Technology Plan

July 1, 2010-June 30, 2013

Greenfield Public Schools

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Background Information

Community

The city of Greenfield is located at the eastern foot of the Mohawk Trail in the heart of Franklin County, the most rural county in Western Massachusetts. Positioned at the intersection of Interstate 91 and Route 2, 85 miles west of Boston and 45 miles north of Springfield, Greenfield is surrounded by acres of fertile Connecticut River Valley farmland. The 2000 Census lists the population at about 18,000 with median household income running about $31,000, median family income about $46,000 and a racial make-up comprised of: White Non-Hispanic (93.4%), Hispanic (3.5%); Black (1.3%) and Other races (1.8%).

Greenfield Public Schools

There are six schools and one substantially separate program facility in the Greenfield School District. Student enrollment numbered 1496 on October 1, 2009:

- three elementary schools: Federal Street serving K-4 (206 students), Four Corners serving K-3 (107 students), and Newton serving K-3 (180 students),
- one pre-school: Academy for Early Learning at North Parish (75 students) for children ages 3 to 5. The Academy offers half and full day preschool programming in an integrated setting with a focus on physical, social/emotional, cognitive and language development. Its curriculum is aligned with the Massachusetts Preschool and NAEYC (National Association for the Education of Young Children) Standards.
- one Middle School (GMS) for grades 4 through 7 (437 students),
- one five-year comprehensive High School (GHS) for grades 8-12 (471 students), accredited by the New England Association of Schools and Colleges. In 2008-09, approximately 82% of GHS seniors entered higher education; 35% four-year colleges or universities, 50% two-year colleges, 3%military, 9% entered the work force, and 3% unknown. There are 99 students in the class of 2009.
- Poet Seat, a substantially separate program located in an annex building at the Greenfield High School. Poet Seat has evolved from an approved separate day school for adolescents with emotional disabilities to a Program administered by Greenfield High School. Instruction aligns with the district-wide curriculum providing intensive support with a 3 to 1 student to staff ratio. The program's mission is to stabilize students so that they can return to less restrictive educational settings.

Overview of the Planning Process

The three-year District Technology Plan now in effect ends on June 30, 2010. The **District Technology Plan (2010-2013)** elaborated below provides a roadmap for the place of technology in district in years to come. Overall goals including improving student academic achievement through the use of technology, making classroom management more efficient, enhancing communication with parents and the community, preparing teachers to use technology to support their teaching, and providing the needed technology infrastructure to handle the business of district administration. This plan was developed with input from:

- District Administrators including the Interim Superintendent, Director of Student Services, Director of Business Services and Director of Grants and Professional Development,
- GPS Principals, Associate Principals, teachers and staff
- District Technology personnel, comprised of the District Technology Coordinator, school technology teachers, technical staff and the network administrator from the Town of Greenfield;
- GPS school librarians/library media specialists; and
- School Committee Members.

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 Goals

Technology is an integral part of district culture. It's used daily by students, teachers, staff, and administrators for learning and instruction, to support district initiatives, and realize district goals and objectives. Goal #5 of the district's current improvement goals targets technology growth and stability. It closely aligns with ***Section 2402 Purposes and Goals*** of the U.S. Department of Education ***Enhancing Education Through Technology Act of 2001*** (http://www.ed.gov/policy/elsec/leg/esea02/pg34.html). As written, goal #5 seeks to:

> Promote initiatives that provide school staff, teachers, principals, and administrators with the capacity to integrate technology effectively into curricula and instruction aligned with challenging academic content and Massachusetts curriculum standards.

Technology in District

GPS is committed to using technology to support academic achievement. We also use technology to facilitate record-keeping, communication, data management, and operational efficiency. District technology teachers teach students important 21st century skills in elementary, middle, and high school lessons closely aligned with the Massachusetts Curriculum Frameworks and state technology standards.

Technology Course Offerings in Place in the Greenfield Public Schools:

Grades K-4

In **Grades K-4**, students become familiar with basic computing applications (Word, Excel, PowerPoint, and Paint (or Paintbrush, the Macintosh equivalent). They learn how to care for the equipment, print, save and retrieve their work, manage electronic files and folders, stay safe while using the Internet, conduct online research in a socially responsible way, and understand and respect intellectual property accessed from electronic sources. They use computers to build reading skills with help from Accelerated Reading online assessments and strengthen math skills by completing online activities at the First in Math Web site.

Greenfield Middle School

At the **Middle School**, students continue to develop and strengthen their technology skills. They become more adept at using word processing, spreadsheet, and presentation software in projects requiring them to gather, sort, interpret and present important information. They become more effective researchers as they use the Internet to locate digital information for reports, self-assessment, presentation and class projects. They further develop file management skills as they organize, manage, store and retrieve collected data. They receive further instruction in how to verify the integrity of the online sites they visit, stay safe online, and protect their personal identity while surfing the Web. They learn how to use digital still and video cameras to support their classroom work. Finally, they continue to strengthen reading and math skills with online activities through Accelerated Reader and First in Math.

Greenfield Middle School - High Technology Math Applications Laboratory

Purchased in 2000 as part of the Middle School renovations project at a cost of $250,000, this high-tech lab functioned as a Middle School Encore class through 2005. Taught by sixth grade teacher Chip Bull and Woodshop teacher Frank Brower, the lab ceased to function at the end of June 2005 due to lack of funding for instructors, materials and supplies. With support from Superintendent Hollins and GMS Principal Gary Tashjian, and Chip Bull's hard work in the summer months of 2009, 16 separate High Tech Math lab stations were upgraded, tested and made ready for student use in September 2009. No other area Middle School has such an incredible exploratory lab experience for student learning.

The High Tech Math Applications Lab comprises a 9-week Encore Class elective for students in grades five, six, and seven. Hands-on computer assisted learning allows students to progress at their own pace with a partner through 16 work individual stations. By the time students graduate from GMS, they will have had an opportunity to experience all 16 learning modules. In 2009-10,

classes in the High Tech Lab are taught partially by grade six Social Studies teacher Mr. Bull and partially by Math teacher Mr. Gary Steiner.

Learning stations in the lab include:

- Pneumatics (students work with compressed air to do useful work),
- Materials and Processes (students learn to use a working plastics injection molding machine),
- Health Management (students learn about nutrition, proper diet and exercise),
- Space Technology (students learn about and then launch real rockets)
- Hydraulics (students build a working elevator),
- Mechanisms (students build mechanisms and use them to perform tasks that demonstrate just how those mechanisms make our lives easier),
- Alternative Energy (students design actual solar-powered cars and create electricity using wind power),
- Technology Construction (students build balsa wood suspension bridges and then test their bridges for strength),
- Computer Aided Milling (students learn how to program and operate a milling machine used in manufacturing),
- Robotics and Animation (students design and build working robotic software),
- Digital Photography (students learn to shoot and edit digital still images for class projects),
- Aerodynamics (students use the only Middle School professional wind tunnel in Western Massachusetts)
- Research and Design (students design and build their own magnetic levitation train engine),
- Basic Electricity (students learn about the basic principles of magnetism, electricity and electrical circuits),
- Computer Aided Design, (students construct blueprints for skyscrapers and site plans for airports),
- Computer Guided Weather Forecasting (students learn how to forecast the weather and track storms. Their forecasts are used as part of Greenfield Middle School Television's daily morning newscast broadcast, live from the studios of GMS TV).

At the beginning of each unit, students take a computerized pre-test on mathematics concepts they will cover in each module. Students who having trouble with the material in the pre-test are automatically redirected to computer-aided reviews to prepare them for the work required. At the end of each unit, students take an automated post-test. Test results post automatically to the teacher's workstation for review. Also at the end of each unit, students complete a writing assignment describing their learning experience and how it relates to real world applications.

