

# South Shore Regional School District Technology Plan

2010-2015

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## MISSION & GOALS

The South Shore Regional School District, through its technology planning process, has the following mission:

1. To instruct students in the most current industry supported technologies to help students secure high-paying jobs.
2. To ensure that all students possess a level of technological literacy, regardless of their technical field, that is expected of all citizens living in the 21<sup>st</sup> century.
3. To create the conditions by which 100% of faculty members utilize instructional and administrative software that contributes directly to better instruction, enhanced student learning, and efficient communications with the school community, parents, and the school district communities.

To this end, the following pages outline the goals that need to be reached in order to best fulfill the above mission statement.

### South Shore Regional School District Technology Committee

Pam Titus, Director of Pupil Services  
Crystal Paluzzi, Director of Technology  
Tom Hickey, Assistant Director-Principal  
Gene Kelly, Assistant Principal, Director of Adult Education  
Meredith Lebo, Library Media Specialist  
Mark Aubrey, Dean of Students

## **Benchmark 1**

### **Commitment to a Clear Vision and Implementation Strategies**

- A. 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 2014-2015.

*The district technology plan is based in part on results from the school improvement plan that is coordinated by the school council. The School Council survey contains a comprehensive section on district technology needs which allows us to receive feedback from students, staff, parents, advisory committee members and other community members. The District Technology Committee reviews district technology goals in the fall of each school year prior to budget planning for the following fiscal year.*

- B. 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 full support of the school superintendent to implement the plan.

*A district technology committee is in place and is comprised of a diverse representation of the school community. The committee meets at least annually to address short and long range planning issues, goals alignment, purchasing recommendations and budgetary considerations. The school superintendent is fully supportive of the implementation of the district's technology plan.*

- C. Needs Assessment

1. The district assesses the technology products and services that will be needed to improve teaching and learning.
2. The technology plan includes an assessment of the services and products that are currently being used and that the district plans to acquire.

*The technology committee meets yearly, prior to the budget planning process beginning, to assess the current technology in use and future needs. The director of technology uses industry publications and professional affiliations to remain abreast of emerging technologies and make recommendations. This is done in collaboration with department chairs. A technology budget planning worksheet is submitted by each department and is used by the director of technology to assess continued use of existing technology and the need for future purchases.*

#### D. Budget

1. The district recognizes that technology plays a critical role in achieving its goals. The district has a budget that will ensure the implementation of its long-range technology plan.
2. The budget includes staffing, infrastructure, hardware, software applications, professional development, support, and contracted services.
3. The district seeks funding for technology programs from federal, state, and private resources, as well as from academic departments that are supported by technology. The district explores ways that technology can reduce costs and create efficiencies in other areas of the district budget.
4. For districts that plan to apply for E-rate reimbursement, the technology plan specifies how the district will pay for the non-discounted portion of their costs for the services procured through E-rate.

***Within the school budget there is a District Technology cost center funded each year to adequately provide for the necessary equipment, services, and supplies as outlined in our technology plan. The district also funds a full-time Technology Director and a full-time library/media specialist. The district's professional development plan and professional development budget also covers technology training. In addition, each department includes technology needs within their cost centers. Entitlement grant funds are utilized to the extent possible for the support of technology. The district is fully committed to funding the non-discounted portion of services procured through E-rate utilizing monies from the district technology cost center.***

#### E. Evaluation

1. The district routinely consults with technology staff before purchasing technologies items, to ensure that the items are appropriate, cost-effective, and sustainable.
2. The district's technology plan includes an evaluation process that enables it to monitor its progress in achieving its goals and to make mid-course corrections in response to new developments and opportunities as they arise.

***All technology purchases are reviewed by the Director of Technology prior to being approved. During budgetary planning each department submits a Technology Planning worksheet so that all technology needs can be assessed to make sure they are appropriate, cost-effective, and sustainable. Any needed***

*mid-course corrections are discussed during monthly departmental meetings and implemented promptly if appropriate.*

## **Benchmark 2**

### **Technology Integration and Literacy**

#### A. Technology Integration<sup>1</sup>

1. Outside Teaching Time - At least 90% of teachers use technology every day, including some of the following areas: research, lesson planning, organization, administrative tasks, communications, and collaboration. Teachers explore evolving technologies and share information about technology uses with their colleagues.
2. For Teaching and Learning - At least 90% of teachers use technology appropriately with students every day to improve student learning of the curriculum. Activities include some of the following: research, multimedia, simulations, data analysis, communications, and collaboration. Teachers integrate evolving technologies that enhance student interest, inquiry, analysis, collaboration, and creativity.

