

TECHNOLOGY SELF ASSESSMENT TOOL

Introduction

Welcome to the Massachusetts Technology Self-Assessment Tool.

This technology instrument has been designed for:

1. **Teachers:** to determine their own levels of technology proficiency and to identify personal technology professional development needs.
2. **Schools/Districts:** to assess their professional development needs and to plan professional development activities that will help all teachers become proficient in technology.
3. **The State:** to gather and report data on technology competencies and technology professional development.

Mastery Levels

The TSAT has four mastery levels, as shown in the table below. The table shows the percentage of skills that you should complete in order to move to the next level. Although some levels do not require that you complete all of the skills, you can go back at any time to check off new skills you have learned.

	Technology Operations & Concepts	Ethics and Safety	Teaching & Learning with Technology
Early Technology	100%	100%	100%
Developing Technology	80%	100%	80%
Proficient	80%	100%	80%
Advanced	80%	100%	80%

Using the Technology Self Assessment Tool

If this is the first time you are taking this assessment, you should begin at "Early Technology" (on page 2 of this file). The assessment presents a list of skills with check boxes. Check a skill if you are able to do all of the examples given. You can take the assessment as many times as you wish. When you have mastered a skill level, proceed to the next higher level. For example, if you mastered 100% of the skills in Early Technology, you should begin working on the Developing Technology assessment on page 4.

Additional Information About the TSAT

A Progress Chart showing the progression of skills is included as Appendix A. Appendix B shows how the TSAT is aligned with the Massachusetts Recommended PreK-12 Instructional Technology Standards, the ISTE Technology Standards, and the Massachusetts STaR Chart.

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		<i>A. Early Technology</i>
I Know How To		Standard 1 – Technology Operations and Concepts
	A1.10	Demonstrate basic skills for using hardware and applications (e.g., start up and shut down computer system and peripherals, open/close a file, start an application and create a document.)
	A1.11	Navigate using scroll bars, arrow keys, special keys, and mouse functionality.
	A1.12	Identify components of a computer system (e.g., Operating system, platform, drives, memory, window). Explain their functions, and use appropriate terminology in speaking about them.
	A1.14	Save/backup and retrieve a file to/from the Desktop, hard drive, and/or floppy disk.
	A1.15	Select a printer and print a document with appropriate orientation within page setup.
	A1.20	Connect the cables and cords correctly such that a computer is functional.
	A1.30	Use basic editing and formatting features of a word processing program (e.g., centering, spacing, fonts and styles, enter and edit text, copy and paste, manipulate fonts, use writing tools and insert clip art.).
	A1.80	Use correct terminology in speaking about Internet communications (e.g., browser, search engine, online).
	A1.81	Access the Internet and identify and use navigation features of browser (e.g., “go,” “back,” “forward”).
	A1.82	Add a Web site to <i>Favorites</i> or <i>Bookmark</i> it for future reference.
	A1.83	Identify basic elements of a Web site (e.g., URL, hyperlinks, etc.) and use a URL.
	A1.90	Create and send a message using email. Retrieve and read email. Reply to sender and forward an email. Save, print and delete an email.
I Know How To		Standard 2 – Ethics and Safety
	A2.10	Apply classroom/lab rules for responsible use of technology.
	A2.11	Explain and comply with acceptable use policy in your district and describe the consequences.
	A2.20	Explain the importance of sharing technology resources equitably among all students.
	A 2.30	Discuss the basic concept of assistive technologies and Universal Design for Learning (UDL), including portable word processors.
	A2.40	Explain copyrights as applied to technology use in education, the workplace and society.
	A2.41	Follow appropriate licensing and documentation for all software used.
	A2.50	Explain how media and technology can be misused to distort or exaggerate information.

