

# WINCHESTER PUBLIC SCHOOL TECHNOLOGY PLAN



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*Winchester Educational Technology Department*

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## **MISSION:**

The Winchester Public School District (WPSD) recognizes the increasing need to know how to access, interpret, assimilate and communicate in the 21<sup>st</sup> century. By seamlessly integrating technology into our K-12 programs, WPSD will provide students with the opportunity to develop lifelong learning skills with the help of enabling technology and innovative methods. Through technology teachers, administrators, and support staff will be more efficient and effective in facilitating, managing and creating new learning environments.

## **VISION:**

The Winchester Public School District will implement technology as an integral part of the district's educational program through an integrated, comprehensive framework. This framework will encompass acquisition, application and evaluation of innovative approaches to maximize student learning.

## **OBJECTIVES:**

**Provide Effective Access and Connectivity:** Provide the technical infrastructure to support communication, collaboration and access to tools within Winchester and extensions to the external world to allow for global sharing.

**Provide an Equitable Experience District-Wide:** Provide an equitable educational experience for all students in the WPSD so that all students are able to achieve success and experience an enriched learning environment through the use of 21<sup>st</sup> Century Resources.

**Provide Training, Instructional Assistance and Support:** Provide the appropriate level of training to facilitate the learning process using technology. Provide the appropriate level of staffing to work on an individual or group basis with educators to facilitate the integration of technology into curriculum work. Provide the appropriate level of support to sustain a working infrastructure so that educators can rely on tools when needed to enhance the core curriculum.

### **By using technology as a tool, students will:**

- Expand their knowledge base and facilitate their own learning process.
- Improve their critical-thinking, problem-solving, and decision-making skills.
- Access, analyze, evaluate and communicate information in expedient and efficient ways.
- Work ethically, independently and collaboratively with their local and global communities.

### **By using technology as a tool, teachers will:**

- Expand instructional strategies to create and support a multi-dimensional learning environment to increase achievement and motivation for all students.
- Accurately and efficiently assess, monitor and communicate student progress to parents.
- Continually improve professional skills through a commitment to on-going training and development in technology.
- Share skills and resources with colleagues.

**By using technology as a tool, administrators will:**

- Provide, solicit and seek adequate funding, maintenance, support, training and equipment.
- Demonstrate leadership and a vision for the use of the technology to increase student achievement and staff productivity.
- Provide immediate and easy access to and manipulation of equipment and data sources for instructional and administrative decision-making.
- Integrate technology and procedures and guides.

**CURRENT STATE OF TECHNOLOGY WITHIN WINCHESTER:**

Standards for the incorporation of technology into the public school system have been established at both the state and national levels.

The Massachusetts Department of Elementary and Secondary Education (DESE) has outlined a set of benchmark standards to guide school districts in establishing goals for their technology plans. To date Winchester has achieved the following:

Mass DESE Benchmarks	Winchester Resources	Achieved Y/N
<b>Benchmark 1 Commitment to a Clear Vision and Mission Statement</b>		
A. The district's 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 2014-2015.	WPS Technology Plan	YES
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.	WPS District Technology Committee	YES
C. Needs Assessment	1. The district assesses the technology products and services that will be needed to improve teaching and learning.	Ongoing
	2. The technology plan includes an assessment of the services and products that are currently being used and that the district plans to acquire.	YES
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.	YES, Significant increase in '11

	2. The budget includes staffing, infrastructure, hardware, software, professional development, support, and contracted services.	WPS School Budget	YES
	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.	WPS School Operating Budget, Parent Organizations, ERate reimbursement when applicable, WFEE (local foundation) has funded numerous technology initiatives, which have been initiated by teachers with specific objectives in mind.	YES
	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.	Operating Budget	YES
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.	Strategic placement of ITS staff on curriculum steering committees. DCATT (District Curriculum and Technology Team)	YES
	2. 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.	DCAT, Professional Development, Instructional Technology Specialists	YES
<b>Benchmark 2 Technology Integration and Literacy<sup>1</sup></b>			
A. Technology Integration	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	Faculty Resources sharing folder is beginning to populate to encourage sharing among colleagues. Edline and Gradequick	YES

<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.

	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.	Although we have made some significant strides there is still more to do in this area.	Work in Progress
B. Technology Literacy	1. At least 90% of eighth grade students show proficiency in all the <i>Massachusetts Technology Literacy Standards and Expectations</i> for grade eight <sup>2</sup> .	Scheduled classes for Grades 3, 4, 5, 6, 7 and 8, Detailed reports from both Computer Ed and ITS teachers are submitted. In Grades 6-8 completion of a project to capture student proficiency level.	YES
	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>		Work in Progress
C. Staffing	1. The district has a district-level technology director/coordinator.	Director of Educational Technology	YES

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<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)) .

	2. The district provides one FTE instructional technology specialist per 60-120 instructional staff to coach and model.	Currently there are approximately 650 staff members in the WPSD and a total of 3.5 (full time equivalent) staff members to support the integration (ITS) of technology into curriculum plans. District ratio 1 ITS to 186 staff members.	Work in Progress
	3. The district has staff specifically dedicated to data management and assessment.	Information Management Specialist primary focus is data management.	YES

**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.		Work in Progress
B. Technology professional development is sustained and ongoing and includes coaching, modeling best practices, district-based mentoring, study groups, and online professional development.	The majority of staff members have participated in some form of technology training. The level to which they are independently proficient varies. Most teachers have voiced a desire to participate in more professional development activities including online opportunities.	YES
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>	Professional development opportunities are offered based on these results and direct conversations with staff.	Work in Progress
D. Administrators and teachers consider their own needs for technology professional development. <sup>5</sup>	TSAT was taken a few years ago by all staff.	Work in Progress

<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) ).

<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/standards/nets-for-administrators.aspx>).

**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.)	As a school district we meet ratios for access, but some schools still have inadequate access.	Work in Progress
	2. The district provides students with emerging technologies appropriate to their grade level.		Work in Progress
	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.	Assistive Technology Teacher	Work in Progress
	4. The district has procurement policies for information and instructional technologies that ensure usability, equivalent access, interoperability and SIF compliance <sup>6</sup> .		Work in Progress
	5. The district provides technology-rich classrooms, with access to devices such as digital projectors, electronic whiteboards, and student response systems.	All classrooms at both WHS and Ambrose have ceiling mounted LCD projectors. Interactive boards in various locations throughout the district with a primary focus on Grade 5, Math and Science.	Work in Progress
	6. The district has established a computer replacement cycle of five years or less.	Replacement Schedule Document but limited funding attached to the document.	Work in Progress

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

B. Internet Access	1. The district provides connectivity to the Internet for all computers in all classrooms in all schools, including wireless connectivity.	Summer of 2011 all school buildings are wireless. Seamless access for staff among school buildings.	
	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>	The district's internet connection goes through the town hall.	Yes
	3. The district provides bandwidth of at least 10/100/1Gb 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.	As machines are replaced this is the standard for a network card. Many but not all of the switches throughout the district have been replaced to support these guidelines.	Work in Progress
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.	Fiber between all schools.	YES
	2. The district provides access to servers for secure file sharing, backups, scheduling, email, and web publishing, either internally or through contracted services.	File sharing occurs on a regular basis and access for all users at any location throughout the district. Both full and incremental backups are a scheduled task to run automatically.	YES
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.	The Local Library provides access to the internet outside of the school day.	YES

<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>).