Additionally the Middle School has a TV Studio. Students are taught to use the equipment and to broadcast daily messages to every classroom each morning.

Greenfield High School

Greenfield High School offers several technology courses, in part because it is a high interest subject and also because taking a year-long Technology course is a graduation requirement. High

School technology courses include web design, film production, computer animation, computer programming, computer aided design, woodworking and construction, metalwork, and manufacturing, sustainable technologies, etc. Not every course is offered every year, but offerings are as follows:

TEC400 COMPUTER APPLICATIONS (Semester Course Grades 9-12 2.50 Credits)
Computer Applications is recommended for all high school students. This course is a great way to learn the beginning through intermediate features of Microsoft Office Professional Suite, including the most widely used microcomputer applications: Word, Excel, Access, and Power Point. Microsoft Internet Explorer and Firefox are used to take students through the fundamental skills and knowledge that allow them to quickly master and use the Internet. These skills and/or knowledge base will be helpful in high school, college and work. These are considered basic tools for living in the 21stcentury.

TEC410 DESKTOP PUBLISHING (Semester Course Grades 9-12 2.50 Credits)
With proliferation of affordable and easy-to-use desktop publishing software, many businesses are producing a wide variety of printed materials within their own companies. Students will find this course a handy tool for creating professional-looking documents for personal and business use. This course will give students the information and background needed for document design. Using Microsoft Publisher, students will learn the various desktop publishing capabilities, concepts, and opportunities.

TEC422 WEB DESIGN I-Intro to HTML, CSS, and Dreamweaver (Semester Course Grades 9-12 2.50 Credits)
Students will learn to code both HTML and CSS by hand to create websites. Once the students possess a strong foundation in coding by hand, the use of Dreamweaver will be introduced. This powerful web coding software will enable the students to produce web code more efficiently and effectively.

TEC423 WEB DESIGN II- Flash Programming and Design (Semester Course Grades 10-12 2.50 Credits), Prerequisite: Web Design I
Students will learn to use SwishMax 2 to design flash scripts, games, and splash screens to be used in all forms of web content. The emphasis will be on computer animation and design. Adding Flash to websites provides the interactivity frequently found on the internet today.

TEC450 TV DIGITAL FILM PRODUCTION (Semester Course Grades 10-12 2.50 Credits)
Students will learn about film production by producing short PSA, documentaries, and short films. The course will cover the technical aspects of working with cameras digital editing software, as well as the creative process of shot composition, screenwriting, and storytelling.

TEC451 TV DIGITAL FILM PRODUCTION II (Semester Course Grades 10-12 2.50 Credits)
Students build upon the skills learned in TV Digital Film Production to produce several short Public Service Announcements, documentaries, and short films to be shown on the local access cable channel. Working in conjunction with GCTV, the local cable access channel,

students will be exposed to the roles and responsibilities of local cable broadcasting in the community. Students will also work to produce a daily news program in the schools TV studio to be shown on the Channel One televisions, which will replace the morning announcements.

Additionally there is a course in Technical Education (TECHNOLOGY/ENGINEERING The goal of Technology/Engineering is to prepare all students for careers and advanced technical training programs by equipping them with technological skills. Regardless of students' goals, whether in science, business, trades or other careers, each student will be taught essential elements of occupational readiness, consumer awareness, and personal enrichment.)

TEC340 COMPUTER-AIDED DRAWING (Semester Course Grades 9-12 2.50 Credits)
This is a foundation course useful to all other classes in the Technology Program of Studies. Computer Aided Drafting introduces the student to graphic expression of technical details and ideas. From drawing a simple line, circle of polygon to three dimensional views of objects and buildings this course teaches all the basic skills needed for a career in CAD. This is the most in-demand, employable skill in the area and students receive college credit for a grade of 87 or higher articulated through Greenfield Community College. A solid foundation of geometry makes this course much easier and is recommended.

ENG512 JOURNALISM 2 -The Exponent (Semester Course Grades 10-12 2.50 Credits)
Prerequisite: Journalism 1 or special arrangement by instructor
This workshop course offers the enthusiastic student a challenging opportunity to put journalism knowledge to work. Self-motivated, responsible students publish the school newspaper The Exponent, both online and in newsprint, through writing, advertising, computer layout, photography, copy editing, and proofreading. Students also write regular assignments based on current events.

Professional Development Training

District and school level technology professional development provide teachers, administrators and staff with training in SMART Board technology and software for instruction and assessment, the state Data Warehouse and TestWiz hosting services to analyze student performance on MCAS, MEPA, MELA-O, GRADE, and DIBELS tests, productivity tools such as Microsoft Word and Microsoft Excel, assistive technology (Kurzweil); the Web-based ConnectED for outreach and communication, Accelerated Reader and Star Reading to improve student reading skills, First in Math for math skills development, district email, and Web page design. Teachers and staff receive training in PowerSchool. Additionally the district has facilitated paraprofessional assessment to satisfy the requirements of the federally legislated No Child Left Behind Act for prospective and practicing paraprofessionals by serving as a testing site for ParaPro Assessment. Finally, the High School uses technology to train its staff in how to use online Web sites for lesson plan development, research (Britannica Online), Note taking and bibliographic citations (Noodle) and Discovery Education streaming videos. Handouts for trainings facilitated by the District technology coordinator are posted online the GPS Web site.

Technology Purchases (2008-2010)

We have recently undergone a significant technology upgrade to replace outdated equipment, and bring in 21st Century technology. Purchases include desktop computers, LCD monitors, software, network servers, switches, firewalls, infrastructure improvements, and SMART Board interactive whiteboards. Funding for this technology came from several sources including capital budgets in 2008-09 and 2009-10, district grants, and the local budget. Our purchases include:

- 202 multimedia-ready desktop computers
- 3 netbook laptops for administrators and special education personnel
- 4 network servers
- 8 WatchGuard firewalls
- 45 SMART Boards (7 of which are outfitted with mobile stands, while 38 have integrated LCD projectors and are mounted on classroom walls)
- 40 iPod Nanos with Belkin TuneTalk microphones for podcasting and other 21st century Web 2.0 instructional activities
- 1000 student licenses for the Enterprise edition of Accelerated Reader and Star Reading
- 1066 student subscription to Suntex First in Math Web-based skill builder software
- G-Made (Group Mathematics Assessment and Diagnostic Evaluation) software and test booklets for students in grades 4-7.
- A high school-wide license to Discovery Education's United Streaming
- A district-wide license to Britannica Online
- Additional RAM (computer memory) to boost performance on several older desktop computers and laptops
- An Internet service/Wide Area Network (WAN) upgrade implementing bonded copper circuits utilizing EFM (Ethernet First Mile) and SHDSL (Single‐Pair High‐Speed Digital Subscriber) technology. This new equipment and wiring replaced existing T1 and ADSL technologies, implementing a symmetrical data solution (identical download and upload speeds). As a result, computers in our district can communicate with the network at speeds up to 10 Mbps. This is a considerable improvement over T1 which limits communication to 1.5 Mbps, and DSL which maxes out at 3 Mbps down and 768 kbps up. In late spring 2010, we expect to take advantage of this bandwidth improvement by replacing our unpredictable radio-antenna (802.11b) Wide Area Wireless Network with a WAN that uses our high−speed Internet connection. The upgrade will result in a more efficient and faster way for schools to share and access data in district and for the point of sale computers in each of the cafeterias to communicate with the Nutrikids database housed on a server in the Central office
- A Fiber optic connection running from the Poet Seat Modulars underground to the High School Server closet so that Poet Seat computers can be managed more effectively and efficiently through the High School server
- Wiring upgrades in the 8th grade Academy at the High School to support an incoming class of 107 students

As stated in a recent memo by Superintendent Hollins, "Our schools have made a tremendous recovery of pride and focus on achievement from the interactive classroom technology and three lab replacements of 2008-09. However, we still have 4 or 5 very old computer labs, in particular at the high school and Newton. Our older computers have slow processors which perform poorly

when handling the rich multimedia offerings available for instruction. Our newer accelerated reading and math programs at the elementary level require a higher performing computer than the very, very old computers in place. Top priority is more current computers for our older students."

