

Diocese of Fresno Technology Curriculum Guidelines



We especially acknowledge the hard work of the Diocese of Buffalo, New York, Curriculum Committee in developing this check list of technology skills.

Forward

Technology is cross-curricular and encompasses many other learning standards when integrated in to the core curricula. Technology enables teachers to customize the curriculum to accommodate and assess a variety of learning styles and ability levels.

Technology is undergoing rapid change, and new and improved technological advances appear almost daily. The effective use of educational technology will empower students to access information to be analyzed, evaluated, and applied to promote higher order thinking skills such as problem solving and critical thinking.

The strength of technology is that it provides a platform where students can collect information in different formats and then organize, link, and analyze connections between facts and events. Technology provides many tools for acquiring and disseminating information and allows students more ways to enter the learning process successfully and to live productive lives in the global, digital, and information-based future with life skills necessary to succeed in the 21st century.

Each school is encouraged to use the suggested Diocese of Fresno Technology Curriculum Guidelines in conjunction with the technological equipment available to them.

National Educational Technology Standards

I. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Students:

- A. Apply existing knowledge to generate new ideas, products, or processes.
- B. Create 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.

II. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- 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.

III. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- 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.

IV. Critical Thinking, Problem-Solving, and Decision-making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- 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 alternative solutions.

V. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:
Students:

- A. Advocate and practice safe, legal, and responsible use of information and technology.
- B. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- C. Demonstrate personal responsibility for lifelong learning.
- D. Exhibit leadership for digital citizenship.

VI. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

- A. Understand and use technology systems.
- B. Select and use applications effectively and productively.
- C. Troubleshoot systems and applications.

EXPECTATIONS FOR RELIGIOUS INTEGRATION AND ARTICULATION

- ___ A. Promote ethical values pertaining to the use of the computer.
- ___ B. Stimulate student potential for creativity.
- ___ C. Reinforce and maintain computer ethics, morals and standards.
- ___ D. Understand the cultural and societal issues related to technology.
- ___ E. Practice responsible use of technology systems, information, and software.
- ___ F. Develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

General Technological Awareness						
	Objectives	I-Introduce R-Reinforce P-Proficient				
		Grades				
		K	1	2	3	4
<input type="checkbox"/>	Explain what a computer is and how we use in society	I	I	I	R	R
<input type="checkbox"/>	Identify the parts of a computer	I	I	I	R	R
<input type="checkbox"/>	Use computer related terms-vocabulary	I	I	I	I	I
<input type="checkbox"/>	Demonstrate proper care of computer	I	I	R	R	R

<input type="checkbox"/>	Start and restart a computer	I	R	R	P	P
<input type="checkbox"/>	Shut down a computer properly	I	R	P	P	P
<input type="checkbox"/>	Identify the do's and dont's of using a computer	I	R	R	R	P
<input type="checkbox"/>	Move the mouse to point, click, double click, right click, scroll - drag	I	I	R	P	P
<input type="checkbox"/>	Select (highlight) and deselect using the mouse			I	R	R
<input type="checkbox"/>	Start a program from the task bar and icons on the desktop	I	R	R	P	P
<input type="checkbox"/>	Identify and use the menu bar and tool bars			I	I	R
<input type="checkbox"/>	Open, close, move, resize, and minimize a window using the mouse				I	I
<input type="checkbox"/>	Rename, move, and delete files	I	I	R	R	P
<input type="checkbox"/>	Print files with teacher approval	I	I	I	R	R
<input type="checkbox"/>	Demonstrate respect for others files/folders		I	I	I	R
	Networking					
<input type="checkbox"/>	Demonstrate logging onto/logging off a network			I	I	R
<input type="checkbox"/>	Explain history of computer, networking	I	I	I	I	R

Keyboarding

		I-Introduce R-Reinforce P-Proficient				
Objectives		Grades				
		K	1	2	3	4
<input type="checkbox"/>	Demonstrate proper technique and good posture-sit up straight, feet flat on the floor, wrists flat, fingers curved, eyes straight ahead on monitor			I	I	R
<input type="checkbox"/>	Demonstrate familiarity with the keyboard layout (i.e.: function keys, special keys, letters, number pad, space bar)		I	I	I	R
<input type="checkbox"/>	Identify and use letter keys	I	I	I	I	R
<input type="checkbox"/>	Use the space bar, the enter key, the shift key, and the delete key	I	I	I	I	R
<input type="checkbox"/>	Identify and use number keys	I	I	I	I	I
<input type="checkbox"/>	Identify and use punctuation keys	I	I	I	I	I

