

TSD R1 - GRADES K – 2

INTEGRATION OF NETS_S 1-4:

Students use technology within all content areas to collaborate, communicate, generate innovative ideas, investigate and solve problems.

1. 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.

GL	K	1	2
S1 a,b	Generate ideas and create original works for personal and group expression using a variety of digital tools.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Organize ideas and produce digital products with assistance. 		
Examples	Basic Level		
	Create a picture in a digital drawing program. R, W	Brainstorm ideas for a project using software. R, W	Create a class graph or survey about student interests. M
	21st Century Learning Environment		
	Use drawing tools to illustrate pages in a digital ABC book. R, W, A Sort and classify various items using a document camera or an interactive whiteboard as a class. R, W, M	Illustrate and communicate original ideas and stories on various topics using digital tools. R, W Record ideas as a class for animal habitats using a graphic organizer. W, Sc	Share an answer to a math problem using an interactive whiteboard or tablet. M Record the lifecycle of a butterfly using an online graphic organizer with digital images. Sc

Possible content area connections: **R** = Reading, **W** = Writing, **M** = Mathematics, **Sc** = Science, **SS** = Social Studies, **C** = Communication, **A** = the Arts, **H/F** = Health and Fitness, **WL** = World Languages

INTEGRATION OF NETS_S 1-4:

Students use technology within all content areas to collaborate, communicate, generate innovative ideas, investigate and solve problems.

1. Creativity and Innovation

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

- c. use models and simulations to explore complex systems and
- d. identify trends and forecast possibilities.

GL	K	1	2
S1 c, d	Use models and simulations to explore systems, identify trends and forecast possibilities.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Use interactive resources to practice skills, explore new concepts and describe patterns. 		
Examples	Basic Level		
		Use templates to explore and identify patterns as a class. M	Predict weather patterns using a template. Sc
	21st Century Learning Environment		
		Explore various websites with pictures of animals, foods and colors to reinforce vocabulary as a class. R Participate in creating a class digital presentation to display different reading word families. R, W	Use digital simulations to explore and depict patterns of growth such as the life cycles of plants. Sc Create surveys, collect data and use graphing templates to share results. M

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INTEGRATION OF NETS_S 1-4:

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2. 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.

GL	K	1	2
S2 a, b	Communicate and collaborate to learn with others.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Participate in online projects as a class. ▪ Work with others using technology tools to convey ideas or illustrate simple concepts. 		
Examples	Basic Level		
	Share and discuss learning using a document camera or computer with LCD projector. R, W, M	Choose digital pictures with a partner to incorporate into a classroom project. R, W, Sc, A	Share information from the author’s website as part of a book report. R, W
	21st Century Learning Environment		
	Draw a picture story with a partner using an age appropriate software program. R	Draw pictures of animals and post to classroom web page to share with others. W, A Collaborate with partner to create an animal habitat using drawing software. Sc	Create a multimedia project to share learning about a particular animal. R, W, Sc Record the list of books read by class using a spreadsheet and post to classroom web page. R

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2. 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:

- 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.

GL	K	1	2
S2 c, d	Develop cultural understanding and global awareness by engaging with learners of many cultures.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Learn about many cultures through digital images and stories from around the world. 		
Examples	Basic Level		
		Watch videos of cultural events and listen to music of many cultures. SS, A	Watch videos of cultural events, listen to music of many cultures and experience an online virtual tour. SS, A
	21st Century Learning Environment		
		Collaborate as a small group to create a community map using digital tools. SS	Participate in an information exchange with students from another area of the United States. R, W, M, Sc, SS

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INTEGRATION OF NETS_S 1-4:

Students use technology within all content areas to collaborate, communicate, generate innovative ideas, investigate and solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:
 a. plan strategies to guide inquiry.

4. 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.

GL	K	1	2
S 3a-4 a	Identify and define authentic problems and significant questions for investigation and plan strategies to guide inquiry.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Build background knowledge and generate questions by using digital content. ▪ Record questions using digital tools with assistance. 		
Examples	Basic Level		
	Generate questions after viewing a video as a class. R	Visit a website about a subject and generate questions with a partner or a small group. R, W	Generate questions individually after viewing a videotape or DVD. R, W, M, Sc
	21st Century Learning Environment		
	Record questions for a digital KWL chart as a class. R, M	Record questions for a digital KWL chart with a partner or group. R, W, M	Generate questions individually for a digital KWL chart. R, W, M, Sc Investigate a topic and generate questions using a variety of online tools. R, W, M, Sc, SS

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INTEGRATION OF NETS_S 1-4:

Students use technology within all content areas to collaborate, communicate, generate innovative ideas, investigate and solve problems.