It is also important that we continue to provide high quality professional development training to administrators, teachers and staff so they can continue to reach and teach all students in the Greenfield Public Schools.

We have need for technology to:

- Engage students through rich and varied multimedia content (such as audio, video, images, animation)
- Customize instruction to address individual learning styles, levels and abilities
- Reinforce the teaching of standards-based instructional content
- Remediate struggling learners
- Challenge advanced learners who want to move ahead
- Gather and disaggregate student performance data for progress monitoring (both individual and class) formative assessments, data-driven instruction
- Model and illustrate complex processes
- Communicate with students, parents, teachers, staff and administrators.

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

Our District technology mission is to deliver the highest quality technology in the most cost-effective manner for teaching, learning, and administration, providing students, teachers, staff, and administrators with access to the tools and training they need for the effective integration of technology in the curriculum and the effective use of technology in managing the business of schooling.

The technology programs in place in District and at each school align with the Massachusetts technology standards:

> **Standard 1.** Demonstrate proficiency in the use of computers and applications, as well as an understanding of the concepts underlying hardware, software, and connectivity.
>
> **Standard 2.** Demonstrate the responsible use of technology and an understanding of ethics and safety issues in using electronic media at home, in school, and in society.
>
> **Standard 3.** Demonstrate the ability to use technology for research, critical thinking, problem solving, decision making, communication, collaboration, creativity, and innovation.
>
> Source: http://www.doe.mass.edu/edtech/standards/itstand.pdf

Technology Plan Core Elements:

In keeping with the ***Technology Planning*** guidelines set by the Schools and Libraries Program of the FCC, commonly known as "E-Rate" (http://www.usac.org/sl/applicants/step02/technology-planning), Greenfield Public Schools bases its requests for services purchased with Schools and Libraries support discounts on an "approved technology plan."

The FCC stipulates that 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 (2010-13)*** revises and updates the district Technology Plan in operation from July 1. 2007 through June 30, 2010.

Briefly summarized, goals for 2007-10 included:

- Integrate current technology into our classrooms in regular instruction.
- Develop an Instructional Technology Curriculum that is fully integrated with the Massachusetts Curriculum Frameworks and Instructional Technology Standards.
- 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 websites and the Power School 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.

Computer technology has changed in the last three years, in part driven by the increased demands of 21st century computing. Teaching today relies heavily on Internet-based software and streaming multimedia. Students use the net for instruction, research, and assessment.

Teachers and administrators use the Internet for research, reporting, assessment, professional development, communication and data management.

To ensure that Greenfield's technology department is able to meet district computing needs and to plan for the implementation of relevant new technologies as they become available, we have established six broad technology objectives for 2010-2013. Key issues of concern focus on: 1) impact of technology on teaching and learning, 2) integration of assistive technology for students, teachers, staff and administrators with special needs, 3) professional development, 4) hardware, software and network infrastructure, 5) Web technologies for instruction, assessment and communication, and 6) physical design for data integrity.

Technology objectives for 2010-2013 also recognize the importance of providing teachers, staff and administrators with technology professional development training, in keeping with the benchmarks and standards described in the ***Massachusetts STAR*** (School Technology and Readiness) ***Chart*** (http://www.doe.mass.edu/boe/sac/edtech/star.xls), and the ***Massachusetts Technology Literacy Standards and Expectations*** (http://www.doe.mass.edu/edtech/standards/itstand.doc). 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

Objective 1 Work toward meeting the Massachusetts Technology Literacy Standards and Expectations

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Review and revise elementary, middle, and high school technology programs to improve alignment with the MA DESE Technology Literacy Standards and Expectations	Technology curriculum for each school is reviewed and revised as necessary. Instructional Technology teachers implement the curriculum in their respective buildings.	Technology teachers with support from building principals, Technology Coordinator, and technical staff	07/01/10-06/30/13
Review and revise as necessary the instruments used to assess student technology performance according to established benchmarks	Instruments reviewed and revised as necessary	Technology teachers with support from building principals, Technology Coordinator, and technical staff	09/10-06/30/13
Continue to integrate multimedia and Web-based instructional tools across the curriculum to motivate learning, support instruction, and accommodate multiple learning styles	Teachers integrate technology into classroom activities to support student learning and meet the diverse needs of all learners	Classroom teachers with support from building principals, Technology Coordinator, technology teachers, and technical staff	09/10-06/30/13
Continue to provide keyboarding instruction to students in grades 3-7	Student type 25 words per minute by grade 6 and increase their wpm to 30 by the end of grade 8	Technology teachers	09/10-06/30/13
Integrate SMART Board tools, technology and lesson plans in classroom instruction to support teaching and learning across the curriculum	Teachers use SMART Board hardware and software to deliver group instruction and motivate learners across the curriculum	Classroom teachers with support from building principals, Technology Coordinator, technology teachers, and technical staff	07/01/10-06/30/13
Continue to integrate online learning opportunities (e.g., Accelerated Reader, Star Reading, First in Math, Britannica Online, Pearson SuccessNet to support students in acceleration, credit recovery, and regular instruction.	K-8 students use online technology tools to support classroom instruction	Classroom teachers with support from building principals, the Technology Coordinator, technology teachers, and technical staff	09/01/10-06/30/13
Students and teachers collaborate and communicate in an online environment (e.g., GPSK12 Online) to enhance student learning.	Teachers and students use Web 2. 0 technologies (e.g., Web-based email, Quizlet, Delicious, and Google Docs) and the GPSK12 online course management system for collaboration, communication, and classroom instruction.	Classroom teachers with support from building principals, Technology Coordinator, technology teachers, and technical staff	09/01/10-06/30/13
Revise and update the Student AUP (Acceptable Use Policy) to reflect use of 21st century tools, online learning, and collaboration technologies	Student AUP revised and updated	District Technology Coordinator with support from building principals, technology teachers, and technical staff	11/10-2/11

Objective 2 Improve District technology resources to ensure that curriculum is accessible to all students, including those with disabilities.

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Annual review of the variety and types of low-tech and high-tech solutions available to accommodate a wider spectrum of learning styles.	SPED personnel surveyed to determine resources available and technology needed to make curriculum content accessible to all students Introduce the ***GPAT Assistive Technology Consideration Checklist*** to teachers and staff so that they can use it to determine possible assistive technology solutions that address student needs and abilities, demands of the customary environments, educational goals, and related activities. (http://atto.buffalo.edu//registered/ATBasics/Foundation/Assessment/GPATConsideration.pdf) Survey conducted, assistive hardware and software database updated	SPED Director and SPED Coordinators, classroom teachers, District Technology Coordinator, and technology teachers	07/01/10-06/30/13
Support the integration of technology into the curriculum across general and special education classrooms to serve the needs of all children.	Work with SPED Director, teachers and staff to select hardware and software adaptive technology tools to benefit the needs of special education students. Assistive technology devices selected, customized, adapted, maintained, repaired and replaced in consultation with the SPED Director.	SPED Director and staff, classroom teachers, District Technology Coordinator, and technology teachers	07/01/10-06/30/13
Strive to implement NIMAS (National Instructional Materials Accessibility Standard) to make instructional materials more accessible to students who need them.	Each child who requires non-print instructional materials receives them in a timely manner. When Greenfield purchases new textbooks and other printed core materials, ensure that contracts signed with publishers include a provision that the publisher produce accessible, student-ready versions in NIMAS format and send those materials to NIMAC (National Instructional Materials Access Center).	SPED Director, Superintendent, and Business Office	07/01/10-06/30/13
Establish a pilot project to assess the effectiveness of providing curriculum materials in both print and non-print formats to students with special needs.	Teachers use technology to differentiate instruction and support classroom teaching.	SPED Director and staff, classroom teachers, District Technology Coordinator, and	07/01/10-06/30/13

