

Standard 1: Creativity and Innovation													
	K	1	2	3	4	5	6	7	8	9	10	11	12
Benchmark A:	Use technology to create projects, identify patterns, and make predictions.			Use technology resources to create original products, identify patterns and problems, make predictions, and propose solutions.			Demonstrate creative thinking and the design and development of innovative technology products and problem solving.			Demonstrate creative thinking, construct knowledge, and develop innovative products and processes.			
	Use a variety of digital tools and media-rich resources to support learning.	Use a variety of digital tools and media-rich resources to support learning.	Use a variety of digital tools and media-rich resources to support learning.	Choose from a variety of input devices to add content to a project.	Choose from a variety of input devices to add content to a project.	Choose from a variety of input devices to add content to a project.	Use appropriate presentation skills/programs to present to peers.	Independently use & choose from multiple programs and use appropriate presentation skills to present to peers.	Independently use & choose from multiple programs and use appropriate presentation skills to present to peers.	Create original works as a means of personal or group expression.	Create original works as a means of personal or group expression.	Create original works as a means of personal or group expression.	Create original works as a means of personal or group expression.
	Use technology resources to identify problems, help recognize and describe patterns, make predictions and/or propose solutions.	Use technology resources to identify problems, help recognize and describe patterns, make predictions and/or propose solutions.	Use technology resources to identify problems, help recognize and describe patterns, make predictions and/or propose solutions.	Use technology resources to gather and depict data, recognize trends, and project outcomes.[1]	Use technology resources to gather and depict data, recognize trends, and project outcomes.	Use technology resources to gather and depict data, recognize trends, and project outcomes.							
	Create multimedia products with support from teachers, family members, and/or student partners for the purpose of display, publication and/or performance.	Create multimedia products with support from teachers, family members, and/or student partners for the purpose of display, publication and/or performance.	Create multimedia products with support from teachers, family members, and/or student partners for the purpose of display, publication and/or performance.	Work individually and collaboratively to create, display, publish, or perform media-rich products.	Work individually and collaboratively to create, display, publish, or perform media-rich products.	Work individually and collaboratively to create, display, publish, or perform media-rich products.	Individually or collaboratively create technology products and display, publish, or perform them for a variety of audiences.	Individually or collaboratively create technology products and display, publish, or perform them for a variety of audiences.	Individually or collaboratively create technology products and display, publish, or perform them for a variety of audiences.				
	Use technology to illustrate and communicate original ideas related to curriculum content.	Use technology to illustrate and communicate original ideas related to curriculum content.	Use technology to illustrate and communicate original ideas related to curriculum content.	Create and share new ideas, products, and processes related to curriculum content.	Create and share new ideas, products, and processes related to curriculum content.	Create and share new ideas, products, and processes related to curriculum content.				Investigate complex global issues, make informed choices based on capabilities and limitations of technology systems, resources, and services, and apply this learning to personal and workplace needs.	Investigate complex global issues, make informed choices based on capabilities and limitations of technology systems, resources, and services, and apply this learning to personal and workplace needs.	Investigate complex global issues, make informed choices based on capabilities and limitations of technology systems, resources, and services, and apply this learning to personal and workplace needs.	Investigate complex global issues, make informed choices based on capabilities and limitations of technology systems, resources, and services, and apply this learning to personal and workplace needs.
				Use models and simulations to identify problems and propose solutions.	Use models and simulations to identify problems and propose solutions.	Use models and simulations to identify problems and propose solutions.	Use simulations to help understand complex, real-world systems, identify problems, develop models, and analyze the output.	Use simulations to help understand complex, real-world systems, identify problems, develop models, and analyze the output.	Use simulations to help understand complex, real-world systems, identify problems, develop models, and analyze the output.	Use models and simulations to explore complex systems and issues.	Use models and simulations to explore complex systems and issues.	Use models and simulations to explore complex systems and issues.	Use models and simulations to explore complex systems and issues.
							Develop problem-solving skills with the use of simulations.	Develop problem-solving skills with the use of simulations.	Develop problem-solving skills with the use of simulations.				
Standard 2: Communication and Collaboration													
Benchmark A:	Use a variety of technology tools and media-rich resources to work collaboratively with others.			Use interactive technologies in a collaborative group to produce digital presentations or products in a curricular area.			Collaborate with peers, experts, and others using interactive technology.			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.			
	In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area.	In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area.	In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area.	Use a variety of technology tools to work collaboratively with others inside and outside the classroom.	Use a variety of technology tools to work collaboratively with others inside and outside the classroom.	Use a variety of technology tools to work collaboratively with others inside and outside the classroom.	Evaluate interactive communication tools.	Create an interactive communication experience for a specific purpose.	Create an interactive communication experience for a specific purpose.	Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.	Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.	Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.	Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
	Participate in learning activities with or about learners from other countries and/or cultures.	Participate in learning activities with or about learners from other countries and/or cultures.	Participate in learning activities with or about learners from other countries and/or cultures.	Engage in learning activities with learners from another country, culture or region of the United States.	Engage in learning activities with learners from another country, culture or region of the United States.	Engage in learning activities with learners from another country, culture or region of the United States.				Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	Communicate information and ideas effectively to multiple audiences using a variety of media and formats.

