

## Scope and Sequence of Technology Standards for Tacoma Public Schools

SPECIFIC SKILLS NECESSARY FOR COMPLETION OF STANDARDS:	K	1	2	3	4	5
Mouse (point and click, double click, right click, drag and drop)	A/I	I	R	M	M	M
Turning a computer on and off, and sleep mode	A/I	R	R	M	M	M
Starting and closing programs/documents	A/I	R	R	M	M	M
Use and creating folders	A/I	A/I	I	R	M	M
Understanding how technology expands opportunities for learning.	A	A/I	R	R	M	M
Correct posture at the computer	A/I	R	R	R	M	M
Create, name, and saving work	A	A	A/I	R	R	M
Respond to on screen commands	A	A	A/I	A/I	R	M
Use menu options for formatting and drawing, such as arrange, select, format, spelling and grammar tools.	A	A	A/I	R	R	M
Understand the Tacoma School District Acceptable Use Policy for using computers.	A/I	A/I	A/I	R	R	M
Monitor/CPU, Desktop (My computer, My Documents, Recycle Bin/Trash, Start Menu/Task Bar, Application Icons)	A/I	A/I	I	R	R	M
Be able to identify software applications by their icons, and which to use for different types of work.	A/I	A/I	R	R	R	M
Discuss ethical behaviors when using information and technology, including ownership of ideas, respect for the rights of others while using computers, keeping personal information or passwords private, and copyright laws.	A/I	A/I	R	R	R	M
Open, close, minimize, maximize, and restore windows	A/I	I	R	R	R	M
Speaker/headphones	A/I	R	R	R	R	M
Printer: Preview and print documents	A/I	R	R	R	R	M
Proper Keyboarding techniques (Enter/return, Spacebar, Shift, Arrow keys, Esc, Tab, and other keys)	A/I	R	R	R	R	M
Multimedia devices (digital camera, scanner, document camera, etc.)	A/I	A/I	R	R	R	R/M

Based on the 2007 National Education Technology Standards to support skills required by No Child Left Behind

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1. Creativity & Innovation							
Students demonstrate creative thinking, construct knowledge, and develop innovative products and							
a. apply existing knowledge to generate new ideas, products, or processes.							
b. created original works as a means of personal or group expression.							
c. use models and simulations to explore complex systems and issues.							
d. identify trends and forecast possibilities.							
A=Awareness I=Introduce R=Reinforce M=Master/Maintain							
ACTIVITIES for STANDARD 1:	K	1	2	3	4	5	Lessons
<i>Illustrate and communicate original ideas and stories using digital tools and media-rich resources.</i>	A/I	I/R	R/M	M	M	M	Links to lessons
<i>Use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals.</i>	A	A/I	R/M	M	M	M	Links to lessons
Identify, research, and collect data on an environmental issue using digital resources, and propose a developmentally appropriate solution.	A	R	R/M	M	M	M	Links to lessons
<i>Produce a media-rich digital story about a significant local event based on first person interviews.</i>	A	I/R	R/M	M	M	M	Links to lessons
<i>Gather data, examine patterns, and apply information for decision making using digital tools and resources.</i>		A	I	R	R	M	Links to lessons
<i>Use digital-imaging technology to modify or create works of art for use in a digital presentation.</i>		A	A	I	R	M	Links to lessons
<i>Describe and illustrate a content-related concept or process using a model, simulation, or concept-mapping software.</i>		A	A/I	I	I	R	Links to lessons
<i>Integrate a variety of file types to create and illustrate a document or presentation.</i>			A	I	R	R	Links to lessons
APPLICATIONS USEFUL FOR STANDARD 1:							
<i>K-2 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Word, internet</i>							
<i>3-5: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Adobe Photoshop, Word, Excel, internet</i>							

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2. Communication & Collaboration							
Students use digital media and environments to communicate and work collaboratively, including at a							
a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.							
b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.							
c. develop cultural understanding and global awareness by engaging with learners of other cultures.							
d. contribute to project teams to produce original works or solve problems.							
A=Awareness I=Introduce R=Reinforce M=Master/Maintain							
ACTIVITIES FOR STANDARD 2:	K	1	2	3	4	5	Lessons
Illustrate and communicate original ideas and stories using digital tools and media-rich resources.	A/I	R	M	M	M	M	Links to lessons
Engage in learning activities with learners from multiple cultures through e-mail and other electronic means.	A/I	R	M	M	M	M	Links to lessons
In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area.	A/I	R	M	M	M	M	Links to lessons
Produce a media-rich digital story about a significant local event based on first person interviews.	A	A	I	I	R	M	Links to lessons
Use digital-imaging technology to modify or create works of art for use in a digital presentation.		A	A	I	R	M	Links to lessons
Describe and illustrate a content-related concept or process using a model, simulation, or concept-mapping software.		A	A/I	I	I	R	Links to lessons
Create original animations or videos documenting school, community, or local events.					I	I	Links to lessons
Participate in a cooperative learning project in an online learning community.						I	Links to lessons
Use collaborative electronic authoring tools to explore common curriculum content from multicultural perspectives with other learners.					I	I/R	Links to lessons
SOFTWARE PROGRAMS APPLICABLE FOR STANDARD 2:							
<i>K-2 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Word, internet, email</i>							
<i>3-5 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Adobe Photoshop, Word, Excel, internet, email</i>							