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	A2.60	Explain potential problems viruses create and practical methods of prevention (including exercise caution in opening e-mail attachments from unknown sources).
	A2.70	Follow the proper district/school procedures in the event of technical difficulties.
	A2.72	Explain the dangers of chat rooms and other electronic communications such as instant messaging.
	A2.80	Evaluate the proper physical setting for technology use (ergonomics).
I Know How To		Standard 3 – Teaching & Learning with Technology
	A3.10	Discuss current research on teaching and learning with technology in order to plan learning environments and experiences.
	A3.11	Use technology to gather curriculum-specific information from CD-ROMs, Web sites and/or automated card catalogue.
	A3.20	Integrate technology into the curriculum of one's subject and/or grade level with assistance of a coach, mentor or other staff member.
	A3.40	Use email to communicate with teachers and other professionals about curriculum content and procedures.
	A3.41	Use word processing to support teaching and learning (e.g., letters home to parents, course syllabi, flyers, worksheets, students' stories, etc.)
	A3.44	Identify personal technology professional development needs.

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		<i>B. Developing Technology</i>
I Know How To		Standard 1 – Technology Operations and Concepts
	B1.12	Identify and use basic features of a computer operating system (e.g., format/initialize disks, access information on size and format of a file, create and organize folders on local hard drive and desktop).
	B1.14	Manage files, to save, locate and organize files on local and remote network spaces.
	B1.15	Operate peripheral equipment (e.g., scanner, printer, projector).
	B1.16	Resolve basic technical difficulties (e.g., soft reboot, paper jam, ink cartridge replacement).
	B1.20	Connect a computer to peripheral devices (e.g., printers), a network outlet, and take proper care of the system.
	B1.30	Use editing and formatting features (margins, cut and paste, spelling, and page numbers). Insert images (e.g., graphics, clip art) from other files into word-processed documents.
	B1.31	Create a report or newsletter using word-processing or desktop publishing software.
	B1.40	Describe the structure and function of spreadsheet (e.g., cells, rows, columns, and formulas) and apply formatting features, reposition columns and rows.
	B1.41	Create an original spreadsheet, entering simple formulas (various number formats, equations, percentages, exponents).
	B1.42	Interpret spreadsheet information, and produce simple charts from data.
	B1.50	Define terms (field, table, record etc.) and functions of a database and use it for simple analysis.
	B1.60	Create and manipulate graphics using a drawing or painting program (e.g., adjust scale, size, shape).
	B1.70	Create a simple multimedia presentation (using PowerPoint, KidPix, etc.) and explain the terminology (slide, transition, etc.)
	B1.80	Differentiate among browser, email program and Internet service provider.
	B1.82	Organize <i>Bookmarks</i> or <i>Favorites</i> into folders for future reference.
	B1.83	Identify and use basic search strategies on the Internet.
	B1.90	Send an email attachment, open and save on to the desktop.
	B1.91	Create an address book in an e-mail program.

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I Know How To		Standard 2 – Ethics and Safety
	B2.20	Ensure equitable access to technology resources for all students in the class.
	B2.30	Use basic assistive technology resources. For example, change text size or make templates in a word processor, use text-to-speech features, change mouse controls, use on-screen calculators.
	B2.40	Cite electronic sources correctly in accordance with copyright law, explain and model this in the classroom.
	B2.41	Explain and demonstrate ethical and legal behavior in copying/downloading files, applications, and media (Internet).
	B2.42	Ensure responsible uses of technology by students: a. including intellectual property b. copyright laws, c. effective use of resources and d. environmental concerns.
	B2.50	Validate a Web site for authenticity (e.g., find site sponsor, author, date the site was last updated, etc.)
I Know How To		Standard 3 – Teaching & Learning with Technology
	B3.10	Design and develop lessons and activities that integrate technology in a variety of instructional settings for all students.
	B3.11	Identify and locate technology resources including online curriculum resources (Massachusetts Curriculum Frameworks and/or district curriculum guides) for planning.
	B3.20	Facilitate technology-enhanced lessons that address content standards and student technology standards.
	B3.21	Manage student technology activities to optimize learning with available resources (e.g., in a one-computer classroom, a computer lab, or with portable/wireless technology).
	B3.23	Use appropriate technology to differentiate instruction (multimedia presentations, concept maps, etc.) for all learners.
	B3.30	Apply technology in assessing student learning of subject matter using a variety of district, school or individual assessment tools and strategies (e.g., TestWiz, grading programs or progress spreadsheets).
	B3.41	Use application programs to organize curriculum-specific information/data into charts, tables and diagrams (spreadsheets, databases, etc.).
	B3.42	Create multimedia presentations to communicate curriculum content.
	B3.43	Integrate results of electronic research into classroom instruction, (with proper citations) as appropriate to the grade level.
	B3.44	Locate and enroll in appropriate technology professional development activities offered by the district, online or local college/university.