<input type="checkbox"/>	Identify and use symbol keys	I	I	I	I	I
<input type="checkbox"/>	Use the keyboard to type simple words	I	I	I	R	P
<input type="checkbox"/>	Use the keyboard to type simple phrases	I	I	I	I	R
<input type="checkbox"/>	Use the shift and caps lock appropriately	I	I	I	I	I
<input type="checkbox"/>	Identify/use special keys (i.e.: insert, delete, control, alt, home, end)	I	I	I	I	R
<input type="checkbox"/>	Use the keyboard to type a paragraph				I	I

Word Processing

		I-Introduce R-Reinforce P-Proficient				
Objectives		Grades				
		K	1	2	3	4
<input type="checkbox"/>	Identify and open a wp program	I	I	I	R	R
<input type="checkbox"/>	Identify and use tool bars and menus	I	I	I	R	R
<input type="checkbox"/>	Enter text into a wp document	I	I	I	R	R
<input type="checkbox"/>	Print a wp document	I	I	I	R	R
<input type="checkbox"/>	Determine and explain why and how to use print options	I	I	I	R	R
<input type="checkbox"/>	Determine and explain why and how to use print preview	I	I	I	R	R
<input type="checkbox"/>	Format font size, type, style, and color of text	I	I	I	I	R
<input type="checkbox"/>	Use the backspace and delete key	I	I	I	R	R
<input type="checkbox"/>	Differentiate between the cursor and insertion point	I	I	I	R	R
<input type="checkbox"/>	Define and use word processing vocabulary	I	I	I	R	R
<input type="checkbox"/>	Use all keys and special keys		I	I	R	R
<input type="checkbox"/>	Differentiate between save and save as		I	I	R	R
<input type="checkbox"/>	Save a wp file		I	I	R	P
<input type="checkbox"/>	Open an existing wp file		I	I	R	R
<input type="checkbox"/>	Select text			I	R	R
<input type="checkbox"/>	Print selected parts of a document			I	R	R

<input type="checkbox"/>	Adjust the line spacing			I	R	R
<input type="checkbox"/>	Identify and use a hyperlink in a wp document			I	R	R
<input type="checkbox"/>	Explain word wrap				I	R
<input type="checkbox"/>	Use cut, copy, and paste				I	R
<input type="checkbox"/>	Use spell check				I	I
<input type="checkbox"/>	Use Help				I	I
<input type="checkbox"/>	Recognize onscreen indicators				I	I
<input type="checkbox"/>	Insert graphics into a wp document				I	I
<input type="checkbox"/>	Address formatting and spacing considerations in a document (dates, numbers, addresses, rules of punctuation, etc)				I	I
<input type="checkbox"/>	Keyboard shortcuts					I
<input type="checkbox"/>	Explain and demonstrate use of right mouse button					I
<input type="checkbox"/>	Identify the different forms of justification (left, right, center, justified)					I
<input type="checkbox"/>	Adjust margins					I
<input type="checkbox"/>	Insert and delete page breaks					I
<input type="checkbox"/>	Use indents and overhanging indents					I

Spreadsheets

		I-Introduce R-Reinforce P-Proficient				
Objectives		Grades				
		K	1	2	3	4
Spreadsheet Awareness						
<input type="checkbox"/>	Identify and discuss spreadsheet terms/concepts				I	R
<input type="checkbox"/>	Recognize the purpose of a spreadsheet or identify intended uses				I	R
<input type="checkbox"/>	Open a spreadsheet program				I	R
<input type="checkbox"/>	Recognize menus in spreadsheet program and relate similarities and differences between other applications				I	R
<input type="checkbox"/>	Save and retrieve spreadsheet files				I	R

<input type="checkbox"/>	Move to a specific cell on a spreadsheet				I	R
<input type="checkbox"/>	Enter and edit text or numbers into a spreadsheet				I	R
<input type="checkbox"/>	Select a cell or block of cells				I	R
<input type="checkbox"/>	Print a basic spreadsheet				I	R
<input type="checkbox"/>	Use help menu to answer questions and solve problems				I	R
	Spreadsheet Formatting					
<input type="checkbox"/>	Change the order of information within a column by sorting					I
<input type="checkbox"/>	Insert and delete columns and rows					I
<input type="checkbox"/>	Use fill command					I
<input type="checkbox"/>	Format a cell or block of cells					I
<input type="checkbox"/>	Display or remove gridlines, column and row headings					I
<input type="checkbox"/>	Change column widths and row heights					I
	Spreadsheet Printing					
<input type="checkbox"/>	Use print preview, spell check, and proofread prior to printing					I
<input type="checkbox"/>	Print a spreadsheet using various print options					I
<input type="checkbox"/>	Cut, copy and paste values, labels, functions, and formulas to selected cells					
<input type="checkbox"/>	Protect cells from changing					
<input type="checkbox"/>	Read and interpret information in a spreadsheet					I
	Spreadsheet Design and Management					
<input type="checkbox"/>	Manage workbooks by adding and naming worksheets					I

