for any person or entity conducting business with the FCC or applying for E-RATE discounts. We understand that this number will be used as our unique identifier in all transactions with the FCC.

CIPA Compliance

CIPA, the Children's Internet Protection Act was signed into law on December 21, 2000.

"Under CIPA, no school or library may receive [E-RATE] discounts unless it certifies that it is enforcing a policy of Internet safety that includes the use of filtering or blocking technology. This Internet Safety Policy must protect against access, through computers with Internet access, to visual depictions that are obscene, child pornography, or (in the case of use by minors) harmful to minors. The school or library must also certify that it is enforcing the operation of such filtering or blocking technology during any use of such computers by minors. The law is effective for Funding Year 2001 (07/01/2001 to 06/30/2002) and for all future years"

(<http://www.sl.universalservice.org/reference/CIPA.asp>).

Greenfield Public Schools has a CIPA-compliant Acceptable Use Policy regarding Internet Use. It subscribes to the **WatchGuard WebBlocker: URL Filtering** (<http://www.watchguard.com/products/webblock.asp>) service to manage Web surfing and block access to inappropriate sites. WatchGuard maintains and regularly updates its URL filtering database, automatically passing those updates through to firewall devices in place at every District school and the Central Administration building. GPS will continue to renew its **WatchGuard WebBlocker: URL Filtering** subscription each year to comply with CIPA regulations.

Funding for Non-Discounted Portions of Internet and Telecommunication Services

Thanks to the E-RATE discount program Greenfield Public Schools has received thousands of dollars in rebates and discounts over the last few years (with the exception of 2004-05 and 2005-06). We will continue to apply for E-RATE reimbursements and discounts for Telecommunication Services (local and long-distance telephone costs), Internet Access, Web hosting, and Internal Connections (networking infra-structure and related equipment) where applicable.

Our District Operational Budget, however, includes line items to pay for the non-discounted portion of our Internet and Telecommunications service. In addition, both District and School Operational Budgets will continue to include line items for technology staffing, hardware, software, professional development, maintenance, support and contracted services, while leveraging the use of federal, state, and private resources listed items to meet technology budget needs whenever possible.

V. Evaluation:

"The plan must include an evaluation process that enables the school or library to monitor progress toward the specified goals and make mid-course corrections in response to new developments and opportunities and they arise."

(USAC, <http://www.usac.org/sl/applicants/step02/technology-planning>).

V.A. Evaluation: Context for Action

Our District Technology Plan is a dynamic and flexible document that changes to meet the needs of students, teachers, staff and administrators. The District evaluates the effectiveness of its technology program on a regular basis to monitor progress toward attainment of educational goals and modify initiatives as needed. For example, we provide participants at each of our technology professional development trainings with an evaluation form to determine the relevance, usefulness and effectiveness of training for classroom instruction (See **Appendix E. Sample Professional Development Evaluation Forms**). The evaluation forms provide feedback for follow-up trainings.

The GPS Technology Coordinator and Director of Curriculum and Instruction meet regularly to review the progress the District has made in using technology to support teaching and learning and to plan next steps. We discuss what's working, determine what needs more attention, and

consider new directions in response to changes in curriculum requirements, emerging technology, policy mandates (local, state, and national level), and financial circumstances.

In addition, the District Technology Coordinator consults principals, classroom teachers and staff to determine building-level hardware, software and professional development needs. These consultations are ongoing. They take place throughout the year at Executive Team meetings, school staff meetings, meetings with District Technology teachers, and school level technology committee meetings. When meeting with District Technology teachers, discussions revolve around the technology skills being taught at each grade level, the curriculum in place to meet state technology integration benchmark standards, and the assessments being implemented to determine if students are mastering technology skills being taught. Performance measures include student proficiency, completed technology rubrics for projects, performance on tests, quality of projects, and informal observations of student behavior.

Finally, in regular consultation with District network personnel, the Technology Coordinator keeps an updated inventory of school hardware and software, ensures that all maintenance and support contracts with technology vendors are renewed and/or updated and stays alert to changing infrastructure needs.