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		<i>C. Proficient</i>
I Know How To		Standard 1 – Technology Operations and Concepts
	C1.14	Save (also retrieve, load, and import) documents in different file formats (e.g., RTF, HTML) to facilitate file sharing.
	C1.15	Use a variety of external peripherals (e.g., digital camera, camcorder, CD-RW, scanner) and connect them to a computer.
	C1.16	Resolve commonly occurring technology problems, and use proper terminology for communicating them (e.g., frozen screen, disk error, printing problems).
	C1.17	Identify, download and use multimedia, graphic, sound and video files.
	C1.18	Install new software from a variety of sources (e.g., CD, downloads, plug-ins and applications) per district policies.
	C1.41	Use built-in calculating functions in a spreadsheet application.
	C1.42	Customize formatting of charts or graphs created in spreadsheet. Define and use built-in data functions of a spreadsheet such as sort, filter, find.
	C1.50	Perform simple operations in a database (e.g., browse, sort, search, delete, add data, define field formats, etc.).
	C1.70	Create a multimedia presentation that includes imported sound and graphic files, tables and a design template.
	C1.83	Demonstrate effective search strategies to locate and retrieve electronic information (e.g., use syntax and “Boolean logic operators- and/or terms” correctly).
	C1.84	Share links among users via email or posting.
	C1.85	Create a basic Web page.
I Know How To		Standard 2 – Ethics and Safety
	C2.30	Use specific assistive technology software (e.g., programs that use pictures/symbols with words, talking word processing, or word prediction).
	C2.72	Address situations where inappropriate sites are accessed, and contact proper district personnel to block such sites.
	C2.80	Demonstrate and teach students the issue of ergonomics (e.g., repetitive stress injuries) and how to use equipment safely.

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I Know How To	Standard 3 – Teaching & Learning with Technology	
	C3.11	Evaluate technology resources, including online resources for accuracy and suitability.
	C3.12	Plan for the management of technology resources within the context of learning activities (schedule use of computer lab, wireless laptops, SmartBoard, etc.).
	C3.20	Use technology to support learner-centered strategies that address all students.
	C3.21	Manage student learning experiences that integrate effective uses of technology to meet a variety of learning styles.
	C3.22	Use the Internet for curriculum development and instruction (e.g. Web Quests, classroom web pages)
	C3.23	Use appropriate technology tools to enhance one's own curriculum, if applicable: projectors, wireless laptops, handhelds, environmental probes, sensors, robotics, dynamic geometric software, and measuring devices.
	C3.30	Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
	C3.31	Identify and evaluate developing technologies as they relate to one's subject area, grade level and student population.
	C3.41	Manipulate data using charting tools and graphic organizers (e.g., concept mapping, and outlining software) to connect ideas and organize information.
	C3.43	Use electronic conferencing tools such as Internet bulletin boards as in VES and MyBPS.
	C3.44	Apply technology professional development activities such as multimedia presentations, Web Quests, lessons in the classroom.