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
		technology teachers	
Annual evaluation and analysis of technology usage and effectiveness in all learning environments to support students at different stages of development and ensure that technology meets the unique needs of each learner	Survey administered to teachers and staff to determine if using technology to support instruction has value for students with special needs and abilities.	SPED Director and staff, classroom teachers, District Technology Coordinator, and technology teachers	07/01/10-06/30/13

Objective 3 Provide administrators, faculty and staff with technology professional development training to support teaching, learning, assessment, technology integration, and communication with parents

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Implement technology professional development training	Elementary, middle, and high school faculty and staff integrate low tech and high tech hardware and software to support student learning.	District Technology Coordinator; , technology teachers; Consultants as needed	07/01/10-06/30/13
Provide access to research-based studies of best practice implementations of technology for teaching and learning;	Elementary, middle, and high school faculty and staff can access web-based courses for teaching, learning, and assessment.	District Technology Coordinator; , technology teachers; Consultants as needed	07/01/10-06/30/13
Provide teachers and staff with training in the use of assistive technology tools (both low-tech and high tech) to support student learning and serve district special needs students	Free text-to-speech reading software installed as needed on all district computers for use by SPED and Regular Education students. Professional development training includes access to updated research in teaching and learning. Teachers introduced to Bookshare.org (a repository of digital text for students with print disabilities). Note: Access to Bookshare.org is free for K-12 students with visual impairments, physical disabilities, or print-based disabilities. Digital books obtained for eligible students through Bookshare (http://www.montgomeryschoolsmd.org/departments/hiat/FAQs/bookshare_FAQ.shtm).	District Technology Coordinator; , technology teachers; Consultants as needed	07/01/10-06/30/13
Provide online learning opportunities	Administrators, teachers and staff use district computers for professional development and the ***GPSKOnline*** (powered by Moodle, an Open Source Course Management System) for online course delivery, intra-faculty communications, and professional development	District Technology Coordinator	10/10-6/30/13

Objective 4 Provide and maintain hardware and software support for academic programs and initiatives, and district administration

Desktop, Laptop, and Servers Computers by Count and Age (as of 12/09)

Location	Desktop	Desktop Computers Ages 5 Years and older	Laptop	Laptops 5 Years or older
GHS	273	182	33	25
GMS	183	103	29	28
FCS	44	5	0	0
FSS	70	47	19	18
NES	61	46	0	0
AEL	18	18	0	0
PSS	15	15	0	0
DAV	19	16	11	2
Subtotal for District	**683**	**432**	**92**	**73**
Servers	16	8	0	0
Application Servers	10	6	0	0

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Annual survey of administrators, teachers and staff to identify technology initiatives, needs, and concerns in district.	Principals surveyed about technology lab and instructional computer use in each building. Survey identifies how teachers, staff and administrators use technology.	District Technology Coordinator, technology teachers, building principals and teachers	07/01/10-06/30/13
Review and revise hardware and software installations in District to ensure equipment works and is up-to-date	Software updates installed as needed; workstations re-imaged as needed; non-functional hardware repaired or replaced	District Technology Coordinator; Technical staff	07/01/10-06/30/13
Keep pace with emerging technologies especially as these address 21st century skills, i.e., creativity, collaboration, and critical thinking (http://www.21stcenturyskills.org/)	Technology Coordinator meets regularly with Superintendent to review hardware and software installations and discuss emerging needs. District Technology Coordinator and technology teachers attend instructional technology conferences and workshops.	District Technology Coordinator and technology teachers	07/01/10-06/30/13
District Technology Coordinator meets with building principals and technology teachers to discuss and demonstrate emerging technologies	Technology teachers integrate Web 2.0 and other emerging technologies in curriculum instruction	District Technology Coordinator and technology teachers	07/01/10-06/30/13
Replace older, slower, RAM-challenged computers throughout	Beginning with the high school and the middle school (oldest	District Technology Coordinator;	07/01/10-06/30/13

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
district as needed so that students, teachers, staff, and administrators can do their work effectively and efficiently	computers first), then moving into the elementary schools, 50-90 computers (aged 5 years and older) replaced as necessary each year.	Technical staff	

Objective 5 Use Web technologies for creativity, collaboration, assessment and communication

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Use District Web site to share important information concerning students, schools, and district initiatives.	Maintain and regularly update District Web site	District Technology Coordinator	07/01/10-06/30/13
Create Web page for each Greenfield School	Maintain and regularly update school Web page	Tech Corp representative at each school	07/01/10-06/30/13
Use ConnectEd to communicate with parents, teachers, and staff	ConnectED used to notify parents and staff about school events, parent conferences, school cancellations, etc. as necessary	Building principals and administrative assistants	07/01/10-06/30/13
Use PowerSchool to host student information	PowerSchool accessed by Teachers, Staff and Parents as needed	District and State SIS (Student Information Services) Coordinators	07/01/10-06/30/13
Utilize the services of the Massachusetts Web-based Data Warehouse	Student and teacher information as well as local assessment uploaded as necessary	District Technology Coordinator and SIS Coordinator/State	07/01/10-06/30/13
Use data from a variety of electronic sources for formative and summative assessments	Teachers, staff, and administrators use the Massachusetts Data Warehouse Testwiz.Net and electronic assessments such as GRADE, DIBELS, and GMADE to track student performance.	District Technology Coordinator SIS Coordinator/State, administrators and teachers	07/01/10-06/30/13

Objective 6 Maintain network stability and data integrity throughout the District

Key Actions	Performance Indicators	Person(s) Responsible	Timeline
Backup data stored on servers	Tape drives and external hard drives used for backups.	Technical staff	07/01/10-06/30/13
Maintain district firewalls	Hardware and software updates implemented as they become available	Technical staff	07/01/10-06/30/13
Implement anti-virus software updates	Nightly updates to protect district servers and workstations.	Technical staff	07/01/10-06/30/13
Monitor network performance	Network equipment too old to handle speed and performance needs is either upgraded or replaced	Technical staff	07/01/10-06/30/13
Upgrade SIS PowerSchool server to latest version for optimal database performance	New server installed and configured. PowerSchool SIS updates and patches installed for improved performance and added security;	Technology Coordinator in consultation with Technical staff	08/10
Explore the implementation of SIF (Schools Interoperability Framework) technology in District to streamline the exchange of student and staffing data with local schools (horizontal application) and the DESE (vertical application)	Investigate implantation of Zone Integration Server.	Technical staff	08/10-06/11

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

Technology at GPS is viewed as a key resource for teachers, staff, and administrators and a critical tool for students. Students learn to use technology in an ethical and socially responsible way for tasks such as word processing, charting, graphing, presentation, research, skill-building and self-assessment. Technology figures prominently in ***curriculum and instruction*** at all levels, helping with content delivery to reinforce learning. At the high school, for example, we use technology to support computer-aided design, AP classes, foreign language study, art, English, science, reading, and graphic design. Students take online classes using Virtual High School. They watch movies delivered online through Discovery Education and Vimeo. They use Britannica Online and the Internet for research and Noodle Tools for note-taking and bibliographic citations.

