

Seven Hills Charter Public School



Technology Plan 2010-2014

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Technology Mission Statement

The mission for technology at Seven Hills Charter Public School is to enhance and expand the learning experience for our diverse student population through teaching and learning with technology, accurate and efficient management of data, strong communication amongst members of the school community, participation in a professional learning community and responsible utilization of technology-based tools.

Technology Vision Statement

Seven Hills recognizes the value of technology in the classroom in its ability to make the learning process more engaging, interactive, expansive and efficient. We aim to embrace technology that enables our students to excel – whether through new means of instruction or new ways of learning. Every student is different and has different needs, and we strive to equip each student with the tools that will assist them in reaching their potential and teachers with the training they need to effectively lead students in learning with these tools within their classrooms. We are confident that technology will be an important factor in students achieving success inside and outside of the classroom.

Overview of Technology Planning Process

The 2010-2014 Seven Hills Technology Plan is the culmination of discussions and planning that has occurred over the past several years by the school's Technology Committee. The Committee consists of the Technology Lead, Technology Integration Specialist (TIS), User Support Specialist (USS), teachers, administrators, parents, and members of the school's Board of Trustees.

Discussions for our latest Technology Plan have been on-going. A focus was placed on conveniently and easily allowing all members of our community the opportunity to help shape the future of how our school utilizes technology to enhance the quality and efficiency of instruction and business processes. To help meet this goal, our discussions take place primarily in an online discussion forum. This has given all community members an opportunity to review updates and give feedback.

Needs Assessment & Evaluation

The technology needs of the school are determined through the discussions of the aforementioned Technology Committee, a technology needs assessment survey, informal observations, and school performance data from assessments including the MCAS, DIBELS, SRI (Scholastic Reading Inventory), and YPP (Yearly Progress Pro). As new needs are identified, suggestions for acquiring additional technology are presented for approval to school administration and the school's Board of Trustees when applicable.

The effectiveness and value of current technology (hardware and software) is considered and evaluated annually as are the needs for additional technology. When changes are appropriate for the overall benefit of the school community, the Technology Plan may be updated with the approval of school administration.

Technology Integration

All teachers at Seven Hills Charter Public School use technology regularly to:

- communicate with colleagues, families and other members of our school community via e-mail, online discussion forums, online chat, and class web pages
- plan lessons, research lesson content, and share their lessons with other staff
- complete administrative tasks such as class attendance, submitting leave requests, and submitting help requests via our online helpdesk
- manage online gradebooks
- access and share information about their students, including assessment scores and student support plans
- provide students with more opportunities to learn via our school's online learning zone, Study Island, reading intervention software, CD-ROM software, interactive websites, BrainPOP instructional videos and activities, online research, Moodle online course, webquests, Think.com collaborative project website, Pearson Successnet online textbooks, etc.
- assess student learning via Yearly Progress Pro (math), Scholastic Reading Inventory (reading), etc.
- manage and track tier 1 student behavior via our online "Stoplight" behavior tracking system
- manage and share records of all communication with students' families using an online contact log system

Technology Literacy

Students are exposed to technology consistently from grades K-8 throughout their time at Seven Hills. In addition to participating in weekly technology classes which explicitly aim to help students master the current Massachusetts Technology Literacy Standards and Expectations, students are also regularly given opportunities to improve their technology literacy within all classes. Every classroom has several laptops (4 each in grades K-1; 8 each in grades 2-7; full class sets in grade 8) which students use for research, skills practice, skills assessment, checking grades, communication, collaboration, and much more. Every classroom is also equipped with a multimedia projector and interactive whiteboard which teachers use with students in a variety of ways (e.g., direct instruction using visuals and manipulatives, learning centers for hands on practice, an opportunity for differentiating instruction, etc.). Teachers also have access to a Technology Integration Specialist to help them get the most out of all their classroom technology. Student progress toward meeting the Massachusetts Technology Literacy Standards and Expectations is checked each trimester and included as part of our school's standards-based report card (Student Learning Contract). Our goal is for at least 90% of eighth grade students to show proficiency in all the Massachusetts Technology Literacy Standards and Expectations for grade eight. We assess this level of mastery for eighth graders at the end of the year in which they complete grade eight.