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		<i>D. Advanced</i>
I Know How To		Standard 1 – Technology Operations and Concepts
	D1.16	Troubleshoot and add new hardware.
	D1.17	Identify and use methods for transferring, downloading, and converting graphic, sound, and video files. Use different graphic file formats where appropriate (e.g., PICT, TIFF, JPEG).
	D1.18	Import/export and link data between spreadsheet, databases and other applications, including presentation applications.
	D1.50	Design, create and manipulate an original database.
	D1.85	Create and post a Web page per district policy.
I Know How To		Standard 2 – Ethics and Safety
	D2.30	Manage assistive technology equipment and install peripherals for diverse learners (alternative keyboards, voice recognition, and scanners with OCR software).
I Know How To		Standard 3 – Teaching and Learning with Technology
	D3.20	Use technology to challenge students to use higher order thinking skills and creativity (e.g., applets and programs that require the application of logic to solve problems).
	D3.22	Develop web pages for instruction and communication.
	D3.23	Use specialized technology tools for problem solving, decision-making, and creativity (e.g., simulation software, environmental probes, computer-aided design, geographic information systems, dynamic geometric software, graphing calculators, art and music composition software).
	D3.31	Routinely and rigorously identify, evaluate, and apply emerging technologies as they relate to teaching and learning.
	D3.41	Combine information from different applications (e.g., a chart imported from a spreadsheet into a word-processed report can be linked to update automatically when the data is changed in the spreadsheet) to enhance/clarify communication of information.
	D3.42	Present information, ideas, and results of work using the most appropriate communications technologies (e.g., multimedia presentations, Web pages, digital videotapes, desktop-published documents).
	D3.43	Use electronic communications to enhance teaching and learning, (e.g. listserv, electronic classrooms, and interactive video).
	D3.44	Design and deliver effective staff development in technology and its integration in curriculum.

TECHNOLOGY SELF-ASSESSMENT TOOL

Appendix A – Technology Self-Assessment Progress Chart

Standard 1 - Technology Operations and Concepts

<i>A. Early Technology</i>	<i>B. Developing Technology</i>	<i>C. Proficient</i>	<i>D. Advanced</i>
I.1 BASICS			
A1.10 Demonstrate basic skills for using hardware and applications (e.g., start up and shut down computer system and peripherals, open/close a file, start an application and create a document.)			
A1.11 Navigate using scroll bars, arrow keys, special keys, and mouse functionality.			
A1.12 Identify components of a computer system (e.g., Operating system, platform, drives, memory, window). Explain their functions, and use appropriate terminology in speaking about them.	B1.12 Identify and use basic features of a computer operating system (e.g., format/initialize disks, access information on size and format of a file, create and organize folders on local hard drive and desktop).		
A1.14 Save/backup and retrieve a file to/from the Desktop, hard drive, and/or floppy disk.	B1.14 Manage files, to save, locate and organize files on local and remote network spaces.	C1.14 Save (also retrieve, load, and import) documents in different file formats (e.g., RTF, HTML) to facilitate file sharing.	
A1.15 Select a printer and print a document with appropriate orientation within page setup.	B1.15 Operate peripheral equipment (e.g., scanner, printer, projector).	C1.15 Use a variety of external peripherals (e.g., digital camera, camcorder, CD-RW, scanner) and connect them to a computer.	
	B1.16 Resolve basic technical difficulties (e.g., soft reboot, paper jam, ink cartridge replacement).	C1.16 Resolve commonly occurring technology problems, and use proper terminology for communicating them (e.g., frozen screen, disk error, printing problems).	D1.16 Troubleshoot and add new hardware.
		C1.17 Identify, download and use multimedia, graphic, sound and video files.	D1.17 Identify and use methods for transferring, downloading, and converting graphic, sound, and video files. Use different graphic file formats where appropriate (e.g., PICT, TIFF, JPEG).