Additional examples of GPS K-12 technology use include:

- Math instruction, e.g., graphing calculators, Excel for charting and graphing, Scott Foresman SuccessNet, and the online First in Math (practice, remediation and accelerated learning)
- Reading Practice (Accelerated Reader)
- Web-based MCAS reviews
- Process writing through Tiered Instruction and more.
- Differentiated instruction. SMART Board technology enables teachers to incorporate multimedia-rich activities making instructional content more accessible to all students.
- 21st Century skills development though podcasting, vidcasting, and collaborative work.
- Authentic science experiments
- Remediation for students not meeting grade level expectations
- ELL (English Language Learner) second language acquisition instruction
- Student Services, both in terms of drafting student IEPs (Individual Education Plans) and differentiating instruction for students needing special accommodations
- SMART Board interactive white board technology to motivate and engage learning and support standards-based instruction

Additionally, technology facilitates prescriptive instruction by helping us manage, organize and analyze student performance data. 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.Net*** and the Massachusetts ***Data Warehouse*** to analyze aggregate and sub-group MCAS, MELA-O, MEPA, and DIBELS scores
- ***Microsoft Excel*** to compare student performance on multiple assessments

- OpScan scanning technology and **Pearson GRADE** (Group Reading Assessment and Diagnostic Evaluation) Software to assess student reading skills in grades K-6
- OpScan scanning technology and **Pearson GMADE** (Group Mathematics Assessment and Diagnostic Evaluation) to assessment student skills in math for grades 4-7.
- **SMART Board** interactive software for formative assessment to check for understanding during class instruction.

Technology in the Greenfield Public Schools serves as a communication tool. The District Web site (http://www.gpsk12.org) is one important vehicle our superintendent uses to communicate with parents, teachers, students, and the wider community. The Web site hosts her unique Journal providing regular updates about what's happening in different parts of the district, information related to the budgeting process, staffing, and current enrollment statistics, feedback from parents, students, and staff, plans for new projects, and information about how the district works. Her journal entries encourage interest in our schools and motivate greater involvement in district activities.

Additionally, we use the Web site to post reminders, updates, and general information regarding district initiatives and events, school calendars, daily menus, professional development offerings, District policies, School Committee happenings, job openings, 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 important student information.

Finally, technology assists with the business of District administration: For example, we use District technology each day to maintain our Human Resources database, financial records, attendance, school library holdings, food services information, calls to parents, electronic communication, and so much more.

II.B. Strategies Action Plan

One of our goals is to provide high quality instruction through the implementation of an effective combination of human and technological resources. To ensure the successful integration of technology tools for teaching, learning, assessment, and data management, the district Technology Coordinator regularly:

- consults with the Superintendent, Director or Students Services and building principals to discuss technology needs, programs in place, new initiatives, and future plans;
- meets regularly with school technology teachers to review local and District technology curriculum and projects
- confers with the Tech Department personnel to discuss technology plans, issues and needs district-wide.

Objective 3 listed above, i.e., *Provide administrators, faculty and staff with technology professional development training to support teaching, learning, assessment, technology integration, and communication with parents*, focuses on professional development. As a result of initiatives in place and completed each year, we expect at least 85% of all teachers and staff to participate in training facilitating the integration technology for teaching and learning. For

example, teachers receive PowerSchool and SMART Board training; administrators participate in Data Warehouse trainings, SPED coordinators receive training in accessible technology; administrative assistants receive ConnectEd training.

The District Technology Coordinator offers small group training and one-one-one mentoring throughout the District for a variety of applications including TestWiz, ConnectEd, Microsoft Word, Microsoft Excel, Inspiration, SMART Board tools, Web Page Building, the Zimbra email system, Web 2.0 tools and Web-based lesson plan resources. The District SIS Coordinator offers training in PowerSchool and PowerTeacher Gradebook (our District Grading System), 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 ongoing and delivered through workshops, informational presentations, coaching sessions, best practices modeling, one-on-one mentoring, and study groups. Technology professional development training incorporates concepts of universal design, understanding by design, 21st century skills, media literacy, and research-based best practice models.

The professional development training that we implement in District (see ***Section II. Strategies*** above) is determined in part by recommendations and initiatives framed by the Superintendent, SPED Director, and building principals, and also by requests received from teachers and staff.

Beginning in late September 2010 and repeated every year at the same time, District teachers and administrators will also be asked to complete a short survey about the technology in place in their classrooms, offices, and buildings. The survey will ask them if they have what they need to do their work and inform them of the Districtwide Help Desk that they can access if they need technical assistance

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

The goal of GPS technology is to support curriculum and instruction, enhance classroom learning, and facilitate the work of teachers, staff, and administrators. Integrating technology in every day instruction means more than just teaching basic computer skills and software applications in the labs. It requires that we bring 21st century technologies into the classrooms where digital tools can be used to promote creativity, collaboration and critical thinking. At GPS, we integrate technology to enhance learning, provide more opportunities for online learning, connect with real-world experts, deliver interactive Web-based multimedia learning, and communicate with parents. Additionally, we use technology both to provide professional development training and support administrative work.

Our accomplishments in 2009-10 have been many. They include:

- Completed replacement and configuration of 7 firewalls in District

- Computer inventory by school compiled and updated
- 43 SMART Boards set up in locations across the District
- Met with Director of Student Services and her coordinators to demonstrate free and low-cost tools to support struggling learners
- Migrated teacher and student accounts and data from Green River School to the High School
- Started reconfiguring and redeploying computers uninstalled over the summer. Added RAM to these computers to improve performance
- Facilitated several SMART Board trainings in schools across the district
- 13 GPS teachers and administrators participated in a MA DESE Data Warehouse training
- Put new Verizon circuits in place at 7 locations in District so as to facilitate an Internet service/Wide Area Network (WAN) upgrade from ADSL and T1 to bonded copper circuits utilizing EFM (Ethernet First Mile) and SHDSL (Single‐Pair High‐Speed Digital Subscriber) technology. This new equipment and wiring is a considerable improvement over T1 which limits communication to 1.5 Mbps, and DSL which maxes out at 3 Mbps down and 768 kbps up. Our new infrastructure implements a symmetrical (identical download and upload speeds) data solution enabling district computers to communicate with the network at speeds up to 10 Mbps.

Increasingly, we have run into technical problems trying to implement newer software applications and 21st century computing resources in classrooms and labs still outfitted with older computers. The capital budget funds for 2009-10 did much to improve the situation. We replaced 60 computers at the middle school and 60 computers at the high school. Additionally we installed 10 new computers in the libraries at Federal, Newton, Four Corners and the Middle School. The new equipment makes a big performance difference. However, many of the digital tools used for teaching and learning are Web-based and multimedia rich, requiring high-bandwidth for access. They include streaming audio and video, interactive Java applications, podcasts, vidcasts, and virtual classroom portals.

It's clear from problems experienced while trying to run particular programs in district that older slower computers hamper instruction. Slow computers often exhibit performance issues when trying to handle streaming video coming in from the Web. In addition, they experience problems running ArcGIS, Google Earth and PearsonNet's Web-based math instruction tutorials, Adobe Flash-enriched educational games and the SMART Board software. About half the computers in the Newton lab are really too old to run the interactive Web games that students like to play for math enrichment. Older computers at the middle school and high school that have been replaced by new machines have been redeployed to the classrooms where they are needed to support instruction, but many are too underpowered for the Web-based instruction that teachers would like their students to utilize.

III.B. Needs: Action Plan

There are still about 100 computers at the Middle School (reduced from 140 in the summer of 2009) and 30+ computers at Newton that are more than seven years old. Their processors are too slow and their installed memory too inadequate to meet the computing needs of students, teachers, staff and administrators. About 25 computers in District still run Windows 2000 (reduced from 75 early in the summer of 2009), an operating system that is incompatible with

PowerSchool's Java-based PowerTeacher, a full-featured grade-keeping application used to record, report, and monitor student performance.