Multimedia

		I-Introduce R-Reinforce P-Proficient				
Objectives		Grades				
		K	1	2	3	4
<input type="checkbox"/>	Define and use multimedia vocabulary			I	R	R
<input type="checkbox"/>	Recognize and define the basic elements of multimedia (e.g.. Text, audio, images, video)			I	R	P
<input type="checkbox"/>	Open a new slide show presentation			I	R	P
<input type="checkbox"/>	Plan and storyboard a multimedia project			I	R	P
<input type="checkbox"/>	Add text/textbox to a screen/slide			I	R	R
<input type="checkbox"/>	Insert relevant graphics, backgrounds, and clipart into a simple static screen			I	R	R
<input type="checkbox"/>	Add a new slide/screen			I	R	R
<input type="checkbox"/>	Create a series of screens/slides complete with text and graphics			I	R	R
<input type="checkbox"/>	Save a slide show presentation			I	R	R
<input type="checkbox"/>	Import and modify images from Internet, digital camera, and scanner				I	R
<input type="checkbox"/>	Add buttons with actions/links for simple navigation					I
<input type="checkbox"/>	Add Custom Animation/Slide transitions to slide shows or stacks					I
<input type="checkbox"/>	Add sound effects to a slide show or stack					I
<input type="checkbox"/>	Add background to a slide show (design template or custom)			I	I	R
<input type="checkbox"/>	Use help topics in a slide show screen					I
<input type="checkbox"/>	Run a presentation consisting of a series of slides/screens manually			I	I	R
<input type="checkbox"/>	Set a presentation to autorun					I

Database						
		I-Introduce R-Reinforce P-Proficient				
	Objectives	Grades				
		K	1	2	3	4
<input type="checkbox"/>	Identify and discuss print and electronic databases i.e.: phone book, automated circulation system, CD-Rom encyclopedias as a way to collect, organize, and display data				I	R
<input type="checkbox"/>	Identify and discuss terms/concepts sort, search/filter, keyword using electronic databases				I	R
<input type="checkbox"/>	Use prepared electronic database as a class/group activity to conduct keyword search/filters to meet information needed				I	R
<input type="checkbox"/>	Identify, discuss, and visually represent uses of databases in the community (e.g., school, grocery, pharmacy, business) to collect, organize, and display information				I	R
<input type="checkbox"/>	Identify, discuss, and use database terms (data entry, field, record, list, sort, search/filter, keyword)					I
<input type="checkbox"/>	Use prepared databases to search and sort alphabetically/numerically in ascending/descending order					I
Desktop Publishing						
		I-Introduce R-Reinforce P-Proficient				
	Objectives	Grades				
		K	1	2	3	4
<input type="checkbox"/>	Use age appropriate software(e.g.. Kid Pix Deluxe, Print Shop) for Desktop Publishing	I	R	R	R	R
<input type="checkbox"/>	Describe Desktop Publishing by identifying its common uses and the differences between a typewriter and a computer	I	R	R	R	P
<input type="checkbox"/>	Use drawing tools	I	R	R	P	P
<input type="checkbox"/>	Format Font style and point size	I	R	R	R	P
<input type="checkbox"/>	Draw a picture using a graphic program (The complexity of the picture increases as level increases)	I	R	R	R	P
<input type="checkbox"/>	Use appropriate fonts and style in headlines (more latitude, fancier but readable)		I	R	R	R

