



TECHNOLOGY SKILLS SCOPE & SEQUENCE

GRADES 6-8



Fresno Unified School District

Grades 6-8 Technology Scope and Sequence

CCSS Standards Alignment and Skill Progression

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	MD – Measurement and Data
RI - Reading Standards for Informational Text	G - Geometry
W - Writing	EE - Expressions and Equations
SL - Speaking and Listening	A - Algebra
L - Language	F - Functions
	SP - Statistics and Probability
	MP - Standards for Mathematical Practice

Feedback

[Submit feedback or
get help](#)



Mathematics standards are focused mainly in grades 6-12 as there are no technology requirements in grades K-5. Standards for Mathematical Practice (MP) are also referenced as they encompass use of appropriate technology tools across various standards.

The Scope and Sequence identifies at which grade levels the skills need to be Introduced (I), Developed (D) and Proficient (P).

ISTE Student Standards Alignment

The student technology skills are grouped within the [ISTE Students Standards](#) categories defined below.

1. Empowered Learner (Foundational skills such as computer input devices, word processing, and troubleshooting)
2. Digital Citizen (Acceptable use, copyright and plagiarism)
3. Knowledge Constructor (Internet research skills including search strategies, source evaluation, and content organization)
4. Innovative Designer (Multimedia and Presentation design skills)
5. Computational Thinker (Spreadsheets, data sets, charts, and algorithmic thinking)
6. Creative Communicator (Digital communication skills)
7. Global Collaborator (Digital collaboration skills both within and beyond borders)

Grades 6-8 Technology Scope and Sequence

How to use the Technology Scope and Sequence within Lesson Planning

1. Begin with the Standards and Objectives of your lesson.
2. Plan your Student Tasks aligned to the Standards and Objectives.
3. Consider integrating Technology Skills and resources into the student tasks where appropriate.
4. The Supporting Resources can be used to support either your learning/planning or the student's learning.

Note: The technology skills can be integrated at anytime during a lesson or unit.



Grades 6-8 Technology Scope and Sequence

Empowered Learner (Grades 6-8)

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

Alignment to CCSS	Skills	Supporting Resources	6	7	8
W.4, W.5, W.6, SL.5	Use common applications to create tables, outlines.	Word: Tables	P		
W.6, W.8, SL.5	Insert a hyperlink on text or images.	PowerPoint 2016: Hyperlinks Word 2010: Working with Hyperlinks	P		
SL.1, W.7, W.8	Comment, link, and post information online. (Example: blog, discussion forum, insert comment, etc.)	Use Information Correctly: Copyright and Fair Use Blog Basics: Copyright and Fair Use	P		
W.6, W.8, SL.5, SL.6	Identify and use proper file formats (Example: docx, pdf, jpeg, xlsx, etc.)	Windows Basics: Working with Files	P		
SL.1, W.6, W.7, W.8	Understand artificial intelligence, including the data it sources and where it lives within digital learning tools.	The AI Revolution: What Exactly is AI? Introduction to AI	P		
W.6, W.8, W.9	Understand Generative AI and how to use it appropriately; ethical considerations (co-pilot vs. autopilot; citing AI)	AI Lessons What is Generative AI Understanding AI Bias	P		
SL.1, W.6, W.7	Connect a laptop to other devices through Bluetooth and other wireless networks (e.g., wireless audio, wireless display)	Computer Basics: Setting Up a Computer	P		
W.6, SL.2	Identify and assess the capabilities and limitations of emerging technologies	Wearables: Pros and Cons of Wearable Technology	D	P	
W.6, SL.5	Establish and maintain a file structure for saving information on a computer, online or on external devices	Computer Basics: Bringing Your Files with You Windows Basics: Working with Files	D	P	
W.6, SL.5	Use common keyboard shortcuts. (Example: CTRL+C, CTRL+V, CTRL+P, etc.)	Windows Basics: Keyboard Shortcuts in Windows	D	P	
W.6, W.7, SL.5, SL.6	Design, upload and share multimedia projects.	Photoshop Basics: Saving Images	D	P	