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Standard 1 - Technology Operations and Concepts (Continued)

<i>A. Early Technology</i>	<i>B. Developing Technology</i>	<i>C. Proficient</i>	<i>D. Advanced</i>
		C1.18 Install new software from a variety of sources (e.g., CD, downloads, plug-ins and applications) per district policies.	D1.18 Import/export and link data between spreadsheet, databases and other applications, including presentation applications.
1.2 NETWORK			
A1.20 Connect the cables and cords correctly such that a computer is functional.	B1.20 Connect a computer to peripheral devices (e.g., printers), a network outlet, and take proper care of the system.		
1.3 WORD PROCESSING			
A1.30 Use basic editing and formatting features of a word processing program (e.g., centering, spacing, fonts and styles, enter and edit text, copy and paste, manipulate fonts, use writing tools and insert clip art.).	B1.30 Use editing and formatting features (margins, cut and paste, spelling, and page numbers). Insert images (e.g., graphics, clip art) from other files into word-processed documents.		
	B1.31 Create a report or newsletter using word-processing or desktop publishing software.		
1.4 SPREADSHEET			
	B1.40 Describe the structure and function of spreadsheet (e.g., cells, rows, columns, and formulas) and apply formatting features, reposition columns and rows.		
	B1.41 Create an original spreadsheet, entering simple formulas (various number formats, equations, percentages, exponents).	C1.41 Use built-in calculating functions in a spreadsheet application.	
	B1.42 Interpret spreadsheet information, and produce simple charts from data.	C1.42 Customize formatting of charts or graphs created in spreadsheet. Define and use built-in data functions of a spreadsheet such as sort, filter, find.	
1.5 DATABASE			
	B. 1.50 Define terms (field, table, record etc.) and functions of a database and use it for simple analysis.	C1.50 Perform simple operations in a database (e.g., browse, sort, search, delete, add data, define filed formats, etc.).	D1.50 Design, create, and manipulate an original database.

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Standard 1 - Technology Operations and Concepts (Continued)

<i>A. Early Technology</i>	<i>B. Developing Technology</i>	<i>C. Proficient</i>	<i>D. Advanced</i>
1.6 GRAPHICS			
	B1.60 Create and manipulate graphics using a drawing or painting program (e.g., adjust scale, size, shape).		
1.7 MULTIMEDIA			
	B1.70 Create a simple multimedia presentation (using PowerPoint, KidPix, etc.) and explain the terminology (slide, transition, etc.)	C1.70 Create a multimedia presentation that includes imported sound and graphic files, tables and a design template.	
1.8 INTERNET			
A1.80 Use correct terminology in speaking about Internet communications (e.g., browser, search engine, online).	B1.80 Differentiate among browser, email program and Internet service provider.		
A1.81 Access the Internet and identify and use navigation features of browser (e.g., “go,” “back,” “forward”).			
A1.82 Add a Web site to <i>Favorites</i> or <i>Bookmark</i> it for future reference.	B1.82 Organize <i>Bookmarks</i> or <i>Favorites</i> into folders for future reference.		
A1.83 Identify basic elements of a Web site (e.g., URL, hyperlinks, etc.) and use a URL.	B1.83 Identify and use basic search strategies on the Internet.	C1.83 Demonstrate effective search strategies to locate and retrieve electronic information (e.g., use syntax and “Boolean logic operators- and/or terms” correctly).	
		C1.84 Share links among users via email or posting.	
		C1.85 Create a basic Web page.	D1.85 Create and post a Web page per district policy.
1.9 E-MAIL			
A1.90 Create and send a message using email. Retrieve and read email. Reply to sender and forward an email. Save, print and delete an email.	B1.90 Send an email attachment, open and save on to the desktop.		
	B1.91 Create an address book in an e-mail program.		

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Standard 2 - Ethics and Safety