V.B. Evaluation: Action Plan

Section I.B. Technology Goals: Action Plan (above) specifies five broad District level technology objectives for 2007-2010. Each objective has associated Key Actions, Performance Indicators and Timelines for expected completion. Meeting the specified timelines for completion will be one way to monitor progress toward meeting the specified goals. If necessary, we are prepared to make mid-course corrections in response to new developments and opportunities.

The District Technology Coordinator will continue to gather technology-related information from a variety of local stakeholders including administrators, principals, technology teachers, classroom teachers, staff and school technology committees in order to monitor, evaluate, revise and improve District technology curriculum. The emphasis continues to be on integrating classroom technology in support of differentiated instruction to raise student achievement.

By June 30, 2010, we expect teachers will use technology everyday in at least one or more of the following areas:

- Lesson planning
- Administrative tasks
- Communications
- Collaboration
- Teaching students

We also expect that 85% of District teachers will require their students to use technology weekly for tasks such as:

- Writing

- Research
- Data interpretation
- Communications
- Collaboration

To ensure the success of these two outcomes, we are making every effort to have at least 85% of our District teachers:

- Participate in high-quality technology professional development covering technology skills and the integration of technology into instruction
- Attain the Proficiency level based on the competencies listed in the Massachusetts Technology Self-Assessment Tool

To monitor and assess this action plan, we will require teachers to complete both the Technology Self-Assessment Tool Survey (http://www.doe.mass.edu/edtech/standards/sa_tool.html) and the Technology Use Survey at least once a year. Survey responses will be reviewed and technology professional development training will be provided to those teachers who need help with skill development.

Appendices

Appendix A: Acceptable Internet Use Policy

Excerpted from: Parent / Student Handbook Code Of Conduct and Discipline Policy 2005-2006

Access to telecommunications enables students to explore millions of libraries, databases, and bulletin boards while exchanging messages with people throughout the world. The Greenfield Public Schools believe that the benefits to students from access to information resources and opportunities for collaboration exceed any potential for abuse.

Ultimately, however, parent(s)/legal guardian(s) of minors are responsible for setting and conveying the standards that their children should follow when using media, communications, and information sources. To that end, the Greenfield Public Schools supports and respects each family's right to decide whether or not to permit their child(ren) to access network computer services, both in the home and at school.

Internet access through the Greenfield Public Schools is a PRIVILEGE, not a right. Therefore, student access may be limited or revoked by school officials at any time of this privilege is abused or violates acceptable use in any way. Students engaged in unacceptable use of the Internet will also be subject to disciplinary action in conformity with the Greenfield Schools ***Code of Conduct and Discipline Policy***.

All student use of the Internet is to be conducted under faculty supervision. Nevertheless, students are responsible for acceptable use of computer networks, just as they are responsible for their behavior in other area of the school.

Students' use of the Internet is limited: access to the Internet shall be provided for students solely to conduct educational research and support educational endeavors. Access to Internet services will be provided to students who agree to act in an acceptable manner and who demonstrate individual responsibility for appropriate use of the Internet.

Levels of Student Access: Internet and World Wide Web

All students may have access to the Internet and World Wide Web, with teacher supervision, in classrooms, in libraries, or laboratories. All students must be familiar with and agree to abide by the Greenfield Public Schools and ***Acceptable Internet Use Policy*** before accessing the Internet and World Wide Web.

Grades K-5: Before students in grades K-5 will be authorized to access the Internet and World Wide Web, they will take part in an annual grade-level appropriate discussion of the Greenfield Public Schools' ***Acceptable Internet Use Policy*** with their teachers. Parent(s)/legal guardian(s) must sign a statement indicating that they understand and have discussed the ***Acceptable Use Policy*** with their child.

Grades 6-12: Before students in Grades 6-12 will be authorized to access the Internet and World Wide Web, they and their parent(s)/legal guardian(s) will be asked to sign a statement that they have read and understood the Greenfield Public Schools' *Acceptable Use Policy* and agree to fully adhere to it.

