

Implementation of Texas Essential Knowledge and Skills Technology Applications

Strand

Creativity and Innovation - The student uses creative thinking and innovative processes to construct knowledge, generate new ideas, and **create** products.

Kinder - 2nd grade	3rd - 5th Grade	6th Grade	7th Grade	8th Grade
(A) apply prior knowledge to develop new ideas, products, and processes;	(A) create original products using a variety of resources;	(A) identify, create, and use files in various formats such as text, raster and vector graphics, video, and audio files;	(A) identify, create, and use files in various formats such as text, raster and vector graphics, video, and audio files;	(A) identify, create, and use files in various formats, including text, raster and vector graphics, video, and audio files;
(B) create original products using a variety of resources;	(B) analyze trends and forecast possibilities, developing steps for the creation of an innovative process or product	(B) create original works as a means of personal or group expression;	(B) create and present original works as a means of personal or group expression;	(B) create, present, and publish original works as a means of personal or group expression;
(C) explore virtual environments, simulations, models, and programming languages to enhance learning;	(C) use virtual environments to explore systems and issues.	(C) explore complex systems or issues using models, simulations, and new technologies to make predictions, modify input, and review results;	(C) explore complex systems or issues using models, simulations, and new technologies to make predictions, modify input, and review results	(C) explore complex systems or issues using models, simulations, and new technologies to develop hypotheses, modify input, and analyze results;
(D) create and execute steps to accomplish a task		(D) discuss trends and possible outcomes.	(D) discuss trends and make predictions.	(D) analyze trends and forecast possibilities.
(E) evaluate and modify steps to accomplish a task				

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Communication and Collaboration - The student collaborates and communicates both locally and globally using digital tools and resources to reinforce and promote learning.

Kinder - 2nd grade	3rd - 5th Grade	6th Grade	7th Grade	8th Grade
(A) use communication tools that allow for anytime, anywhere access to interact, collaborate, or publish with peers locally and globally	(A) draft, edit, and publish products in different media individually and collaboratively;	(A) participate in personal learning networks to collaborate with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies;	(A) create personal learning networks to collaborate and publish with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies;	(A) create and manage personal learning networks to collaborate and publish with peers, experts, or others using digital tools such as blogs, wikis, audio/video communication, or other emerging technologies;
(B) participate in digital environments to develop cultural understanding by interacting with learners of multiple cultures;	(B) use font attributes, color, white space, and graphics to ensure that products are appropriate for multiple communication media, including monitor display, web, and print;	(B) communicate effectively with multiple audiences using a variety of media and formats	(B) communicate effectively with multiple audiences using a variety of media and formats	(B) communicate effectively with multiple audiences using a variety of media and formats
(C) format digital information, including font attributes, color, white space, graphics, and animation, for a defined audience and communication medium;	(C) collaborate effectively through personal learning communities and social environments;	(C) read and discuss examples of technical writing.	(C) create products using technical writing strategies.	(C) create and publish products using technical writing strategies.
(D) select, store, and deliver products using a variety of media, formats, devices, and virtual environments	(D) select and use appropriate collaboration tools;			
	(E) evaluate the product for relevance to the assignment or task;			
	(F) perform basic software application functions, including opening applications and creating, modifying, printing, and saving files.			

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Research and Information Fluency - The student acquires and evaluates digital content

Kinder - 2nd grade	3rd - 5th Grade	6th Grade	7th Grade	8th Grade
(A) use search strategies to access information to guide inquiry;	(A) use various search strategies such as keyword(s); the Boolean identifiers <i>and</i> , <i>or</i> , and <i>not</i> ; and other strategies appropriate to specific search engines	(A) create a research plan to guide inquiry;	(A) create a research plan to guide inquiry;	(A) create a research plan to guide inquiry;
(B) use research skills to build a knowledge base regarding a topic, task, or assignment	(B) collect and organize information from a variety of formats, including text, audio, video, and graphics;	(B) discuss and use various search strategies, including keyword(s) and Boolean operators;	(B) use and evaluate various search strategies, including keyword(s) and Boolean operators;	(B) plan, use, and evaluate various search strategies, including keyword(s) and Boolean operators;
(C) evaluate the usefulness of acquired digital content	(C) validate and evaluate the relevance and appropriateness of information	(C) select and evaluate various types of digital resources for accuracy and validity;	(C) select and evaluate various types of digital resources for accuracy and validity;	(C) select and evaluate various types of digital resources for accuracy and validity
	(D) acquire information appropriate to specific tasks.	(D) process data and communicate results.	(D) process data and communicate results.	(D) process data and communicate results.

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Critical thinking, problem solving, and decision making - The student researches and evaluates projects using digital tools and resources.