Teachers' technology proficiency is assessed annually using the Technology Self-Assessment Tool (TSAT) within MassONE. These results, combined with technology survey results and informal observations by administration, instructional coaches, and technology team members, guide the technology trainings that we offer to teachers. 100% of teachers are working to meet the proficiency level in technology, and by the school year 2014-2015, we aim for 90% of teachers to have mastered 90% of the skills on the TSAT.

Staffing

Seven Hills Charter Public School has three full-time technology team staff members: 1 Technology Director/Lead, 1 Technology Integration Specialist/Teacher (TIS), and 1 User Support Specialist (USS). Data management is handled primarily by the Technology Director/Lead with support from the USS and TIS. Technology integration is handled primarily by the TIS with support from the Technology Director/Lead. Technology hardware/software support and user assistance is handled primarily by the USS with support from the Technology Director/Lead.

Technology Professional Development

Instructional staff members are offered a variety of technology professional development opportunities each year. TSAT results, Technology Committee discussions, technology needs assessment survey results (administered via Moodle) and informal observations by administration, instructional coaches, and technology team members, inform the decisions regarding what technology trainings that we offer to teachers each year. Technology professional development trainings include emerging technology issues, technology skills, universal design, and research-based models of technology integration. Recent trainings include grant 776 ARRA-funded interactive whiteboard trainings for all Math and ELA teachers, PowerSchool gradebook trainings, basic laptop troubleshooting trainings, etc. Some of these have online components and aim towards achieving sustainability (e.g., the interactive whiteboard trainings have a train-the-trainer aspect).

Additionally, our Technology Team provides weekly tech tips for teachers and is always available for individual and small group trainings on any topic that teachers need help with immediately. Teachers request these trainings through our online helpdesk.

Accessibility of Technology

Seven Hills Charter Public School increases its number of laptops available per student each year. As of the 2010-2011 school year, we have about 1 laptop for every 2 students, and we aim to have 1 laptop for every student by the start of the 2013-2014 school year. Our school employs a five-year computer replacement policy to ensure that all active computers are capable of meeting the evolving needs of teachers and students for use in class.

Additionally, every teacher is supplied with a laptop each year. Classrooms each have an interactive whiteboard and multimedia projector. A variety of other tools, including document cameras, digital cameras, wireless slates, digital voice recorders, assistive technology (e.g., alternative input devices, predictive text software, etc.) and Qwizdom interactive response systems are also available for teachers to use with their classes as appropriate for grade level and subject area. As additional needs arise, solutions are discussed within the Technology Committee and presented to the school's Superintendent and Board of Trustees for approval as applicable.

Internet access is available throughout Seven Hills Charter Public School. Every classroom and office has a wired connection available, and the building is entirely wireless (802.11g) – as are all our laptops. In summer 2009, we increased our Internet bandwidth by over 10 times what it was to keep up

with demand. We continually monitor demand and will consider upgrading to a connection with even more bandwidth should the need arise.

Network access is also available to all our computers. This access affords students and staff the ability to share files, print to one of our many networked printers, backup their files, and access a variety of networked applications. Staff can access our network and the Internet at any time they are in the building, including before and after school. Students can access our network and the Internet from within our building at any time they are in the building, including before and after school under the supervision of an available staff member.

The school's network and technology resources are managed by its Technology Team. Technical support can be requested through a variety of methods:

- an emergency cell phone line for problems that need to be resolved immediately
- an online helpdesk for all non-emergency issues
- an online chat for miscellaneous questions

Virtual Learning and Communications

Seven Hills encourages the development and use of innovative strategies for delivering high-quality courses through the use of technology. As of the fall of 2010, teachers in our school are using lessons that incorporate interactive whiteboards, web-based assessments, computer-based skills practice, multimedia projects and presentations, podcasting, webquests, Moodle online courses, Think.com collaborative projects and online discussions, and much more.

Technology also plays a crucial role in communicating with parents and other members of our school community. The school website is updated regularly with important announcements, new features, school newsletters, lunch menus, learning resources, etc. Parents and students also have 24/7 access to their grades and attendance information via PowerSchool, our student information system. Additionally, parents are periodically contacted with important announcements via our AutoDial phone messaging system and e-mail mailing list.