Administrator's Access to Student Files

Students should not assume that their uses of the Greenfield Public School's Internet access will be private. All student Internet files and records may be accessed and examined by the school administration, Technology Coordinators and other staff for educational and administrative purposes, including the need to ensure that this *Acceptable Internet Use Policy* is being adhered to. Pursuant to local, state and federal laws, administrators and staff may provide access to student Internet files and records to law enforcement authorities. All Internet files will be subject to the Greenfield School's *Code of Conduct and Discipline Policy* and local state and federal laws and regulations.

Personal Safety

The Internet is accessible to the public. Although there are filtering techniques to restrict access to various aspects of the Internet, the Internet is an almost endless web of computer networks rendering absolute user access limitation nearly impossible. The Greenfield Public Schools, in its commitment to promote a safe and secure learning environment, cannot screen the Internet for all inappropriate contacts. Therefore, students must neither post personal information nor arrange personal meetings in their use of the Internet. In addition, students should promptly inform their teachers or school administrators of any on-line communication that is threatening, harassing, or otherwise inappropriate.

System Security and Resource Limits

Students are expected to respect and follow procedures and guidelines that are issued in order to ensure the security of the Greenfield Public Schools' computer system and to respect its resource limits. These include, but are not limited to, downloading guidelines and virus protection procedures.

Vandalism

Students are expected to adhere to Greenfield School's *Code of Conduct and Discipline Policy*. Any deliberate destruction, mutilation, modification and tampering of computer hardware, software, and Local Area Network (District and/or School) systems will be subject to disciplinary action and/or referral to law enforcement agencies. Any activity which inhibits or interferes with the normal operation of the hardware and software which comprise the Greenfield Public Schools' computer network system is also subject to disciplinary actions.

Unacceptable Uses

The following uses of the Greenfield Public Schools' Internet access are unacceptable:

1. Posting private or personal information about yourself or others.
2. Attempting to log in through or to access another person's files.
3. Accessing or transmitting obscene or patently offensive material

4. Posting chain letters or engaging in "spamming." ("Spamming" means sending annoying or unnecessary messages to large numbers of people).
5. Violating the Greenfield School's *Code of Conduct and Discipline Policy*, (e.g., engaging in racial or other forms of discrimination, including sexual harassment, hazing, plagiarism, cheating, or interfering with the rights of others to pursue an education).
6. Participating in any communications that facilitate gambling, the illegal sale or use of drugs, alcohol or weapons, gang activity, or that threaten, intimidate, or harasses any other person, or that violate any local, state, or federal law.
7. Infringing upon copyrights. Infringing upon copyrights is the inappropriate reproduction or transmission of material that is protected by copyright. (See Greenfield School's *Code of Conduct and Discipline Policy*.)
8. Participating in commercial activities that are not directly related to the educational purposes of the Greenfield Public Schools
9. Using listservs.
10. Attempting to access or alter any administrative (student records, financial reporting, etc.) data or software.

Disclaimer of Liability

The Greenfield Public Schools District disclaims 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 the student's Internet use, and for any other consequences of a student's Internet use. The Greenfield Public Schools reserves the right to change this policy at any time.

Acceptable Internet Use Policy: Information Technology Form

(Sign and return this portion of the Green Public Schools Acceptable Use Policy)

Student Section:

Student Name _____

Grade _____

School _____

My parents and I have read and understand the *Technology Acceptable Use and Code of Conduct* which includes the *Tobacco Use Policy and the Sexual Harassment Policy*.

I understand that if I do not obey these rules, I will lose the privilege of using computers and the Internet in school. I understand that if I disobey any technology rules in the school handbook, I may be subject to further discipline.

Student Signature _____

Parent or Guardian Section:

I have read the **District Technology Acceptable Use Policy and the Code of Conduct**, which includes the ***Tobacco Use Policy and the Sexual Harassment Policy***.

