MMSD K-12 Student Digital Skills Scope and 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.

Note: These skills are not intended to be taught in isolation, rather they should be weaved into meaningful curriculum aligned activities.   Any underlined letter in the scope has a link to a resource.

ISTE Standards 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
		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
		Apply to all content areas	Identify trends and forecast possibilities	E	E	E	T	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. Example: In GRR, a lesson may begin with group inquiry on the focus topic. Students identify opportunities to use a model to mix and remix to design a new product/solution.

ISTE Standards — 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	Writing 6 Speaking and Listening 1	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
		Writing 6 &10 Speaking and Listening 2 & 5, Reading 7	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
		Writing 6 & 10, Speaking and Listening 3, Reading 7	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
		Writing 6 & 10, Speaking and Listening 1	Use educational web tools for communication and collaboration	E	E	T	R	R	R	R	R	R	R	R	R	R
		Mathematical Practice 5	Use appropriate tools strategically	E	T	R	R	R	R	R	R	R	R	R	R	R

		Mathematical Practice 3	Construct viable arguments and critique the reasoning of others	E	E	E	T	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
		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
E - Expose T - Teach R -- Reteach / Reinforce																	

Teacher Note: When thinking about communication and collaboration integrate strategies in each content area when applicable. Example: A PE teacher is having students take notes collaboratively on a Google Document with a peer during a video on how to do a certain dance step. At the end of the video the teacher asks the students to brainstorm a list of dances they would like to teach others and work collaboratively to develop a script.

ISTE Standards 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 R	Reading 7, Writing 6, 7, & 8	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	T	R	R	R	R	R	R	R	R

Standard	Skill													
Writing 6 & 8	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
Reading 7, Writing 6 & 8	Evaluate Internet resources and determine credibility		E	E	T	R	<u>R</u>	R	R	R	R	R	R	R
Reading 7, Writing 6, 7, & 8	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
Reading 7 & 9, Writing 6, 7, & 8	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
Writing 8 & 9	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
Mathematical Practice 4	Model with Mathematics	E	E	T	R	R	R	R	R	R	R	R	R	R
Mathematical Practice 3	Construct viable arguments and critique the reasoning of others	E	E	E	T	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.

Example: An art teacher is studying the Renaissance period and would like students to use online resources to research artists during this time period, choose one and develop a project to showcase the artist and their work.

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
		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
		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
		Apply to all content areas Mathematical Practice 1	Make sense of problems and persevere in solving them	E	T	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas Mathematical Practice 3	Construct viable arguments and critique the reasoning of others	E	E	E	T	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. Example: A science classroom studying effects of Global Warming on an ecosystem may identify possible solutions, determine a plan of action, and use evidence to reflect and adjust their initial plan.

Please see the specific digital citizenship outline for each grade level. For additional resources, please go to these district vetted resources.

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 (Acceptable Use Policy) 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
		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		E	E	T	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)		E	T	R	R	R	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	E	T	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	T	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Identify cyberbullying and describe responsible next steps		E	E	E	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.

Example: Students researching a topic participate in a lesson for teaching or reteaching how to effectively use keyword searching by using a district database with emphasis on proper search strategies to produce safe results.

ISTE Standards — Technology Operations & Concepts

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 hardware, software and connectivity	Technology Operations and Concepts	Apply to all content areas	Know username and password to login	T	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Demonstrate navigation of digital device	T	R	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Organize digital files/folders: save and retrieve	E	T	R	R	R	R	R	R	R	R	R	R	R
		Apply to all content areas	Explain and use age-appropriate online tools and resources (e.g. tutorial, assessment, web browser)	E	T	R	R	R	R	R	R	R	R	R	R	R
		Writing 6	Demonstrate automaticity in keyboarding skills by increasing accuracy and speed.	E	E	E	T	R	R	R	R	R	R	R	R	R

Standard	Description													
	(For students with disabilities, demonstrate alternate input techniques as appropriate.)													
Writing 5, 6, & 10	Use a word processing application to write, edit, save and publish assignments	T	R	R	R	R	R	R	R	R	R	R	R	R
Writing 5, 6, & 10	Use menu/tool bar functions (e.g. font,/size/style/line/spacing/margins, copy and paste) to format, edit and share a file	E	T	R	R	R	R	R	R	R	R	R	R	R
Writing 5, 6, & 10	Demonstrate use of intermediate features in word processing application (e.g., tabs, indents, headers and footers, citations, bullet and numbering, tables)	E	E	T	R	R	R	R	R	R	R	R	R	R
Writing 5, 6, & 10	Demonstrate inserting and formatting images	E	E	E	T	R	R	R	R	R	R	R	R	R
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	R
Language1 & 2	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	R
Writing 5, 6, & 10	Use the Comment function in Review for peer editing of documents	E	E	E	T	R	R	R	R	R	R	R	R	R
Writing 5, 6, & 10	Use the Track Changes feature in Review for peer editing of documents		E	E	T	R	R	R	R	R	R	R	R	R
(HS) Statistics - ID.4	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	R

		Mathematical Practice 5	Use appropriate tools strategically	E	T	R	R	R	R	R	R	R	R	R	R	R
		Math 2: Operations and Algebraic Thinking	Use operation symbols (e.g. +add, -minus, *multiply, /divide, ^exponents)			E	T	R	R	R	R	R	R	R	R	R
		Mathematical Practice 3 Reading 7	Use appropriate digital resources to make predictions, solve problems, and draw conclusions	E	E	T	R	R	R	R	R	R	R	R	R	R
		Writing 6	Create a variety of multimedia presentations that includes text, images and video.	E	T	R	R	R	R	R	R	R	R	R	R	R
		Writing 6, Speaking and Listening 5	Use painting and drawing tools to create and edit work				T	R	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	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	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

concepts underlying the hardware, software and connectivity.		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
		(HS) Modeling - 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

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

Teacher Note: When thinking about Technology Operations and Concepts, integrate into all content areas when applicable. Example: A Social Studies classroom studying the Civil War may connect with a classroom across the nation. The two classrooms are creating a collaborative project using multimedia. First, they will create a collaborative partner document including the timeline of the Civil War utilizing word processing technology and operation skills. Second, they will create a slideshow with audio to create strong imagery for an authentic audience. Third...

References: ISTE, CCSS, Wisconsin DPI Common Career Tech Standards, THE Journal Article