	2. The district disseminates a list of up-to-date list of places where students and staff can access the Internet after school hours.		YES
E. Staffing	1. The district provides staff or contracted services to ensure that its network is functioning at all times.	Network Manager	YES
	2. The district 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.	Help desk/ticket system is in place for reporting. Remote access to computers has significantly improved the turn around time on repairs.	Work In Progress
	3. The district provides at least one FTE person to support 400 computers. Technical support can be provided by dedicated staff or contracted services.	Although a technology team is in place, the team is currently understaffed and cannot support the curriculum or professional development needs in a way that complies with state requirements or is on par with peer towns. 1 Repair Tech to 400 computers.	NO

**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.		Work In Progress
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.		YES
C. Classroom applications of virtual learning include courses, collaborative projects, field trips, and discussions.	Discovery Education has been purchased by some schools. Several other applications are used by classroom teachers. Skype is also used to interact with schools both in and outside of the US.	Work In Progress
D. The district maintains an up-to-date web site that includes information for parents and community members.	<a href="http://www.winchester.k12.ma.us">www.winchester.k12.ma.us</a> Redesign of district/school websites. A web committee has submitted recommendations to the district and currently there is a plan in place to	Work in Progress

	move all schools into using Edline for their website content.	
<b>BENCHMARK 6 Safety, Security and Data Retention</b>		
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.	Located on District Website	YES
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>		YES
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.	Resources in place to archive staff emails.	YES

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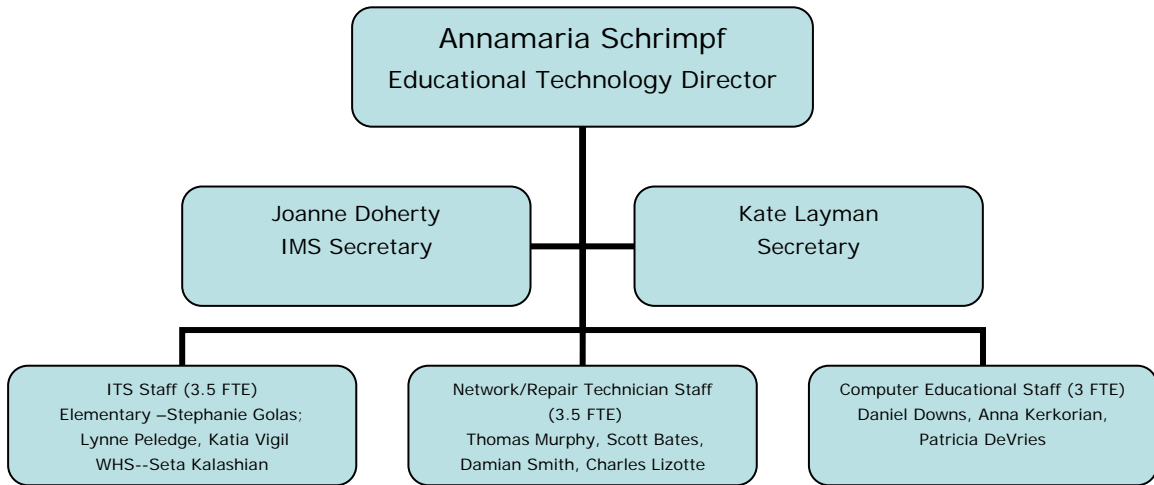
<sup>8</sup> To learn more about teaching students about safety and the Internet, see Net Cetera: Chatting with Kids About Being Online, a free guidebook produced through a partnership of federal agencies and the technology industry (<http://www.edgoblogs.org/duncan/2009/12/online-safety-guidebook-for-parents/>).

<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/anf/research-and-tech/>).

<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 Current Educational Technology Organization:**

The Winchester Public School System Educational Technology Organization is provided below. It should be noted that the Educational Technology staff currently supports a total population as follows:



The Educational Technology staff currently supports a total population as follows:

Student Population	PreK-12 <b>4166</b>	or	K-12 <b>4067</b>
Teachers (specialists) Population	324		
Teaching Assistants	74.15		
Nurses	7		
Special Needs Instructors	17		
Admin Support (including techs)	48.60		
Administrative Population	30.40		
Total Population	PreK-12 <b>4667.75</b>	or	K-12 <b>4568.75</b>
Ratio of entire Ed Tech Staff to Total Population	1:518		1:508

Updated: 2/7/11

**Note:** These numbers represent **full time** equivalents, not headcount.

The Director of Educational Technology is responsible for the technical, administrative and educational needs of the district. This person delivers technology into the school district including the development, coordination, articulation, implementation, assessment and oversight of educational technology and computer education curriculum for grades PreK-12.

The Instructional Technology Specialists (ITS) provide instruction, training and resources to facilitate the use of technology in the classroom. At the elementary level, the ITS conduct classes in Technology Literacy for Grades 3-5 and co-teach integration lessons with various teachers along with the development of curriculum materials and lesson plans that take advantage of technology to more effectively educate our student population. At the high school, the ITS co-teaches with the teachers along with the development of curriculum materials and lesson plans. The ITS specialists are certified as Instructional Technology Specialists by the DESE and have a teaching background.

The network administrator/repair technician staff members are responsible for maintaining computer "uptime" and managing the various school computing environments to ensure an effectively running infrastructure. In addition, these staff members work proactively to minimize adverse conditions such as viruses and worms and ensure that the WPS environment is free from the receipt of inappropriate network content.

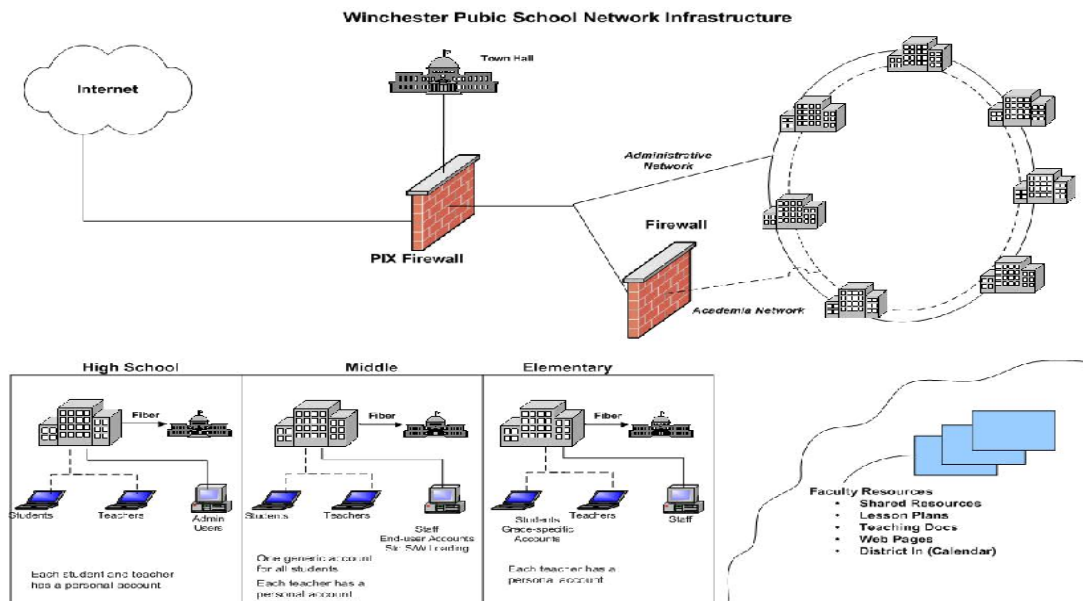
The Computer Education teachers are full time teachers who deliver computer-related courses to students at various levels throughout the school system. These teachers currently conduct classes at both the middle and high school levels.