Grades 6-8 Technology Scope and Sequence

W.6, W.10	Demonstrate automaticity in keyboarding skills by increasing accuracy and speed. (For students with disabilities, demonstrate alternate input techniques as appropriate.)	Learn Touch Typing Free - TypingClub	D	P	
W.6, W.7, W.8	Demonstrate use of intermediate features in word processing application (e.g., tabs, indents, headers and footers, end notes, bullets and numbering, tables)	Word: Headers, Footers, and Page Numbers Word: Page Numbers	I	D	P
W.6, W.7, W.8	Apply advanced formatting and page layout features when appropriate (e.g., columns, templates, and styles) to improve the appearance of documents and materials.	Word: Working with Columns Word: Using a Template Word: Using a Template	I	D	P
W.6, W.7, W.8	Select and adapt technology to fit personal needs and style. (Example: Use video as another option for presenting, use online discussions, graphic design, etc.)	Beginning Graphic Design: Branding and Identity Beginning Graphic Design: Color	I	D	P
SL.1, W.6, W.7	Understand file management (e.g., Compress and expand large files, understand computer file sizes, use storage cleanup.)	PowerPoint Tips: Compress Media Files Basic Computer Skills: Tips for Speeding Up Your Computer	I	D	P
SL.1, W.7	Understand the difference between local and online storage (e.g., flash drives, online storage spaces)	Computer Basics: Bringing Your Files with You Computer Basics: Understanding the Cloud	I	D	P
W.5, W.6, W.7	Use the "version history" features for peer editing of documents	OneDrive and Office Online: Upload, Sync, and Manage Files	I	D	P
W.6, W.7, W.8	Explain how digital resources can support communication and collaboration, personal and professional productivity, and lifelong learning	Free Communication Skills Tutorial	I	D	P
SL.1, W.6, W.7, W.8	Explain the dangers inherent in these powerful tools, as well as their potentially negative mental health effects.		I	D	P
W.6, SL.2	Explain how to correctly and safely connect to wireless networks.	Computer Basics: Connecting to the Internet Computer Basics: Basic Troubleshooting Techniques Internet Basics		I	D

Key: I = Introducing | D = Developing | P = Proficient

Grades 6-8 Technology Scope and Sequence

Digital Citizen (Grades 6-8)

Students recognize the rights, responsibilities, and opportunities of living, learning and working in an interconnected digital world, and they act and model digital citizenship in ways that are safe, legal and ethical.

Alignment to CCSS	Skills	Supporting Resources	6	7	8
W.6, W.8, SL.2, SL.3	Discuss and recognize danger in sharing private or inappropriate information online and understand the indelible nature of digital information.	Privacy and Security Relationships and Communication Digital Footprint	P		
W.6, SL.3, SL.6	Meet expectations for district email.	FUSD Acceptable Use Policy	P		
W.7, W.8, W.9	Clearly explain the rules about using someone else's work, keep track of where I find information online, and give credit to the people who create things, including stuff shared with Creative Commons.	Digital Media Literacy	P		
W.7, W.8, W.9	Explain copyrights, document and cite online resources, authors and content creators including Creative Commons.	Digital Media Literacy	P		
W.7, W.8	Gather and cite sources using digital bibliography tools.	MyBib	P		
W.6, W.8	Create and store strong individual passwords. (Example: Strong password checker found at www.howsecureismypassword.net)	Creating Strong Passwords	P		
W.6, W.8, SL.2, SL.5	Comply with the district's Acceptable Use Policy related to ethical use, cyberbullying, privacy, plagiarism, spam, viruses, hacking, and file sharing.	FUSD Acceptable Use Policy	D	P	
W.8, SL.2, SL.3	Explain the potential risks associated with the use of networked digital environments (e.g., internet, mobile phones, wireless, LANs) and sharing personal information	Internet Safety Browser Security Features Understanding Browser Tracking	D	P	
W.6, SL.5	Monitor personal content (online and offline) for digital safety.	Internet Safety for Kids: Teaching Kids About Internet Safety CommonSenseMedia Online Safety Tutorials	I	I	I
W.8, W.9	Explain issues involved with using copyrighted materials.	Use Information Correctly: Copyright and Fair Use	I	D	P

Grades 6-8 Technology Scope and Sequence

R.7, R.8	Analyze and explain how media and technology can be used to distort, exaggerate, and misrepresent information.	Free Digital Media Literacy Tutorial	I	D	P
W.6, SL.5	Understand accessibility tools that enable people with disabilities to use technology.	Computer Basics: Using Accessibility Features	I	D	P
W.7, W.8, W.9	Use AI ethically as a copilot for learning, planning and research	The AI Revolution: Ethics in AI	I	D	P
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Knowledge Constructor (Grades 6-8)