I give permission for my child to participate in the Instructional Technology Program at my child's school.

I will instruct my child regarding any restrictions against accessing materials that are in addition to restrictions set forth in the ***Technology Acceptable Use Policy and Code of Conduct***. I will emphasize to my child the importance of following these rules for personal safety.

I hereby release the District, its personnel, and any institutions with which it is affiliated, from any and all claims and damages of any nature arising from my child's use of, or inability to use, the District system, including, but not limited to, claims that may arise from the unauthorized use of the system to purchase products or service.

Parent (or Guardian) Signature _____

Date _____

Parent Name (Please Print) _____

Home Address _____

Access will be granted only after this form is returned with appropriate signatures of parent and students.

Adopted 1/3/98, Revised 9-1-05

Appendix B: District Computer Inventory by Model

Computer Type	Model	Manufacturer	Components
Desktop	DC5000 / DC5100	HP/Compaq	CPU: 2.8 GHz HDD: 40 GB RAM: 512MB
Desktop	EvoD530	HP/Compaq	CPU: 2.66 GHz HDD: 40 GB RAM: 256 MB
Desktop	EvoD51C	HP/Compaq	CPU: 2.0 GHz HDD: 40 GB RAM: 256 MB
Desktop	EvoD500	HP/Compaq	CPU: 2.0 GHz HDD: 20 GB RAM: 256 MB
Desktop	AP8400	Acer	CPU: 666 MHz HDD: 10 GB RAM: 128 MB
Desktop	VT7100	Acer	CPU: 1.0 GHz HDD: 20 GB RAM: 128 MB
Desktop	Intel iMac	Apple	CPU: 2.0 GHz HDD: 160 GB RAM: 1 GB
Desktop	iMac G5	Apple	CPU: 1.6 GHz HDD: 180 GB RAM: 256 MB
Desktop	PowerMac G4	Apple	CPU: 125 GHz HDD: 80 GB RAM: 512 MB
Desktop	iMac G3	Apple	CPU: 400 MHz HDD: 10 GB RAM: 128 MB
Desktop	eMac G3	Apple	CPU: 800 MHz HDD: 20 GB RAM: 256 MB
Desktop	OptiPlexGX620	Dell	CPU: 2.8 GHz HDD: 80 GB RAM: 1 GB
Notebook	nx9008	HP/Compaq	CPU: 2.8 GHz HDD: 40 GB RAM: 256 MB
Notebook	nx9020	HP/Compaq	CPU: 1.3 GHz HDD: 30 GB RAM: 256 MB
Notebook	nx9010	HP/Compaq	CPU: 3.06 GHz HDD: 30 GB RAM: 512 MB
Notebook	nx5000	HP/Compaq	CPU: 1.6 GHz HDD: 40.0 GB RAM: 256 MB

Computer Type	Model	Manufacturer	Components
Notebook	Satellite 6100	Toshiba	CPU: 1.6 GHz HDD: 40.0 GB RAM: 256 MB
Notebook	Satellite A20	Toshiba	CPU: 2.66 GHz HDD: 40 GB RAM: 256 MB
Notebook	Satellite P10	Toshiba	CPU: 2.66 GHz HDD: 60 GB RAM: 512 MB
Notebook	Latitude d510	Dell	CPU: 1.86 GHz HDD: 80 GB RAM: 1 GB
Notebook	Inspiron 9300	Dell	CPU: 1.73GHz HDD: 80 GB RAM: 1 GB
Server	Proliant ML350	Hewlett Packard	CPU: 2.2 GHz (Dual) HDD: 40-250 GB RAM: 512-1024 MB
Server	Proliant ML330	Hewlett Packard	CPU: 2.8 GHz HDD: 40-250 GB RAM: 512 MB
Server	Proliant ML150	Hewlett Packard	CPU: 3.0 GHz HDD: 146 GB RAM: 1 GB
Server	TC2120	Hewlett Packard	CPU: 2.67 GHz HDD: 40-80 GB RAM: 512-768 MB
Server	EvoD500	HP/Compaq	CPU: 2.0 GHz HDD: 20-40 GB RAM: 256-512 MB
Server	PowerMac G4	Apple	CPU: 2.67 GHz HDD: 40-80 GB RAM: 512-768 MB
Server	PowerMac G5	Apple	CPU:2.3 GHz (Dual) HDD: 40-80 GB RAM: 512-768 MB