											Process data and report results.			
Benchmark B:	Review provided resources, explain why they are or are not useful, and use information appropriately.			Access information for specific purposes and assess the validity of the information source			Locate, organize, analyze, evaluate, and synthesize information from a variety of sources and media and use this information in a legal and ethical manner.			Locate, organize, analyze, evaluate, and synthesize information from a variety of sources and media and use this information in a legal and ethical manner.				
	Describe why a resource is useful to their learning.[2]	Describe why a resource is useful to their learning.[2]	Describe why a resource is useful to their learning.[3]	Analyze and synthesize the most useful and appropriate resources for the specific learning tasks.[4]	Analyze and synthesize the most useful and appropriate resources for the specific learning tasks.[4]	Analyze and synthesize the most useful and appropriate resources for the specific learning tasks.[4]	Implement a research plan and locate and organize necessary resource information.	Implement a research plan and locate and organize necessary resource information.	Implement a research plan and locate and organize necessary resource information.	Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.	Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.	Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.	Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.	Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
Benchmark C:	Identify, read, and report data from charts, graphs, and other sources.			Identify, select and organize data. Discuss and describe the results.			Evaluate resources in terms of their usefulness and validity for research.							
	Identify, read, and process data to report results.	Identify, read, and process data to report results.	Identify, read, and process data to report results.	Collect and analyze data to identify solutions and/or make informed decisions.	Collect and analyze data to identify solutions and/or make informed decisions.	Collect and analyze data to identify solutions and/or make informed decisions.	Decode a web address.	Decode a web address.	Decode a web address.					
							Determine the validity of a website.	Determine the validity of a website.	Determine the validity of a website.					
Benchmark D:							Use technological tools to select data and organize it into a format that is easily understood by others.							
							Use technological tools to represent given data.	Use technological tools to represent given data.	Use technological tools to represent given data.					
Standard 4:	Research and Informational Fluency													
Benchmark A:	Use technological and/or print resources to investigate given questions or problems.			Use technological and/or print resources to develop and refine questions for investigation.			Use critical thinking skills to conduct research, solve problems, and make informed decisions using appropriate tools and resources.			Demonstrate critical thinking skills using appropriate tools and resources to plan and conduct research.				
Objective:	Use a variety of resources to explore questions or problems.	Use a variety of resources to explore questions or problems.	Use a variety of resources to explore questions or problems.	Choosing from a variety of real-world issues and/or problems, use multiple resources to develop and refine questions for investigation.	Choosing from a variety of real-world issues and/or problems, use multiple resources to develop and refine questions for investigation.	Choosing from a variety of real-world issues and/or problems, use multiple resources to develop and refine questions for investigation.	Investigate and evaluate information and resources from differing viewpoints in order to determine multiple solutions.	Investigate and evaluate information and resources from differing viewpoints in order to determine multiple solutions.	Investigate and evaluate information and resources from differing viewpoints in order to determine multiple solutions.	Identify and define authentic, real world problems and significant questions for investigation.	Identify and define authentic, real world problems and significant questions for investigation.	Identify and define authentic, real world problems and significant questions for investigation.	Identify and define authentic, real world problems and significant questions for investigation.	Identify and define authentic, real world problems and significant questions for investigation.
Objective:	Apply strategies to locate and use information.[5]	Apply strategies to locate and use information.[5]	Apply strategies to locate and use information.[5]	Apply strategies to conduct research and complete a project.	Apply strategies to conduct research and complete a project.	Apply strategies to conduct research and complete a project.	Investigate and evaluate various web resources to detect bias and credibility.	Investigate and evaluate various web resources to detect bias and credibility.	Investigate and evaluate various web resources to detect bias and credibility.	Identify global issues and analyze capabilities and limitations of current and emerging technology resources in order to develop and refine investigatable questions.	Identify global issues and analyze capabilities and limitations of current and emerging technology resources in order to develop and refine investigatable questions.	Identify global issues and analyze capabilities and limitations of current and emerging technology resources in order to develop and refine investigatable questions.	Identify global issues and analyze capabilities and limitations of current and emerging technology resources in order to develop and refine investigatable questions.	Identify global issues and analyze capabilities and limitations of current and emerging technology resources in order to develop and refine investigatable questions.
Objective:	Collect and explain data to identify commonalities or solutions to problems.	Collect and explain data to identify commonalities or solutions to problems.	Collect and explain data to identify commonalities or solutions to problems.	Identify trends or solutions or assist students in making decisions.	Identify trends or solutions or assist students in making decisions.	Identify trends or solutions or assist students in making decisions.								
Objective:	Explore the different ways that problems may be solved.	Explore the different ways that problems may be solved.	Explore the different ways that problems may be solved.	Identify and explore diverse perspectives and processes to find multiple solutions to problems.	Identify and explore diverse perspectives and processes to find multiple solutions to problems.	Identify and explore diverse perspectives and processes to find multiple solutions to problems.								
				Access remote information using technology.	Access remote information using technology.	Access remote information using technology.								
Benchmark B:										Demonstrate critical thinking skills using appropriate tools and resources to plan and manage projects.				
Objective:										Plan and manage activities to develop a solution or complete a project.	Plan and manage activities to develop a solution or complete a project.	Plan and manage activities to develop a solution or complete a project.	Plan and manage activities to develop a solution or complete a project.	Plan and manage activities to develop a solution or complete a project.