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3. Research Information Fluency							
<i>Students apply digital tools to gather, evaluate, and use information. Students:</i>							
a. plan strategies to guide inquiry.							
b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media							
c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.							
d. process data and report results.							
A=Awareness I=Introduce R=Reinforce M=Master/Maintain							
ACTIVITIES FOR STANDARD 3:	K	1	2	3	4	5	Lessons
Illustrate and communicate original ideas and stories using digital tools and media-rich resources.	A/I	R	M	M	M	M	Links to lessons
Find and evaluate information related to a current or historical person or event using digital resources.	A	A/I	R/M	M	M	M	Links to lessons
Use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals.	A	A/I	R/M	M	M	M	Links to lessons
Produce a media-rich digital story about a significant local event based on first person interviews.	A	A	I	I	R	M	Links to lessons
Recognize bias in digital resources while researching an environmental issue with guidance from the teacher.			A/I	I	R	M	Links to lessons
Select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses.	A/I	I	R	M	M	M	Links to lessons
Identify and investigate a global issue and generate possible solutions using digital tools and resources.			A/I	R	R	M	Links to lessons
Evaluate digital resources to determine the credibility of the author and publisher and the timeliness and accuracy of the content.				A	I	I	Links to lessons
Employ data collection technology such as probes, handheld devices, and geographic mapping systems to gather, view, analyze, and report results for content-related problems.						I	Links to lessons
Select and use the appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.			A	I	R	R	Links to lessons
Use collaborative electronic authoring tools to explore common curriculum content from multicultural perspectives with other learners.					I	I/R	Links to lessons
Select digital tools or resources to use for a real-world task and justify the selection based on their efficiency and effectiveness.				A	I	I	Links to lessons
Model legal and ethical behaviors when using information and technology by properly selecting, acquiring, and citing resources.				A	A	I	Links to lessons
SOFTWARE PROGRAMS APPLICABLE FOR STANDARD 3:							
<i>K-2 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Word, internet, email</i>							
<i>3-5 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Adobe Photoshop, Word, Excel, internet, email</i>							

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4. Critical Thinking, Problem Solving, and Decision Making							
<i>Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and</i>							
a. identify and define authentic problems and significant questions for investigation.							
b. plan and manage activities to develop a solution or complete a project.							
c. collect and analyze data to identify solutions and /or make informed decisions.							
d. use multiple processes and diverse perspectives to explore alternate solutions.							
A=Awareness I=Introduce R=Reinforce M=Master/Maintain							
ACTIVITIES FOR STANDARD 4:	K	1	2	3	4	5	Lessons
Identify, research, and collect data on an environmental issue using digital resources, and propose a developmentally appropriate solution.	A	R	R/M	M	M	M	Links to lesson:
Use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals.	A	A/I	R/M	M	M	M	Links to lessons
Independently apply digital tools and resources to address a variety of tasks and problems.	I	R	M	M	M	M	Links to lessons
Produce a media-rich digital story about a significant local event based on first person interviews.	A	A	I	I	R	M	Links to lessons
Recognize bias in digital resources while researching an environmental issue with guidance from the teacher.			A/I	I	R	M	Links to lessons
Select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses.	A/I	I	R	M	M	M	Links to lessons
Identify and investigate a global issue and generate possible solutions using digital tools and resources.			A/I	R	R	M	Links to lessons
Conduct science experiments using digital instruments and measurement devices.				I	R	M	Links to lessons
Conceptualize, guide, and manage individual or group learning projects using digital planning tools with teacher support.				A/I	R	M	Links to lessons
Apply previous knowledge of digital technology operations to analyze and solve current hardware and software problems.			A/I	R	M	M	Links to lessons
Gather data, examine patterns, and apply information for decision making using digital tools and resources.		A	I	R	R	M	Links to lessons
Employ data collection technology such as probes, handheld devices, and geographic mapping systems to gather, view, analyze, and report results for content-related problems.						I	Links to lessons
Select and use the appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.			A	I	R	R	Links to lessons
Use collaborative electronic authoring tools to explore common curriculum content from multicultural perspectives with other learners.					I	I/R	Links to lessons
Independently develop and apply strategies for identifying and solving routine hardware and software problems.				A	I	R	Links to lessons

