



TECHNOLOGY K - 12

Educational Technology Department

Scope and Sequence

Introduction to the Scope and Sequence Document:

The skills identified for each grade level are aligned to:

- Common Core State Standards (CCSS) for Mathematics and English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects
- Skills required to take the California Assessment of Performance and Progress (CAASPP) Computer Adaptive Assessments.
- Skills in Digital Citizenship and Technology Operations and Concepts.

Standards Grade levels are not specified for the standards as they are indicated in the grade level columns.

English Language Arts Anchor Standards		Mathematics Standards	
RL - Reading Standards for Literature; RI - Reading Standards for Informational Text W - Writing SL - Speaking and Listening L - Language		G - Geometry F - Functions A - Algebra SMP - Standards of Mathematical Practice	EE - Expressions and Equations MD - Measurement and Data SP - Statistics and Probability
Dig Cit: Digital Citizenship: www.common sense media.org	TO&C: Basic Operations and Concepts: The National Educational Technology Standards for Students		

Mathematics standards are focused mainly in grades 6-12 as there are no technology requirements in grades K-5. Most of the SBAC Testing Skills cover the skills that students will be required to have to take the online assessment. Mathematical Standards of Practice (SMP) are also referenced as they encompass use of appropriate technology tools across various standards. The scope and sequence goes from K-12 but is broken up into sections for K-5 and 6-12. Even though students in grades K, 1, 2, 9, 10 and 12 are not tested for CCSS, the skills help build basic technology competencies to support the grade levels at which the students are tested.

The Scope and Sequence identifies which grade levels the skills need to be Introduced (I), Reinforced (R) and Mastered (M).

Skills identified as Optional for Grade Level (O) are left to the discretion of the teacher who may choose to teach the skills to the student.

This Scope and Sequence is adapted from the Fresno County Office of Education Recommended Digital Literacy and Technology Skills to Support the California Common Core State Standards and Alignment with Common Core State Standards and Skills Needed for State Testing from Long Beach Unified School District's Technology Skills Scope and Sequence

Elementary

Digital Literacy Categories		Alignment with CCSS/CAASPP	Skills	K	1	2	3	4	5	
Demonstrate proficiency in the use of computers & applications. Develop an understanding of the concepts underlying hardware, software, & connectivity.	Basic Operations	CAASPP	Turning on computer or other device	I	R	M	M	M	M	
		CAASPP	Logging on to account	I	R	M	M	M	M	
		CAASPP	Use pointing device such as a mouse to manipulate and open objects, dialogue boxes, sites (e.g. icon, radio buttons)	I	R	M	M	M	M	
		CAASPP	Use space bar and arrows to maneuver	I	R	M	M	M	M	
		CAASPP	File management- saving documents	O	I	R	M	M	M	
		CAASPP	Use age-appropriate online tools	O	I	R	M	M	M	
	Keyboarding	W6	Uses proper posture and ergonomics	I	R	M	M	M	M	
		W6	Use letter and number keys with left and right hand placement	I	R	M	M	M	M	
		W6	Uses space, caps lock, delete, and shift key	I	R	M	M	M	M	
		W6	Locates home row keys (HRK)	I	R	M	M	M	M	
		W6	Uses correct finger for letters and numbers from a HRK placement	O	I	R	M	M	M	
		W6	Gains proficiency & speed in touch typing	O	I	R	M	M	M	
	Word Processing	W5, W6, W 10	Use a word processing application to write, edit, print and save work	I	R	M	M	M	M	
		W5, W6, W 10	Use menu/tool bar functions (e.g. fonts/size/style)	O	I	R	M	M	M	
		W5, W6, W 10	Highlight text, copy, and paste text within a document		O	I	R	M	M	
		W5, W6, W 10	Copy, paste, resize images or content from other sources	O	I	R	M	M	M	
		W5, W6, W 10	Proofread and edit writing using appropriate resources (e.g. dictionary)		O	I	R	M	M	
	Spreadsheets (Tables, Charts and Graphs)	MD, CAASPP	Demonstrate an understanding of a spreadsheet as a tool to record, organize and graph information				I	R	M	
		CAASPP	Identify and explain terms and concepts related to spreadsheets (i.e., cell, column, row, values, labels, chart, graph)			O	I	R	M	
		MD CAASPP	Enter/edit data in spreadsheets and perform calculations using simple formulas			O	I	R	M	
	I - Introduce R - Reinforce M - Mastery (ability to teach others) O - Optional for grade level									

