

TECHNOLOGY PLAN

2007-2011

Superintendent of Schools and School Committee

HOLYOKE PUBLIC SCHOOLS

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Benchmark 1

Commitment to a Clear Vision and Implementation Strategies

The district's technology plan contains a clearly stated and reasonable set of goals and implementation strategies that align with the district-wide school improvement plan. The district is committed to achieving its vision by the end of the school year 2010-2011.

Vision

The vision of the Holyoke Public Schools (HPS) Educational Technology Plan is to provide our students with technology rich learning environments, helping them to achieve their fullest potential in a surrounding conducive to responsible, effective teaching and learning. Accessing and manipulating information using technology will create a learning climate where self-directed learning and collaboration become part of everyday life for the students of the HPS. Students will use the technology to work through complex and comprehensive materials developing lifelong learning and problem solving skills.

Mission

The administration, school committee, and staff of the HPS make it their mission to provide the children of Holyoke with up-to-date educational technology. It is the vision of the HPS to immerse all students, through technology, in learning as a lifelong process.

A. Technology team

The district has a technology team with representatives from a variety of stakeholder groups, including school committee members, administrators, and teachers. The technology team has the support of the district leadership team.

Team Member	Role/Affiliation
Patti Cavanaugh	Executive Director of Finance and Operations
Kim Wells	Executive Director of Curriculum and Testing
Leonard Gibbons	Network Manager
Nancy Stenberg	Library Media Specialist, Lynch Middle School
Judy Taylor	Technology Integration Support Specialist
Jennifer Boulais	Human Resource Compliance Specialist
Kirk Donahoe	Management Information Systems Supervisor
Diane Godek	District Mathematics Specialist
Chris Vanleeuwen	Instructional Technology Teacher
Paul Hry	Principal, Lynch Middle School
Maureen Cepiel	Data clerk, Lynch Middle School
Ramon Rivera	Application Manager - Instructional & Computer Support

B. Needs Assessment

The district assesses the technology products and services that will be needed to improve teaching and learning on an ongoing basis. The following are services and products that have been identified as an area for improvement. The analysis from TSAT and other data will be used as a baseline for further assessments.

- Staffing*: Two Additional Computer Technicians
Resources: Written procedures policies and standards
- Comprehensive Technology PD Plan (use TSAT as foundation)
 - Create tutorials for staff in alignment with the TSAT and other defined technology skill sets and post the tutorials on the HPS Internet and/or Intranet sites
 - Technology Instructional Guide (for teachers to use with students) · Comprehensive hardware replacement/upgrade plan
 - Hardware evaluation tools
 - Data back-ups/recovery plan and procedures

*See appendix A.

C. CIPA-compliant Acceptable Use Policy (AUP)

In compliance with the Children's Internet Protection Act (CIPA) and Regulations of the Federal Communications Commission (FCC), the Holyoke Public School District has adopted and enforces their Acceptable Use Policy (AUP) which ensures the use of technology protection measures (i.e., filtering or blocking of access to certain material on the Internet) on all District computers with Internet access. Such technology protection measures apply to Internet access by both adults and minors with regard to visual depictions that are obscene, child pornography, or, with respect to the use of computers by minors, considered harmful to such students. Further, appropriate monitoring of online activities of minors, as determined by the building/program supervisor, will also be enforced to ensure the safety of students when accessing the Internet.

The HPS has a multifaceted approach to safe Internet practices.

1. The district uses the Symantec™ Gateway Security 5600 Series, an easy-to-manage, multifunction security appliance that provides fully integrated, layered security at the gateway. This is powered by Symantec's antivirus and anti-spam solutions. With its multiple functions tightly integrated to work together seamlessly, the next-generation network security appliance is today's most effective solution for proactively preventing blended threats.
2. The district has made every effort to train and inform the staff of proper Internet usage by students through workshops, provided by our district teacher trainer and information posted on the HPS website. It is crucial that students are not allowed on computers without a well-defined educational task and close monitoring.

3. The technology group works very closely with the Schools Resource Officer. They have been aggressive in keeping administration informed of literature in the field such as *The Internet, Your Child and You*, published by the office of MA Attorney General, Tom Reilly.

4. The HPS developed an Acceptable Use Policy (AUP) as Internet suits became a part of today's educational environment. The AUP can be found online at <http://www.hps.holyoke.ma.us/acceptableuse.htm>

5. The HPS website includes internet safety information and links that are frequently updated. The links include organizations such as *i-safe* which specialize in educating parents, children and teachers in internet safety.

6. HPS regularly runs public announcement concerning internet safety for students and parents on the local education channel.

The Acceptable Use Policy is supplied in appendix B.

D. Budget

The district has a budget for the local technology plan with line items for technology in its operational budget. The budget includes staffing, infrastructure, hardware, software, professional development, support, and contracted services. The district leverages the use of federal, state, and private resources.

Technology Budget				
	FY07-08	FY08-09	FY09-10	FY10-11
Staffing				
Managerial Salaries	\$80,000	\$82,400	\$86,520	\$90,846
Support Salaries	\$196,640	\$202,539	\$208,615	\$214,874
Computer Resource Teachers	540,565	556,782	573,485	590,690
Library Media Specialist	540,010	556,210	572,897	590,084
Supplies / Repair				
Contracted Services	\$400,000	\$420,000	\$441,000	\$463,050
Supplies (peripherals)	\$80,000	\$84,000	\$88,200	\$92,610
Software	\$20,000	\$21,000	\$22,050	\$23,153
Hardware	\$80,000	\$84,000	\$88,200	\$92,610
Connectivity				
Firewall	\$1,020	\$1,020	\$1,020	\$1,020
Web Hosting	\$240	0	0	0
Service Fee	\$3,840	\$3,840	\$3,840	\$3,840
Internet Connection	\$96,000	\$96,000	\$96,000	\$96,000
Phone Service	\$159,000	\$159,000	\$159,000	\$159,000
Total	\$2,197,315	\$2,266,791	\$2,340,827	\$2,417,776

E. Evaluation of the District and the School Technology Plans

The Holyoke Public School district recognizes the need for ongoing evaluation of the district and school technology plans, as well as the need for evaluation of the effectiveness of technology resources and technology practices, and evaluates these in several different ways. Additionally, during the course of developing this plan, HPS hired the Holyoke Gas & Electric's (HG&E) Telecommunication division for a complete audit of the districts network needs.

The effectiveness of all academic resources, including technology resources, in support of student progress toward specific curricular goals is evaluated regularly by the academic departments; mid-course corrections in response to new developments and opportunities are standard practice.

The HPS conducts a full review of its District Technology Plan at least yearly, noting its alignment with all pertinent standards, guidelines, and requirements. Representatives work with departments to monitor and update their School Technology Plans. Data for review is collected via surveys, interviews, and discussions at meetings and training sessions. The Connect-ED distributed calling system will be used to conduct phone survey on family accessibility to technology. The survey will be conduct in both English and Spanish and include location for free internet access.