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<b>SOFTWARE PROGRAMS APPLICABLE FOR STANDARD 4:</b>
<i>K-2 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Word, internet, email</i>
<i>3-5 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Adobe Photoshop, Word, Excel, internet, email</i>

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5. DIGITAL CITIZENSHIP							
<i>Students understand human, cultural, and societal issues related to technology and practice legal and</i>							
<i>a. advocate and practice safe, legal, and responsible use of information and technology.</i>							
<i>b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</i>							
<i>c. demonstrates personal responsibility for lifelong learning.</i>							
<i>d. exhibit leadership for digital citizenship.</i>							
A=Awareness I=Introduce R=Reinforce M=Master/Maintain							
ACTIVITIES FOR STANDARD 5:	K	1	2	3	4	5	Lessons
Demonstrate the safe and cooperative use of technology, including respect or people, equipment, and resources.	R	M	M	M	M	M	Links to lessons
Practice injury prevention by applying a variety of ergonomic strategies when using technology.	A	A	I	R	R	M	Links to lessons
Debate the effect of existing and emerging technologies on individuals, society, and the global community.			A	I	R	M	Links to lessons
Use collaborative electronic authoring tools to explore common curriculum content from multicultural perspectives with other learners.					I	I/R	Links to lessons
Model legal and ethical behaviors when using information and technology by properly selecting, acquiring, and citing resources.				A	A	I	Links to lessons
SOFTWARE PROGRAMS APPLICABLE FOR STANDARD 5:							
<i>K-2 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Word, internet, email</i>							
<i>3-5 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Adobe Photoshop, Word, Excel, internet, email</i>							

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6. TECHNOLOGY OPERATIONS AND CONCEPTS							
<i>Students demonstrate a sound understanding of technology concepts, systems, and operations.</i>							
a. understand and use technology systems.							
b. select and use applications effectively and productively.							
c. troubleshoot systems and applications.							
d. transfer current knowledge to learning of new technologies.							
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ACTIVITIES FOR STANDARD 6:	K	1	2	3	4	5	Lessons
Engage in learning activities with learners from multiple cultures through e-mail and other electronic means.	A/I	R	M	M	M	M	Links to lessons
In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area.	A/I	R	M	M	M	M	Links to lessons
Independently apply digital tools and resources to address a variety of tasks and problems.	I	R	M	M	M	M	Links to lessons
Communicate about technology using developmentally appropriate and accurate terminology.	A/I	R	M	M	M	M	Links to lessons
Demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites.	A/I	R	M	M	M	M	Links to lessons
Use digital-imaging technology to modify or create works of art for use in a digital presentation.		A	A	I	R	M	Links to lessons
Select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses.	A/I	I	R	M	M	M	Links to lessons
Conduct science experiments using digital instruments and measurement devices.				I	R	M	Links to lessons
Conceptualize, guide, and manage individual or group learning projects using digital planning tools with teacher support.				A/I	R	M	Links to lessons
Debate the effect of existing and emerging technologies on individuals, society, and the global community.			A	I	R	M	Links to lessons
Apply previous knowledge of digital technology operations to analyze and solve current hardware and software problems.			A/I	R	M	M	Links to lessons
Create original animations or videos documenting school, community, or local events.					I	I	Links to lessons
Employ data collection technology such as probes, handheld devices, and geographic mapping systems to gather, view, analyze, and report results for content-related problems.						I	Links to lessons
Select and use the appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.			A	I	R	R	Links to lessons
Integrate a variety of file types to create and illustrate a document or presentation.			A	I	R	R	Links to lessons

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Independently develop and apply strategies for identifying and solving routine hardware and software problems.				A	I	R	Links to lessons
Select digital tools or resources to use for a real-world task and justify the selection based on their efficiency and effectiveness.				A	I	I	Links to lessons
<b>SOFTWARE PROGRAMS APPLICABLE FOR STANDARD 6:</b>							
<i>K-2 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Word, internet, email</i>							
<i>3-5 Applications: KidPix, Kidspiration, The Graph Club, iPhoto, iTunes, Adobe Photoshop, Word, Excel, internet, email</i>							