#### B. Technology Literacy

1. At least 90% of eighth grade students show proficiency in all the *Massachusetts Technology Literacy Standards and Expectations* for grade eight<sup>2</sup>.
2. 100% of teachers are working to meet the proficiency level in technology, and by the school year 2014-2015, 90% of teachers will have mastered 90% of the skills in the Massachusetts Technology Self-Assessment Tool (TSAT).<sup>3</sup>

***The district does not include 8<sup>th</sup> graders.***

***100% of teachers utilize technology for administrative functions and are provided various modes of training to meet proficiency in this area. The TSAT has been inconsistently utilized in the past, but our goal is that by the end of the***

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<sup>1</sup> The Massachusetts Department of Elementary and Secondary Education defines technology integration as the daily use of technology in classrooms, libraries, and labs to improve student learning.

<sup>2</sup> The *Massachusetts Technology Literacy Standards and Expectations* are available on the Department's website (<http://www.doe.mass.edu/edtech/standards.html>).

<sup>3</sup> The *Technology Self-Assessment Tool* is available on the Department's website ([http://www.doe.mass.edu/edtech/standards/sa\\_tool.html](http://www.doe.mass.edu/edtech/standards/sa_tool.html)).

*2015 school year we will meet this standard and have the TSAT data to ensure it is met. Our current estimate is that at least 75% of our teachers have mastered 90% of the skills in the Massachusetts TSAT and 60% of our teachers utilize technology appropriately with students every day.*

### C. Staffing

1. The district has a district-level technology director/coordinator.
2. The district provides one FTE instructional technology specialist per 60-120 instructional staff to coach and model.
3. The district has staff specifically dedicated to data management and assessment.

*The district employs one full-time Technology Director and one full-time library/media specialist who provides coaching and modeling in the area of instructional technology. The district also funds a part-time employee who is responsible for some data assessment.*

*Our goal is that by the end of the 2015 school year we will have one dedicated instructional technology specialist (separate from the library/media specialist position) and a full-time dedicated data analyst in charge of data management and assessment.*

## **Benchmark 3 Technology Professional Development**

- A. At the end of five years, at least 90% of district staff will have participated in high-quality, ongoing professional development that includes emerging technology issues, technology skills, universal design, and research-based models of technology integration.
- B. Technology professional development is sustained and ongoing and includes coaching, modeling best practices, district-based mentoring, study groups, and online professional development.
- C. Professional development planning includes an assessment of district and teachers' needs. The assessment is based on the competencies listed in the Massachusetts Technology Self-Assessment Tool.<sup>4</sup>

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<sup>4</sup> The *Technology Self-Assessment Tool* is available on the Department's website ([http://www.doe.mass.edu/edtech/standards/sa\\_tool.html](http://www.doe.mass.edu/edtech/standards/sa_tool.html)).

- D. Administrators and teachers consider their own needs for technology professional development.<sup>5</sup>

*Technology professional development is provided to 100% of staff utilizing various models including standard classroom-based instruction, coaching and modeling, and virtual assistance utilizing email and other web-based programs to answer questions and provide tutorials. Professional development planning is based on data received from the School Council survey, staff requests, and district initiatives. Our goal is to utilize the TSAT to ensure technology professional development is fully addressing the needs of our community.*

## **Benchmark 4**

### **Accessibility of Technology**

#### A. Hardware Access

1. By 2014-2015, the district has an average ratio of one high-capacity, Internet-connected computer for each student. (The Department will work with stakeholders on a regular basis to review and define high-capacity computers.)
2. The district provides students with emerging technologies appropriate to their grade level.
3. The district maximizes access to the general education curriculum for all students, including students with disabilities, using universal design principles and assistive technology devices.
4. The district has procurement policies for information and instructional technologies that ensure usability, equivalent access, interoperability and SIF compliance<sup>6</sup>.
5. The district provides technology-rich classrooms, with access to devices such as digital projectors, electronic whiteboards, and student response

