

**Technology Plan  
Saugus Public Schools  
2011-2014**

<http://www.saugus.k12.ma.us>

## Executive Summary

This document contains the Three-Year Technology Plan for the Saugus Public Schools developed by a technology committee comprised of many stakeholders. The stakeholders represent school department members [District Administrators, Building level Administrators, Teachers and Technology Specialists], local business people and parents. The Superintendent/Director of Technology charged the committee with creating a plan that would build upon the existing plan and be in compliance with the No Child Left Behind Act [NCLB] and the guidelines established by the Massachusetts Department of Education relative to local Technology Plans, the Massachusetts PreK-12 Instructional Technology Recommended Standards, and the 2011-2014 District Improvement plan establishes a long term vision for technology in the Saugus Public Schools. It sets forth six major goals for the district relative to technology.

- Align technology in the district to the district improvement plan
- Improve integration of technology in the curriculum
- Maintain and improve the technology infrastructure
- Maintain and improve support services
- Provide up-to-date high quality professional development relative to technology integration
- Review, assess and evaluate technology use in an on-going basis
- Utilize technology for data assessment to improve student learning

Full implementation of the proposed plan will require additional personnel, hardware, software, materials and professional development. The committee believes that the plan will enhance the district's local instructional program and ultimately enhance student learning. The plan will be reviewed and updated, as needed, on an annual basis. As outlined in the district improvement plan, technology plays an important role in the differentiation of instruction, the re-definition of the school experience to include afterschool time, and can provide the needed support for teachers in the alignment of the local curriculum with the Massachusetts Curriculum Frameworks. Technology is our means of communication with parents, students and the community at large. It is our belief that to help students become lifelong learners technology must be the seamless tool that permeates all learning. Students must, through their learning experiences, become comfortable with and proficient in the use of many types of technology to meet the needs of the twenty-first century work force. In order for this to occur it is imperative that the Saugus Public Schools have in place plans for networking and infrastructure, maintenance/support, professional development and hardware/software acquisition. The plan focuses on the school years beginning in September 2011 through the 2011 - 2014 school-years.

## **Benchmark 1: Commitment to a Clear Vision and Mission Statement**

**A.** This three year technology plan contains realistic clearly stated goals and strategies that align with Saugus' district-wide improvement plan. The School Committee is committed to achieving its vision by the end of the 2013-2014 school year. It is the belief of the technology committee that:

- Technology can add to learning environments and provide many opportunities for all students
- Technology can provide a sound/productive learning environment for all students
- Technology can assist teachers and staff by creating productive work environments
- The capacity of the district to utilize technology is embedded in the district 3 year District improvement plan
- The capacity of the district to utilize technology is linked to its commitment to develop learning communities that document processes and results; provide various learning opportunities and link with the district improvement plan.
- Emphasis is given to technology-rich learning experiences and opportunities – not just matching specific technological applications or software to instructional objectives.

We envision schools in the district where technology becomes a seamless tool for teaching, learning and communication. Technology is used by both the teachers and students to the fullest extent possible to enhance instructional processes. It is our belief that technology will be the tool which will enable all learners to access information; process information; think creatively; solve problems and communicate effectively and efficiently in the twenty-first century.

This plan acknowledges that the classroom of tomorrow will not resemble the traditional classrooms – there will be no boundaries. With the rapid advancement of technology in this information age it is essential that our school district take on the task of helping all learners recognize the importance of life-long learning and learning in the global not local community.

Our vision includes professional development opportunities that highlight best practices that are consistent, ongoing and linked to the district goals. We believe that teaching and learning are collegial activities and collegiality must be supported. We continue to require that there are ongoing processes where curriculum content is identified and assessed and viewed with an eye to the integration of technology. The increase of technology will affect all aspects of curriculum, teaching and learning and professional development activities as the district continues to work on its goal of creating learning environments that are twenty-first century relevant.