## WINCHESTER SCHOOL DISTRICT COMPUTING INFRASTRUCTURE:

The current network backbone consists of fiber links between each school building and municipal facility. One Broadband cable line runs out of town for Internet connectivity. Each school has been assigned three virtual local area networks (VLAN); academic, administrative and wireless. Each school has the potential to access a wireless virtual local area network for academic purposes. All school buildings have wireless connectivity. The entire school district runs in a Windows domain.

Faculty resources have been set up in a way that allow for sharing of documents if desired. Administrative resources have been set up in a way that allow for privacy of information as well as protected sharing of information.

At the elementary school level, grade specific generic accounts are used for student logins. At the middle and high school level individual user accounts are used for student logins. Pre-selected software is available at all schools for school use. Students are denied access to load software onto school computers. All students must comply with district wide regulations regarding the use of computers, software and the Internet.



## Applications:

The following software is available throughout the district. (Due to the varying degrees of software and licensing not all schools use every product and oftentimes teacher requests determine which software is used.)

### District Software Applications

#### Operating System

- o XP and 7 (NTFS format)
- o Mac OS X Lion

#### Network Management Applications

- o Altiris
- o VMWare
- o Kaspersky
- o Windows Server 2003
- o Back Up Exec
- o Linux Red Hat
- o Websense
- o Schooldude
- o XenAPP

#### Administrative Applications

- o Microsoft Office 2003/2007
- o Administrator Plus
- o Gradequick (McCall, WHS)
- o Edline
- o QSP
- o School Messenger
- o Munis
- o First Class
- o eSPED
- o Destiny
- o SNAP
- o Naviance

#### Special Education Software

- o Dragon Speak Naturally
- o Kurzweil
- o CoWriter
- o Writer Out Loud
- o Boardmaker Version 3.2
- o WiscIII and Wiatt IV
- o IntelliTools, Intellipics
- o BASC 2
- o WIATT
- o Woodcock Johnson

#### Elementary Software

- o All the Right Type
- o Inspiration 6.0
- o Kidspiration 2.1 (Ambrose, Lincoln, Lynch)
- o Scholastic Keys 1.3 (Ambrose, Lincoln, Lynch, Muraco)
- o SuccessMaker
- o Timeliner Version 5.0
- o Stationary Studio (Lincoln)
- o Tessellation Exploration (Lincoln)
- o Pixie, Share and Frames
- o Lexia
- o Lego We Do and Mindstorms
- o **Online Resources**
  - o Brain Pop
  - o Brain Pop ESL
  - o RAZ Kids
  - o Discovery Education
  - o Voice Thread
  - o Glogster

#### McCall Middle School Software

- o Adobe PhotoShop Elements
- o All the Right Type
- o Geometry Sketchpad
- o SuccessMaker
- o Timeliner Version 5.0
- o Lexia
- o **Online Resources**
  - o Brain Pop
  - o Brain Pop ELL
  - o Discovery Education
  - o Voice Thread
  - o Glogster

#### High School Software

- o Adobe CS5 (250 licenses)  
Design Premium

#### Animation Lab

- o After Effects
- o All the Right Type
- o Dreamweaver v CS3
- o Flash
- o FTP Client
- o MP3 Rip Utility
- o Adobe CS5  
Design Premium

#### Art Lab

- o Adobe CS5  
Design Premium
- o Graph Soft Archibald 9-S

#### Integration Lab

- o Support Software for Curriculum

#### Math Lab

- o Geometry Sketch Pad
- o Texas Instruments Calculator

#### Science Labs

- o Interactive Physics
- o Microsoft Visual Studio MSE
- o Vernier Software/Graphical Analysis
- o Logger Pro
- o NIH (National Institute of Health)

#### CAD Lab

- o DataCAD
- o Sketch Up

#### TV Video Production

- o Final Cut Studio (1 license)
- o Final Cut Express (3 licenses)

#### Foreign Language Lab

- o Media Assistant Duo Lab Application
- o Prego-I --Introduction to Italian

#### Music

- o Finale
- o Smart Score

#### Online Resources

- o Discovery Education

### **Professional Development Continuum:**

When developing a comprehensive technology plan, non-tangibles such as training, mentoring, professional development and support dictate success or failure. The WPSD has worked with many staff members throughout the district to continually educate in the area of integration of technology into the curriculum. The curriculum guidelines are based on the set of outcomes established at the state level and act as the starting point for lesson planning and development. The ITS staff works within these guidelines to determine ways in which technology can be used to enhance the learning process.

Training and professional development within the WPSD occur at multiple levels; administrative, support staff and teaching staff. Each group works to achieve a level of proficiency as it relates to the use of technology in their everyday work.

The WPSD has published a document entitled "Winchester Public Schools Educator's Technology Proficiency Stages" which addresses the various stages of professional development. The pedagogy, skills and concepts and performance indicator descriptors have been adapted using the enGauge Framework for Effective Technology Use. The stages are summarized as follows:

- **Stage 1 Early Developing:** The educator uses the basic skill set for the use of technology. The novice begins to use skills at times within the classroom for very basic administrative duties including the creation of tests, newsletter, etc. At this level the educator will model and teach the ethical use of technology, will demonstrate an introductory knowledge and an understanding of concepts related to technology including computer literacy, will be able to use technology to communicate and share information, will demonstrate the use of word processing application, spreadsheets, database and publishing tools and is able to navigate the internet for a variety of purposes.
- **Stage 2 Developing Technology:** The educator can develop a curriculum unit aligned with both curriculum frameworks and Technology Literacy Standards. The units contain technology components that enhance student learning. The educator has developed a structured learning environment and will receive extensive help from the ITS staff. At this level the educator can create a basic website for informational and instructional purposes, can design, apply and discuss rubrics to assess processes and products of technology-supported learning, can understand the use of multi-media tools to enhance curriculum outcome (digital camera, scanner, etc).
- **Stage 3 Proficient:** The educator develops a curriculum unit aligned with both curriculum frameworks and Technology Literacy standards. Units contain technology components that enhance student learning. The educator has created a self-paced learning environment and requires minimal support from ITS staff. At this level the educator has moved from providing a technology-rich learning environment to the creation of design concepts that apply technology-enhanced instructional strategies to support the diverse needs of learners and develop students' higher order skills and creativity.
- **Stage 4 Advanced:** The educator continues to develop units with technology to add to his/her repertoire of curriculum units and submits them for district use. Technology is infused in the daily routine of the classroom. The educator is comfortable with a range of instructional strategies and has mastered the organization of classrooms around those strategies to maximize the impact of learning through technology.

The Winchester Public School Educational Technology Department offers the following structured workshops/courses for educators to develop a proficiency level in the use of technology for both teaching and learning. Additional training is given to both administrators and support staff throughout the district.