F. Evaluation of Technology Products and Services

The HPS are in the process of developing new methods for the evaluation of the districts technology. These include online surveys, discussion forums, and noninvasive demonstrations of the latest technology. The HPS realize that the end-users experience is essential for a constructive evaluation of the technology being used.

Prior to purchasing technology resources, the district will assess the products and services being recommended to ensure that they are appropriate, valid, in alignment with district, state, and federal standards, and able to be utilized in the technology environment/infrastructure for which they are proposed. Any available research on the effectiveness of the resources is taken into consideration.

	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
1F.1	Conduct regular online surveys in the effectiveness of the HPS technology in student attainment of the educational goals	*	*	*	*
1F.2	Schedule online demonstrations of new technology resources	*	*	*	*
1F.3	HPS acknowledges that this is a living document and conducts a review of this plan annually.	*	*	*	*

Benchmark 2

Technology Integration and Literacy

The Holyoke Public Schools uses technology to deliver instruction, aide in research, assess student work, increase educator productivity and manage student information. Library teachers support educators by providing professional development on accessing subscription online databases pertaining to academic research, and providing instruction to students on using these databases and the ethical and responsible use of the internet. Instructional Technology teachers support educators by using the School Technology and Readiness (STaR) Chart as the guiding tool to provide professional development to staff and assist them in incorporating technology into student learning in core academic subject areas.

A. Technology Integration

Goal 1: All staff members will understand and accept, that integration of technology into the curriculum, and daily use of technology both inside and outside the classroom, will enrich and strengthen teaching and subsequently student learning.

GOAL 1	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
2A1.1	Distribute Technology Plan to all principals in all schools.	*	*	*	*
2A1.2	Initiate district wide quarterly meetings of all Library Teachers (LTs) and Instructional Technology teachers (ITs)	*	*	*	*
2A1.3	Distribute Technology Plan to all LTs and ITs.	*	*	*	*
2A1.4	Encourage LTs and ITs to present plan to staff and ask staff to become familiar with it.	*	*	*	*
2A1.5	Have district wide LT and IT committee form subcommittee to meet monthly and draft Instructional Technology Guide to be used in classrooms as a side by side guide to curriculum.	*	*	*	*
2A1.6	Implement Instructional Technology Guide.		*	*	*

Goal 2: In order to achieve the 85% outside teaching time benchmark, all teachers will incorporate appropriate technologies into lesson planning while addressing the *Curriculum Frameworks and America's Choice Performance Standards*.

GOAL 2	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
2A2.1	Teachers will incorporate use of the following websites and software and programs into their lesson planning: MASSONE Gradequick Email Sharepoint Microsoft Office	*	*	*	*
2A2.2	While enhancing their expertise in the areas mentioned in 2A2.1, teachers will progress to Advanced Tech Level in the Teaching and Learning area of the STaR chart	*	*	*	*

Goal 3: 85% of teachers will meet ISTE and/or local district teacher technology competencies and implement them into the school environment for teaching and learning.

GOAL 3	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
2A3.1	All teachers will attend district professional development designed to introduce them to ISTE or local competencies	*	*	*	
2A3.2	All teachers will attend district professional development designed to guide implementation of ISTE or local competencies into their curriculum.		*	*	*
2A3.3	All teachers will continue to attend professional development as outlined by the district technology plan that will give them new ideas for incorporating technology into their curriculum.			*	*

B. Technology Literacy

A primary goal of technology literacy is to ensure that all HPS student's and staff have a sound foundation in, and understanding of, the use of technology in their every day lives. The first step towards this is to provide a comprehensive technology education program within the school system.

It is important that HPS students are instructed in the use of technology in a variety of ways; as a stand alone program in the early grades to teach the fundamentals and as an integral part of the academic curriculum in the middle and high school grades to demonstrate that the proper use of technology is a necessity for success in all areas of life. It is equally important that HPS staff have a technology professional development plan that is constant, consistent, and current.

GOAL 1: By grade 8 the district will ensure that 85% of students show proficiency in accordance with the guidelines in the *Massachusetts Recommended K-12 Instructional Technology Standards*, May 2007 draft.

GOAL 1	OBJECTIVES	YEAR1	YEAR2	YEAR3	YEAR4
		07/08	08/09	09/10	10/11
2B1.1	Implement the Educational Technology Learning Competencies in grades PreK-12.	*	*	*	*
2B1.2	Promote knowledge of basic keyboard functions by the completion of grade 6.	*	*	*	*
2B1.3	Promote understanding in the basic operation of a computer and how to print and save by the completion of elementary.	*	*	*	*
2B1.4	Promote knowledge of basic word processing, database, spreadsheet, draw, presentation and paint applications by the completion of middle school.	*	*	*	*
2B1.5	Promote students with the ability to create and demonstrate multimedia presentations by the completion of middle school.	*	*	*	*
2B1.6	Promote student competency in the use of technology and its applications by the completion of high school.	*	*	*	*

2B1.7	Students and parents must read and sign the Technology Acceptable Use Policy (TAUP) and the Acceptable Internet Use Policy (AIUP) which outline rules and procedures for proper use of all computer related technologies. (See Appendix C).	*	*	*	*
2B1.8	Students will respect others' rights, ideas, and work as it pertains to integration of educational technologies.	*	*	*	*
2B1.9	Students will understand and obey computer ethics.	*	*	*	*
2B1.10	Students will understand and obey the copyright laws.	*	*	*	*
2B2.11	Continue to offer computer based reading programs (i.e. Read 180 and Zip Zoom).	*	*	*	*
2B1.12	Continue to offer computer based typing programs.	*	*	*	*
2B1.13	Continue to offer the newest research software tools in all school libraries	*	*	*	*
2B1.14	Implement teacher to student communication structure.	*	*	*	*
2B1.15	Continue to use problem solving computer based programs (i.e. Larson Math).	*	*	*	*

GOAL 2: 100% of teachers are working to meet the proficiency level in technology, and by the school year 2010-2011, 60% of teachers will have reached the proficiency level as defined by the Massachusetts Technology Self-Assessment Tool (TSAT).

GOAL 2	OBJECTIVES	YEAR 1	YEAR 2	YEAR 3	YEAR 4
		07/08	08/09	09/10	10/11
2B2.1	All teachers will attend district professional development designed to introduce them to ISTE or local competencies	*	*	*	*
2B2.2	All teachers will attend district professional development designed to guide implementation of ISTE or local competencies into their curriculum.		*	*	*
2B2.3	All teachers will continue to attend professional development as outlined by the district technology plan that will give them new ideas for incorporating technology into their curriculum.			*	*

C. Staffing

The HPS has a district-level Network Manager who coordinates all the technology throughout the district. The district has at least one instructional technology teacher and/or media specialist in every school.