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

Alignment to CCSS	Skills	Supporting Resources	6	7	8
R.7, R.9, W.7, W.8	Explore and use content-related websites to build background knowledge, investigate topics and plan projects.		P		
W.7, W.8	Use digital search tools to locate and retrieve information. (Example: search engine, database, content library, etc.)	Search Coach / Search Progress FUSD GALE Database	D	P	
W.7, W.8, W.9	Gather and organize online references for a project. (Example: personal bookmarks, stored shortcuts or hyperlinks, etc.)	Favorites in Microsoft Edge	D	P	
W.7, W.8	Use effective search strategies for locating and retrieving electronic information (e.g., using syntax and Boolean logic operators).	Search Coach / Search Progress	D	P	
W.7, W.8, W.9	Use age appropriate digital resources to locate, collect, and organize content for specific purposes.	GO! Scholastic	D	P	
W.7, W.8	Select and research current Issues using databases and digital resources to organize a project or solve a problem.		I	D	P
R.8, R.6	Evaluate digital and online sources for appropriateness and bias.	Validating Websites	I	D	P
W.6, W.8, SL.5	Use technology to explore and brainstorm solutions for real-world problems.		I	D	P
R.7, R.9	Identify probable types and locations of Web sites by examining their domain names (e.g., edu, com, org, gov, au)	Validating Websites Search Coach / Search Progress	I	D	P

Grades 6-8 Technology Scope and Sequence

W.7, W.8,	Use search engines and online directories. Explain the differences among various search engines and how they rank results.		I	D	P
L.6	Use appropriate academic language in online learning environments (e.g., post, thread, intranet, discussion forum, drop box, account, and password)		I	D	P
W.6, SL.2, SL.5	Explain how technology can support communication and collaboration, personal and professional productivity, and lifelong learning.	Relationships and Communication	I	D	P
W.7, W.8	Write correct in-text citations and reference lists for text and images gathered from electronic sources.	MyBib	I	D	P
W.6, W.8, R.7	Use Web browsing to access information (e.g., enter a URL, access links, create bookmarks/favorites, print Web pages)	Use Favorites in Edge	I	D	P
W.7, W.8	Use and modify databases and spreadsheets to analyze data and propose solutions.	Excel Tutorials	I	D	P
W.6, W.8, R.7, R.8	Develop and use guidelines to evaluate the content, organization, design, use of citations, and presentation of technologically enhanced projects		I	D	P
R.7, R.8, SL.5	Explore digital resources to investigate topics, record questions, and build my background knowledge while being mindful of potential source bias and generative AI errors.	AI Revolution Tutorial		I	D
W.7, W.8, W.9	Write complex AI prompts to deepen research and investigation on academic topics, and cite AI as a source.	AI Revolution Tutorial		I	D
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Grades 6-8 Technology Scope and Sequence

Innovative Designer (Grades 6-8)

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.

Alignment to CCSS	Skills	Supporting Resources	6	7	8
SL.5, R.7	Make strategic use of digital media to enhance understanding		P		
SL.5, W.7, W.8	Select appropriate programs for a multimedia product. (Example: presentation, graphic design, video)	Getting started with Canva PowerPoint Tutorials Clipchamp	P		
SL.5, W.6, W.8	Incorporate hyperlinks, multimedia, and apply transitions/animations in presentation software.	Insert videos into PowerPoint Using transitions in PowerPoint	P		
R.7, SL.2, W.8	Use note-taking skills while viewing online videos and using the play, pause, rewind and stop buttons.		D	P	
SL.4, W.4	Use presentation software for presenting to an audience: create presentation notes, adjust timing.	Rehearsing and Recording your Presentation	D	P	
W.6, W.8, SL.5	Independently use appropriate technology tools (e.g., graphic organizer, audio, visual) to define problems and propose hypotheses		I	D	P
W.6, W.7, W.8	Select digital resources to organize a project or solve a problem		I	D	P
W.5, W.6	Modify or create a new technology to solve a problem or meet a need. (Example: build an app, customize font size for reading, etc.) - (Succinct: Modify or Create New Technology to Solve Problems)			I	D
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Grades 6-8 Technology Scope and Sequence

Computational Thinker (Grades 6-8)