										Use technology to gather, analyze, and assess data and its effectiveness to design, develop and test possible solutions that assist students in making decisions.	Demonstrate critical thinking skills using appropriate tools and resources to solve problems and make informed decisions.									
Benchmark C:																				
Objective:										Use technology to analyze, assess, and evaluate the data.	Use technology to generate questions, compile data, and reflect upon the questions to obtain desired information.	Using given criteria, design and produce a product from a menu of programming commands.	Collect and analyze data to identify trends, solutions, or make informed decisions.	Collect and analyze data to identify trends, solutions, or make informed decisions.	Collect and analyze data to identify trends, solutions, or make informed decisions.	Collect and analyze data to identify trends, solutions, or make informed decisions.				
Objective:										Understands and applies basic spreadsheet functions.	Understands and applies basic programming commands.	Use multiple processes and diverse perspectives to explore alternative solutions.	Use multiple processes and diverse perspectives to explore alternative solutions.	Use multiple processes and diverse perspectives to explore alternative solutions.	Use multiple processes and diverse perspectives to explore alternative solutions.	Use multiple processes and diverse perspectives to explore alternative solutions.				
Standard 5:	Digital Citizenship																			
Benchmark A:	Understand and practice appropriate and safe uses of technology.						Understand and practice appropriate, legal, and safe uses of technology for lifelong learning.			Understand the legal and ethical issues of technology as related to individuals, cultures, and societies.				Understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.						
	Be aware of why it is unsafe for students to provide others with information about themselves.	Be aware of why it is unsafe for students to provide others with information about themselves.	Be aware of why it is unsafe for students to provide others with information about themselves.	Demonstrate awareness of the dangers of sharing personal information with others.	Demonstrate awareness of the dangers of sharing personal information with others.	Demonstrate awareness of the dangers of sharing personal information with others.	Identify and analyze illegal and unethical online behavior.	Identify and analyze illegal and unethical online behavior.	Identify and analyze illegal and unethical online behavior.	Advocate and practice safe, legal, and responsible use of information and technology at an age-appropriate level.	Advocate and practice safe, legal, and responsible use of information and technology at an age-appropriate level.	Advocate and practice safe, legal, and responsible use of information and technology at an age-appropriate level.	Advocate and practice safe, legal, and responsible use of information and technology at an age-appropriate level.							
	Understand that stealing information and things others have created is the same as stealing tangible items.	Understand that stealing information and things others have created is the same as stealing tangible items.	Understand that stealing information and things others have created is the same as stealing tangible items.	Apply understanding of copyright by adhering to copyright rules in projects.	Apply understanding of copyright by adhering to copyright rules in projects.	Apply understanding of copyright by adhering to copyright rules in projects.	Use technology efficiently and in a manner that does not harm them or others.	Use technology efficiently and in a manner that does not harm them or others.	Use technology efficiently and in a manner that does not harm them or others.	Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.	Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.	Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.	Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.							
