

Lenox Public Schools

Lenox Massachusetts

Technology Plan

2009-2014

Benchmark 1

1. Commitment to a Clear Vision and Mission Statement

1. The Lenox technology plan contains a realistic and clearly stated set of goals and strategies that align with the district-wide school improvement plan. It is committed to achieving its vision by the end of the school year 2009-2014.

The Lenox Public School System is committed to providing students and staff members with the necessary technology tools needed to achieve the District's Mission and Expectations for Student Learning. We recognize that Technology does not stand alone as a curriculum area. Technology is integrated throughout our organization at every level and every area. Our environment is one that requires staff and students to be engaged in their teaching and learning utilizing the available tools of Technology to improve their teaching and learning. In order to support the District's Mission and Expectations for Student Learning the Technology Team will implement the following broad objectives over the 2009-2014 time frame:

- a. Students will have access to the Tools of Technology at every grade level and at every school, with a goal of a ratio of no more than 4 students per computer at the Elementary level, and 3 students per computer at the upper level.
 - b. All schools and classrooms will have unlimited filtered access to the Internet and to the district's server base.
2. The district has a technology team with representatives from a variety of stakeholder groups. The technology team has the support of the district leadership team.

- a. The district technology team is comprised of teacher and administrative representatives from all levels, as well as school committee members, and community members.
- b. The district technology team will meet at least twice per year.
- c. The district administrative leadership team will review technology developments on a yearly basis

3. Budget

- a. The district has a budget for its local technology plan with line items for technology in its operational budget.
 - 1. The District will create a budget that supports the technology plan as outlined for the 2009-2014 timeframe
 - 2. The District will provide for a technology upgrade cycle that reflects real world advances in Technology, replacing desktops every six years
- b. The budget includes staffing, hardware, software, professional development, support, and contracted services.
 - 1. The District will provide adequate staffing that is in agreement with the Department of Education guidelines.
- c. The district leverages the use of federal, state, and private resources.
 - 1. The District will apply for all available Massachusetts Department of Education grants, appropriate to the School District
 - 2. The District will apply for appropriate private grants as they become available and are in agreement with our Mission and Expectations for Student Learning, and are appropriate to the district's needs

4. Evaluation

- a. The district evaluates the effectiveness of technology resources toward attainment of educational goals on a regular basis. Prior to purchasing the district assesses the products and services that are needed to improve teaching and learning.

The District will evaluate the major aspects of technology resources on a yearly basis to include:

1. Online resources and Media/Library resources
 2. Internet provider systems
 3. Student information systems
 4. Student health information systems
 5. Business office accounting systems
 6. SPED information systems
 7. School internal broadcast information systems i.e. telephony, voice mail systems, and video
 8. Server level software systems
- b. The District's 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.
- c. The District will administer evaluations of their technology services to all stakeholders to include:
1. Teachers
 2. Students
 3. Administrators
 4. Support staff
 5. Parents
 6. Community members
- d. The District will evaluate the hardware and software needs at all levels and reapportion resources as needed

Benchmark 2

2. Technology Integration

A. Teacher and Student Use of Technology

1. Outside the Classroom

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

2. Teachers will use the available technology on a daily basis to:

- a. Access the Internet home pages for general announcements and schedules
- b. Send and receive email
- c. Retrieve, as necessary, curriculum maps and guides

3. Within the Classroom

a. At least 80% of teachers use technology appropriately with students each week, to include the following areas: research, multimedia, simulations, data interpretation, communications, and collaboration.

b. Teachers will use the available Technology with their students in the classroom and in the lab setting to:

- (1) Create, write, save and print word processed documents
- (2) Engage in content-grade level-specific learning activities
- (3) Engage in the various applications-Web based and Desktop based appropriate to their level

- c. At least 80% of students from grades 5 to 8 will show proficiency in all the Massachusetts Recommended PreK-12 Instructional Technology Standards for Grades 5 to 8.
 - (1) The Massachusetts Recommended PreK-12 Instructional Technology Standards will be implemented at the Gr5-6 level and at the Gr 7-8 level as defined in each level(s) curriculum
 - (2) Students at the Grade 8 level will be assessed at the midway point of their respective Technology “Specials” areas

- d. At least 90% of teachers are working to meet the proficiency level in technology, and by the school year 2013-2014, 80% of teachers will have reached the proficiency level as defined by the Massachusetts Technology Self-Assessment Tool (TSAT)
 - (1) All teachers will complete a TSAT or ISTE online self-assessment to establish a 2008-09 baseline
 - (2) Teachers will create their Professional Development plan taking special note of their Technology needs as identified in their self assessment
 - (3) Teachers will take the self-assessment every two years.