<i>A. Early Technology</i>	<i>B. Developing Technology</i>	<i>C. Proficient</i>	<i>D. Advanced</i>
2.1 GENERAL RULES AND POLICIES			
A2.10 Apply classroom/lab rules for responsible use of technology.			
A2.11 Explain and comply with acceptable use policy in your district and describe the consequences.			
2.2 EQUITY			
A2.20 Explain the importance of sharing technology resources equitably among all students.	B2.20 Ensure equitable access to technology resources for all students in the class.		
2.3 DIVERSE POPULATION (AT & UDL)			
A2.30 Discuss the basic concept of assistive technologies and Universal Design for Learning (UDL), including portable word processors.	B.2.30 Use basic assistive technology resources. For example, change text size or make templates in a word processor, use text-to-speech features, change mouse controls, use on-screen calculators.	C2.30 Use specific assistive technology software (e.g., programs that use pictures/symbols with words, talking word processing, or word prediction).	D2.30 Manage assistive technology equipment and install peripherals for diverse learners (e.g., alternate keyboards, voice recognition systems and scanners with OCR software).
2.4 COPYRIGHTS, LICENSING			
A2.40 Explain copyrights as applied to technology use in education, the workplace and society.	B2.40 Cite electronic sources correctly in accordance with copyright law, explain and model this in the classroom.		
A2.41 Follow appropriate licensing and documentation for all software used.	B2.41 Explain and demonstrate ethical and legal behavior in copying/downloading files, applications, and media (Internet).		
	B2.42 Ensure responsible uses of technology by students: a. including intellectual property b. copyright laws, c. effective use of resources and d. environmental concerns.		
2.5 AUTHENTICITY			
A2.50 Explain how media and technology can be misused to distort or exaggerate information.	B2.50 Validate a Web site for authenticity (e.g., find site sponsor, author, date the site was last updated, etc.)		

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Standard 2 - Ethics and Safety (Continued)

<i>A. Early Technology</i>	<i>B. Developing Technology</i>	<i>C. Proficient</i>	<i>D. Advanced</i>
2.6 VIRUSES			
A2.60 Explain potential problems viruses create and practical methods of prevention (including exercising caution in opening e-mail attachments from unknown sources).			
2.7 SAFETY			
2.70 Follow the proper district/school procedures in the event of technical difficulties.			
A2.72 Explain the dangers of chat rooms and other electronic communications such as instant messaging.		C2.72 Address situations where inappropriate sites are accessed, and contact proper district personnel to block such sites.	
2.8 PHYSICAL/ERGONOMICS			
A2.80 Evaluate the proper physical setting for technology use (ergonomics).		C2.80 Demonstrate and teach students the issue of ergonomics (e.g., repetitive stress injuries) and how to use equipment safely.	

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Standard 3 - Teaching & Learning with Technology

<i>A. Early Technology</i>	<i>B. Developing Technology</i>	<i>C. Proficient</i>	<i>D. Advanced</i>
3.1 PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES			
A3.10 Discuss current research on teaching and learning with technology in order to plan learning environments and experiences.	B3.10 Design and develop lessons and activities that integrate technology in a variety of instructional settings for all students.		
A3.11 Use technology to gather curriculum-specific information from CD-ROMs, Web sites and/or automated card catalogue.	B3.11 Identify and locate technology resources including online curriculum resources (Massachusetts Curriculum Frameworks and/or district curriculum guides) for planning.	C3.11 Evaluate technology resources, including online resources for accuracy and suitability.	
		C3.12 Plan for the management of technology resources within the context of learning activities (schedule use of computer lab, wireless laptops, SmartBoard, etc.).	
3.2 TEACHING, LEARNING, AND THE CURRICULUM			
A3.20 Integrate technology into the curriculum of one's subject and/or grade level with assistance of a coach, mentor or other staff member.	B3.20 Facilitate technology-enhanced lessons that address content standards and student technology standards.	C3.20 Use technology to support learner-centered strategies that address all students.	D3.20 Apply technology to develop students' higher order skills and creativity.
	B3.21 Manage student technology activities to optimize learning with available resources (e.g., in a one-computer classroom, a computer lab, or with portable/wireless technology).	C3.21 Manage student learning experiences that integrate effective uses of technology to meet a variety of learning styles.	
		C3.22 Use the Internet for curriculum development and instruction (e.g., Web Quests, classroom web pages)	D3.22 Create web pages for instruction and communication.
	B3.23 Use appropriate technology to differentiate instruction (multimedia presentations, concept maps) for all learners.	C3.23 Use appropriate technology tools to enhance one's own curriculum, as applicable. This may include: projectors, wireless laptops, handhelds, environmental probes, sensors, robotics, dynamic geometric software, and measuring devices.	D3.23 Use specialized technology tools for problem solving, decision-making, and creativity (e.g., simulation software, environmental probes, computer-aided design, geographic information systems, dynamic geometric software, graphing calculators, art and music composition software).