Appendix C: District Computer Inventory by School

Based on computer specifications enumerated by the Massachusetts DOE for the years 2004 to 2007, we have determined that we have a mixture of Type A, B, and C computers in place in the District.

Description	Type A (high-end)	Type B (average)	Type C (low-end)
Function	Multimedia enabled; capable of running virtually all current software, including the latest high-end video and graphics programs	Multimedia enabled; capable of running most software except for the latest video and graphics programs	Multimedia enabled; capable of running most current productivity applications
Memory	256 MB RAM or higher	From 128-256 MB RAM	Less than 128 MB RAM
Processor	<i>PC</i> - Pentium 4 (or equivalent); <i>Macintosh</i> - G4 or G5(or equivalent) (or equivalent configurations to meet the stated function)	<i>PC</i> - Pentium 3 (or equivalent); <i>Macintosh</i> - G3 (or equivalent) (or equivalent configurations to meet the stated function)	<i>PC</i> - Pentium 2 or lower; <i>Macintosh</i> - Apple PowerPC 604e or lower (or equivalent configurations to meet the stated function)

Facility	Model	Quantity	Type
Academy of Early Learning at North Parish	DC5000	4	A
	EvoD500	1	A
	AP8400	15	C
	TC2120	1	A
Federal Street School	DC5000	33	A
	DC5100	14	A
	EvoD500	1	A
	Satellite P10	1	A
	Satellite A20	14	A
	AP8400	1	C
	TC2120	1	A
Four Corners School	Intel iMac	4	A
	iMac G5	1	A
	iMac G3	40	B
	eMac G3	8	B
	PowerMac G4	1	A
	DC5000	5	A
	nx9010	1	A
	AP8400	1	C
	Evo500	1	A
	PowerMac G4	1	A
Greenfield High School	DC5000	142	A
	EvoD530	37	A
	EvoD51C	43	A

	AP8400	1	C
	nx9010	1	A
	nx5000	24	A
	Proliant ML350	2	A
Greenfield Middle School	DC5000	1	A
	VT7100	148	B
	nx9008	25	A
	nx9010	1	A
	Proliant ML350	1	A
	Proliant ML330	1	A
Green River School	DC5000	15	A
	EvoD500	1	A
	AP8400	2	C
	Satellite 6100	1	B
	nx9030	1	A
	nx9020	4	A
	nx9008	20	A
	TC2120	1	A
Newton School	DC5000	18	A
	EvoD500	1	A
	AP8400	7	C
	VT7100	21	B
	nx9010	2	A
	TC2120	1	A
Poet Seat School	DC5000	3	A
	DC5100	2	A
	D51C	1	A
	AP8100	5	C
	D510	1	A
Administration Offices	Proliant ML350	2	A
	Proliant ML150	1	A
	PowerMac G5	1	A
	DC5000	14	A
	nx9010	4	A
	Latitude D510	2	A
	Inspiron 9300	1	A

Appendix D: Software Inventories

District Level Software

- Adobe Acrobat Reader
- Adobe Flash Player
- Adobe Shockwave Player
- Aladdin Expander
- Apple Macintosh OS X 10.3
- Apple Macintosh OS X 10.4
- Apple Macintosh OS X Server 10.3
- Apple QuickTime
- dataMetrics Massachusetts TestWiz
- Gimp (GNU Image Manipulation Program) and Gimpshop*
- Google Earth from Google
- Microsoft Office 2003 Standard Edition
- Microsoft Windows 2000 Professional Edition
- Microsoft Windows Server 2003 Enterprise Edition
- Microsoft Windows XP Professional Edition
- Moodle Course Management System*
- OpenOffice from OpenOffice.org*
- Pearson PowerGrade
- Picasa from Google*
- PremierAT by Premier Assistive Technology
- RISO
- Smart Technologies Smart Board / SMART Tools
- Sunburst Type-To-Learn
- Symantec Antivirus 10 Corporate Edition
- Woodcock Johnson WJRIII