- **Differentiating Instruction with Technology:** The teachers will develop a proficiency in using technology to support differentiated instruction in the classroom. Through differentiated instruction, students can construct or create their own knowledge and understanding by building on previous learning. Participants will take current lessons and develop teaching strategies and techniques to support this student-centered methodology.
- **Introduction to Edline:** Edline is a secure portal, for teachers, students, and parents to share information. It is easy for teachers to post assignments with due dates. They can post study guides, worksheets, tests or progress reports. We will set up all the class pages, change the names, and add a picture. We'll add documents, and folders under the Contents area. We'll also add news and calendar items. Under the Links area, we'll add links to web pages that will benefit the current lesson. Edline has an easy way to send e-mail messages to the entire class, to students parents or both.
- **Advanced Edline:** Advanced features will be covered during this class. We'll create tests or quizzes, upload multiple choice questions, true or false, short answer or questions with paragraph answers. Teachers will learn how to change the settings to automatically upload test grades to GradeQuick. We'll also learn how to create homework drop boxes, create an interactive assignment, or a class discussion. You will also learn how to embed video, and sound files to Edline. There will be time to answer any specific questions.
- **Introduction to Discovery Education:** Discovery Education is a powerful and flexible tool for the K-12 classroom. The tool includes thousands of streaming videos and standards aligned activities for teachers and students. This course will introduce teachers to Discovery Education as a tool for their classroom. We will create an account (if necessary) and then go through the basic functions of the tool to get you up and running with Discovery Education for your classroom. Teachers will leave the class knowing how to navigate through Discovery Education and find resources. Time will be given to search for content. Teachers will leave with resources saved in their My Content area and ready to use right away.
- **Introduction to RM Easiteach Next Generation:** RM Easiteach Next Generation is the newest version interactive board software for use with the Eno board. The class is an introduction to using the basic functions of the tool and use pre- made activities for the board. We will go over how to use the different toolbars and tools within Easiteach. We will also take a look at the included activities, templates, simulations and games that you can use in the classroom right away.
- **Intermediate RM Easiteach Next Generation:** RM Easiteach Next Generation is the newest version interactive board software for use with the Eno board. This class is for teachers who have either already been using RM Easiteach or they have taken the introductory class. This class will review the toolbars in RM Easiteach and give teachers time to create materials in RM Easiteach for their classrooms with guidance present to answer questions and help get you started.
- **Exploring Educational Apps for the iPad:** Together we will explore educational apps that may be used in instruction and student learning.
- **Getting More Out of Discovery Education:** This class is for teachers who have used Discovery Education before or are currently using Discovery Education in their classroom. We will be taking the tool to the next level and refreshing your skills. The course will cover the three DE builder tools; the Assignment Builder, Quiz Builder and Writing Prompt builder that you can use in conjunction to the streaming video with your students. The course will also highlight new features that have been added to the tool in the last year. We will also take time to answer any questions and I will help you get more out of Discovery Education!

### Educational Technology Programs for Students:

The Department of Education (DESE) has defined specific Technology Literacy Standards, which provide guidelines regarding the use of technology to enhance student learning.

Within the WPSD we have used the DESE Technology Literacy Standards as a baseline for the development of key skills, concepts and integration approaches. It is important to note that the intention is to teach specific skills and nurture an understanding of how those skills can mature into a richer learning experience in the classroom.

A more detailed document entitled "Educational Technology Department – Scope and Sequence" which highlights all specific skill, concept and proficiency levels at each grade level is available.

<b>Technology Outcomes by Grade Level</b>	<b>Skill/Concept Description</b>	<b>Schools Currently Implementing programs to support these skills</b>	<b>WPS Document</b>
Upon completion of 5 <sup>th</sup> Grade	Students should be able to; complete a writing project using a word processing package, create a spreadsheet and data graphing functions, participate in the creation of a multimedia project, understand a database, explore web sites for project information with teacher guidance, and explore the use of a digital camera/videos.	Technology Literacy embedded into the curriculum for the 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> Grade students ensures that the students in these grades are striving to accomplish the Scope and Sequence. When possible the ITS coteach lessons/units that integrate technology into the current curriculum.	WPS Educational Technology Scope & Sequence Document & ITS Checklist for Implementation and updated weekly logs. Progress Report has Technology Literacy
Upon completion of 8 <sup>th</sup> Grade	Students should be able to; identify and use editing and formatting features of a word processing program, describe structure and function of a spreadsheet, learn and practice effective design techniques for PowerPoint presentations, develop a basic database for use in curriculum areas for quick retrieval of data, effectively use web sites and the incorporation of multimedia into documents, demonstrate ethical and legal behavior using the internet, keyboard at 20 words per minute and understand how to operate and use computer peripherals. Proficient level of understanding of Web 2.0 tools.	Currently McCall has the full capability to implement these skills and concepts. Grade 6 Keyboarding and Information Technology, Grade 7 ISafe and Information Technology and Grade 8 Information Technology and Media Literacy. This past summer the development of a new curriculum incorporating Web 2.0 resources was developed.	WPS Educational Technology Scope & Sequence Document. Computer Ed Teachers designed a detailed rubric and final project which incorporates the ITS standards for students.

<p>Upon completion of 12<sup>th</sup> Grade</p>	<p>Students should be able to produce an electronic project that demonstrates the skills and concepts outlined in the Scope and Sequence document. Students will need to demonstrate the creative use of technology including: layout and design, color harmony, sound, motion, graphics, text/information, and video. This project will also require an understanding of research techniques, text design, editing and video, the use of MS office products and the appropriate technology to be used to complete specific challenges.</p>	<p>Currently the high school has the capabilities to implement these skills. The high school currently does not have a graduation requirement that would measure a student's technology proficiency upon graduation. <b>The 21<sup>st</sup> Century Committee recommended to the high school principal to pilot in 2010 a project base course to address the technology literacy/fluency with the anticipation of making this a graduation requirement for 2011.</b></p>	<p>WPS Educational Technology Scope &amp; Sequence Document &amp; ITS Checklist for Implementation.</p>
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In addition to the outcomes identified for each grade level there are levels of proficiency for each area of skill/concept development. These levels are defined as: introduction (I), developmental (D), proficient (P) and reinforcement (R). These proficiency levels serve to provide an understanding of the depth to which technology has been embedded into the learning process. It is our hope that as a district we impart these skills and an enhanced curriculum through the use of technology. Our intention is to do this in a way that will allow every student to have a world-class level of technical sophistication upon completion of 12<sup>th</sup> grade.

# District Technology Guidelines

## Recommended Minimum District Hardware Distribution:

Elementary--Each elementary computer lab

- 24 student machines
- LCD projector ceiling mounted
- Interactive whiteboard

Elementary—Grades K-5 classrooms

- Teachers laptop\*
- 2/3 student machines in each classroom
- LCD projector ceiling mounted
- Interactive whiteboard

Elementary--Library

- 1 laptop
- 1 circulation computer (Administrative Use)
- 5 student machines to access catalog and other resources
- LCD projector ceiling mounted

Elementary Resource Rooms--2 student machines

McCall Middle School—Computer Lab

- 2 multimedia labs with 29 student machines
- LCD projector ceiling mounted
- Interactive whiteboard

McCall Middle School—Wireless Mobile Lab

- 30 laptops

McCall Middle School—Library

- 1 laptop
- 1 circulation computer (Administrative Use)
- 12 student machines in library
- LCD projector ceiling mounted

McCall Middle School—CAD

- 9 student machines CAD

McCall Middle School—Classrooms

- Teacher laptop\*
- 2 student machines in each classroom
- LCD projector ceiling mounted
- Interactive whiteboard

