

MADISON COUNTRY DAY SCHOOL TECHNOLOGY SKILLS SCOPE & SEQUENCE

E (Exposure) - Students will be exposed to skills through teacher demonstration and modeling. Teacher(s) may choose to have students engage in activities that support these skills, if applicable.

T (Teach) - Students will be taught best practices integrated within the curriculum.

R (Reteach/Reinforce) - Students will engage in activities, projects, and/or lessons that support and strengthen skills.



Creativity and Innovation

Digital Literacy Categories		Suggested Alignment	Skills	K	1	2	3	4	5	6	7	8	9	10	11	12	
Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology	Creativity and innovation	Apply to all content areas	Apply existing knowledge to generate new ideas, products, or processes	T	R	R	R	R	R	R	R	R	R	R	R	R	
		Apply to all content areas	Create original works as a means of personal or group expression	E	T	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Use models and simulations to explore complex systems and issues	E	T	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Identify trends and forecast possibilities	E	E	E	T	R	R	R	R	R	R	R	R	R	R
E - Expose T - Teach R -- Reteach / Reinforce																	

Teacher Note: When thinking about Creativity and Innovation, integrate strategies in each content area when applicable.

Communication and Collaboration

Digital Literacy Categories		Suggested Alignment	Skills	K	1	2	3	4	5	6	7	8	9	10	11	12	
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	Communication and Collaboration	Language Arts	Work collaboratively online with other students under teacher supervision	E	E	E	E	T	R	R	R	R	R	R	R	R	
		Apply to all content areas	Use a variety of age-appropriate technologies (e.g. drawing program, presentation software) to communicate and exchange ideas.	T	R	R	R	R	R	R	R	R	R	R	R	R	R
		Language Arts and Reading	Communicates information and ideas effectively to multiple audiences using a variety of media and formats including graphics, audio, and video.	E	E	E	E	T	R	R	R	R	R	R	R	R	R
		Language Arts, Writing, Reading	Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.	E	E	E	T	R	R	R	R	R	R	R	R	R	R
		Language Arts Writing	Use educational web tools for communication and collaboration	E	E	T	R	R	R	R	R	R	R	R	R	R	R
		Math	Use appropriate tools strategically	E	T	R	R	R	R	R	R	R	R	R	R	R	R
		Math	Construct viable arguments and critique the reasoning of others	E	E	E	T	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Develop cultural understanding and global awareness by engaging with learners of other cultures	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Apply to all content areas	Contribute to project teams to produce original works or solve problems	E	E	T	R	R	R	R	R	R	R	R	R	R	R
E - Expose T - Teach R -- Reteach / Reinforce																	

Teacher Note: When thinking about communication and collaboration integrate strategies in each content area when applicable.

Research and Information Fluency

Digital Literacy Categories		Suggested Alignment	Skills	K	1	2	3	4	5	6	7	8	9	10	11	12	
Students apply digital tools to gather, evaluate, and use information	Research and Information Fluency	Reading, Writing	Use age appropriate technologies to locate, collect, organize, analyze, evaluate, synthesize and ethically use content from media collections for specific purposes, citing sources			E	E	<u>T</u>	R	R	R	R	R	R	R	R	
		Writing	Perform basic searches on databases, (e.g. library catalog, online encyclopedia) to locate information.		E	T	<u>R</u>	R	R	R	R	R	R	R	R	R	R
		Reading, Writing	Evaluate Internet resources and determine credibility		E	E	T	R	<u>R</u>	R	R	R	R	R	R	R	R
		Reading, Writing	Use content specific technology tools (e.g. measuring devices, simulations) to gather and analyze data.	E	E	E	T	R	R	R	R	R	R	R	R	R	R
		Reading, Writing	Use web tools (e.g. online discussions, blogs, and wikis) to gather and share information.		E	E	T	R	R	R	R	R	R	R	R	R	R
		Writing	Identify and analyze the purpose of a media message (to inform, persuade and entertain).	E	E	E	T	R	R	R	R	R	R	R	R	R	R
		Math	Model with Mathematics	E	E	T	R	R	R	R	R	R	R	R	R	R	R
		Math	Construct viable arguments and critique the reasoning of others	E	E	E	T	R	R	R	R	R	R	R	R	R	R

E - Expose T - Teach R -- Reteach / Reinforce

Teacher Note: When thinking about research and information fluency, integrate into all content areas when applicable.



Critical Thinking, Problem Solving and Decision Making

Digital Literacy Categories		Suggested Alignment	Skills	K	1	2	3	4	5	6	7	8	9	10	11	12	
Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources	Critical thinking, problem solving, and decision making	Apply to all content areas	Identify and define authentic problems signification questions for investigation.	T	R	R	R	R	R	R	R	R	R	R	R	R	
		Apply to all content areas	Plan and manage activities to develop a solution or complete a project	T	R	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Collect and analyze data to identify solutions and/or make informed decision	E	T	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Use multiple processes and diverse perspectives to explore alternative solutions	E	E	T	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas & Math	Make sense of problems and persevere in solving them	E	T	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas & Math	Construct viable arguments and critique the reasoning of others	E	E	E	T	R	R	R	R	R	R	R	R	R	R
E - Expose T - Teach R -- Reteach / Reinforce																	

Teacher Note: When thinking about critical thinking, problem solving, and decision making, integrate into all content areas when applicable.