Additionally, the majority of laptops at Federal Street and the high school are more than five (5) years old. We were able to improve performance for laptops at the high school somewhat by installing memory upgrades to support both the audio-video media that streams in from the Web and the newer more resource-hungry software teachers have asked us to install. But there is only so much additional RAM can do to support an older, slower processor.

For 2010-11 we want to replace: at least 37 classroom computers at the Middle School, 25 classroom computers at the high school, 10 classroom computers at Newton, 18 classroom computers at Federal, and 12 computers for administrators who require speedier machines with the capacity for the newer types of programs being used for planning and reviewing work. Cost estimates are provided in the table below.

Additionally, our four oldest servers are too slow and underpowered to run the newer instructional and administrative applications. Plus they cannot handle our district anti-virus software. Our 7 district routers are more than 6 years old and their processing power may be inadequate to support the higher network bandwidth applications currently being installed in the district. As these devices cannot be upgraded, in all likelihood they will need to be replaced to avoid any adverse impact on network operations in 2010-11.

We have done a lot with technology in the Greenfield Public School, but with increased dependence on computers, Internet, SMART Board tools, and network resources for teaching, learning and district business, instructional and administrative demands on the system increase. For example, we are exploring ways in which we can use district technology for marketing and outreach to the wider community. Getting the word out to everyone about the changes and opportunities taking place in district---our new high powered instructional initiatives and our plans for innovative more instructional opportunities and programs---is very important for the continued success and viability of Greenfield's public schools.

It has traditionally been the goal of GPS to implement new technologies where they will have the most immediate impact on the students' learning and their levels of success. Each year we budget for the services of a technology coordinator, IT technicians, and data personnel. We provide funds for technology hardware and software, supplies, district copiers, printers and fax machines, our student information management system and maintenance cost. But we do not provide funding the regular and systematic replacement of older, out of warranty computers and network servers. For this reason I am requesting that we supplement our existing technology budget with a 2010-11 Capital Budget funded by the City of Greenfield.

Cost estimates of technology to be funded through a capital budget (2010-11):

Description	Quantity	$ /Unit	Total Cost
Servers-We require servers for Federal, Newton, Four Corners & North Parish to install our anti-virus software. The server price includes Windows Server operating system, plus a UPS (uninterruptible power supply) providing battery back-up and surge suppression	4	$6000	**$24,000.00**
Middle School-instructional computers in the classrooms to replace teacher and student computers that are at least 6 years old	37	$925	**$34,225.00**
High School- Replace Lab 97 where computers (approximately 6 years old) are used by CAD, art, AP European History, AP US History, Advanced US History, and health classes.	25	$925	**$23,125.00**
High School Replace Lab 220 on the 2nd floor used by the 8th grade Academy as well as English and foreign language students and teachers, and students who work on the Year Book. This lab is the only lab on the second floor.	25	$925	**$23,125.00**
High School-instructional computers in the classrooms to replace teacher and student computers that are at least 6 years old	25	$925	**$23125.00**
Newton School-instructional computers in the classrooms to replace teacher and student computers that are at least 6 years old	10	$925	**$9250.00**
Federal Street School-instructional computers in the classrooms to replace teacher and student computers that are at least 6 years old	18	$925	**$16,650.00**
Administrative Computers District Wide to replace computers that are at least 6 years old.	12	$925	**$11,100.00**
Routers-Our 7 district routers are more than 6 years old. Their processing power may be inadequate to support the higher bandwidth applications being installed in district. As these devices cannot be upgraded, in all likelihood, they will need to be replaced to avoid adverse impact on network operations	7	$1800	**$12,600.00**
		Total	**$177,200.00**

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

The District has a an operational budget for its local Technology Plan with line items for staffing, hardware, software, professional development, maintenance and support, and contracted services. It leverages the use of federal, state, and private resources wherever possible. In addition to applying for 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 commensurate with the needs for staffing and the purchase of new equipment.

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 & servers, and improved backup procedures)
2. Providing students, teachers, & administrators with hardware & software solutions to support academic programs & initiatives (e.g., SMART Boards installed for multimedia hands-on learning; First in Math to raise math achievement; Accelerated Reader and Star Reading to improve reading skills; OpScan scanners at the Middle School and Newton for GRADE, GMADE assessments);
3. Adding RAM in several older workstations to improve performance and enable users to work more efficiently
4. Installing 2 labs each with 30 new computers at the Middle School plus and 2 labs each with 30 computers at the high school;
5. Installing SMART Board technology to support instruction as follows:
   - Federal Street: 1
   - Four Corners: 5
   - High School: 20
   - Middle School: 19
   - Newton: 2
   - Poet Seat: 2
6. Adopting instructional programs with strong Web-based resources to supplement and extend classroom instruction in our elementary & middle schools, .g., Britannica Online for research, First in Math for math, Noodle Tools for citations, Discovery Education for streaming video, Accelerated Reader for reading
7. 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, TestWiz, Inspiration, Web page design, and data-driven assessment;
8. Maintaining an up-to-date District (http://www.gpsk12.org) and school Web sites with information for students, teachers, staff, administrators and parents.
9. Growing a District culture wrapped around using technology for formative assessment to improve student achievement. Plans are in the works to upload students and teacher data to the State Data Warehouse;
10. 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 staff and students;
11. Facilitating a functioning television cable delivery systems at both the high school and middle school;
12. 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. ***Google Earth*** a free geography software package from Google, combining Google Search tools with satellite imagery, maps, terrain and 3D buildings
    ii. ***Moodle***, a Web-based Open Source classroom management system for online/distance learning; and
    iii. ***Picasa***, Google's free Picasa 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
    iv. ***Scratch*** a free programming tool from MIT
    v. ***ATT Natural Reader*** for text to speech capabilities on every computer/

IV.B. Resources (Budget): Action Plan

Technology funding for district staffing, hardware, software and network infrastructure goes a long way to meet our needs but it's insufficient 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 and replace aging equipment.

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 telephone costs), 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 (both long distance and local) 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. 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 (see below) 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 ***WatchGuard WebBlocker: URL Filtering*** (http://www.watchguard.com/products/webblock.asp) 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 out ***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 since my tenure (with the exception of 2005-06* because the application was filed before I arrived).

Funding Year	Internet Award	Telecommunications Award	Total
July 1, 2009-June 30, 2010	$24,919.20	$22,014.34	$46,933.54
July 1, 2008-June 30, 2009	$23,984.73	$25,184.26	$49,168.99
July 1, 2007-June 30, 2008	$24,398.24	$26,722.80	$51,121.04
July 1, 2006-June 30, 2007	$23,848.65	$23,592.61	$47,441.26
July 1, 2005-June 30, 2006*	0	0	0
		Total	**$194,664.83**

We will continue to apply for E-rate reimbursements and discounts for Telecommunication Services (local and long-distance telephone and cell phone) and Internet Access, Web hosting, Email, while including line items in the District Operational Budget to pay for the non-discounted portions of our Internet and Telecommunications service. In addition, our 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 federal, state, and capital budget funding to supplement our 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 & 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 in place 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 meets with the superintendent, Director of SPED service, and school administrators to review technology integration in district and 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 with 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 meetings and office visits, through email and over the phone. When meeting with District Technology teachers, discussions center on 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 and new acquisitions needed to stay up to date with 21st century technology skills (creativity, critical thinking and collaboration).. Performance measures of student work 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 six broad District level technology objectives for 2010-13. Each objective has associated Key Actions, Performance Indicators and Timelines for expected completion. Meeting the specified timelines for completion will be one way we monitor progress toward the specified goals. 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, and staff 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, 2013, 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% District teachers:

- Participate in high-quality technology professional development covering technology skills and the integration of technology into instruction

Appendices

Appendix A: Acceptable Internet Use Policy

Internet Acceptable Use 2009-2010: Grades K-4 Draft

Greenfield Public Schools have computers in classrooms, labs and libraries. These computers are networked and have Internet access. Kindergarten through fourth grade students primarily use District computers for Accelerated Reader, First in Math and other instructional activities, some of which may involve Internet access.