<input type="checkbox"/>	Choose justification – left, right, or center		I	R	R	R
<input type="checkbox"/>	Use appropriate fonts, style, and size			I	R	R
<input type="checkbox"/>	Use principles of design (proportion, balance, contrast, rhythm, emphasis, and unity)			I	R	R
<input type="checkbox"/>	Balance the size, color, and style of the headline relative to the body			I	R	R
<input type="checkbox"/>	Balance the artwork in relation to text			I	R	R
<input type="checkbox"/>	Define and use vocab for desktop publishing: i.e.: graphic, pixel, clipart, resize, crop, design, headline, text, icons, and import			I	R	R
<input type="checkbox"/>	Format: Bold, Italic, and Underline				I	R
<input type="checkbox"/>	Use the functions Cut, Copy, and Paste				I	R
<input type="checkbox"/>	Use digital camera/scanner to gather photos				I	R
<input type="checkbox"/>	Demonstrate/Use of digital camera/scanner and hardware components to gather photos				I	R
<input type="checkbox"/>	Use headlines, graphics, and body text effectively				I	R
<input type="checkbox"/>	Identify the difference between Portrait and Landscape				I	R
<input type="checkbox"/>	Plan, design, and produce desktop publishing using all elements of DTP: Newsletter, thumbnail sketches, travel brochures, restaurant menus, etc				I	R
<input type="checkbox"/>	Explain design goal: gain and keep attention and make a lasting impression					I
<input type="checkbox"/>	Explain and use the concepts of white space and unity of graphical elements					I
<input type="checkbox"/>	Use Print Preview/Page setup options to view document					I
<input type="checkbox"/>	Use Spell Check					I
<input type="checkbox"/>	Use Help menu to solve problems					I

Drawing/Paint/Graphics

		I-Introduce R-Reinforce P-Proficient				
Objectives		Grades				
		K	1	2	3	4
<input type="checkbox"/>	Open paint or drawing program	I	I	R	R	P
<input type="checkbox"/>	Identify and use toolbars and menus/ribbons	I	I	R	R	R
<input type="checkbox"/>	Identify basic paint and draw tools	I	R	R	P	P
<input type="checkbox"/>	Use tools in paint programs (pencil, paintbrush/bucket, spray can)	I	R	R	P	P
<input type="checkbox"/>	Draw shapes using tools in paint and draw programs	I	R	R	P	P
<input type="checkbox"/>	Change colors, patterns, and gradients	I	R	R	P	P
<input type="checkbox"/>	Fill objects with colors, patterns, and gradients	I	R	R	P	P
<input type="checkbox"/>	Use the line and shape tools	I	R	R	P	P
<input type="checkbox"/>	Change line thickness/color	I	R	R	P	P
<input type="checkbox"/>	Use eraser/undo to correct errors	I	R	R	P	P
<input type="checkbox"/>	Use tools to create drawing/design	I	R	R	P	P
<input type="checkbox"/>	Use text tool to add caption/description to drawing		I	R	R	P
<input type="checkbox"/>	Use spellcheck to edit text			I	R	R
<input type="checkbox"/>	Select within a drawing using selection/lasso tools			I	R	R
<input type="checkbox"/>	Duplicate an object			I	R	R
<input type="checkbox"/>	Cut/copy/paste an object			I	R	R
<input type="checkbox"/>	Flip/rotate objects			I	R	R
<input type="checkbox"/>	Resize objects			I	R	R
<input type="checkbox"/>	Move objects			I	R	R
<input type="checkbox"/>	Group objects				I	R
<input type="checkbox"/>	Change order of objects				I	R
<input type="checkbox"/>	Use print options appropriately using Print Preview and Page Setup				I	R

<input type="checkbox"/>	Wrap text around object				I	R
<input type="checkbox"/>	Import/insert graphics/pictures (from file, clipart, Internet, scanner or camera) into paint/draw programs				I	R
<input type="checkbox"/>	Create and modify Word Art				I	R
<input type="checkbox"/>	Use Help topics for assistance				I	R
<input type="checkbox"/>	Insert a paint image or draw object into a word processing document					I
<input type="checkbox"/>	Edit images using various programs (paint, gimp, photoshop, etc)					I
<input type="checkbox"/>	Save graphics in appropriate formats (jpg, gif,...)					I
<input type="checkbox"/>	Identify and use different picture formats (jpg, gif, tif, etc)					I

Internet

		I-Introduce R-Reinforce P-Proficient				
Objectives		Grades				
		K	1	2	3	4
INTERNET FOUNDATIONS						
<input type="checkbox"/>	Define and use Internet vocabulary	I	I	I	R	R
<input type="checkbox"/>	Recognize and comply with Acceptable Use Policy	I	I	I	R	R
<input type="checkbox"/>	Establish an Internet connection (dial up vs. broadband)	I	I	I	R	R
<input type="checkbox"/>	Follow proper Internet etiquette guidelines (Netiquette)	I	I	I	R	R
<input type="checkbox"/>	Enter a URL (web address)	I	I	I	R	R
<input type="checkbox"/>	Describe the function of a browser (Internet Explorer, Netscape, etc)	I	I	I	R	R
<input type="checkbox"/>	Use Back, Forward, and other toolbar functions in a browser	I	I	I	R	R
<input type="checkbox"/>	Use scroll bars	I	I	I	R	R
<input type="checkbox"/>	Identify and use links on a web page	I	I	I	R	R
<input type="checkbox"/>	Send and receive an email			I	I	R
<input type="checkbox"/>	Recognize types of email -formal and informal (professional/instant messaging)			I	I	R
<input type="checkbox"/>	Use the Help function				I	R