McCall Middle School-Learning Center (3) 2 student machines in each center

WHS—Classrooms

- Teacher laptop\*
- LCD projector ceiling mounted
- Interactive whiteboard

WHS—Library

- 1 laptop
- 1 circulation computer (Administrative Use)
- 10 laptops on cart and 10 student machines
- LCD projector ceiling mounted

WHS—Labs

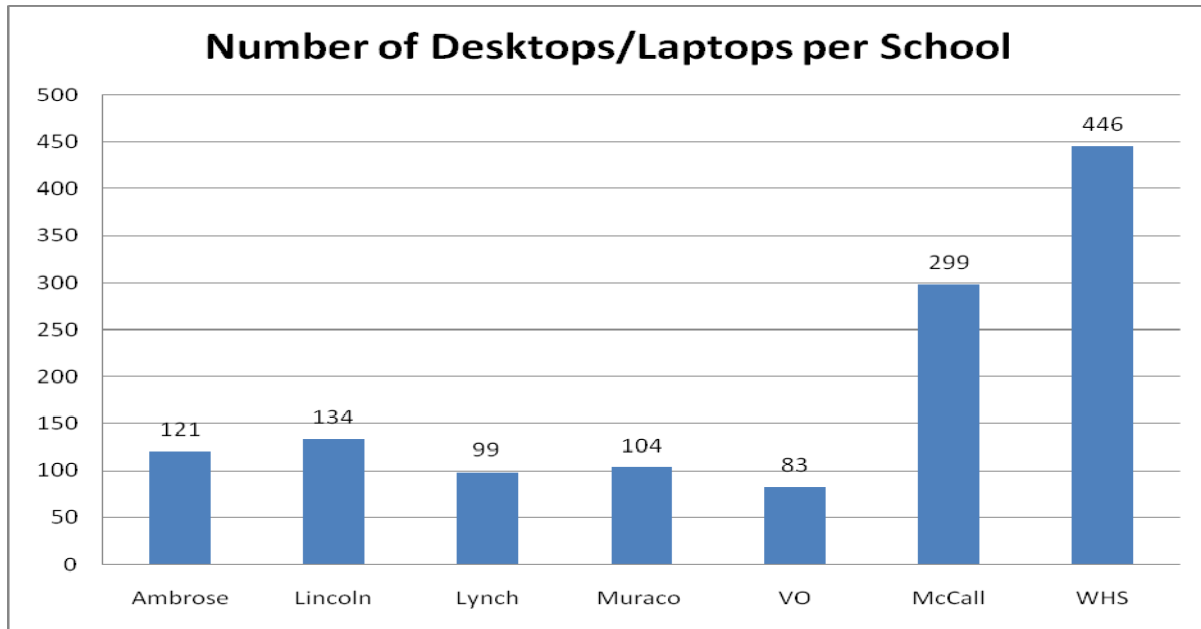
- 20 student machines CAD lab
- 24 student machines Animation lab
- 20 student machines Art lab
- 30 student machines Foreign Lang lab
- 30 student machines Integration lab
- 7 student machines Music
- 4 student machines Art Digital Photography
- Wireless Carts: 30 laptops for each of the following Science, Math, Social Studies, English
- LCD projector ceiling mounted
- Interactive whiteboard

WHS--Learning Center (2) 4-5 student machines ; Achieve 4 student machines; LINC 3 student machines

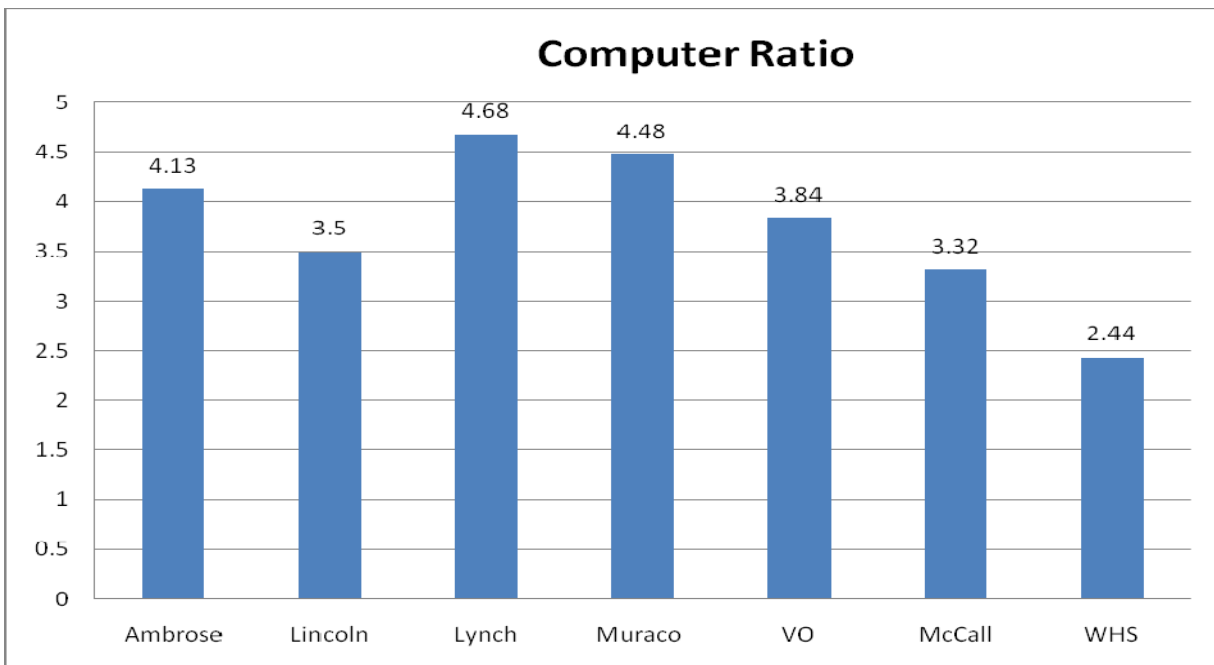
\*Teacher includes classroom, special education and specialist (art, music, wellness, ITS, librarians)

## Current Status

Access to student computers is summarized below by school (date on spreadsheet reporting 1\_30\_12):



Note: The student/computer ratio does not provide a complete picture of the manner in which technology is made available to students in the classroom on a regular basis. As an example, oftentimes teachers are able to “drive” learning from one laptop projected throughout the classroom.