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<sup>5</sup> A sample administrator technology self assessment tool is available on the Department's web site ([http://www.doe.mass.edu/edtech/standards/tsat\\_sampadmin.html](http://www.doe.mass.edu/edtech/standards/tsat_sampadmin.html)). Administrators may also want to refer to the *National Educational Technology Standards (NETS•A) and Performance Indicators for Administrators* published by the International Society for Technology in Education ([http://www.iste.org/Content/NavigationMenu/NETS/ForAdministrators/2009Standards/NETS-A\\_2009.pdf](http://www.iste.org/Content/NavigationMenu/NETS/ForAdministrators/2009Standards/NETS-A_2009.pdf)).

<sup>6</sup> For more information, see the website for the SIF Association (<http://www.sifinfo.org/us/index.asp>).

systems.

6. The district has established a computer replacement cycle of five years or less.

***The district currently is close to achieving the recommendation of 1 high capacity internet-connected computer per student. Our goal is to attain this benchmark by the end of the 2012-2013 school year.***

***The district is committed to providing students with new and emerging technology in both academic and vocational settings. Each of our vocational programs utilizes advisory committee members to ensure programs are keeping abreast of the latest industry standards. Our academic classrooms are well-equipped with the latest technology, including 90% of rooms having projectors and smartboards, and many having interactive response systems, wireless slates, computer monitoring software, wireless laptop carts, and assistive technologies, to name just a few. Our goal is to have 100% of our classrooms be equipped with smartboards and projectors by the end of the 2012 school year.***

***The district has a computer replacement policy of at least 5 years (with some departments on a 3 year rotation due to the nature of their computing requirements – such as CAD software and Graphic Design).***

***Our procurement policy assesses for usability, access and interoperability but does not yet ensure SIF compliance. Our goal is to add SIF compliance to our procurement policy by the end of the 2011 school year and to have all of our data systems SIF compliant by the end of the 2015 school year.***

## B. Internet Access

1. The district provides connectivity to the Internet for all computers in all classrooms in all schools, including wireless connectivity.
2. The district provides an external Internet connection to the Internet Service Provider (ISP) of 100 Mbps per 1,000 students/staff.<sup>7</sup>
3. The district provides bandwidth of at least 10/100/1 Gb to each classroom. At peak, the bandwidth at each computer is at least 100 kbps. The network card for each computer is at least 10/100/1 Gb.

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<sup>7</sup> For more information, see the 2008 report *High-Speed Broadband Access for All Kids: Breaking through the Barriers* published by the State Educational Technology Directors Association (SETDA), available on SETDA's website (<http://www.setda.org/web/guest/2020/broadband>).

***The district network currently meets all of these standards. Our campus-wide wireless network has some dead spots. Our goal is to eradicate all dead spots by the end of the 2011-2012 school year. Additionally, our goal is to upgrade the entire network from 100Mb to 1Gb to each computer. We hope to achieve this goal by the end of the 2014-2015 school year.***

C. Networking (LAN/WAN)

1. The district provides internal wide area network (WAN) connections from the district to each school between schools of at least 1 Gbps per 1,000 students/staff.
2. The district provides access to servers for secure file sharing, backups, scheduling, email, and web publishing, either internally or through contracted services.

***Our district consists of a single building hence we do not have a WAN.***

***The district provides access to file sharing, email, backups, and scheduling currently for staff, but by the end of the 2010-2011 school year we will provide access to cloud computing with storage, email, web publishing, and scheduling for all students as well. By the end of the 2012-2013 school year we hope to have 60% of our staff utilizing the cloud resources as an integral part of their curriculum. By the end of the 2014-2015 school year we'd like to have that number increase to 80%.***

D. Access to the Internet Outside the School Day

1. The district provides access to its computer labs before and after school to ensure that students and staff have adequate access to the Internet outside of the school day.
2. The district disseminates a list of up-to-date list of places where students and staff can access the Internet after school hours.