Federal Street Elementary School

- Don Johnson Co-Writer/Write Outloud
- Inspiration
- KidPix Deluxe
- Kidspiration
- Microsoft Publisher 2003
- World Book Encyclopedia
- Writing with Symbols 2000

Four Corners Elementary School

- Accelerated Reader
- Inspiration
- Math Blaster

- MathFacts in a Flash
- World Book Encyclopedia

Greenfield High School

- Ahead Nero Burning ROM
- Autodesk AutoCAD
- CyberLink PowerDVD
- ESRI ArcGIS
- Geometers Sketchpad
- Inspiration
- Macromedia Dreamweaver
- Texas Instruments TIconnect
- Vanier Graphical Analysis
- Vernier Logger Pro
- Winnebago Spectrum

Greenfield Middle School

- Ahead Nero Burning ROM
- CyberLink PowerDVD
- Inspiration
- Macromedia Dreamweaver
- Microsoft PhotoStory
- Winnebago Spectrum

Green River School

- AlphaSmart by Renaissance Learning
- Digital Blue Microscope
- Digital Blue Movie Creator
- Inspiration
- KidPix Deluxe
- Math Blaster
- Reading Blaster
- The Best of Math I

Newton School

- The Best of Math I

North Parish School

- District Level software only

Poet Seat School

- Inspiration

*Denotes *Open Source* software (<http://www.opensource.org/docs/definition.php>).

Appendix E: Sample Professional Development Evaluation Forms

Greenfield Public Schools evaluates each professional development training by reviewing the evaluation form that participants complete. Two evaluation forms have been used:

Form 1:

**Greenfield Public Schools
PROFESSIONAL DEVELOPMENT
SESSION EVALUATION FORM**

Workshop Topic: _____

Date: _____

Instructor: _____

CRITERIA	Strongly Agree 4	Somewhat Agree 3	Disagree 2	Strongly Disagree 1
Relevant, useful information				
Practical application				
Interesting subject material				
Well-organized meetings				

Briefly describe what you have learned and how it can be applied to improve student learning.

Participant, please check:

Administrator	Teacher	Teacher Assistant
Other (specify):		

Form 2:

Workshop Topic: _____

Date: _____ **Time:** _____

Location: _____

Instructor: _____

The following information will help us evaluate today's activities and content. Your input is very valuable. Thanks.

Please indicate your reaction to each of the following by circling the corresponding number. <i>Please give an example under each item (feel free to continue on back).</i>	5 Strongly Agree	4	3	2	1 Strongly Disagree	NA
1. Overall, this class/workshop/training was of <i>high quality</i> e.g., well organized, designed and implemented.	5	4	3	2	1	
Comments:						
2. The <i>content</i> of the class/workshop/training was clear and understandable	5	4	3	2	1	
Comments:						
3. This class/workshop/training provided information about (or practice with) technology to <i>improve my own teaching</i> .	5	4	3	2	1	
Comments:						
4. This class/workshop/training helped me learn to use technology to <i>improve students' performance</i> in my subject area.	5	4	3	2	1	
Comments:						
5. This class/workshop/training helped increase my ability to <i>teach my subject to students of diverse ability levels</i> .	5	4	3	2	1	
Comments:						
6. The <i>instructor</i> for this class/workshop/training <i>was very effective, adding value</i> by bringing in useful knowledge, skills, or resources.	5	4	3	2	1	
Comments:						
Three big ideas I will take away from this training are: 1. 2. 3.						

Do you have any suggestions for improving this type of session should it be offered again?