**NOTE: Suggested DESE Student/Computer Ratio is 5:1 or fewer**

School	Ratio Student/Computer 5:1 DESE ratio	Computer Lab Y/N	School Computing Environment
Ambrose	4.13:1	Y, 24 seat lab	24 PC computer lab and wireless cart, 1-2 computers per classroom in K-5 grades, projection devices in each classroom for directed instruction, multimedia capabilities and high speed access within the school. Library machines include 2 student computers and 1 circulation computer.
Lincoln	3.5:1	Y, 24 seat lab	24 PC computer lab housed in the library, 3 computers per classroom in all grades, multimedia capabilities and high speed access within the school. Library machines include 7 student computers, 1 circulation computer and 1 administrative computer. Six portable laptops housed on a wireless cart.
Lynch	4.68:1	Y, 25 seat lab	25 PC computer labs, 2 computers per classroom in grade 4 & 5. Library machines include 5 student computers and 1 circulation computer.
Muraco	4.48:1	Y, 30 mobile laptops	Two wireless carts: one cart has 24 for a full class and another cart houses 6 for small group instruction. At least one computer per classroom for student access. Library machines include 5 student computers, 1 circulation computer and 1 administrative computer.
VO	3.84:1	Y, 24 Redistributed laptops	Due to space constraints there is not a computer lab. There are 3-4 computers per classroom in all grades. Wireless cart with 24 laptops. Library machines include 5 student computers and 1 circulation computer.
McCall	3.32:1	Y, (2) 27 seat labs	Two multimedia labs used for both integration and class instruction. Each lab has 29 computers. Wireless cart for sign out with 30 laptops housed in the library. Library has 12 computers for student use, 1 circulation computer and 1 administrative computer. New wing has 2 computers per classroom, ceiling mounted LCD projector and interactive whiteboards. Most of the other classrooms have at least one student computer. Some classrooms have ceiling mounted LCD projectors and interactive boards.
High School	2.44:1	Y See next column	The following labs are used for scheduled skilled classes; Animation lab, CAD lab for part time instructional usage; and Art lab. The following labs are used for integration, English lab; Math lab; Social Studies lab, Science lab; Foreign Language lab and Integration lab. In the library there are 16 student computers and 6 laptops used during study periods and 1 circulation computer and 1 administrative laptop. All labs are available for instruction when not in use on a sign out basis.

**WINCHESTER SCHOOL DISTRICT VS. STATE-WIDE BENCHMARKS:**

The State of Massachusetts Department of Elementary and Secondary Education (DESE) has established some benchmarks that act as guidelines for the effective use of technology within a school environment. Although benchmarks are helpful they often do not represent the manner in which effective teaching can occur, yet they can often serve as important data points. These benchmarks are identified below.

Ratios	# of Students/Computer	Instructional Technology Specialist /Teacher	Network Administrator per district to support fully operational infrastructure	Technical Support Staff / total number of student/admin/teacher computers in the district	Percentage of teachers who meet the "proficiency" level of training or higher	Percentage of students in grades 5-8 who meet the "proficiency" level of understanding as it relates to the use of technology
DESE Benchmark	5:1 (fewer than 5 students)	1:60-120	1	1:400	90%	85%
Winchester School District*	District 7.97 Ambrose 4.13 Lincoln 3.50 Lynch 4.68 Muraco 4.48 VO 3.84 McCall 3.32 High School 2.44	1:97.6	1	1:396	Various levels of proficiency throughout the district based on the TSAT. The majority of teachers are between the Early Technology and Developing Technology.	Documentation and final projects reflect the proficiency level in Grade 8 for students.

Note: The student/computer ratio does not provide a complete picture of the manner in which technology is made available to students in the classroom on a regular basis. As an example, oftentimes teachers are able to "drive" learning from a laptop projected throughout the classroom.

\* 2010\_2011 Tech Plan Submission. Type A/B Computer as defined on the MA DESE Technology Plan.  
<http://www.doe.mass.edu/edtech/techplan/>

**Winchester School District vs. Peer Towns:**

Below is a snapshot of some of the key initiatives in other towns as it relates to technology. Many of the towns mentioned have technology plans, which are readily available and can provide more detail.

Peer Town	Staff Resources and District Population	Summary of Initiatives	Funding Sources
<p><b>Winchester, MA</b> Winchester currently has in place a 3-year technology plan. <a href="http://www.winchester.k12.ma.us">http://www.winchester.k12.ma.us</a></p>	<p>Student population 4,278 School Buildings 7</p> <p><b>Ed Tech Staff Total 8.8 FTE</b> Administrative Assistant .8 FTE Information Management Specialist 1 FTE Network Manager 1 FTE Technical Support 2.5 FTE Instructional Technology Specialist 3.5 FTE</p> <p>Computer Ed 3 FTE</p>	<p>Focus of activity based on: Effective access and connectivity, an equitable learning experience for all students, professional development and training, instructional assistance and support.</p>	<p><b>Operating Budget</b> \$481K (personnel not included)</p> <p><b>Warrant Article Appropriation</b> \$133K</p>
<p><b>Arlington, MA</b> <a href="http://www.arlington.k12.ma.us/">http://www.arlington.k12.ma.us/</a></p>	<p>Student population: 4,685 School Buildings 9</p> <p><b>Ed Tech Staff Total 5 FTE</b> Manager of Academic Computing 1 FTE Technical Support 3 FTE Instructional Technology Specialist 1 FTE Stipend positions for 9 teachers (1 per school \$1,000)</p>	<p>APS has move to a Google App environment: Phase 1: include Teachers and Administrators; Phase 2: includes High School and Middle School Students, Continuing the merger of school and town IT staff. Had added smartboard peppered at middle and high school along with some document cameras. Network Infrastructure backbone top level switches have been replaced and main data center.</p>	<p><b>Operating Budget</b> \$150K (personnel not included)</p> <p><b>Capital Budget</b> \$200K (\$100K portions supports desktop refresh program)</p>

<p><b>Bedford, MA</b>  <a href="http://www.bedford.k12.ma.us/">http://www.bedford.k12.ma.us/</a></p>	<p>Student population: 2,479  School Buildings 4</p> <p><b>Ed Tech Staff Total 7.9 FTE</b>  Director of Instructional Technology .4 FTE  Network Manager 1 FTE  Technical Support 3.5 FTE  Instructional Technology Specialist 2.6 FTE</p>	<p>Aligning K-12 curriculum standards with DESE. TLS and promote common technology experiences among grade level and/or content area teachers. Teachers receive in-service credit for taking part in professional development opportunities offered by the IT, which include the use of Web 2.0 tools to promote communication and collaboration. 1:1 pilot program currently in Grade 3 classroom. Update the District's Technology Plan.</p>	<p><b>Operating Budget</b>  \$830,282K (personnel not included)</p> <p><b>Capital Budget</b>  \$33k</p>
<p><b>Belmont, MA</b> Belmont currently has in place a set of action plans within their technology plan.  <a href="http://www.belmont.k12.ma.us/">http://www.belmont.k12.ma.us/</a></p>	<p>Student population: 3,863  School Buildings 6</p> <p><b>Ed Tech Staff Total 9 FTE</b>  Network Manager 1 FTE  Network Mg. Assist 1 FTE  Technical Support 3 FTE  Instructional Technology Specialist 0 FTE  Computer Ed 1 FTE</p>	<p>Belmont has been successful in coordinating resources within the administration and educational technology department to align curriculum goals with technology initiatives. Current initiatives; server virtualization, smart board initiative and new Foreign Language Lab.</p>	<p><b>Operating Budget</b>  \$319K (personnel not included)</p> <p><b>Capital Budget</b>  \$120K</p> <p>Belmont has had success in receiving grants from within town for specific technology initiatives.</p>