***The main computer lab is open both before and after school for students and staff. Our website maintains information on where students and staff can access the internet in the community after school hours.***

E. Staffing

1. The district provides staff or contracted services to ensure that its network is functioning at all times.
2. The district provides resolves technical problems within 24 hours, so that they do not cause major disruptions to curriculum delivery. The district provides clear information about how to access technical support, which can be provided in person or remotely.
3. The district provides at least one FTE person to support 400 computers. Technical support can be provided by dedicated staff or contracted services.

*The director of technology provides primary responsibility for all network functions as well as all technical support in the district. The director is essentially on-call 24 hours a day to ensure network up-time is maintained at the highest level possible. Tech support is augmented by the use of Computer Technology students to try to have all requests resolved within 24 hours. We hope to reach this benchmark by the end of the 2013-2014 school year. Our current turn-around time is approximately 2 days. Access to technical support is done via form submission or email and all policies are clearly outlined in the employee handbook.*

## **Benchmark 5**

### **Virtual Learning and Communications**

- A. The district encourages the development and use of innovative strategies for delivering high-quality courses through the use of technology.
- 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.
- C. Classroom applications of virtual learning include courses, collaborative projects, field trips, and discussions.
- D. The district maintains an up-to-date website that includes information for parents and community members.

*The district is strongly committed to the use of innovative strategies in course delivery. The administration encourages teachers to experiment with new technologies and provides mentoring and instruction when needed through either the director of technology or the library/media specialist. We also maintain stipend positions for technology coaching purposes to further provide one-on-one instruction for teachers wanting to bring new technologies into their classrooms. The network infrastructure supports virtual learning. The district website is updated regularly for content, but the overall site is*

*antiquated. A new website will be launched this fall and we are committed to continually updating the site to ensure it remains fresh and useful. By the end of the 2011-2012 school year our goal is to have a part-time Webmaster in charge of the website.*

## **Benchmark 6**

### **Safety, Security, and Data Retention**

- A. The district has a CIPA-compliant Acceptable Use Policy (AUP) regarding Internet and network use. The policy is updated as needed to help ensure safe and ethical use of resources by teachers and students.
- B. The district educates teachers and students about appropriate online behavior. Topics include cyberbullying, potential risks related to social networking sites and chat rooms, and strategies for dealing with these issues.<sup>8</sup>
- C. The district has a plan to protect the security and confidentiality of personal information of its students and staff.<sup>9</sup>
- D. The district complies with federal and state law<sup>10</sup>, 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.

*The district AUP is CIPA-compliant and is reviewed yearly to ensure continued compliance.*

*Although many of our teachers instruct students in appropriate online behavior, we do not currently have a process in place to ensure every student receives consistent instruction in this area. Our goal is to utilize the library/media specialist to provide a mandatory course in this area for all students. We plan to phase this in and have all students required to take such a course by the end of the 2013-2014 school year. Staff are instructed in appropriate online behavior on a yearly basis.*

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<sup>8</sup> To learn more about teaching students about safety and the Internet, see Net Cetera: Chatting with Kids About Being Online, a free guidebook produced through a partnership of federal agencies and the technology industry (<http://www.edgovblogs.org/duncan/2009/12/online-safety-guidebook-for-parents/>).

<sup>9</sup> To find out how state agencies in the Executive Branch must protect personal information, as well as to find training tools related to this effort, see the Commonwealth's website (<http://www.mass.gov/?pageID=afsubtopic&L=6&L0=Home&L1=Research+%26+Technology&L2=IT+Policies%2c+Standards+%26+Guidance&L3=Legal+Guidance&L4=Privacy+%26+Security&L5=Executive+Order+504&sid=Eoaf>).

<sup>10</sup> Information about state regulations is available from the state's Record Management Unit (<http://www.sec.state.ma.us/arc/arcrmu/rmuidx.htm>).

*The district adheres to best practices to ensure data stored on the network is secured both physically and virtually.*

*All email sent and received through our district email server is archived for a period of 7 years. This policy is clearly outlined in our employee handbook, and a tagline is appended to the bottom of every email message informing recipients that the message is considered a public record and that it will be archived in accordance with state and federal regulations.*

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