Greenfield Public Schools utilize an Internet "filtering, blocking and monitoring" solution to restrict access to inappropriate and non-educational Web sites and to ensure compliance with CIPA (the Children's Internet Protection Act). Additionally, Greenfield's teachers and staff supervise students while they are online. However, on a worldwide network, it is impossible to control all materials, and an industrious student may discover inappropriate content.

We recommend that you read and discuss the following information with your child.

> The Internet is a special tool that can help me learn, communicate and solve problems. Before I can use the Internet at my school, there are some promises I need to make to my teacher, my classmates, my parents and myself. These promises are made to keep me safe and to make my time on the Internet fun, interesting and educational.
>
> - **I will** take care of the computer hardware and software so that it is available to others.
> - **I will** be polite and courteous when online and use language that is respectful of others.
> - **I will** never share personal information online including my name, address, phone number or picture.
> - **I will** immediately tell an adult if I am asked anything that makes me uncomfortable or see anything that I don't understand.
> - **I realize** that if I do not follow these guidelines, the privilege of using the district network, school computers and Internet will be suspended.

As parent/guardian of_____, I have read the information concerning computer use in the Greenfield Public Schools. I understand that my child will use computers for educational purposes in a supervised environment and that the District has taken precautions to eliminate controversial Web content. I also understand that behavioral expectations and consequences are in place for computer use and Internet access. I have discussed these guidelines with my child and understand that my child's teacher will review this policy with my child as well.

By checking the appropriate box below, I give permission to my child to use computers and the Internet through grades K, 1 2, 3 and 4.

I have the right to withdraw my permission at any time. In order to do so, I will submit a written letter to the school principal.

_____ I give my child permission to use the Internet.
_____ I do not give my child permission to use the Internet.

Parent/Guardian Name:_____
Phone:_____
Signature: _____
Date:_____

School:_____Teacher_____Grade:___

Student Agreement Form
I have discussed the Computer Use Rules with my parents or guardians. I understand that I must follow all directions given by the computer specialist, teacher, and librarian.

I understand that if I do not follow the rules, I may lose computer privileges
.
User Name (student's writing): _____

Please return to the school office or to your child's teacher.

* * *

Current District-wide Acceptable Use Policy

Excerpted from: Parent / Student Handbook Code Of Conduct and Discipline Policy
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 staff. 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 (Completed 12/10/09)

Based on computer specifications enumerated by the Massachusetts DESE for years 2008-09, GPS has a mix Type A, B, and C computers. Specifications for these computers are as follows:

Description	Type A (high-end)	Type B (average)	Type C (low-end)
Function:	Multimedia computers capable of running virtually all current software, including the latest high-end video and graphics programs	Multimedia computers capable of running most software except for the latest video and graphics programs	Multimedia computers capable of running most current productivity applications
Memory:	1 GB RAM or better	From 256 up to 1 GB RAM	Working computers that do not meet the specifications for Type B
Processor:	Windows: • 2.0 GHz CPU or better • single processor OR 1.0 GHz Dual Core; Macintosh: • G5 (or better)	Windows: • 1.0-2.0 GHz CPU Macintosh: G4 (or better) running OS X (or equivalent configurations to meet the stated function)	Working computers that do not meet the specifications for Type B

Desktop and Laptop Computers (By Location and Model)

Greenfield High School

Manufacturer	Model	Desktop	Laptop	Class
Dell	M4300	0	2	A
Dell	Optiplex 270	1		A
Dell	Optiplex 620	2		A
Dell	Optiplex 745	2		A
Dell	Optiplex 760	86		A
Lenovo-ThinkPad	T61 6463-5BU	0	6	A
HP/Compaq	d51c	14		B
HP/Compaq	d530c	27		B
HP/Compaq	dc5000 SFF	141		B
HP/Compaq	nx5000	0	25	B
	Totals	**273**	**33**	

Greenfield Middle School

Manufacturer	Model	Desktop	Laptop	Class
Dell	M4300	0	1	A
Dell	Optiplex 270	4	0	A
Dell	Optiplex 620	26	0	A
Dell	Optiplex 760	74	0	A
HP/Compaq	dc5000 SFF	6	0	B
HP/Compaq	nx9008	0	26	B
HP/Compaq	nx9030	0	2	B
Dell	Optiplex 260	14	0	B
Dell	Precision 340	1	0	B
Acer	7100	57	0	C
Acer	8400	1	0	C
	Totals	**183**	**29**	

Four Corners School

Manufacturer	Model	Desktop	Laptop	Class
Dell	Optiplex 760	13	0	A
Apple	iMac 24" (Intel Core Duo)	9	0	A
Apple	iMac 20" (Intel Core Duo)	16	0	A
Apple	iMac G5	1	0	B
Apple	PowerPC G4	5	0	B
	Totals	**44**	**0**	

Federal Street School

Manufacturer	Model	Desktop	Laptop	Class
HP/Compaq	d5750	2		A
Apple	iMac 20"	4	0	A
Dell	M4300	0	1	A
Dell	Optiplex 745	6	0	A
Dell	Optiplex 760	11	0	A
HP/Compaq	dc5000MT	1	0	B
HP/Compaq	dc5000SFF	34	0	B
HP/Compaq	dc5100SFF	12	0	B
HP/Compaq	nx9008	0	2	B
HP/Compaq	nx9010	0	1	B

Manufacturer	Model	Desktop	Laptop	Class
Toshiba	Sat A20-S259	0	15	B
	Totals	**70**	**19**	

Newton School

Manufacturer	Model	Desktop	Laptop	Class
Apple	iMac 20"	4	0	A
Dell	Optiplex 760	11	0	A
HP/Compaq	D220MT	1	0	B
HP/Compaq	dc5000	21		B
HP/Compaq	dc5100SFF	1		B
Dell	Optiplex 260	1	0	B
HP/Compaq	Unknown	2	0	B
Acer	7100	15	0	C
Acer	8400	4	0	C
Dell	Dim2350	1	0	C
	Totals	**61**	**0**	

Academy of Early Learning at North Parish

Manufacturer	Model	Desktop	Laptop	Class
HP/Compaq	d500SFF	1	0	B
HP/Compaq	dc5000	2	0	B
HP/Compaq	dc5000SFF	3	0	B
Dell	Optiplex GX400	11	0	B
HP/Compaq	D220MT	1	0	C
	Totals	**18**	**0**	

Poet Seat

Manufacturer	Model	Desktop	Laptop	Class
HP/Compaq	dc5000SFF	15	0	B
	Totals	**15**	**0**	

Davis-Central Office

Manufacturer	Model	Desktop	Laptop	Class
HP/Compaq	D530 CMT	1	0	A
Apple	iMac 20" (Intel Core Duo)	1	0	A
Dell	Inspiron 9300	0	1	A
Dell	Inspiron D510	0	1	A
Dell	Precision M4300	0	7	A
HP/Compaq	d51c	2	0	B
HP/Compaq	dc5000SFF	14	0	B
HP/Compaq	nx9008	0	1	B
HP/Compaq	nx9010	0	1	B
Apple	PowerMac G4	1	0	B
	Totals	**19**	**11**	