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Digital Literacy Categories		Alignment with CCSS/CAASPP	Skills	K	1	2	3	4	5
Demonstrate proficiency in the use of computers & applications. Develop an understanding of the concepts underlying hardware, software, & connectivity.	Multimedia and Presentation Tools	W7	Create, edit, and format text on a slide				/	R	M
		W6	Create a series of slides and organize them to present research or convey an idea			O	/	R	M
		W5, SL 5	Copy and paste or import graphics; change their size and position on a slide			O	/	R	M
		W6, SL 5	Use painting and drawing applications to create and edit work				/	R	M
		W6, RL 7 CAASP	Watch online or computer based videos using the play, pause rewind and forward functions				/	R	M
		W4 W5	Create a multimedia presentation using various digital media				/	R	M
		W 5 W6 MP 5 MP 6	Use a variety of technology tools (e.g. dictionary, calculator) to maximize accuracy of work				/	R	M
Demonstrate the responsible use of technology and an understanding of ethics and safety issues in using electronic media	Acceptable Use, Copyright and Plagiarism	Digital Citizenship	Explain and demonstrate school rules as stated in the Student Responsible Use of Technology Agreement (SRUTA)	O	/	R	M	M	M
		Dig Cit	Identify the purpose of a media message (to inform, persuade or entertain)	O	/	R	M	M	M
		Dig Cit	Describe possible consequences of inappropriate use of digital media tools	O	/	R	M	M	M
		Dig Cit	Explain Fair Use Guidelines for the use of copyrighted materials,(e.g. text, images, music, video in student projects) and giving credit to media creators			O	/	R	M
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Digital Literacy Categories		Alignment with CCSS/CAASPP	Skills	K	1	2	3	4	5	
Demonstrate an understanding of ethics and safety issues in using electronic media at home, in school and in society	Health and Safety	Dig Cit	Recognize and describe the potential risks and dangers associated with various forms of online communications	O	/	R	M	M	M	
		Dig Cit	Recognize and demonstrate ergonomically sound and safe equipment.							
		Dig Cit	Recognize and describe the potential risks and dangers associated with various forms of online communications	O	/	R	M	M	M	
		Dig Cit	Explain that a password helps protect the privacy of information	O	/	R	M	M	M	
		Dig Cit	Identify cyberbullying and describe strategies for getting help			O	/	R	M	
Demonstrate the ability to use technology for research, critical thinking, & decision making and collaborative communication	Communication and Collaboration	SL 1 and 5	Communicate with other students and other classes using appropriate technology, including e-mail if the districts allow				/	R	M	
		W 6, W10 SI2, SI 5	Create projects that use text and various forms of graphics, audio and video to communicate ideas (with proper citation)				/	R	M	
		W6, W10, SL 2, SL 5	Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriate use of citations			O	/	R	M	
	Research (Gathering and Using Information)	RI 5, RI 7	Identify and use age-appropriate online tools and resources to gather and analyze data	O	/	R	M	M	M	
		RI 7	Use content specific technology tools (e.g. environmental probes, sensors, and measuring devices, simulations) to gather and analyze data			O	/	R	M	
		RI 5, RI7	Evaluate Internet resources in terms of their usefulness for research.				/	R	M	
		W6	Explain that the internet connects computers around the world allowing people to access information and communicate	O	/	R	M	M	M	
		W 5 & 6,	Use Web browsing using teacher selected internet resources	O	/	R	M	M	M	
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Secondary

Digital Literacy Categories		Alignment with CCSS	Skills	6	7	8	9	10	11	12	
Demonstrate proficiency in the use of computers & applications. Develop an understanding of the concepts underlying hardware, software, & connectivity.	Basic Operations	TO&C	Identify successful troubleshooting strategies for minor hardware and software issues/problems	I	R	M	M	M	M	M	
		TO&C	Independently operate peripheral equipment if available	I	R	M	M	M	M	M	
		TO&C	Use online help and other support to learn about features of hardware and software, as well as to assess and resolve problems			I	R	M	M	M	
		TO&C	Identify the platform, version, properties, function, and interoperability of computing devices including a wide range of devices that compute and manage digital media (e.g. iPad, Chromebook)			I	R	M	M	M	
		TO&C	Install and uninstall software; compress and expand files			I	R	M	M	M	
	Key-boarding	W6	Demonstrate keyboarding skills between 25-30 wpm with fewer than 5 errors	I	R	M	M	M	M	M	
		W6	Demonstrate keyboarding techniques, including the use of keyboard shortcuts, to complete assignments efficiently and accurately.			I	R	M	M	M	
	Word Processing	W5, W6, W 10	Demonstrate use of intermediate features in word processing application	I	R	M	M	M	M	M	
		W5, W6, W 10, SL 1	Use editing features appropriately, including comment and track changes		O	I	R	M	M	M	
		W5, W6, W10	Create, save, open, and import a word processing document in different file formats (e.g., RTF, HTML)	I	R	M	M	M	M	M	
	Web Authoring	ITSE 3 C	Distinguish between effective and ineffective Web site designs; explain the reasons.		O	I	R	M	M	M	
		ITSE 2 C	Use HTML or Web-authoring tools to create, edit, and publish well organized Web sites with effective navigation		O	I	R	M	M	M	
		ITSE 6 C	Explain how to test and debug Web files for quality assurance.			O	I	R	M	M	
	Demonstrate proficiency in the use of computers & applications. Develop an understanding of the concepts underlying hardware, software, & connectivity.										