- B. The district has a CIPA -compliant Acceptable Use Policy (AUP) regarding Internet use.
 - 1. The District has an AUP for students and staff
 - 2. The District student AUP is posted on the lenoxps.org home page

C. Staffing

- a. The district has a full-time equivalent (FTE) district-level technology director/coordinator.
 - 1. The District Technology Coordinator has several shared responsibilities-Instructional technology-maintenance and Repair-Data management and network management
 - 2. The District recognizes the need to increasing support in the following areas-Classroom based instructional technology-District level data management

- b. The district will provide one FTE instructional technology teacher per 40-80 instructional staff. The District will have instructional support for classroom integration reaching the 40:1 level by the 2012-2013 year.

- c. The district has one FTE person dedicated to data management and assessment.
 - 1. The District has the equivalent of one FTE whose responsibility will include the day-to-day management of District and School level data

Benchmark 3

Technology Professional Development

- A. By the end of the school year 2013-2014, at least 80% of district staff will have participated in 45 hours of high-quality technology professional development covering technology skills and the integration of technology into instruction.
1. The District will provide Technology Professional Development to all staff utilizing the following formats:
 - (a) Graduate level Technology courses
 - (b) One to one instruction
 - (c) In-service days
 - (d) After school, evenings, weekends and summer workshops
 2. The Technology Professional Development opportunities will be offered in the following categories
 - (a) Developing Technology
 - (b) Proficient Technology
 - (c) Advance Technology
 3. Technology professional development 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, researched models.
 - (a) The Technology Professional Development will be sustained on a yearly basis with a dedicated allocation-financial and staffing, from the District professional Development budget
 - (b) The Technology Professional Development will include coaching, modeling of best practices, mentoring and level or discipline study groups
 - (c) Technology Professional Development activities will always include universal design when working on a particular related topic
 4. 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 created by the Department of Education.

- (a) An assessment of teachers needs, will be made annually in order to plan each year's Technology Professional Development
- (b) Individual teachers Professional Development Plan will address their needs associated with their Technology Competencies

Benchmark 4

Accessibility of Technology

A. Students per Instructional Computer

1. The district has an average ratio of fewer than three students per Internet-connected computer. The district will work with stakeholders to review the capacity of the computers on an annual basis.
 - (a) The District has a computer ratio of nearly 4:1 for type "b" computers-access to a LAN/WAN/Internet
 - (b) The District will maintain a ratio of 4:1 for type "b" computers
This will include handhelds, tablets, slates and pdas
 - (c) The district has established a computer replacement cycle of six years or less.
 - (d) The District will replace desktop computers at the staff, student, and administration level within a six-year replacement cycle

B Technical Support

1. The district 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.
2. The district provides at least one FTE person to support 200-300 computers. Technical support can be provided by dedicated staff or contracted services.

Benchmark 5

Infrastructure for Connectivity

A. Internet Access

1. The district provides connectivity to the Internet in all classrooms in all schools including wireless connectivity, if appropriate.
2. The district provides bandwidth of at least 10/100 MB to each classroom.

B. Networking (LAN/WAN)

1. The district provides a minimum 10/100 MB Cat 5 switched network and/or 802.11b/g wireless network.
 2. The District provides a switched 100MB network with 1GB backbone

C. The district provides services for secure file sharing, backups, scheduling, email, and web publishing, either internally or through contracted services.

1. The District will provide a secure file storage solution
2. Email is provided to all staff and upper level students
3. The District will provide for the web publishing of student and staff work.
4. A Central logon authentication system will be implemented.

D. E-Learning Environments

1. The district encourages the development and use of innovative strategies for delivering specialized courses through the use of technology.
 - (a) The District encourages students and staff to make full use of the many opportunities for learning provided via the web.
2. The district deploys IP-based connection for access to web-based and/or interactive video learning on the local, state, regional, national, and international level.

3. Classroom applications of e-learning include courses, cultural projects, virtual field trips, etc.
 - (a) The District will have the capacity through hardware, software and bandwidth to provide for any e-learning course that is available or may become available

Benchmark 6

Access to the Internet outside the School Day

- A. The district maintains an up-to-date web site that includes information for parents.
 1. The District has an updated District web site at www.lenoxps.org
 2. The District web site includes a variety of information pertinent to all schools and levels
- B. The district works with community groups to ensure that students and staff have access to the Internet outside of the school day.
 1. The District allows students access to their computers prior to and after school. Additional Hours should extend into the evening