Kinder - 2nd grade	3rd - 5th Grade	6th Grade	7th Grade	8th Grade
(A) identify what is known and unknown and what needs to be known regarding a problem and explain the steps to solve the problem;	(A) identify information regarding a problem and explain the steps toward the solution;	(A) identify and define relevant problems and significant questions for investigation;	(A) identify and define relevant problems and significant questions for investigation;	(A) identify and define relevant problems and significant questions for investigation;
(B) evaluate the appropriateness of a digital tool to achieve the desired product;	(B) collect, analyze, and represent data to solve problems using tools such as word processing, databases, spreadsheets, graphic organizers, charts, multimedia, simulations, models, and programming languages;	(B) plan and manage activities to develop a solution, design a computer program, or complete a project;	(B) plan and manage activities to develop a solution, design a computer program, or complete a project;	(B) plan and manage activities to develop a solution, design a computer program, or complete a project;
(C) evaluate products prior to final submission;	(C) evaluate student-created products through self and peer review for relevance to the assignment or task;	(C) collect and analyze data to identify solutions and make informed decisions;	(C) collect and analyze data to identify solutions and make informed decisions;	(C) collect and analyze data to identify solutions and make informed decisions;
(D) collect, analyze, and represent data using tools such as word processing, spreadsheets, graphic organizers, charts, multimedia, simulations, models, and programming	(D) evaluate technology tools applicable for solving problems.	(D) use multiple processes and diverse perspectives to explore alternative solutions;	(D) use multiple processes and diverse perspectives to explore alternative solutions;	(D) use multiple processes and diverse perspectives to explore alternative solutions;
		(E) make informed decisions and support reasoning	(E) make informed decisions and support reasoning;	(E) make informed decisions and support reasoning
		(F) transfer current knowledge to the learning of newly encountered technologies	(F) transfer current knowledge to the learning of newly encountered technologies.	(F) transfer current knowledge to the learning of newly encountered technologies.

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Digital Citizenship - The student practices safe, responsible, legal, and ethical behavior while using digital tools and resources.

Kinder - 2nd grade	3rd - 5th Grade	6th Grade	7th Grade	8th Grade
(A) adhere to acceptable use policies reflecting appropriate behavior in a digital environment;	(A) adhere to acceptable use policies reflecting positive social behavior in the digital environment;	(A) understand copyright principles, including current laws, fair use guidelines, creative commons, open source, and public domain;	(A) understand and practice copyright principles, including current fair use guidelines, creative commons, open source, and public domain	(A) understand, explain, and practice copyright principles, including current laws, fair use guidelines, creative commons, open source, and public domain;
(B) comply with acceptable digital safety rules, fair use guidelines, and copyright laws	(B) respect the intellectual property of others;	(B) practice ethical acquisition of information and standard methods for citing sources;	(B) practice ethical acquisition of information and standard methods for citing sources;	(B) practice and explain ethical acquisition of information and standard methods for citing sources;
(C) practice the responsible use of digital information regarding intellectual property, including software, text, images, audio, and video.	(C) abide by copyright law and the Fair Use Guidelines for Educational Multimedia;	(C) practice safe and appropriate online behavior, personal security guidelines, digital identity, digital etiquette, and acceptable use of technology;	(C) practice and explain safe and appropriate online behavior, personal security guidelines, digital identity, digital etiquette, and acceptable use of technology;	(C) practice and explain safe and appropriate online behavior, personal security guidelines, digital identity, digital etiquette, and acceptable use of technology
	(D) protect and honor the individual privacy of oneself and others;	(D) understand the negative impact of inappropriate technology use, including online bullying and harassment, hacking, intentional virus setting, invasion of privacy, and piracy such as software, music, video, and other media.	(D) understand the negative impact of inappropriate technology use, including online bullying and harassment, hacking, intentional virus setting, invasion of privacy, and piracy such as software, music, video, and other media.	(D) understand and explain the negative impact of inappropriate technology use, including online bullying and harassment, hacking, intentional virus setting, invasion of privacy, and piracy such as software, music, video, and other media.
	(E) follow the rules of digital etiquette;			
	(F) practice safe, legal, and responsible use of information and technology			
	(G) comply with fair use guidelines and digital safety rules.			

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Technology operations and concepts - The student demonstrates knowledge and appropriate use of technology systems, concepts, and operations.