The district has a staff dedicated to data management and analysis for both daily data acquisition and long term data warehouse. The data warehouse is a “longitudinal data system” capable of linking student, teacher and financial information over multiple years, across multiple schools and districts. Using the warehouse, department and district decision-makers can take key metrics from multiple areas and analyze them in a single view.

Benchmark 3

Technology Professional Development

The HPS will be administering the Technology Self Assessment Tool (TSAT) this year to district personnel using the interactive tool on the Massachusetts Online Network for Education (MassONE). The TSAT has been designed for use by:

Teachers: to determine their own levels of technology proficiency and to identify their own levels of technology proficiency and to identify personal technology professional development needs.

Schools/Districts: to assess their professional development needs and to plan professional development activities that will help all teachers become proficient in technology.

The State: to gather and report data on technology competencies and technology professional development.

This interactive tool will make it possible for administrators to access aggregated data in order to better determine needs when planning upcoming technology course offerings.

Professional development planning currently includes an assessment of district and teachers' needs. After attending an education technology training course, evaluation forms are completed by training participants. This evaluation tool is designed to assess the effectiveness of training received and determine the future education technology needs of the participants. These form results are compiled, reviewed, and suggestions are considered when course offerings are being developed and refined.

The district acknowledges the state mandate that at the end of three years, at least 85% of district staff will have participated in 45 hours of high-quality professional development that includes technology skills and the integration of technology into instruction. The HPS staff use technology to perform a variety of tasks, including lesson planning, data analysis (including but not limited to DIBELS, MAP, TEST WIZ), research (Internet research services – Grolier and Ebsco), administrative and integrative processes (Word, Excel, PowerPoint, SmartBoard, Grade Quick, Multimedia and Internet), communications (email, district website), and collaboration. The district website is also used by staff to access email, and district educational resources including Internet Safety and Acceptable Usage; Job Postings; Curriculum; District Programs, Policies, and Documents; Calendars; and School Committee Information.

To support these endeavors, the HPS offers a wide variety of rich technology professional development opportunities for administrators, faculty, and support staff that provide the tools, resources, and support they need to improve their technology-based knowledge and skills and provide teachers with the ability to successfully integrate technology into the classroom. The HPS recognizes the importance of sustained, ongoing, relative, high quality professional development and consider the Massachusetts School Technology and Readiness (STaR) Chart in its process.

GOAL 1: Continue to offer high-quality professional development that includes technology skills and the integration of technology into instruction.

GOAL1	OBJECTIVES	YEAR 1 07/08	YEAR2 08/09	YEAR 3 09/10	YEAR 4 10/11
3A1.1	Continue to provide in-service, after school, one-to-one course offerings including content and software specific resources, successful integration, research, problem solving, assessment, and grading – (provided by Instructional Technology Specialist and/or Library Media Specialist)	*	*	*	*
3A1.2	Continue to create a culture of inquiry, sharing and knowledge-building and just in time support and anytime learning available through one-to-one training opportunities.	*	*	*	*

GOAL 2: Continue to offer technology professional development that is sustained and ongoing and includes coaching, modeling best practices, district-based mentoring, study groups, and online professional development.

GOAL	OBJECTIVES	YEAR 1 07/08	YEAR2 08/09	YEAR 3 09/10	YEAR 4 10/11
3B2.1	Research e-learning opportunities and partnerships. Promote course offerings through the Western Massachusetts Regional Library System (WMRLS) and Annenberg CPB.	*	*	*	*
3B2.2	Continue to offer concepts of universal design, and scientifically based, researched models.	*	*	*	*
3B2.3	Continue to develop and implement course offerings as new technologies are introduced to the district.	*	*	*	*
3B2.4	Continue to provide several models of professional development including: whole group, skill based training with minimal follow-up, technology integration modeling; whole group curriculum based	*	*	*	*

	training with follow-up to facilitate classroom implementation; coaching, modeling best practices, district-based mentoring, involvement in a development/improvement process, study groups.				
3B2.5	Continue to provide informal and formal building-based mentoring via the Instructional Technology and Library Media Specialists.	*	*	*	*
3B2.6	Continue to use the district educational television channel's broadcasted professional development programs for educators from Annenberg CPB.	*	*	*	*
3B2.7	Continue to use the district educational television channel's programming for NASA Science Files – (a series of 60 minute instructional science program that introduces students in grades 3-5 to NASA. It integrates mathematics, science, and technology, and uses Problem-Based Learning (PBL) to introduce students to scientific inquiry and the scientific method.)	*	*	*	*
3B2.8	Continue to use the district educational television channel's programming for NASA Connect (a series of 30 minute, instructional mathematics-focused programs for grades 6-8 designed to integrate mathematics science and technology. The series presents a lesson guide describing hands on activities and web activities that reinforce and extend the objectives presented.)	*	*	*	*
3B2.9	Provide professional development on Holyoke Public Library technology resources.	*	*	*	*

GOAL 3: Continue to perform professional development planning that includes an assessment of district and teachers' needs.

GOAL3	OBJECTIVES	YEAR 1 07/08	YEAR2 08/09	YEAR 3 09/10	YEAR 4 10/11
3C3.1	Continue to assess professional development training course evaluation forms when planning upcoming professional development.	*	*	*	*
3C3.2	Analyze TSAT results and use as an assessment tool for district and teachers' professional development needs.	*	*	*	*

GOAL 4: Administrators and teachers consider their own needs for technology professional development, using the technology self-assessment tools provided by the Massachusetts Department of Education or similar tools.

GOAL	OBJECTIVES	YEAR 1 07/08	YEAR2 08/09	YEAR 3 09/10	YEAR 4 10/11
3D4.1	Create MassOne accounts for district administrators and teachers	*	*	*	*
3D4.2	Support administrators and teachers as they register on MassOne.	*	*	*	*
3D4.3	Assist administrators and teachers as they complete the Massachusetts Department of Education's Technology Self Assessment Tool (TSAT) on MassOne.	*	*	*	*
3D4.4	Continue to provide training course evaluation forms for professional development course offerings.	*	*	*	*

Benchmark 4

Accessibility of Technology

School	Student to computer ratio
Wm. J. Dean Technical High School	4.7
Holyoke High School	3.9
Peck Middle School	1.9
Lynch Middle School	2.4
White Elementary School	1.7
Kelly Elementary School	4.1
McMahon Elementary School	4.2
Donahue Elementary School	5.0
Morgan Elementary School	4.9
Sullivan Elementary School	4.9
HAP	4.2
Lawrence Elementary School	3.2

Table 1 Average number of students per computer by school

A. Hardware Access

Over the past few years HPS have purchased multiple sets of computers on wheels (COWs) for classrooms and map testing. Each COW consists of at least, 15 wireless laptop computers, an access point and a printer. The COWs are configured so teachers can connect or disconnected from the Internet at their discretion. This allows teachers to concentrate on their lesson without the concern of the students being distracted with the internet. The technology committee has recommended the installation of more laptop carts within each school in the district.