				Demonstrate an understanding of why electronic theft and plagiarism are harmful.	Demonstrate an understanding of why electronic theft and plagiarism are harmful.	Demonstrate an understanding of why electronic theft and plagiarism are harmful.	Use online resources to work with others to complete a task and accept responsibility for the results.	Use online resources to work with others to complete a task and accept responsibility for the results.	Use online resources to work with others to complete a task and accept responsibility for the results.	Demonstrate personal responsibility for lifelong learning.	Demonstrate personal responsibility for lifelong learning.	Demonstrate personal responsibility for lifelong learning.	Demonstrate personal responsibility for lifelong learning.							
	Demonstrate awareness of the importance of communicating with adults about things that might concern them.	Demonstrate awareness of the importance of communicating with adults about things that might concern them.	Demonstrate awareness of the importance of communicating with adults about things that might concern them.	Demonstrate awareness of the importance of communicating with adults about things that might concern them.	Demonstrate awareness of the importance of communicating with adults about things that might concern them.	Demonstrate awareness of the importance of communicating with adults about things that might concern them.				Exhibit leadership for digital citizenship.	Exhibit leadership for digital citizenship.	Exhibit leadership for digital citizenship.	Exhibit leadership for digital citizenship.							
	Understand why technology is useful in helping them complete a task.	Understand why technology is useful in helping them complete a task.	Understand why technology is useful in helping them complete a task.	Identify the positive values of using technology to accomplish tasks.	Identify the positive values of using technology to accomplish tasks.	Identify the positive values of using technology to accomplish tasks.														
	Use technology to explore personal interests.	Use technology to explore personal interests.	Use technology to explore personal interests.	Use technology to explore and pursue personal interests.	Use technology to explore and pursue personal interests.	Use technology to explore and pursue personal interests.														
	Demonstrate to others how to use technology tools in ways that assist, rather than prevent, others from learning.	Demonstrate to others how to use technology tools in ways that assist, rather than prevent, others from learning.	Demonstrate to others how to use technology tools in ways that assist, rather than prevent, others from learning.	Show others how to use new technologies, and use technology in a way that assists, rather than prevents, others from learning.	Show others how to use new technologies, and use technology in a way that assists, rather than prevents, others from learning.	Show others how to use new technologies, and use technology in a way that assists, rather than prevents, others from learning.														
Benchmark B:	Demonstrate awareness of legal and ethical responsibilities when using copyrighted material, and how a disregard of legal and ethical responsibilities affects others.																			
							Understands the consequences of illegal and unethical online behavior.	Understands the consequences of illegal and unethical online behavior.	Understands the consequences of illegal and unethical online behavior.											
Benchmark D:	Identify capabilities of contemporary technology resources.																			
							Compare advantages and disadvantages of contemporary technology resources.													
Standard 6:	Technology Operations and Concepts																			

			Makes connections between reading and personal interests.	Makes connections between reading and personal interests.	Makes connections between reading and personal interests.							
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1. Ideas:
students generate problems in their world and then blog about it. Get feedback from other students in blog post and then develop solution and implement.
2. KUD -- understanding fact/opinion true vs not-true....validity piece
3. KUD -- understanding fact/opinion true vs not-true....validity piece
4. KUD -- Know when to seek additional resources when clear conclusions cannot be drawn.

decoding web address

determining validity of websites

5. How does technology decide? siri

How can we change this?

Locate and use resources to complete a project.

Is this web searching??