Kinder - 2nd grade	3rd - 5th Grade	6th Grade	7th Grade	8th Grade
(A) use appropriate terminology regarding basic hardware, software applications, programs, networking, virtual environments, and emerging technologies;	(A) demonstrate an understanding of technology concepts, including terminology for the use of operating systems, network systems, virtual systems, and learning systems appropriate for Grades 3-5 learning;	(A) define and use current technology terminology appropriately;	(A) define and use current technology terminology appropriately;	(A) define and use current technology terminology appropriately;
(B) use appropriate digital tools and resources for storage, access, file management, collaboration, and designing solutions to problems;	(B) manipulate files using appropriate naming conventions; file management, including folder structures and tagging; and file conversions;	(B) select technology tools based on licensing, application, and support;	(B) select and apply technology tools based on licensing, application, and support;	(B) evaluate and select technology tools based on licensing, application, and support;
(C) perform basic software application functions, including opening an application and creating, modifying, printing, and saving files;	(C) navigate systems and applications accessing peripherals both locally and remotely;	(C) identify, understand, and use operating systems;	(C) identify, understand, and use operating systems;	(C) identify, understand, and use operating systems;
(D) use a variety of input, output, and storage devices;	(D) troubleshoot minor technical problems with hardware and software using available resources such as online help and knowledge bases;	(D) understand and use software applications, including selecting and using software for a defined task;	(D) understand and use software applications, including selecting and using software for a defined task;	(D) understand and use software applications, including selecting and using software for a defined task;
(E) use proper keyboarding techniques such as ergonomically correct hand and body positions appropriate for Kindergarten-Grade 2 learning;	(E) use proper touch keyboarding techniques and ergonomic strategies such as correct hand and body positions and smooth and rhythmic keystrokes.	(E) identify, understand, and use hardware systems;	(E) identify, understand, and use hardware systems	(E) identify, understand, and use hardware systems;
(F) demonstrate keyboarding techniques for operating the alphabetic, numeric, punctuation, and symbol keys appropriate for Kindergarten-Grade 2 learning;		(F) understand troubleshooting techniques such as restarting systems, checking power issues, resolving software compatibility, verifying network connectivity, connecting to remote resources, and modifying display properties	(F) understand troubleshooting techniques such as restarting systems, checking power issues, resolving software compatibility, verifying network connectivity, connecting to remote resources, and modifying display properties;	(F) apply troubleshooting techniques, including restarting systems, checking power issues, resolving software compatibility, verifying network connectivity, connecting to remote resources, and modifying display properties;

Kinder - 2nd grade	3rd - 5th Grade	6th Grade	7th Grade	8th Grade
(G) use the help feature online and in applications.		(G) demonstrate effective file management strategies such as file naming conventions, location, backup, hierarchy, folder structure, file conversion, tags, labels, and emerging digital organizational strategies	(G) implement effective file management strategies such as file naming conventions, location, backup, hierarchy, folder structure, file conversion, tags, labels, and emerging digital organizational strategies;	(G) implement effective file management strategies such as file naming conventions, location, backup, hierarchy, folder structure, file conversion, tags, labels, and emerging digital organizational strategies;
		(H) discuss how changes in technology throughout history have impacted various areas of study;	(H) explain how changes in technology throughout history have impacted various areas of study;	(H) evaluate how changes in technology throughout history have impacted various areas of study;
		(I) discuss the relevance of technology as it applies to college and career readiness, life-long learning, and daily living;	(I) explain the relevance of technology as it applies to college and career readiness, life-long learning, and daily living;	(I) evaluate the relevance of technology as it applies to college and career readiness, life-long learning, and daily living;
		(J) use a variety of local and remote input sources;	(J) use a variety of local and remote input sources;	(J) use a variety of local and remote input sources;
		(K) use keyboarding techniques and ergonomic strategies while building speed and accuracy;	(K) use keyboarding techniques and ergonomic strategies while building speed and accuracy;	(K) use keyboarding techniques and ergonomic strategies while building speed and accuracy;
		(M) plan and create non-linear media projects using graphic design principles;	(M) plan and create non-linear media projects using graphic design principles;	(M) plan and create non-linear media projects using graphic design principles;
		(N) integrate two or more technology tools to create a new digital product.	(N) integrate two or more technology tools to create a new digital product.	(N) integrate two or more technology tools to create a new digital product.
		(L) create and edit files with productivity tools, including:	(L) create and edit files with productivity tools, including:	(L) create and edit files with productivity tools, including:
		(i) a word processing document using digital typography standards such as page layout, font formatting, paragraph formatting, and list attributes;	(i) a word processing document using digital typography standards such as page layout, font formatting, paragraph formatting, and list attributes;	(i) a word processing document using digital typography standards such as page layout, font formatting, paragraph formatting, mail merge, and list attributes;
		(ii) a spreadsheet workbook using basic computational and graphic components such as basic formulas and functions, data types, and chart generation	(ii) a spreadsheet workbook using advanced computational and graphic components such as complex formulas, basic functions, data types, and chart generation;	(ii) a spreadsheet workbook using advanced computational and graphic components such as complex formulas, advanced functions, data types, and chart generation;
		(iii) a database by manipulating components such as entering and searching for relevant data;	(iii) a database by manipulating components such as defining fields, entering data, and designing layouts appropriate for reporting;	(iii) a database by manipulating components, including defining fields, entering data, and designing layouts appropriate for reporting;
		(iv) a digital publication using relevant publication standards;	(iv) a digital publication using relevant publication standards;	(iv) a digital publication using relevant publication standards and graphic design principles;