A recommendation of this Technology Plan is the installation of SmartBoards, projectors and/or Elmos in every classroom. These tools are being used by the vast majority of teachers and having a few shared units is not sufficient for their needs. Some teachers prefer using an Elmo document viewer in conjunction with a projector while others prefer the SmartBoard with a projector. Each combination is an effective use of technology in today's classroom environment and this technology plan embraces and supports their use in the HPS classroom. The committee is recommending the use of permanent multimedia installation, as opposed to the portable units, because they require less space, are more secure, and are not subject to transportation related damage.

The Holyoke Public School district employs an Assistive Technology Specialist who assists the students and teachers in evaluating and implementing universal design principles within the classroom. The Assistive Technology Specialist works with manufacture representatives to schedules classroom based demonstration with the students and teachers. This includes the use of demo units insuring the technology needs of the students are met.

The HPS will be implementing a hardware and software procurement and evaluation system utilizing a committee to determine the appropriate software and hardware to be purchased. The evaluation process will include hardware demonstrations, software demonstrations, and when available, feedback from other districts using these products. The committee’s recommendation will determine what technologies are presented to the full faculty for their evaluation.

The HPS will be evaluating multiple vendor solutions for recovering stolen and missing laptops. There are numerous solutions from RFID to software tokens sent over the internet. Our new committee will be evaluating all available solutions to find a cost effective package.

The HPS district is establishing a four year computer replacement cycle. This includes the recycling of the old computers into the district’s Vocational Technical School. These computers will be used by the Computer Technology and Data Communications program for student training.

GOAL	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
4A.1	Purchase of multiple COWs	*	*	*	*
4A.2	Installation of SmartBoards, projectors and/or Elmos in every classroom	*	*	*	*
4A.3	Hardware and Software evaluation committee	*	*	*	*
4A.4	Computer replacement cycle	*	*	*	*
4A.5	Schedule online demonstrations of new hardware	*	*	*	*
4A.6	Laptop Security Software	*	*	*	*

B. Internet Access

The HPS provide connectivity to nearly 100% of the classrooms throughout the district. The Holyoke Gas and Electric Department (HG&E), in partnership with the HPS, will increase the amount of bandwidth from a 10MBs connection to 15MBs and implement packet shaping technology to insure efficient delivery of the essential administrative and educational services. The HPS has installed cable modems in all the schools for use as a backup connection to the main HG&E connections. Comcast is supplying their basic internet connection free of charge to the district with a small monthly fee charged for static IP addresses. These cable modems will be used with a firewall and a CIPA compliant content filtering with a limited white list of essential sites to be turned on only when an issue arises with the HPS main internet connection. i.e. Mass DOE, Grade quick, and the HPS data warehouse sites. Backup connections are becoming a necessity with the current online testing of NWEA and COPS as well as the mission critical web applications.

GOAL	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
4B.1	Increase the HPS internet bandwidth	*	*	*	*
4B.2	Install cable modems as backup internet connection to every school	*	*	*	*
4B.3	Implement packet shaping technology	*	*	*	*

C. Networking (LAN/WAN)

HPS has contracted with HG & E, to provide high-speed, high bandwidth internet access to every school within the district. HG & E is responsible for the performance and maintenance of our network backbone. Continuing to work in partnership HG & E, the HPS contracted with HG&E to perform an in-depth audit of the districts infrastructure. The HPS is presently reviewing the recommendation made from this audit and, in cooperation with the HG&E, is developing time lines for its implementation.

Currently, every school is wired to the TIA 568 standard with workstations having a 100MB full duplex connection back to a managed switched infrastructure. HPS will be upgrading the network backbone to a one gigabit Ethernet connection within all the schools and the central office. We will also configure the network backbone to a multi-VLAN environment cascaded down to every switch throughout the district.

This is the primary step needed in implement QoS service throughout the district. This QoS infrastructure will allow VoIP, public address systems, unified messaging, centralized time and security. With these initiatives, the Holyoke Public School district will save thousands of dollars as well as increase communication between the district and the citizens we serve.

The HPS will investigate the addition of two wireless systems within the district. The first system will consist of a common wireless infrastructure to be implemented throughout the district. The second wireless system will be cellular based allowing key administrators and faculty access to the districts resources when away from the reach of an 802.11 infrastructure. Real time communication integrated into our systems unified message system will be an integral part of the HPS upgrade.

This new 'MIMO-based' standard is scheduled to be ratified in 2008 and has the potential of decreasing the number of access points and thus lowering the total cost of implementation. Using this new standard as well as implementing a common district wide system will be a major benefit for the district's staff, giving access to individual building's wireless infrastructure without the need to reconfigure a device or issuing and maintain security keys.

The Federal Government is requesting that all federal, state and local communications system be interoperable. The idea being that, in a time of emergency, the federal government would arrive into a city and easily tie their communications system into the local police & fire department

system. The HPS will examine the feasibility of upgrading the schools communication system (voice, security, data and PA systems) to allow outside accesses in a time of emergency. For instance, in an emergency situation at Holyoke High School, the Police & Fire could access the schools communication system, view the school layout (with room numbers), receive a current list of classroom phone numbers as well as identifying and tracking students without entering the building.

The current HPS infrastructure includes a Novell Netware server for file and print sharing, and an exchange server for email and scheduling. A netsync server tied to a multi-tape backup system is used for daily backup and archiving. The system currently contracts out the webhosting services with plans of bringing it in-house.

GOAL	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
4C.1	Review and implement HG&E recommendation from audit		*	*	*
4C.2	Backbone upgrade to 1 Gig Ethernet connection		*	*	*
4C.3	Implementation of multiple VLANs throughout the HPS infrastructure			*	*
4C.4	QOS implementation across the district		*	*	*
4C.5	Implement a common wireless infrastructure	*	*	*	*
4C.6	Implement a cellular based common wireless technology			*	

D. Access to the Internet outside the School Day

The HPS recognize that technology is an integral part of daily life. School websites are often the primary and often the only source of information parent's access when they seek information regarding school sponsored events. Therefore, it is a goal of the HPS to ensure that all schools have a presence on the internet through a website which is updated frequently. For this to occur, a school based intranet site will be started in every school so student and staff can become familiar with web publishing. Identifying a school based webmaster is a necessity for each intranet site. This will ensure that data is updated in a timely manner. The person, assigned to this task, must be willing and able to handle this important task. The individual school webmaster could be a teacher, librarian or an administrator in the school. An assistant webmaster for the school should also be identified as a backup.