Servers in District

Server Location	Name	Model	Manufacturer	RAM	GHz	Type
DAV	DAV-DC02	PowerEdge 2900	Dell	4 GB	3.00	A
DAV	DAVSVRMDF102	Power PC G5	Apple	4 GB	2.30	A
DAV	DAVSVRMDF102	Mac Pro	Apple	8 GB	2.66	A
FCS	FCSSVRMDF101	Mac Pro	Apple	2 GB	2.66	A
FCS	FCSSVRMDF101	Optiplex GX760	Dell	2.5 GB	2.50	A
FSS	FSSSVRMDF101	Optiplex GX760	Dell	2.1 GB	2.50	A
GHS	GHS-DC03	PE 2900	Dell	4 GB	3.00	A
GHS	GHSSVRMDF103	Optiplex GX760	Dell	2.1 GB	2.50	A
GMS	GMS-DC04	Server PE2900	Dell	4 GB	3.00	A
GMS	GMSSVRMDF103	Optiplex GX760	Dell	2.1 GB	2.50	A
NES	NESSVRMDF101	Optiplex GX760	Dell	2.1 GB	2.50	A
NPS	NPSSVRMDF101	Optiplex GX760	Dell	2.5 GB	2.50	A
DAV	DAV-DC01	ProLiant ML350 G3	Compaq	1 GB	2.20	B
FCS	FCS-DC01	EVO D51C	Compaq	2 GB	2.00	B
FSS	FSS-DC01	tc2120	HP	768 MB	2.66	B
GHS	GHS-DC01	Proliant ML350	Compaq	1 GB	2.20	B
GHS	GHSSVRMDF101	dc5000sff	HP	512 MB	2.80	B
GHS	GHSSVRMDF102	d530c	HP	1 GB	2.66	B
GMS	GMS-DC01	Proliant ML350	Compaq	1 GB	2.20	B

Server Location	Name	Model	Manufacturer	RAM	GHz	Type
GMS	GMS-DC02	Proliant ML330	HP	512 MB	2.80	B
GMS	GMS-DC03	Proliant ML150	HP	1 GB	3.00	B
GMS	GMSSVRMDF101	dc5000sff	HP	512 MB	2.80	B
GRS	GRS-DC01	HP TC2120	HP	768 MB	2.67	B
NPS	NPS-DC01	HP TC2120	HP	768 MB	2.67	B
GHS	GHS-DC02	Proliant ML350	Compaq	512 MB	1.30	C
NES	NES-DC01	PE 2400	Dell	512 MB	0.733	C

Total # of servers: 26

- Type A: 13
- Type B: 11
- Type C: 2

Appendix C: Software Inventories

Software installed throughout the District, where needed

- Adobe Acrobat Reader
- Adobe Flash Player
- Adobe Media Player
- Adobe Shockwave Player
- Aladdin Expander
- Apple iTunes
- Apple QuickTime
- ATT Natural Reader
- CyberLink PowerDVD
- Google Earth*
- Google Picasa *
- Java
- Microsoft Office 2003 Standard Edition
- Microsoft Paint
- Microsoft Windows 2000 Professional Edition
- Microsoft Windows Server 2003 Enterprise Edition
- Microsoft Windows XP Professional Edition
- Mimio Software
- MIT Scratch
- Moodle Course Management System*
- Mozilla Firefox
- OpenOffice*
- Pearson PowerSchool
- Pearson PowerTeacher Gradebook
- Roxio Creator DE
- SMART Technologies SMART Board/SMART Tools
- Symantec Antivirus

- TestWiz.Net
- WatchGuard Firewall Software
- Windows Movie Maker
- Windows Media Player

Davis (licenses obtained as needed)

- Adobe Acrobat
- Adobe Dreamweaver
- FileMaker
- Microsoft Access
- Microsoft Publisher

Federal Street Elementary School (licenses obtained as needed)

Windows

- Don Johnson Co:Writer/Write:Outloud
- Inspiration
- KidPix Deluxe
- Kurzweil 3000
- Mayer-Johnson Boardmaker/Boardmaker Plus
- Microsoft Publisher 2003
- Renaissance Learning Accelerated Reader/Star Reading
- Suntex First in Math
- Writing with Symbols 2000

Macintosh

- Adobe Media Player Apple Macintosh OS X 10.4 (PowerPC Macs at Four Corners)
- Apple iMovie
- Apple Macintosh OS X 10.5 (Intel Macs at Four Corners)
- Apple Safari
- Google Earth*
- Mayer-Johnson Writing with Symbols (PC)
- Microsoft Office
- MIT Scratch*
- Paintbrush*
- Renaissance Learning Accelerated Reader/Star Reading
- Suntex First in Math
- TechSmith Jing

Four Corners Elementary School (licenses obtained as needed)

Macintosh

- Adobe Media Player Apple Macintosh OS X 10.4 (PowerPC Macs at Four Corners)
- Apple Macintosh OS X 10.5 (Intel Macs at Four Corners)
- Apple Macintosh OS X Server 10.5
- Google Earth*
- Apple iMovie
- Microsoft Office

- MIT Scratch*
- Paintbrush*
- Renaissance Learning Accelerated Reader/Star Reading
- Apple Safari
- Suntex First in Math
- TechSmith Jing

Windows

- Mayer-Johnson Writing with Symbols (Windows)
- Woodcock Johnson WJR III (PC)

Greenfield High School (licenses obtained as needed)

- Adobe Dreamweaver
- Adobe Photoshop Elements
- AI Squared ZoomText
- Arithmetic AAA Math
- Autodesk AutoCad LT 2006
- Bio Interactive
- Brennan Intro to Environmental Sciences
- Dragon Naturally Speaking
- Exam View Biology
- Exam View Player
- Exam View Professional
- Geometers Sketchpad
- Glencoe Teacher Works
- Inspiration
- Interactive Diagrams
- Kurzweil 3000
- MCAS Mentor for Math
- Microsoft Expression
- Mimio Software
- MindPower Algebra, Parts 1 and 2
- MindPower Basic Math
- MindPower Pre-Algebra
- PH Biology
- Texas Instruments TIConnect
- Type to Learn
- Vanier Graphical Analysis
- Vernier Logger Pro
- Virtual Tour Algebra
- WJ III CompuScore

Greenfield Middle School (licenses obtained as needed)

- Adobe Dreamweaver
- Ahead Nero Burning ROM
- Arithmetic AAA Math

- Exam View Player
- Exam View Professional
- Exam View QuickTake
- Fraction Operations
- Genetics Browser
- Gimp
- Inspiration
- Kurzweil 3000
- Mayer-Johnson Boardmaker/Boardmaker Plus
- MCAS Mentor for Math
- Microsoft Photo Story 3
- MindPower Algebra, Parts 1 and 2
- MindPower Pre-Algebra
- PH Lit Grade 6
- PH Math Course 2
- PH Math Course 3
- Renaissance Learning Accelerated Reader/Star Reading
- Suntex First in Math
- Tom Snyder Timeliner
- Type to Learn
- Vernier Logger Pro
- Virtual Tour Algebra
- West Point Bridge Designer
- Winnebago Spectrum
- WJ III CompuScore

Newton School (licenses obtained as needed)

Windows

- AGS GMADE
- AGS GRADE 3.0
- Exemplars Best of Math
- Kurzweil 3000
- Microsoft Photo Story 3
- MIT Scratch
- Renaissance Learning Accelerated Reader/Star Reading
- State Farms Common Cents
- Suntex First in Math
- World Book 2003

Macintosh

- Adobe Media Player Apple Macintosh OS X 10.4 (PowerPC Macs at Four Corners)
- Apple iMovie
- Apple Macintosh OS X 10.5
- Apple Safari
- Google Earth*
- Mayer-Johnson Writing with Symbols (PC)

- Microsoft Office
- MIT Scratch*
- Paintbrush*
- Renaissance Learning Accelerated Reader/Star Reading
- Suntex First in Math
- TechSmith Jing

North Parish School (licenses obtained as needed)

- Type to Learn

Poet Seat Program (licenses obtained as needed)

- Whatever is available at the high school is also available at Poet Seat

*Denotes free or ***Open Source*** software available for free distribution (http://www.opensource.org/docs/definition.php).