**B.** The Saugus Public Schools has an integrated Technology Plan Committee in place. Members include Administrators, Teachers, Finance Director, School Committee members and other interested stakeholders. The Team is an off shoot of the district improvement planning Committee. With membership from district administrators as part of the criteria, the committee has support from all levels of school department leadership.

### **C. Budget**

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

### **D. Evaluation**

1. The Saugus Public Schools evaluates the effectiveness of technology resources toward attainment of educational goals on a regular basis. The members of the instructional staff meet with the administrators to discuss and review the curriculum and resources. Prior to purchasing, the Saugus Public Schools assesses the products and services needed to improve teaching and learning. In addition prior to purchasing new technologies the district staff reviews and researches the effectiveness of the recommended purchases. The purchases are reviewed in light of how they fit into an educational environment, align with the capital improvement plan and district's improvement plan. References from other school districts are sought, considered and reviewed. The district also consults with contracted consultants and attempts to establish a trial of the product in question within the anticipated environment by both the end-user and the technical support staff.
2. The Saugus Public Schools' technology plan includes an evaluation process that enables the district to monitor its progress in achieving its technology goals and to make mid-course corrections in response to new developments and opportunities as they arise. After the purchase and installation of new technologies the items are evaluated in a short-term period not to exceed one year. The evaluation includes how the technology has impacted the educational processes in the district and how it aligns with the goals of the district improvement plan. Included in this evaluation is the question of how effectively the technology can be supported by the existing staff. The evaluation is a team effort by the end-users and the technical support staff as well as administrators within the district.

## **Benchmark 2: Technology Integration**

### **A. Teacher and Student Use of Technology**

1. (a) Outside the Classroom

85% of teachers use technology every day, including some of the following areas: lesson planning, administrative tasks, communications, and collaboration. Teachers share information about technology uses with their colleagues.

(b) Within the Classroom

By 2012-2013 the Saugus Public Schools will have 100% of the teachers using technology appropriately with students each week. This will include some of the following areas: research, multimedia, simulations, data interpretation, communications and collaboration.

2. At least 85% of students from grades 5 to 8 show proficiency in all the Massachusetts Recommended PreK-12 Instructional Technology Standards for Grades 5 to 8. Instructional Technology Teachers are in place in both the elementary and middle school levels to provide instruction for proficiency in these standards.
3. At least 90% of teachers are working to meet the proficiency level in technology, and by the school year 2012-2013, 80% of teachers will have reached the proficiency level as defined by the Massachusetts Technology Self-Assessment Tool (TSAT). This need is being addressed through the use of Instructional Technology Instructors and Professional Development opportunities.
4. The Saugus Public Schools has a CIPA – Compliant Acceptable Use Policy (AUP) regarding Internet use. The AUP was updated and revised during the 2010–2011 school year to expand on the CIPA compliancy. I also has updated policy in 2011 and looks to adopt Social Networking policy in 2011-2012 School year.

### **B. Staffing**

1. The district has two full time instructional technology staff at the elementary level, three full time instructional technology staff at the middle school level and five full time instructional technology staff at the high school level.
2. The district has a full time person dedicated to data management and assessment
3. The district has 1.5 full time technology staff dedicated to network management

## **Benchmark 3: Technology Professional Development**

- A. By the end of the 2012 – 2013 school year, at least 85% of the Saugus School Department staff will have participated in 45 hours of high-quality technology professional development covering technology skills and the integration of technology into instruction. This will take place through district in-service and on-line opportunities such as MassOne.
- B. Technology professional development in Saugus is sustained and ongoing and includes coaching, modeling best practices, district-based mentoring, and study

groups. The professional development includes concepts of universal design and scientifically based research models.

- C. Professional development planning includes assessment of Saugus' needs – district, school, teacher and student levels. The assessment is based on the competencies listed in the Massachusetts Technology Self-Assessment Tool (TSAT). These levels of competencies are reviewed on an annual basis in district to help with the professional development planning.