Safety, Security, and Data Retention

Seven Hills has a CIPA-compliant web filter and Acceptable Use Policy (AUP) regarding Internet and network use. The policy is updated as needed by the Technology Committee to help ensure safe and ethical use of resources by teachers and students.

We also educate teachers and students about appropriate online behavior using NetSmartz, guest speakers (including staff from the District Attorney's office) and other tools. Topics include cyberbullying, potential risks related to social networking sites and chat rooms, and strategies for dealing with these issues.

In order to protect the personal information of staff and students, Seven Hills employs a Written Information Security Plan (WISP). The WISP outlines how, as a school, we protect the security and confidentiality of personal information of our students and staff. All staff are trained on the WISP.

Seven Hills complies with federal and state law and local policies for archiving electronic communications produced by its staff and students. E-mails and files are all archived. The district also informs staff and students that any information distributed over the district or school network may be a public record.

Living Document

GOALS

Goals for Technology to Support Instruction

- Cultivate a community where technology is used safely and responsibly.
Strategy: The Internet provides access to a seemingly infinite supply of resources and a variety of ways to communicate with others across the world. Information is out there to be sought, and each user inevitably gets to decide what they will try to find on any given day – whether appropriate or not. Although there are many measures that institutions can take to prevent inappropriate and/or dangerous activity from taking place online, educating responsible computer users will be the most effective and meaningful solution to the problem. Accordingly, Seven Hills plans to continue its Internet safety education program using tools like Netsmartz to keep members of our community informed about the dangers that exist on the amazing educational tool that is the Internet. We also plan to continue to enforce the policies stated within our updated Acceptable Use Policy (AUP) which was approved by the school’s Board of Trustees prior to the 2010-2011 school year. All students and staff must adhere to the policies stated within the school’s AUP.
- Improve the level of student mastery of technology standards so that at least 85% of eighth grade students show proficiency in the Massachusetts Recommended PreK-12 Instructional Technology Standards.
Strategy: Technology integration is a staple of education at Seven Hills. Teachers from Kindergarten through eighth grade regularly incorporate technology tools into their lessons, often in conjunction with a resident Technology Integration Specialist. These technology-infused lessons not only engage students and expand their learning of Math, English or another subject, but they also teach students how to use a variety of technology tools – from spreadsheets to multimedia production software. Additionally, students practice using technology skills in technology classes which are offered for grades K-8. These classes include interactive lessons on digital citizenship, Internet safety, office productivity software, multimedia tools, and more per the Massachusetts Recommended PreK-12 Instructional Technology Standards.
- Utilize the school’s Technology Committee to inform decisions regarding the utilization of technology in the school.
Strategy: Seven Hills’ Technology Committee was created to help inform decisions regarding technology use throughout the school. It is open to all members of the school community including teachers, parents, administrators and students. To help lessen the burden on meeting, committee discussions take place entirely online using discussion forums. Ideas and feedback will continue to be shared on a variety of technology issues in order for our school to head toward the brightest possible technology future.
- Provide teachers with the technology tools and related training they need in order to improve student learning.
Strategy: By equipping teachers with the right technology tools (and training on how they can be used), we enable them to improve the learning experience for their students.

Goals for Technology Infrastructure

- Maintain the technology infrastructure to sustain the longevity and quality of all equipment.

Strategy: Technology, like anything else, is useless if it isn't in working condition. To ensure that this is the case, all equipment must be checked regularly. We will continue to utilize onsite tech staff and basic troubleshooting trainings for all users in order to maintain our equipment. We will also monitor our school's network bandwidth, storage capacity, etc. and update it as needed to stay ahead of increasing demand.

- Provide every student in grades K-8 with a capable wireless laptop.

Strategy: We believe that technology offers many benefits for learning and can improve the efficiency of classroom business. We aim to provide a 1:1 ratio of laptops to students schoolwide so that students can utilize laptops in all of their classes on a daily basis. We plan to do this by gradually adding more laptops to our school each year.

Goals for Technology Professional Development

- Achieve technology proficiency for at least 90% of teachers per the standards listed on the TSAT.

Strategy: We will continue to assess technology professional development needs via the Technology Self-Assessment Tool (TSAT). The TSAT provides us with a good sense of what teachers know and what they don't know. It allows us to target their needs and provide them with training that will be meaningful and helpful to them. Accordingly, we aim to have staff take the TSAT twice a year with several targeted trainings taking place between each. We will hold trainings on a variety of topics and also offer online videos, guides, and individual training as needed. The TSAT will be used to measure teachers' progress and the effectiveness of our trainings so that we can adjust as necessary.