The webmasters will be trained in the necessary software regularly so that they will be able to perform their duties with confidence. They will in turn train teachers in their school to create web pages for their classes so that parents can access class information online to find out what is being taught in the class for the day or week or month.

There are many organizations supplying computer/internet access throughout the city. Some organizations are public entities like the Holyoke Public Library and the Holyoke Gas and Electric department. Other computer/internet access locations are association, social service and church groups serving the public interest. All locations will be listed on the HPS web site and updated frequently.

In today's world, websites are the first source of information and sometimes the only source of information the public relies on. Therefore, a goal of high importance is to install a new multi-homed web server inside our firewall. Hosting a new internal web server, inside the firewall, will improve the speed of information gathering. This will also allow for better content control, scalability and most importantly, will not use up costly bandwidth when accessing our own website from within the district.

Our present configuration has our web site hosted by a third party over the internet. We pay for the bandwidth usage from the hosting company as well as the bandwidth the district pays for its internet connectivity. We also have a limited amount of storage which makes it difficult to post a full Spanish version of our website. This new web server should have a high enough bandwidth and storage to enable multiple enquiries.

GOAL	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
4D.1	Provide and updated list of public access computers on the HPS website	*	*	*	*
4D.2	Install a new multi-homed web server.	*	*		
4D.3	Maintain and enhance the high level of information and accessibility of the HPS website.	*	*	*	*

E. Staffing

The maintenance of school computers is contracted to a regional vendor, Uplinc Inc. In addition to these contracted services, the HPS has one FTE technician to support ten schools within the district and one full time technician to support Holyoke High School. In addition to the two technicians, the HPS employs an application manager to support the many software packages used throughout the district. In the summer of 2007, the HPS hired a Network Administrator to support the network infrastructure. The Computer Technology & Data Communications Department at Wm. J. Dean Technical High School is the primary technical support for their school.

Upon review of the district wide survey performed for this technology plan, the primary area or concern that is repeated again and again is the need for improved communication within the district. The technology committee has recommended the formation of a help desk to act as Single Point of Contact (SPOC) based on the ITIL best practices framework. The Help Desk

will be manned by a technician who will be trained in the software and hardware used within the system. The Help Desk will consist of a web based real time chat/VOIP system as well as an asset management and repair tracking software.

The HPS is in the process of contracting with the HG&E for technical support of the district's technology. The exact role and start date has not been agreed upon because of the staffing requirements needed by the HG&E and the HPS. The spring of 2008 is the tentative date for the start of this contract.

As the district's new web server is implemented, there will be an ever increasing demand placed on the districts webmaster. Currently one contact person is assigned to make all necessary changes to the district's website. This ensures that the integrity of the system is not compromised. Thus, the HPS has an unofficial webmaster who is dedicated and has the necessary skills to implement and maintain the new web server. A goal of the HPS is to make this unofficial position the official district webmaster.

The webmaster duties will include the training and coordination for the individual schools' webmasters and maintenance of the overall website.

GOAL	OBJECTIVES	YEAR 1 07/08	YEAR 2 08/09	YEAR 3 09/10	YEAR 4 10/11
4E.1	Reconfigure the Technology Department	*			
4E.2	Hire an additional 2 Technicians	*	*		
4E.3	Identify district webmaster	*			

Benchmark 5

E-Learning and Communications

A. The district encourages the development and use of innovative strategies for delivering specialized courses through the use of technology.

The HPS have employed varied media sources as community outreach vehicles to augment communications. These vehicles are used to inform and educate the multilingual community using print and broadcast resources. The District television channel (HPS 12), the website (www.hps.holyoke.ma.us), and newsletter (Connections) are all instrumental in informing and promoting parent/guardian and community involvement. They all support multimedia learning opportunities for students, staff, and the community. HPS 12, the educational television channel provided by Comcast for the City of Holyoke, (established on April 25, 2005), is operated by the HPS. Channel 12 broadcasts information about the school district via "bulletin board" announcements on televisions throughout the city subscribing to Comcast. In addition, programming is created in the HPS TV studio located at Holyoke High School. Superintendent Dr. Eduardo B. Carballo hosts a regular program called *In Focus* which spotlights educational initiatives and programs in the District.

Other programs include *GED Connections* and *Connect with English* (for adult learners), *Around the Schools* (magazine format show which features special stories about activities in the school district), *Student Perspectives* (interview show hosted by Holyoke High students interviewing professionals about their career paths and experience, ex. business student interviews a stock broker) and educational programs such as *NASA Connect* and *NASA Sci Files*. Channel 12 also has satellite connectivity and broadcasts professional development programs for educators from Annenberg CPB. Additional programming for HPS 12 includes *NASA Science Files* - a series of 60 minute instructional science program that introduces students in grades 3-5 to NASA. It integrates mathematics, science, and technology, and uses Problem-Based Learning (PBL) to introduce students to scientific inquiry and the scientific method. *NASA Connect* is a series of 30 minute, instructional mathematics-focused programs for grades 6-8 designed to integrate mathematics science and technology. The series presents a lesson guide describing hands on activities and web activities that reinforce and extend the objectives presented. *Destination Tomorrow*, a television series for adults (lifelong learners) gives the audience an inside look at NASA and demonstrates how research and technology relates to our everyday lives.

Specific district programs that have been explained through broadcast on Channel 12 include: MCAS and AYP Data Analysis, Reading First, Early Childhood Education, Readers' and Writers' Workshop, World in Our Classroom/ Hazen Paper, Attendance Zones, Summer Kindergarten Program, Holyoke High School Accreditation, Dean Culinary Arts Program, America's Choice, Dean Technical High School and its Community Partners, and READ180.

The District's bilingual newsletter Connections is a three time APEX award winner for publication excellence. Established in 2004, it is distributed to the schools and community on a

quarterly basis to provide information about district programs, current events and activities. The superintendent's quarterly message and school briefs are also included.

B. The district deploys IP-based connections for access to web-based and/or interactive video learning on the local, state, regional, national, and international level.

The Holyoke Public School districts data infrastructure supplies ample bandwidth for teachers to utilize video based learning within the classrooms. The school district will be installing Satellite receivers in all schools. These receivers are part of the DirectTV® schools program and are supplied free of charge. The school district will be installing a video server for storage of videos used within the curriculum. In addition the district will be evaluating Slingbox® technology to deliver Satellite, broadcast, DVD and pre-taped programming through the IP based infrastructure. This is a cost effect solution for on-demand video.