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Standard 3 - Teaching & Learning with Technology (continued)

<i>A. Early Technology</i>	<i>B. Developing Technology</i>	<i>C. Proficient</i>	<i>D. Advanced</i>
3.3 ASSESSMENT AND EVALUATION			
	B3.30 Apply technology in assessing student learning of subject matter using a variety of district, school or individual assessment tools and strategies (e.g., TestWiz, grading programs or progress spreadsheets).	C3.30 Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.	
		C3.31 Identify and evaluate developing technologies as they relate to one's subject area, grade level and student population.	D3.31 Routinely and rigorously identify, evaluate, and apply emerging technologies as they relate to teaching and learning.
3.4 PRODUCTIVITY AND PROFESSIONAL PRACTICE			
A3.40 Use email to communicate with teachers and other professionals about curriculum content and procedures.			
A3.41 Use word processing to support teaching and learning (e.g., letters home to parents, course syllabi, flyers, worksheets, students' stories, etc.)	B3.41 Use application programs to organize curriculum-specific information/data into charts, tables and diagrams (spreadsheets, databases, etc.).	C3.41 Manipulate data using charting tools and graphic organizers (e.g., concept mapping, and outlining software) to connect ideas and organize information.	D3.41 Combine information from different applications (e.g., a chart imported from a spreadsheet into a word-processed report can be linked to update automatically when the data is changed in the spreadsheet) to enhance/clarify communication of information.
	B3.42 Create multimedia presentations to communicate curriculum content.		D3.42 Present information, ideas, and results of work using the most appropriate communications technologies (e.g., multimedia presentations, Web pages, digital videotapes, desktop-published documents).
	B3.43 Integrate results of electronic research into classroom instruction (with proper citations), as appropriate to the grade level.	C3.43 Use electronic conferencing tools such as Internet bulletin boards as in VES and MyBPS.	D3.43 Use electronic communications to enhance teaching and learning, (e.g. listserv, electronic classrooms, and interactive video).
A3.44 Identify personal technology professional development needs.	B3.44 Locate and enroll in appropriate technology professional development activities offered by the district, online or local college/university.	C3.44 Apply technology professional development activities such as multimedia presentations, Web Quests, and lessons in the classroom.	D3.44 Design and deliver effective staff development in technology and its integration in curriculum.

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Appendix B

Massachusetts Recommended PreK-12 Instructional Technology Standards:

<http://www.doe.mass.edu/edtech/standards/itstand.pdf>

Standard 1 - Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity

Standard 2 - Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media

Standard 3 - Demonstrate ability to use technology for research, problem-solving, and communication. Students locate, evaluate, collect, and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

Alignment to the Standards:

1. Technology Operations & Concepts

Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.

2. Ethics & Safety

Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.

3. Teaching & Learning with Technology

Demonstrate ability to use technology for research, problem-solving, and communication. Implement "technology enhanced instructional strategies to support the needs of diverse learners". Locate, evaluate, collect, and process information from a variety of electronic sources for integration into the curriculum. Use telecommunications and other media to interact or collaborate with peers, experts, and other audiences. Use and apply technology resources to assess student subject matter learning. "Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning."

ISTE National Technology Standards

http://cnets.iste.org/teachers/t_stands.html

1. Technology Operations and Concepts
2. Planning and Designing Learning Environments and Experiences
3. Teaching, Learning and the Curriculum
4. Assessment and Evaluation
5. Productivity and professional practice
6. Social Ethical, Legal and Human Issues

TECHNOLOGY SELF-ASSESSMENT TOOL

Massachusetts STaR Chart (School Technology and Readiness Chart)

Levels of Progress:

<http://www.doe.mass.edu/boe/sac/edtech/star.html>

- A. Early Technology
- B. Developing Technology
- C. Proficient
- D. Advanced