Digital Citizenship

Digital Literacy Categories		Suggested Alignment	Skills	K	1	2	3	4	5	6	7	8	9	10	11	12	
Students demonstrate the responsible use of technology and an understanding of ethics and safety issues in using electronic media at home, in school and society.	Acceptable Use, Copyright and Plagiarism and E-mail	Apply to all content areas	Understand and demonstrate compliance with classroom, school rules regarding responsible use of computers and networks	E	T	R	R	R	R	R	R	R	R	R	R	R	
		Apply to all content areas	Understand responsible uses of technology and digital information; describe possible consequences of inappropriate use	E	T	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Understand Fair Use Guidelines for the use of copyrighted materials(e.g. text, images, music, video in student work) and cite resources		<u>E</u>	E	T	<u>R</u>	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Identify and explain proper privacy and safe efficient use of digital devices (e.g. password safety, account information)		<u>E</u>	<u>T</u>	<u>R</u>	<u>R</u>	<u>R</u>	<u>R</u>	R	R	R	R	R	R	R
		Apply to all content areas	Demonstrate safe online practices, recognition of the potentially public exposure of online information (e.g. email safety/etiquette, discussion board /chat etiquette)		E	<u>E</u>	T	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Recognize and describe the potential risks and dangers associated with various forms of online communications		E	E	<u>T</u>	R	<u>R</u>	R	R	R	R	R	R	R	R
		Apply to all content areas	Identify cyberbullying and describe responsible next steps		E	E	<u>E</u>	<u>R</u>	R	R	R	R	R	R	R	R	R
E - Expose T - Teach R -- Reteach / Reinforce																	

Teacher Note: When thinking about Digital Citizenship, integrate into all content areas when applicable.

	Apply to all content areas	Apply advanced formatting and page layout features when appropriate (e.g., columns, templates, and styles) to improve the appearance of documents and materials.	E	E	E	T	R	R	R	R	R	R	R	R
	Language	Proofread and edit writing using appropriate resources (e.g. dictionary, spell checker, grammar, Thesaurus).	E	E	T	R	R	R	R	R	R	R	R	R
	Writing	Use the Comment function in Review for peer editing of documents	E	E	E	T	R	R	R	R	R	R	R	R
	Writing	Use the Track Changes feature in Review for peer editing of documents		E	E	T	R	R	R	R	R	R	R	R
	Math	Demonstrate an understanding of the functions of a spreadsheet as a tool to record, organized and graph data.	E	E	T	R	R	R	R	R	R	R	R	R
	Math	Use appropriate tools strategically	E	T	R	R	R	R	R	R	R	R	R	R
	Math: Operations and Algebraic Thinking	Use operation symbols (e.g. +add, -minus, *multiply, /divide, ^exponents)			E	T	R	R	R	R	R	R	R	R
	Math Reading	Use appropriate digital resources to make predictions, solve problems, and draw conclusions	E	E	T	R	R	R	R	R	R	R	R	R
	Writing	Create a variety of multimedia presentations that includes text, images and video.	E	T	R	R	R	R	R	R	R	R	R	R
	Writing	Use painting and drawing tools to create and edit work				T	R	R	R	R	R	R	R	R
	Apply to all content areas	Navigate online videos while taking notes		E	E	T	R	R	R	R	R	R	R	R

E - Expose T - Teach R -- Reteach / Reinforce

Digital Literacy Categories		Suggested Alignment	Skills	K	1	2	3	4	5	6	7	8	9	10	11	12	
Demonstrate proficiency in the use of computers and applications as well as an understanding of the concepts underlying the hardware, software and connectivity.	Basic Operations	Apply to all content areas	Identify successful troubleshooting strategies for digital device issues (e.g. reboot, hard restart, close out apps)	E	E	T	R	R	R	R	R	R	R	R	R	R	
		Apply to all content areas	Independently operate peripheral equipment (camera, document camera, interactive projector/monitor)	E	E	T	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Identify and use a variety of storage media (flash drives, school servers, and online storage spaces), and provide a rationale for using a certain medium for a specific purpose	E	E	E	T	R	R	R	R	R	R	R	R	R	R
		Math	Graphing utilities, spreadsheets, computer algebra systems, and dynamic geometry software are powerful tools that can be used to model purely mathematical phenomena (e.g., the behavior of polynomials) as well as physical phenomena.					E	E	T	R	R	R	R	R	R	R
E - Expose T - Teach R -- Reteach / Reinforce																	

Teacher Note: When thinking about Technology Operations and Concepts, integrate into all content areas when applicable.

References: [ISTE](#), [CCSS](#), [Wisconsin DPI Common Career Tech Standards](#), [THE Journal Article](#)

*Adapted, with permission, from the Madison Metropolitan School District’s “MMSD K-12 Student Digital Skill Articulation.”