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

The Holyoke Public School district has implemented a Moodle base used within the Dean Technical High Schools Intranet site. A new Moodle site is planned to be deployed at Holyoke High School with the goal of linking our Moodle sites to the internet. Discovery education, subscription renewal of United Streaming digital video on demand, Smithsonian Museum and on line teacher science is a few of the web-based video learning tools being used within the HPS. A list of virtual field trips will be published on the districts web page.

D. The district maintains an up-to-date web site that includes information for parents and community members.

The District website www.hps.holyoke.ma.us was established in 1998 and is designed to support student achievement by providing the community with continuous information about HPS and easy access to educational resources. Information regarding curriculum (including alignments, maps, and the District Accommodation Plan), schools, district programs (athletics, ELL, math and literacy, Saturday School), calendars (school and 44 assessment), policies, and links (for parents/guardians, students, teachers, and the general learning community) are available and updated regularly. A Parent Resource Page has been created <http://www.hps.holyoke.ma.us/parents.htm> . Additionally, School Committee pages contain meeting dates, agendas, and minutes. The website is designed in an easy to navigate, well organized, user friendly format.

E. The district complies with federal and state law, and local policies for archiving electronic communications produced by its staff and students. The district informs staff and students that any information distributed over the district or school network may be a public record.

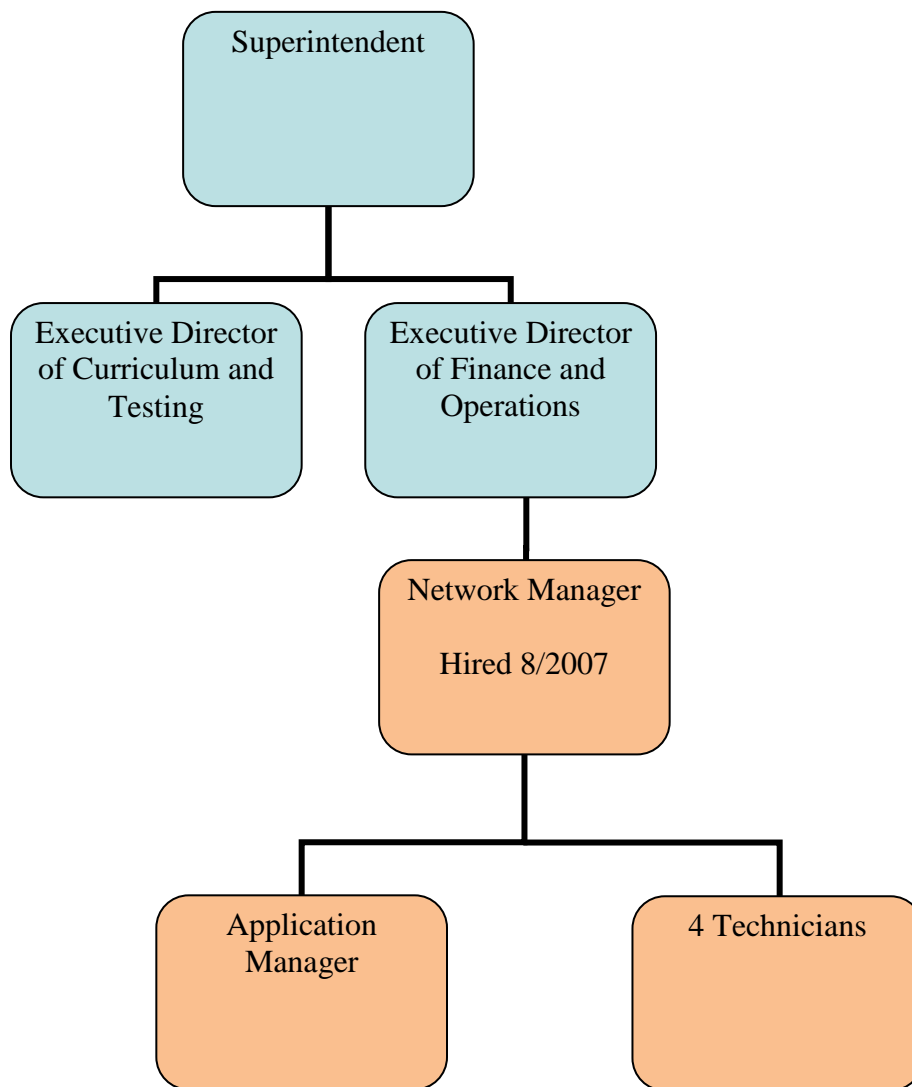
As stated in the HPS Acceptable Use Policy: “Teachers should have no expectation of privacy in the use of computers and the Internet. Pursuant to local, state, and federal laws, school officials may provide access to teacher’s files and records to law enforcement authorities.”

All emails are saved and archived pursuant to all local and state laws. Although the system in place is functional, the Technology Committee is recommending upgrading the record management to be slip stream into a centralized backup and archiving system that is easily index and retrieved.

Appendices

Appendix A

The following is the Technology Committee recommendation for the updated Technology Departments layout.



Appendix B

Acceptable Computer and Internet Use Policy



HOLYOKE PUBLIC SCHOOLS ACCEPTABLE COMPUTER AND INTERNET USE POLICY

Internet and computer access through the HPS is a **PRIVILEGE** offered to enhance your learning. It is not a right. Therefore, student access may be limited or revoked by school officials if this privilege is abused or violates acceptable use. Students engaged in unacceptable use of the Internet and computers will also be subject to disciplinary action in conformity with the HPS *Code of Conduct and Discipline Policy*.

All student use of computers and the Internet is to be conducted under faculty supervision. Nevertheless, students are responsible for acceptable use of a computer network. The computer network is provided for students to conduct educational research and support educational endeavors.

The HPS believe that the benefits to students from access to information resources and opportunities for collaboration exceed any potential for abuse. The HPS maintains tools that blocks access to inappropriate sites. Ultimately, however, parent(s)/legal guardian(s) of minors are responsible for setting and conveying the standards that their children should follow when using computers and the Internet.

Student Access

All students in Pre-kindergarten through Grade 12 will take part in an annual grade-level appropriate discussion of the Holyoke Public Schools' *Acceptable Computer and Internet Use Policy* with their teachers before being authorized to use the computer and the Internet.

Access to Student Files

Students should have no expectation of privacy in the use of computers and the Internet. Pursuant to local, state, and federal laws, administrators and staff may provide access to student files and records to law enforcement authorities. All files will be subject to the Holyoke Public Schools' *Code of Conduct and Discipline Policy* and local, state, and federal laws and regulations.

Personal Safety

The Holyoke Public Schools, in its commitment to promote a safe and secure learning environment, has high-end filtering software to filter inappropriate sites. However, the filtering software cannot ensure that all inappropriate sites are blocked.