#### **Benchmark 4: Accessibility of Technology**

##### **A. Students per instructional computer**

1. With a four year replacement plan in place, the Saugus Public Schools will work beginning in 2011-2012 and through the 2012–2013 and 2013-2014 school years towards an average ratio of fewer than five students per high-capacity computer with Internet capabilities. The ultimate goal is to have one-one, high capacity, Internet connected student: computer ratio.
2. The Saugus Public Schools considers students' access to portable and/or handheld electronic devices appropriate to their grade level.
3. The Saugus Public Schools has established a computer replacement cycle of 5 years in the district plan.
4. High school adding 1-1 Computers for Advanced program of Studies in STEM

##### **B. Technical Support**

1. Saugus Public Schools makes a commitment to provide timely in-classroom technical support with clear information on how to access the support, so that technical problems will not cause major disruptions to curriculum delivery. The support is handled through the 2.0 F.T.E. staff members and other contracted support staff as well as the in-house instructional technology staff who have been trained to provide support.
2. By the 2012-2013 school-year the district will attempt to provide staff at an FTE rate that meets the guidelines of the Department of Education. The technical support will continue to be provided by dedicated staff and additional contracted services.

#### **Benchmark 5: Infrastructure for Connectivity**

##### **A. Internet Access**

1. The Saugus Public Schools provides connectivity to the Internet in all classrooms in all schools including wireless connectivity, if appropriate.

2. Saugus Public Schools provides bandwidth of at least 100/1000 MB to each classroom in district.

**B. Networking (LAN/WAN)**

1. Saugus Public Schools provides a minimum of 100/1000 Cat5e switched network and/or 802.11b/g/n wireless network.
2. During the 2009-2010 school-year the Saugus Public Schools upgraded and provided services for secure file sharing, backups, scheduling, e-mail, and web publishing, either internally or through contracted services. These services will be monitored and upgraded as needed in the future.

**C. E-Learning Environments**

1. By the 2012-2013 school-year the Saugus Public Schools plans to have in place more innovative strategies for delivering specialized courses through the use of technology. The district is using MASS ONE and Virtual High school as methods to deliver these courses.
2. The Saugus Public Schools deploys IP-based connections for access to web-based and/or interactive video learning on the local, state, regional, national and international level.
3. By the 2012-2013 school-year the Saugus Public Schools plans to have classroom applications of e-learning in place. These will include but not be limited to: courses, cultural projects, virtual field trips, etc.
4. In 2011-2012 School year Saugus has converted its High school and Middle school Libraries into "Learning Commons"; Virtual learning locations

**Benchmark 6: Access to the Internet outside of the School Day**

**A. The district maintains an up-to-date web site that includes information for parents.**

The Saugus Public Schools has been updating its web site during the school year 2009-2010. The site has begun to incorporate links to major information relative to the district. During the 2010-2011 school year the district plans to incorporate more information relative to a district calendar of events and general information for the parents. At the individual school level the district is planning to incorporate more information relative to individual school events and information. Links are being established to various Department of Education sites for parents.

**B. The district works with community groups to ensure that students and staff have access to the Internet outside of the school day**

The Saugus Public Schools has a close relationship with the Public Library to ensure that

students/parents have an opportunity to access the Internet during times that the schools are not open.

- C. **The district web site includes an up-to-date list of places where students and staff can access the Internet after school hours.**

As part of the update of the district website the district is working to include information where parents/students can access the Internet after school hours as part of the state's parent outreach initiative.