<p><b>Wayland, MA</b>  <a href="http://www.wayland.k12.ma.us/index.php">http://www.wayland.k12.ma.us/index.php</a></p>	<p>Student population: 2748  School Buildings: 5</p> <p><b>Ed Tech Staff Total 10 FTE</b>  Network Manager 1 FTE  Tech Support 4 FTE  ITS 5 FT</p>	<p>Upgrade Network, Upgrade Data Center, and Teacher 1:1 laptop initiative and Google Apps; high school learning management system.</p>	<p><b>Operating Budget</b>  \$113k (personnel not included)</p> <p><b>Capital Budget</b>  FY10: \$550K  FY 11: \$600K  FY12: Requesting \$700k</p>
<p><b>Wellesley, MA</b>  <a href="http://www.wellesley.k12.ma.us">http://www.wellesley.k12.ma.us</a></p>	<p>Student population: 5010  School Buildings: 10</p> <p><b>Ed Tech Staff Total 8 FTE and 3 (.5) FTE</b>  Network Manager 1 FTE  Network Assistant 1 FTE  Tech Support 4.5 FTE  ITS 2 FTE and 2 .5 FTE</p>	<p>New high school building project; first year of a six year network and server upgrade plan, working towards interactive whiteboards in all classrooms by FY13; expanding and improving professional development opportunities.</p>	<p><b>Operating Budget</b>  \$168k (personnel not included)</p> <p><b>Capital Budget</b>  \$439k</p>
<p><b>Weston, MA</b>  Weston currently has in place a 3-year technology plan.  <a href="http://www.westonschools.org/index.html">http://www.westonschools.org/index.html</a></p>	<p>Student population: 2,403  School Buildings 5</p> <p><b>Ed Tech Staff Total 10.3 FTE</b>  Network Manager 1 FTE  Network Manager Assist 1 FTE  Technical Support 4.8 FTE  Instructional Technology Specialist 3.5 FTE</p>	<p>The Weston school district has identified 3 key goals that include; improving the integration of technology in the curriculum, maintaining and improving the overall infrastructure. Upgraded all network with new switches, added wireless, added Interactive White Boards.</p>	<p><b>Operating Budget</b>  \$390K (personnel not included)</p> <p><b>Capital Budget</b>  \$300K</p> <p>Weston has had success in gaining budgetary approval to replace computers on an on-going basis.</p>

## KEY GOALS AND ACTION PLAN FOR 2008 – 2012

The Winchester Technology Committee has identified several areas requiring attention as it relates to the use of technology to enhance a students overall learning experience. The following goals represent the primary areas requiring attention as a district.

1. (ITS) Provide every teacher in the district with the support and professional development opportunities to use the appropriate level of technology for teaching and learning. The ultimate goal of this initiative is to allow Instructional Technology Specialists (ITS) to work with teachers to enliven and enrich the learning experience for all students. Collaboration between teachers and technology specialists results in an enhanced educational experience.
2. (Professional Development) Increase the technical proficiency level of teachers, administrators, and support staff through increased professional development programs. The programs offered by the Educational Technology department go beyond basic computing skills and move toward the development of multi-dimensional teaching and learning in the classroom setting. This goal will provide an understanding of the broader potential of technology in the classroom.
3. (Infrastructure) Create a district-wide computing infrastructure to meet daily technical demands with emphasis on providing an equitable educational experience for all. An effective infrastructure must include: a robust network environment allowing for high bandwidth information sharing and Internet access, "high capacity, Internet connected" hardware and software, adequate technical support to maintain the overall environment and technical training.
4. (Curriculum) Establish curriculum goals for students as it relates to the development of IT fluency.
5. (Partnership) Establish a series of community wide technical and educational partnerships at all levels to foster a culture of innovation within Winchester.

**ACTION PLAN:**

**Goal #1:** Provide every teacher in the district with the support and professional development opportunities to use the appropriate level of technology for teaching and learning. The ultimate goal of this initiative is to allow Instructional Technology Specialists (ITS) to work with teachers to enliven and enrich the learning experience for all students. Collaboration between teachers and technology specialists results in an enhanced educational experience.

Action Item	Responsibility	Timeline	Success Criteria	Success Metric
Develop a teacher survey to obtain the following information: a clear understanding of the support needed by teachers to utilize their ITS support staff in a way that allows them to enrich their curriculum through the use of technology. (Some survey models could include Taglit, TSAT, SurveyMonkey)	District-wide Technology Committee, Assistant Superintendent	School Year 2010/2011	A clear understanding of the level of ITS staffing needed within the district.	Teachers feel they have enough access to ITS staff to support their use of technology for teaching and learning. <b>UPDATE '10-'11: At the DCAT (District Curriculum and Technology Committee) meeting teachers express the need for a dedicated ITS at each building.</b>
Create an action plan to support the results of the survey regarding ITS staffing.	Educational Technology Department	School Year 2010/2011	A budget to support additional ITS staff working with teachers district-wide. The current ITS staff level is one to two full-time people short of meeting established DOE standards.	The DESE "Technology in Massachusetts Schools, 2005" document recommends that schools have at least one full-time-equivalent person to support up to 60-120 teachers. <b>UPDATE '09-'10: Additional .5 Elementary ITS added.</b>
Establish a semi-annual venue for teachers to share how they use technology to support teaching and learning within their classroom.	Assistant Superintendent	School Year 2006/2007	Active participation by teachers at these events.	Teachers are aware of the ways in which curriculum lessons may be shared. <b>UPDATE '06-'07: Successful Technology Fair in the Fall 2007 and various schools showcase at faculty meetings throughout the school year.</b>
Populate the Faculty Resource folder and make it accessible via the network.	Educational Technology Department, Teaching Staff	School Year 2006/2007	Teachers are able to share resources (lesson plans, tests, etc) district-wide.	District-wide sharing of resources increases teacher productivity and grade level equity. <b>UPDATE '06_'07: The Faculty Resources continues to be a resource for staff. Organization and purging needs to be addressed.</b>

**Goal #2:** Increase the technical proficiency level of teachers, administrators, and support staff through increased professional development programs. The programs offered by the Educational Technology department go beyond basic computing skills and move toward the development of multi-dimensional teaching and learning in the classroom setting. This goal will provide an understanding of the broader potential of technology in the classroom.

Action Items	Responsibility	Timeline	Success Criteria	Success Metric
Develop a teacher survey to obtain the following information to achieve Goal #2: a clear understanding of both the current teacher skill level and the extent to which that skill base translates into enhanced teaching and learning in the classroom.	Educational Technology Department, Assistant Superintendent	2011/2012	85% of the teachers are able to develop curriculum lessons at the "proficiency level"	The DESE "Technology in Massachusetts Schools, 2005" document states that 60% of teachers should be working at the Proficient or Advanced level by the year 2006-2007. <b>UPDATE '08-'09: TSAT survey has been taken by all the schools. The majority of the teachers' proficiency levels are Early or Developing Technology.</b>
Create a training plan to offer the appropriate level of professional development training for all staff members including teachers, special education staff, secretaries and administrators.	Educational Technology Department, Assistant Superintendent	2010/2011	Lessons are delivered in the classroom based on development through the "Unlocking the Possibilities" course.  Administrative functions begin to become streamlined through the use of technology.	25% of the teacher population (who have not yet attended training) attends training by September 2010. <b>UPDATE '08-'09: New Professional Development 5 Yr Plan top priority is technology. New teachers to the district are required to take a technology course during their first three years of employment.</b>

**Goal #3:** Create a district-wide computing infrastructure to meet daily technical demands with emphasis on providing an equitable educational experience for all. An effective infrastructure must include: a robust network environment allowing for high bandwidth information sharing and internet access, "high capacity, internet connected" hardware and software, adequate technical support to maintain the overall environment and technical training.