Students are expected to adhere to the Holyoke Public Schools' *Code of Conduct and Discipline Policy*. Any deliberate destruction, modification, and tampering of technology equipment will be subject to disciplinary action and/or referral to law enforcement authorities. Any activity which inhibits or interferes with the normal operation of the hardware and software which comprise the Holyoke Public Schools' computer network system is also subject to disciplinary action.

Acceptable Uses

1. Using e-mail for educational purposes is allowed through a teacher's e-mail account
2. Abiding by generally accepted rules of network etiquette including but not limited to; being polite, using appropriate language, respecting the privacy of other's work, and demonstrating courtesy toward others
3. Documenting and obeying the copyright laws
4. Reporting misuse of technology to appropriate school authorities
5. Using technology resources to ensure fair access to all students
6. Using computing and communications facilities in a manner consistent with local, state, and federal laws and policies
7. Notifying your teacher immediately if there is a problem with your computer

Unacceptable Uses

1. Providing private or personal information about yourself or others
2. Viewing or sending obscene or patently offensive material
3. Accessing another person's file or account
4. Giving out your password to other students
5. Moving or unplugging other devices
6. Eating or drinking near or around the technology equipment
7. Violating the Holyoke Public Schools' *Code of Conduct and Discipline Policy*, engaging in racial or other forms of discrimination, including sexual harassment, hazing, plagiarism, cheating, or interfering with the rights of reproduction or transmission of material that is protected

Code of Conduct and Discipline Policy



**Holyoke Public Schools
Acceptable Computer and Internet Use Policy
Authorization Form**

For Parent(s)/Legal Guardian(s) of Student

As the parent(s)/legal guardian(s), I/we have read and discussed the attached Holyoke Public School Policy on Computer and Internet Use and agree to abide by it. I grant permission for my child to access the network computer services and the Internet. I understand that individuals and families may be held liable for violations of the Computer and Internet Use Policy. I understand and agree that should my son/daughter fail to follow the rules as written, his/her privilege to use all technology may be taken away and I shall be jointly responsible for all repair and/or service cost incurred as a result of his/her intentional violation of this Acceptable Use Policy. I also understand that some materials on the Internet may be objectionable, but I accept responsibility for guidance of Internet use, settings and conveying standards for my daughter or son to follow when selection, sharing or exploring information and media.

Student Signature: _____

Parent Signature: _____

School: _____

Grade: _____

Student ID#: _____



ESCUELAS PÚBLICAS DE HOLYOKE

REGLAMENTOS PARA EL USO ACEPTABLE DE LAS COMPUTADORAS Y LA RED DE COMUNICACIÓN

El acceso a las computadoras y a la red de comunicación "Internet" a través de las Escuelas Públicas de Holyoke es un **PREVILEGIO** que se ofrece para realizar tu aprendizaje. Por lo tanto, el acceso del estudiante puede ser limitado o revocado por los oficiales escolares en cualquier momento en que se abuse de este privilegio o se viole el uso aceptable en cualquier manera. Los estudiantes que hagan uso inaceptable de la Red de Comunicación "Internet" también estarán sujetos a acción disciplinaria en conformidad con el Reglamento de Conducta y Disciplina de las Escuelas Públicas de Holyoke. El uso de la Red de Comunicación por los estudiantes se llevará a cabo bajo supervisión de la facultad. Aun así, los estudiantes son responsables por el uso aceptable de los sistemas de la computadora. Se provee el sistema para que los estudiantes lleven a cabo sus investigaciones educacionales y para darle apoyo en sus esfuerzos educativos.

Las Escuelas Públicas de Holyoke creen que el beneficio que los estudiantes obtienen del acceso a los recursos de información y las oportunidades de colaboración exceden las posibilidades de abuso. Las Escuelas Públicas de Holyoke mantienen formas para obstaculizar el acceso a páginas inapropiadas en la Red de Comunicación. Finalmente, además, los padres y encargados legales de los estudiantes menores de edad son responsables de establecer y dar a entender a sus hijos los estándares que los niños deben seguir cuando usan las computadoras y la Red de Comunicación.

Acceso de los estudiantes:

Todos los estudiantes desde pre-escolar hasta duodécimo (12) grado tomarán parte en una discusión anual en el nivel de grado apropiado con sus maestros sobre el Reglamento para el Uso Aceptable de las Computadoras y la Red de Comunicación antes de ser autorizados a usar las computadoras y la Red de Comunicación.

Acceso a los expedientes de los estudiantes:

Los estudiantes no deben esperar privacidad en el uso de las computadoras y la Red de Comunicación. De acuerdo a las leyes locales, estatales y federales, los administradores y el personal pueden proveer acceso a los archivos y expedientes a las autoridades del orden público. Todos los expedientes estarán sujetos al Reglamento de Conducta del Estudiante y Manual de Póliza Disciplinaria y las leyes y regulaciones locales, estatales y federales.

Seguridad personal-Acción disciplinaria:

Las Escuelas Públicas de Holyoke en su propósito de promover un ambiente de aprendizaje seguro, tiene programas de "software" para filtrar las páginas inapropiadas de la Red de Comunicación. Los programas "software" de filtros no pueden asegurar que todas las páginas inapropiadas de la Red de Comunicación sean obstaculizadas.

Se espera que los estudiantes se adhieran al Reglamento de Conducta y Disciplina de las Escuelas Públicas de Holyoke. Cualquier destrucción, mutilación, modificación y falsificación de los quipos tecnológicos estará sujeta a acción disciplinaria y/o referido a las autoridades del orden público. Cualquier actividad que inhiba o interfiera con la operación normal del "hardware" y el "software" que comprende la red del sistema de computadoras de las Escuelas Públicas de Holyoke también estará sujeta a acción disciplinaria.

Usos aceptables:

1. Sólo se permite el uso del correo electrónico (e-mail) con propósitos educativos a través de la cuenta de correo electrónico del maestro.
2. Acogerse a las reglas aceptadas de etiqueta de sistema, incluyendo, pero no limitado a, ser cortés, usar el lenguaje apropiado, respetar la privacidad del trabajo de otros y demostrar cortesía hacia los demás.
3. Documentar y obedecer las leyes de los derechos del autor.
4. Informar el uso inapropiado de la Red de Comunicación a las autoridades escolares.
5. Usar los recursos tecnológicos de forma que se asegure el acceso justo a todos los estudiantes.
6. Usar las computadoras y las facilidades de comunicación de manera consistente con las leyes y regulaciones locales, estatales y federales.
7. Notificar inmediatamente al maestro si hay algún problema con la computadora.

Usos inaceptables:

1. Proveer información personal y privada de si mismo o de otros.
2. Ver o enviar material obsceno y ofensivo.
3. Tener acceso al expediente o cuenta personal de otra persona.
4. Dar su palabra clave de acceso a otros estudiantes.
5. Mudar o desconectar las computadoras u otros equipos.
6. Comer o beber cerca o alrededor de los equipos tecnológicos.
7. Violar el Reglamento de Conducta del Estudiante y Manual de Póliza de Disciplina, incluyendo, pero no limitado a, involucrarse en actos de discriminación racial o de otra manera, hostigamiento sexual, ritos de iniciación, plagio, trampas, o interferir en los derechos de reproducción o transmisión de material que está protegido por la ley.