### **Technology Goals and Indicators 2011 - 2014**

The following list of goals and indicators will be used as guidelines to direct the integration of technology in the Saugus Public Schools during the school years from 2011-2012 through 2013-2014. In each instance the goal is stated and then categorized using the codes below:

P = priority level [h = high m = medium l = low]

B/E = begin year/end year – school years are referenced

I = indicator – comment will be attached relative to the indicator

#### **A. Hardware /Software**

Goals:

1. Increase the bandwidth of the wide area network and Internet connection

The School District has recognized that connectivity to the Internet is an essential element in the daily lives of students, teachers, and administrators. The demand on our bandwidth has increased over the years through various web based programs. All elementary schools participate in *Study Island*, an online educational tool used to simulate MCAS test questions to students. High school participates in online learning using Virtual High School. Saugus Public Schools has fully deployed a new student information system, X2, which is hosted by the X2 Development Corporation on their web servers. With X2, all schools are now using the Internet to post attendance, grades, and other student data and reports. With the help of both ERate and local funds, the district will start the process of upgrading the Internet service from Comcast cable modem lines to Switched Ethernet Service using fiber optic cable that will bring improved bandwidth to all buildings. This increase in bandwidth will greatly enhance both the educational as well as the work condition of all schools.

2. Need for centralized storage e-mail and archiving solutions

The School District is exploring options for a modern Network Data Center to house all district servers both in physical and virtual environment as well as locally hosted

e-mail server solution. It is increasingly necessary to share information between all school buildings and staff members and a centralized data center will provide these capabilities and allow for further network infrastructure improvements. This solution will help with state and federal requirements for data and e-mail archive/retention.

3. Conduct online survey of faculty relative to the use and comfort level with technology using DataDirector [P = h, B/E = 2011-2014, I = compiled results of survey will be published and shared with administrative team]
4. Identify hardware available to meet student/faculty needs [P = h, B/E 2011-2014, I = hardware inventory database compiled for the district]
5. Inventory software – identify software availability and ensure that all schools have access to it [P = h, B/E 2011-2014, I = software inventory database compiled for the district]
6. Install software on each computer appropriate to grade level [ P =h, B/E = 2011-2014, I = instructional technology teachers and support staff will identify appropriate software to meet the K-12 Instructional Standards]
7. Provide professional development to ensure that educators knowhow to use software [P = h, B/E = 2011-2014, I = Professional development activities will be provided during professional development days for all staff and by 2014 at least 80% of staff will meet the TSAT competency levels.]

## B. **Technology Integration**

Goals:

1. Familiarize faculty with technology standards that correspond to their appropriate grade level. [P = m, B/E = 2011-2014, I – Students will complete portfolio work in subjects that demonstrate technology integration skills]
2. District – wide meetings organized by grade level and discipline will incorporate into the agenda technology standards and how to integrate technology into the curriculum [ P = h, B/E = 2011-2014,I = teacher meetings will be noted with attached agenda and outcomes/recommendations at each building level]
3. Develop and publish and update curriculum plans with timelines incorporated that delineate the integration of technology standards [ P = m, B/E = 2011-2014, I = By 2013 curriculum plans will be published on the district website]
4. Incorporation of the curriculum plans into curriculum and instruction using the curriculum plans [ P = h, B/E = 2011-2014, I = By 2014 there will be district wide documentation of technology integration into curricular areas]
5. Data collection to validate successful implementation of the curriculum plans to use to determine future needs [ P = m, B/E =2011-2014, I= surveys, comparison of grades, MCAS scores and documented software results will be used to collect data for analysis]

### C. **Technology Support**

#### Goals:

1. Locate alternative sources of funding to supplement the technology budget [P = I, B/E = 2011-2014, I = grant/foundations reports]
2. Provide ongoing training and support for faculty in the area of technology [P = h, B/E = 2011-2014, I = faculty survey and TSAT results]
3. Inform the community as a whole through the district website technology web page and individual school web pages [ P =h, B/E= 2011-2014, I = community/parental feedback, e-mails and input from school based meetings]
4. Conduct an annual survey to determine the ongoing technology needs of the Saugus Public Schools [P = h, B/E = 2011-2014, I = compiled results will be published and shared with the administrators and stakeholders]
5. Train staff on effective use of Data warehouse for purposes of Student performance assessment to improve rigor and performance