<input type="checkbox"/>	Describe and show how to print only applicable information				I	R
	SAFETY					
<input type="checkbox"/>	Obtain permission (at all times) from parents/teachers to use Internet	I	I	I	R	R
<input type="checkbox"/>	Analyze the importance of not sharing personal info on Internet	I	I	I	R	R
<input type="checkbox"/>	Recognize importance of password settings, protection, and etiquette	I	I	I	R	R
<input type="checkbox"/>	Recognize implications of opening and answering email (virus, worm, etc)	I	I	I	R	R
<input type="checkbox"/>	Explain electronic interactions (chatrooms, blogging, instant messaging, etc)	I	I	I	R	R
<input type="checkbox"/>	Report questionable material to teacher	I	I	I	R	R
<input type="checkbox"/>	Recognize ease and scope of conveying, sharing, and transferring information	I	I	I	R	R
	INTERNET SEARCHING					
<input type="checkbox"/>	Identify and use various search engines			I	I	R
<input type="checkbox"/>	Determine how to select a search engine to meet your needs			I	I	I
<input type="checkbox"/>	Search using key words or phrases			I	I	R
<input type="checkbox"/>	Use advanced search techniques (Boolean operators)					I
<input type="checkbox"/>	Differentiate between a search engine and a directory					
	RESEARCH and WEB EVALUATION					
<input type="checkbox"/>	Formulate research questions before accessing the internet-Think!			I	I	I
<input type="checkbox"/>	Use and identify a search engine in gathering information			I	I	I
<input type="checkbox"/>	Demonstrate responsible use and ethical practices i.e.: copyright (images, text and music) and plagiarism			I	I	I
<input type="checkbox"/>	Use bookmarks or favorite list to organize information					I
<input type="checkbox"/>	Determine authorship and authenticity of info on the web					I
<input type="checkbox"/>	Determine if the information is current					I

<input type="checkbox"/>	Determine relevancy of the info on the web					I
<input type="checkbox"/>	Evaluate information found on Internet for validity, reliability, and bias					I
<input type="checkbox"/>	Determine how, why, and when to cite your Internet source					I
	DIGITAL CITIZENSHIP based on Ribble http://www.digitalcitizenship.net/Nine_Elements.html					
<input type="checkbox"/>	Digital Etiquette: electronic standards of conduct or procedure	I	I	R	R	R
<input type="checkbox"/>	Digital Communication: electronic exchange of information	I	I	R	R	R
<input type="checkbox"/>	Digital Literacy: process of teaching and learning about technology and the use of technology	I	I	R	R	R
<input type="checkbox"/>	Digital Access: full electronic participation in society	I	I	R	R	R
<input type="checkbox"/>	Digital Commerce: electronic buying and selling of goods	I	I	I	R	R
<input type="checkbox"/>	Digital Law: electronic responsibility for actions and deeds	I	I	I	R	R
<input type="checkbox"/>	Digital Rights & Responsibilities: those freedoms extended to everyone in a digital world	I	I	I	R	R
<input type="checkbox"/>	Digital Health & Wellness: physical and psychological well-being in a digital technology world	I	I	I	R	R
<input type="checkbox"/>	Digital Security (self-protection): electronic precautions to guarantee safety	I	I	R	R	R
	WEB 2.0					
<input type="checkbox"/>	Utilize various applications in compliance with digital citizenship and AUP's	I	I	R	R	R

Video

		I-Introduce R-Reinforce P-Proficient				
Objectives		Grades				
		K	1	2	3	4
<input type="checkbox"/>	Define and use vocabulary				I	I
<input type="checkbox"/>	Demonstrate use of basic operations i.e.: modifying, formatting, and editing				I	I
<input type="checkbox"/>	Demonstrate use of video software, hardware, connections				I	I

<input type="checkbox"/>	Demonstrate use of different media types i.e.: web cam, dvd cam, video cam, cell phone cameras					
<input type="checkbox"/>	Explore transfer of digital video to and from the Internet					
<input type="checkbox"/>	Demonstrate use of streaming video					
<input type="checkbox"/>	Explain use of video conferencing/view a video conference					
<input type="checkbox"/>	Explain use of webcasts/view a webcast					
<input type="checkbox"/>	Use help and informational websites to gain understanding as technology evolves					