- Equip teachers with the knowledge and comfort to use technology tools to improve instruction in their classrooms.

Strategy: We will offer teachers access to training on the wide variety of technology tools that we have available, including interactive whiteboards, document cameras, laptops, digital cameras, wireless tablets, digital voice recorders, and a multitude of software. Additional topics such as online learning, blogging, and utilizing web 2.0 tools will also be covered. Trainings will be offered regularly and always be available by request.

Timeline

Project	Completion / Implementation Date	Responsible Party
Hold regularly scheduled teacher trainings on everything from basic computer skills to application-specific tutorials.	Ongoing	TIS
Expand the membership of the school's Technology Committee to include more parents, students and local technology professionals.	Ongoing	Technology Committee
Increase the amount of time technology is used for instruction (interactive whiteboards, laptops, student response systems, document cameras, planning, etc.) to make teachers more efficient and learning more productive and effective	Ongoing	Technology Committee, Tech Team
Implement more web-based learning opportunities (e.g., coursework, communication, collaboration) that can be accessed from home or other locations outside of school hours.	Ongoing	Technology Committee, Tech Team
Plan, create, and implement a school-wide, web-based behavior management system for classrooms based on the existing stoplight color system that is used in many classrooms.	08/2010	Tech Lead
Develop student technology proficiency assessment.	04/2011	TIS, Tech Lead
Implement Study Island online learning and standards mastery practice for all grades K-8 in Math, ELA, Social Studies & Science where applicable.	08/2011	Tech Team
Improve and expand the school's use of assistive technology and universal design for learning (UDL) so that it is included in the protocol for every IEP and informal individualized student plan.	08/2011	Assistive Technology Committee
Develop, implement, and promote online professional learning communities to allow instructional staff to learn, communicate, and share resources both synchronously and asynchronously	10/2011	Tech Lead, TIS
Expand the use of class websites so that each class has one (based on template where applicable) to improve communication between classes and home.	10/2011	USS, TIS, Tech Lead
Upgrade wireless network to wireless N for improved range and speed.	07/2012	Tech Lead, USS
Upgrade Internet connection to further expand bandwidth and increase speeds – both downloading and uploading.	07/2012	Tech Lead, USS
Equip each classroom with a document camera.	08/2012	USS, Tech lead
Transition school website to a content management	08/2012	Tech Lead

system to allow all departments to take responsibility of their presence on the web.		
Transition all workstations to Windows 7 to ensure that we can use all the software and tools that we want to use in the years ahead.	08/2012	USS, Tech Team
Transition servers to Windows Server 2008 to ensure that we can use all the software and tools that we want to use in the years ahead.	08/2012	Tech Lead, USS
In collaboration with teachers, develop curriculum and timeline for technology integration with a goal of having 90% of eighth graders proficient in technology per the MA standards.	06/2013	TIS
Equip each classroom with a student response system or alternative.	08/2013	USS, Tech Lead
Provide every student in grades K-8 with a capable wireless laptop.	08/2013	Tech Team
Aim to improve teacher technology proficiency so that 90% of teachers have mastered 90% of the skills on the TSAT.	06/2014	TIS

Budget

Seven Hills Charter Public School views technology as an ongoing budget item. E-Rate funds part of annual technology costs, specifically the costs related to the school's Internet services. Fiscal operational funds and other additional grants comprise the remainder of the technology budget. The budget is utilized to fund staffing, infrastructure, hardware, software applications, professional development, support, and contracted services.

Progress Evaluation Process

The school's Technology Committee will be responsible for periodically checking on the progress of work completed toward achieving the goals set forth in this Technology Plan. Goals may be adjusted based on new developments and opportunities as they arise.

Standards

Seven Hills aims to guide students toward mastering the technology standards as outlined by the Massachusetts Department of Education which are reflective of the National Educational Technology Standards (NETS) outlined by International Society for Technology in Education (ISTE) and the recommendations of the Partnership for 21st Century Skills.

From the latest draft of the MA K-12 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.

- Complete document available at www.doe.mass.edu/edtech/standards/itstand.pdf

Living Document