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Demonstrate proficiency in the use of computers & applications. Develop an understanding of the concepts underlying hardware, software, & connectivity.	Multimedia and Presentation Tools	W 6, SL 5	Create presentations for a variety of audiences and purposes with use of appropriate transitions and animations to add interest	I	R	M	M	M	M	M	
		W 6, SL 5	Use a variety of technology tools to maximize the accuracy of work	I	R	M	M	M	M	M	
		W 6, SL 5	Make strategic use of digital media to enhance understanding Use a variety of applications to plan, create, and edit multimedia products	I	R	M	M	M	M	M	
		W 6, SL 5	Use note-taking skills while viewing online videos and using the play, pause, rewind and stop button	I	R	M	M	M	M	M	
		W 6, SL 5	Independently use appropriate technology tools to define problems and propose hypotheses in a multimedia presentation using various digital tools	I	R	M	M	M	M	M	
	Spreadsheet (Tables/ Charts and Graphs)	F, EE, SMP 5, RI 7	Use appropriate spreadsheets to calculate, graph, organize, and present data in a variety of real-world settings	I	R	M	M	M	M	M	
		F, SMP 5, RI 7	Enter formulas and functions; use the auto-fill feature in a spreadsheet application.	I	R	M	M	M	M	M	
		SMP 5, RI 7	Import and export data between spreadsheets and other applications.			I	R	M	M	M	
		EE, SMP 6	Use various number formats (e.g. scientific notations, percentages, exponents) as appropriate	I	R	M	M	M	M	M	
		SMP 5, RI 7	Use multiple sheets within a workbook, and create links among worksheets to solve problems		O	I	R	M	M	M	
	Mathematical Applications	G, SMP 5	Draw two and three dimensional geometric shapes using a variety of technology tools	I	R	M	M	M	M	M	
		EE, SMP 5	Use and interpret scientific notations using a variety of technology applications			I	R	M	M	M	
		EE, A, F, SP, SMP 5 W 8, SL 5	Explain and demonstrate how specialized technology tools can be used for problem solving, decision making, and creativity in all subject areas	I	R	M	M	M	M	M	
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Demonstrate an understanding of ethics and safety issues in using electronic media at home, in school and in society	Acceptable Use, Copyright and Plagiarism	Dig Cit	Comply with the district's Acceptable Use Policy related to ethical use, cyberbullying, privacy, plagiarism, spam, viruses, hacking, and file sharing	R	M	M	M	M	M	M
		Dig Cit	Explain Fair Use guidelines for using copyrighted materials and possible consequences	R	M	M	M	M	M	M
		Dig Cit	Analyze and explain how media and technology can be used to distort, exaggerate, and misrepresent information	I	R	M	M	M	M	M
		Dig Cit	Give examples of hardware and applications that enable people with disabilities to use technology	I	R	M	M	M	M	M
		Dig Cit	Explain the potential risks associated with the use of networked digital environments (e.g., internet, mobile phones, wireless, LANs) and sharing personal information	R	M	M	M	M	M	M
Demonstrate the ability to use technology for research, critical thinking, & decision making and collaborative communication	Communication and Collaboration	W6, W 10, SL 2, SL 5, SMP 3	Demonstrate how the use of various techniques and effect (e.g., editing, music, color, rhetorical devices) can be used to convey meaning in media	I	R	M	M	M	M	M
		RI 6, RI 7, RI 9, SMP 3, SL 1 SL 5	Use a variety of district approved Web 2.0 tools to collaborate and communicate with peers, experts, and other audiences using appropriate academic language	R	M	M	M	M	M	M
		RI 6, RI 7, RI 9, SMP 3	Plan and implement a collaborative project with students in other classrooms and schools using telecommunications tools (e.g., e-mail, discussion forums, groupware, interactive Web sites	I	R	M	M	M	M	M
		Dig Cit SL 3	Describe appropriate and responsible use of communication tools	R	M	M	M	M	M	M
		W 6, W 10 SL 3	Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations	R	M	M	M	M	M	M
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Demonstrate the ability to use technology for research, critical thinking, & decision making and collaborative communication	Research (Gathering and Using Information)	RI 6 , W 6, W 8, SL 3	Identify probable types and locations of Web sites by examining their domain names	I	R	M	M	M	M	M
		RI 6, W 6, W 8, SL5, RI 6	Use effective search strategies for locating and retrieving electronic information (e.g., using syntax and Boolean logic)	R	M	M	M	M	M	M
		RI 9 ,W 6, W 8, SL5	Use search engines and online directories. Explain the differences among various search engines and how they rank results	I	R	M	M	M	M	M
		RI 5, RI 7 , W 8	Write correct in-text citations and reference lists for text and images gathered from electronic sources	I	R	M	M	M	M	M
		W 6, SMP 2	Use and modify databases and spreadsheets to analyze data and propose solutions	I	R	M	M	M	M	M
		RI 7, SMP 3	Develop and use guidelines to evaluate the content, organization, design, use of citations, and presentation of technologically enhanced projects	I	R	M	M	M	M	M
		W 6	Explain and correctly use terms related to online learning	I	R	M	M	M	M	M
		RI 6 , W 6, W 8, SL 3	Compare, evaluate, and select appropriate electronic resources to locate specific information		O	R	M	M	M	M
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