Se espera que los estudiantes y los padres o encargados legales se familiaricen con estos reglamentos y que firmen el Formulario de Convenio de los Reglamentos del Uso Aceptable de las Computadoras y la Red de Comunicación que le proveerá el personal escolar anualmente.

Code of Conduct and Discipline Policy



**Escuelas Públicas de Holyoke
Forma de Autorización Aceptable Para el Uso de
Computadora e Internet**

Para Padres/Persona Encargada del Estudiante

Como el padre (s) / persona encargada (s) legal, he/hemos leído y hablado de la Poliza de las Escuelas Públicas de Holyoke adjunta con el Uso de Internet y Computadora y consiento en cumplir con ello. Concedo el permiso para mi niño tener acceso a los servicios de computadora de red y el Internet. Entiendo que los individuos y las familias pueden ser responsables por violaciones del Uso de Internet y Computadora. Entiendo y estoy de acuerdo si mi hijo/hija falla en seguir las reglas como está descrito, su privilegio de usar toda la tecnología puede quitado y seré conjuntamente responsable de toda la reparación y/o costo de servicio incurrido a consecuencia de su violación intencional de esta Poliza de Uso Aceptable. También entiendo que algunos materiales en el Internet pueden ser desagradables, pero acepto la responsabilidad de la dirección de uso de Internet, ajustes y transporte de estándares para mi hija/hijo seguir cuando selecciona, comparte o explora información y medios.

Firma del Estudiante: _____

Firma de padre/Madre: _____

Escuela: _____

Grado: _____

de Identificación: _____



HOLYOKE PUBLIC SCHOOLS STAFF ACCEPTABLE COMPUTER AND INTERNET USE POLICY

1. Internet and computer access through the Holyoke Public Schools is a **PRIVILEGE**.
2. Teacher access may be limited or revoked by school officials at any time if this privilege is abused or violates acceptable use.
3. Teachers engaged in unacceptable use of the Internet will also be subject to disciplinary action.
4. The network is provided for teachers to conduct educational research and support educational endeavors.
5. The Holyoke Public Schools maintains tools that block access to many inappropriate sites. The filtering software, however, cannot ensure that all inappropriate sites are blocked. Ultimately it is the responsibility of faculty members to insure that they are in compliance with the acceptable use policy.
6. Teachers should have no expectation of privacy in the use of computers and the Internet.
 - a. Pursuant to local, state, and federal laws, school officials may provide access to teacher's files and records to law enforcement authorities.
 - b. All files will be subject to the Holyoke Public Schools' *Acceptable Computer and Internet Policy* and local, state, and federal laws and regulations.
7. Teachers are expected to adhere to the Holyoke Public Schools' *Acceptable Computer and Internet Policy*. Any deliberate destruction, modification, and tampering of technology equipment will be subject to disciplinary action and/or referral to law enforcement authorities. Any activity which inhibits or interferes with the normal operation of the hardware and software which comprise the Holyoke Public Schools' computer network system is also subject to disciplinary action.
8. **ACCEPTABLE USES:**
 - a. Using e-mail for educational purposes and Holyoke Public School business
 - b. Abiding by generally accepted rules of network etiquette including but not limited to; being polite, using appropriate language, respecting the privacy of other's work, and demonstrating courtesy toward others
 - c. Documenting and obeying the copyright laws
 - d. Reporting misuse of the Internet to appropriate authorities
 - e. Using technology resources to ensure fair access to all staff and students
 - f. Using computing and communications facilities in a manner consistent with local, state, and federal laws and policies
 - g. Notifying appropriate authorities if there is a problem with your computer
9. **UNACCEPTABLE USES:**
 - a. Providing private or personal information about yourself or others
 - b. Viewing or sending obscene or patently offensive material
 - c. Accessing another person's file or account
 - d. Giving out your password to other staff or students
 - e. Moving or unplugging computers and/or other devices
 - f. Eating or drinking near or around technology
 - g. Violating the Holyoke Public Schools' *Acceptable Computer and Internet Policy*, including, but not limited to: engaging in racial or other forms of discrimination, sexual harassment, hazing, plagiarism, cheating, or interfering with the rights of reproduction or transmission of material that is protected

I have completed the Holyoke Public Schools' Internet Training, understand the Holyoke Public Schools' Computer and Internet Acceptable Use Policy and received a copy of this document.

Date: _____ Signature: _____ Print Name: _____

Appendix C

MAP – The Measures of Academic Progress (MAP) are taken district-wide by all students in Grades 2 through 10. These assessments measure a student’s progress, or growth, in reading and math. These computerized adaptive tests are taken on a computer by each student. The difficulty of a test is adjusted to the student’s performance so each student sees different questions. The difficulty of each question is based on how well the student has answered the questions up to that point. As the student answers correctly, the questions become more difficult. If the student answers incorrectly, the questions become easier. Teachers can address student test results online which allows them to:

- Identify the skills and concepts individual students have learned.
- Diagnose instructional needs.
- Monitor academic growth over time.
- Make data-driven decisions at the classroom level.
- Place new students into appropriate instructional programs.

TESTWIZ – TestWiz is designed primarily for K-12 school systems and is used to process tests locally – from scanning the answer sheets or importing score files, to reporting. Currently the HPS district uses this software to analyze MCAS data at the administration level and by the classroom teacher. Classroom teachers can use TestWiz.net to view, customize, and generate reports. Teachers can easily call up data on specific students and adjust the curriculum appropriately.

Larson Math –Larson Math is a powerful, highly interactive software-based math solution that helps students develop mastery for today’s testing and future math achievement, and gives teachers successful tools and strategies for effectively guiding instruction.

READ 180 –READ 180 is a program for struggling readers in grades 4-12. The program evolved from ten years of research at Vanderbilt University. It addresses the four areas of deficiencies in struggling older readers by providing background knowledge, decoding skills, motivating materials, and connections to the content areas. Students in the program have shown dramatic improvement in their SRI scores.

Zip Zoom - Uses the power of technology and groundbreaking sequential Critical-Word Reader books, Zip Zoom English puts English-Language Learners on the fast path to success. Zip Zoom English has been proven effective at building English-Language Learners’ early phonemic awareness, phonics, and sight word recognition skills.

Compass Learning - Is a comprehensive high school solution that meets the needs of all secondary learners...from credit recovery to advanced placement. The software provides instruction in core and elective courses, assess student understanding, and provide teachers and administrators with reports of student mastery.