Action Item	Responsibility	Timeline	Success Criteria	Success Metric
Identify any network performance issues throughout the district. (Target schools include: Muraco, VO, Lynch, High School)	Educational Technology Department, Professional Services Consultant	School Year 2008/2009	Each school has an effectively running and reliable network.	Timely access to internal and external educational resources. <b>UPDATE '10-'11: Switch updates occurred at various buildings to ensure stability.</b>
Create a plan to optimize network performance throughout the school district based on new findings.	Educational Technology Department, Professional Services Consultant	School Year 2011/2012	Adequate funding is acquired to implement the action plan.	Timely access to internal and external educational resources. <b>UPDATE: WHS network configuration designed for all internal traffic to stay internally. Therefore enhancing the network efficiency. Limitations still exist due to access of townside resources to investigate areas such as packet shaping, etc.</b>
Provide a wireless laptop for each teacher at the High School.	Educational Technology Department	School Year 2005/2006	Adequate funding is acquired to deliver this next step as part of the "Wireless Initiative" at the High School. Each teacher has the ability to work on curriculum both in and out of school.	The overall wireless initiative at the High School continues to be funded. <b>UPDATE '11-'12: All .5 teachers including specialist, reading teacher, ELL, special ed teachers and guidance councilors have a district laptop.</b>
Provide a wireless computer lab to support each core curriculum area and the library at the High School.	Educational Technology Department	School Year 2006/2007	Lessons begin to be designed with technology embedded into the curriculum.	The overall wireless initiative at the High School continues to be funded. <b>UPDATE: Science, Math, Social Studies and English have wireless labs dedicated for their curriculum area. Wireless lab for McCall students ('09-'10). Ambrose wireless cart ('11-'12)</b>

				<b>purchased by PTO.</b>
Provide all Grade 3-5 classrooms with a teacher laptop/ and 2-3 student machines for collaborative work. Grades K-2 classrooms with a teacher laptop and 2 student machines.	Educational Technology Department. Administrative Support for funding.	School Year 2011/2012	The learning experience is equitable for all students within Winchester.	Teachers take course offerings and develop integration units. The laptop ensures teacher access. <b>UPDATE '09-'10: WFEE funded an ITS Coach to work with the teachers in Grades 5 to develop technology integration units.</b>
Gain agreement regarding the replacement age of existing hardware and allocate adequate and stable funding to support the agreement.	Educational Technology Department, Superintendents Office	School Year 2010/2011	An agreed upon set of standards is established regarding the replacement schedule for computers. Our goal is to have a revolving replacement schedule of 5 years.	Outdated computers are replaced and current. <b>UPDATE '10-'11: Current budget increase to begin adequate funding for replacement schedule .</b>
Build a wireless environment for all school buildings.	Educational Technology Department, Superintendents Office	School Year 2010/2012	All staff will have the ability to access the wireless across the school district as needed.	Sufficient access points at all school buildings to address both wireless capacity and coverage as needed. Currently, Ambrose and WHS have wireless capability. <b>UPDATE '11-'12: All school buildings have wireless access.</b>

**GOAL #4:** Establish curriculum goals for students as it relates to the development of IT fluency (technology literacy).

Action Item	Responsibility	Timeline	Success Criteria	Success Metric
<p>Review specific grade level outcomes and determine which skills need development by the completion of key grade levels (5,8,12).</p>	<p>Assistant Superintendent, School Principals, DCATT, ITS Staff</p>	<p>School Year 2009/2011</p>	<p>Each key grade level has clearly defined technology related skills that are delivered through the curriculum.</p>	<p>Elementary progress report will have the evaluation of Technology Literacy. Graduation requirement addressing 21<sup>st</sup> Century Literacy skills for all high school students will be adopted. The grade level outcomes are attainable for each student. <b>Update '09-'10: Technology Literacy added to the Progress Reports for Grades 3-5 for the school year 2010-2011.</b></p>
<p>Identify the manner in which specific skills are to be incorporated into the curriculum.</p> <p>(For example, keyboarding is an essential skill at the middle school level. Identify the means to deliver this skill prior to 6<sup>th</sup> grade and be sure all students have an opportunity to master this skill.)</p>	<p>Assistant Superintendent, Grade Level Teachers, School Principals, ITS Staff</p>	<p>School Year 2011/2012</p>	<p>Curriculum plans include specific technology-related skills at the completion of 5/8/12<sup>th</sup> grades.</p>	<p>The district has put in place learning strands within the core curriculum areas. <b>UPDATE '09-'10: Scheduled Technology Literacy classes for Grades 3, 4 and 5 have been established to address the Scope and Sequence. All lesson plans with technology standards are integrated into the curriculum.</b></p>

**GOAL #5:** Establish a series of community wide technical and educational partnerships at all levels to foster a culture of innovation within Winchester.

Action Item	Responsibility	Timeline	Success Criteria	Success Metric
Identify an IT advocate at each school for communication and advocacy.	Winchester Technology Committee, School PTO Organizations	School Year 2009/2010	Each school has an avenue to communicate specific needs and an action plan to address those needs.	Administrators, staff members, parents and students understand the availability of technology within Winchester and understand clearly the offerings available to enrich curriculum through the use of technology. <b>UPDATE: Reestablish the School CAT teams with a representative on the school team to serve on the District CAT.</b>
Have an educational technology specialist reside on the district-wide curriculum development committee.	Educational Technology Department, Assistant Superintendent	School Year 2008/2009	An understanding of underlying technology needs is gained based on the needs of the curriculum development team initiatives. The district can ensure that the environment can support the goals of the curriculum development team if a technology specialist is involved early on in the process.	The curriculum development team feels the district can be ready to implement any core area goals using the infrastructure in place. <b>UPDATE: Currently both an ITS and a Computer Ed teacher sit on the DCAT.</b>
Creation of consistent and dynamic websites for students, teachers, parents, administrators and community members.	Superintendent, Director of Educational Technology	2010/2011	Information is easily attainable by all parties. Electronic communication of information including attendance, grades, electronic resources and newsletters.	All district and school websites streamlined and easily updated by designated staff. <b>UPDATE: Website Task Committee formed to investigate revision of school websites (2009-2010).</b>
Establish an IT Council to create a culture of innovation within the town.	Winchester IT Council	School Year 2010/2011 and beyond	The professional talent within Winchester is maximized to advance technology initiatives.	A professional network is created and talents and business opportunities are explored within our town.

NOTE: Currently the areas within the IT Council include; public awareness, resources, network security, professional development, technology integration and funding. The Educational Technology department will publish the technology plan throughout the district and to the community.

## **WINCHESTER TECHNOLOGY PLAN SUPPORTING DOCUMENTS:**

- Winchester Public School Technology Plan – June 18, 2010
- Educator Proficiency Stages Document
- Winchester Educational Technology Scope and Sequence Document (currently under revision)
- Massachusetts Department of Elementary and Secondary Education Technology Benchmarks (<http://www.doe.mass.edu/edtech/techplan/10-15guidelines.pdf>)
- Massachusetts Department of Elementary and Secondary Education Technology Literacy Standards (<http://www.doe.mass.edu/edtech/standards/itstand.pdf>)
- TSAT (Technology Self Assessment Tool)  
(<http://www.doe.mass.edu/edtech/standards/tool.pdf>)
- STaR Chart (School Technology and Readiness Chart)  
(<http://www.doe.mass.edu/boe/sac/edtech/STaR.pdf>)

**All Winchester specific documents are available through the Educational Technology Department  
([aschrimpf@winchester.k12.ma.us](mailto:aschrimpf@winchester.k12.ma.us))**