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Alignment to CCSS	Skills	Supporting Resources	6	7	8
MP.4, MP.5, MP.6, MP.7	Create online surveys/polls to collect data and analyze summary results	Microsoft Forms	P		
MP.5	Collect and analyze data in a spreadsheet or table.	Basic Tips for Working with Data in Excel	D	P	
MP.5	Use digital tools to gather, analyze, graph and/or report results of Investigation.	Microsoft Forms Microsoft Excel Tutorials	D	P	
MP.4, MP.6, MP.7	Use interactive resources. (Example: digital/online virtual field trips, math manipulatives, electronic maps and other simulations and models, etc.)	PhET Simulations	D	P	
MP.4, MP.5, MP.6, MP.7	Find, use, and compare online data, and/or digital models/simulations to collect evidence and forecast trends		D	P	
F, SMP 5, RI 7	Use spreadsheets to calculate, graph, organize, and present data in a variety of real-world settings and choose the most appropriate type to represent given data	Microsoft Excel Tutorials	D	P	
F, SMP 5, RI 7	Select the proper technology tools to input, select, analyze and interpret data		D	D	P
F, SMP 5, RI 7	Enter formulas and functions; use the auto-fill feature in a spreadsheet application.	Excel Formulas	I	D	P
F, EE, SMP 5, RI 7	Use functions of a spreadsheet application (e.g., sort, filter, find).	Sorting Data in Excel Filtering Data in Excel	I	D	P
EE, SMP 6	Use various number formats (e.g. scientific notations, percentages, exponents) as appropriate		I	D	P
F, SMP 5, RI 7	Use advanced formatting features of a spreadsheet application (e.g., reposition columns and rows, add and name worksheets).	Microsoft Excel Tutorials	I	D	P
G, SMP 5	Draw two and three dimensional geometric shapes using a variety of technology tools.		I	D	P

Grades 6-8 Technology Scope and Sequence

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 (e.g., simulation software, environmental probes, computer aided design, geographic information systems, dynamic geometric software, graphing calculators)		I	D	P
MP.2, MP.5, MP.7, MP.8	Understand the basic concepts of coding, including variables, control structures, and functions.	Code.org		I	D
MP.1, MP.2, MP.5, MP.7	Use a programming language to run a basic program.			I	D
EE, MP.5	Use and interpret scientific notations using a variety of technology applications.			I	D
MP.5, RI7	Differentiate between formulas with absolute and relative cell references.	Excel Formulas Tutorial			I
MP.5, RI7	Use multiple sheets within a workbook, and create links among worksheets to solve problems.	Excel Tips Tutorial			I
MP.5, RI7	Import and export data between spreadsheets and other applications.	Excel Tips Tutorial			I
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Grades 6-8 Technology Scope and Sequence

Creative Communicator (Grades 6-8)

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Alignment to CCSS	Skills	Supporting Resources	6	7	8
SL.4, SL.5, SL.6	Students publish or present content that customizes the message and medium for their intended audiences.		P		
SL.1, SL.2, SL.6	Videoconference to communicate and learn with other classrooms	Microsoft Teams Meetings	D	P	
SL.1, SL.5, SL.6	Collaborate and communicate virtually using shared documents and online discussions	Class Teams Posts OneDrive	D	P	
W.6, W.8, SL.5	Create original multimedia products to present solutions and ideas. Include text, images, sound, audio and/or video. (Example: infographics, documentary film, music video, etc.)	Infogram Clipchamp	D	P	
SL.1, SL.5, SL.6	Use online discussion forums to express ideas. (Example: backchannel apps)	Class Teams Posts	D	D	P
SL.1, SL.5, SL.6	Use a variety of district approved cloud/online tools (e.g., e-mail, chat, discussion forums, etc.) to communicate with peers, experts, and other audiences using appropriate academic language.		D	P	
W.6, W.8, SL.2, SL.5	Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.		D	P	
W.6	Use email to send messages and attachments	Email Basics Outlook Email	D	P	
W.6, SL.5	Students use graphic design tools to create products for social media communication.	Getting started with Canva	D	P	
SL.2, SL.5	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	D	P
W.6, SL.5, SL.6	Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.		I	D	P
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Grades 6-8 Technology Scope and Sequence

Global Collaborator (Grades 6-8)

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

Alignment to CCSS	Skills	Additional Resources	6	7	8
R.7	Use digital maps to broaden my global knowledge.		P		
W.6, SL.5, SL.6	Participate in online projects by uploading content, photo, audio, or video.	Class Teams Posts OneDrive	P		
W.7, W.8, W.9	Research and identify global problems via websites.	GALE Databases	I	D	P
SL.1, SL.4, W.6, W7	Plan and implement a collaborative project with students in other classrooms and schools using telecommunications tools (e.g., e-mail, discussion forums, video- conferencing, etc.).		I	D	P
SL.1, SL.4, W.6, W7	Effectively collaborate with peers in a digital environment, managing shared responsibilities, and contributing to a collective research outcome, ensuring an equitable process and product.	Class Teams Posts OneDrive Planner	I	D	P
R.7, W.8	Choose global digital content to identify a local or global issue.			I	D
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