3. Research and Information Fluency

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

- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

GL	K	1	2
S3b	Locate and organize information from a variety of sources and media.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Gather information using teacher-selected digital resources. ▪ Organize information using a table, digital template or online tool with assistance. 		
Examples	Basic Level		
	Gather information about animals as a class using websites. R, W, Sc	Gather information about animals as a class using websites, videos, CDs and other digital media. R, W, Sc	Gather and begin to understand the need to cite information from websites. R, W, M
	21st Century Learning Environment		
	Use a table to organize information as a class using a presentation tool such as an interactive whiteboard or document camera. R, W, M, Sc, SS	Use a digital organizer as a class. R, W, M, Sc, SS	Choose relevant websites from a collection of online resources selected by the teacher. R, W, M Use a digital template with a partner to organize information. R, W, M, Sc, SS

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INTEGRATION OF NETS_S 1-4:

Students use technology within all content areas to collaborate, communicate, generate innovative ideas, investigate and solve problems.

3. Research and Information Fluency

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

- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
- d. process data and report results.

4. 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:

- c. collect and analyze data to identify solutions and/or make informed decisions.

GL	K	1	2
S3 b,d, S4 c	Analyze, synthesize and ethically use information to develop a solution, make informed decisions and report results.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Analyze and evaluate results, discuss and identify the solution(s). ▪ Share learning and results through a multimedia product. 		
Examples	Basic Level		
	Use pre-designed templates to explore and depict patterns as a class. M	Create surveys, collect data and use a spreadsheet to share results as a class. R, W, M	Create surveys, collect data and share results using a graphing template. R, W, M, Sc
	21st Century Learning Environment		
	Share information and pictures of student projects on a teacher web page. R, W, M Share findings about a specific area of research using presentation software as a class. R, W, M, Sc	Share information and pictures of student projects on a teacher web page. R, W, M Share findings about a specific area of research using presentation software. R, W, M, Sc, SS	Share research about a specific animal using presentation software. Sc Use a presentation template to share results of specific topic with a partner. R, W, M, Sc, SS

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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:

- d. use multiple processes and diverse perspectives to explore alternative

GL	K	1	2
S4 d	Use multiple processes and diverse perspectives to explore alternative solutions.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Share different ways to solve problems. 		
Examples	Basic Level		
		Explain solutions in mathematics using a document camera or computer with LCD projector. M	Discuss alternative solutions to mathematics problems while sharing work using a document camera or computer with LCD projector. M
	21st Century Learning Environment		
		Compare two different math online programs, select favorite and explain why. M	Use word art from a word processing program to type spelling words. R

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DIGITAL CITIZENSHIP OF NETS_S 5-6

Students demonstrate a clear understanding of technology systems and operations and practice safe, legal and ethical behavior.

5. Digital Citizenship

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

- a. advocate and practice safe, legal, and responsible use of information and technology.

GL	K	1	2
S5 a	Practice personal safety.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Practice the safe, responsible sharing of information online. ▪ Keep passwords private. ▪ Recognize potential online dangers. 		
Examples	Participate in classroom safety discussions that reference online safety.	Discuss danger in using personal name, address, phone number or picture online.	Recognize danger in using personal name, address, phone number or picture online.

DIGITAL CITIZENSHIP OF NETS_S 5-6

Students demonstrate a clear understanding of technology systems and operations and practice safe, legal and ethical behavior.

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. 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
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.

GL	K	1	2
S5 a-d	Practice ethical and respectful behavior.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Comply with district Acceptable Use Policy (AUP). ▪ Demonstrate respect for the digital work of others. ▪ Demonstrate respect for opinions of others posted online. 		
Examples	Use classroom technologies carefully and correctly.	Use classroom technologies carefully and correctly.	Identify the differences between correct and incorrect use of classroom technologies.

DIGITAL CITIZENSHIP OF NETS_S 5-6

Students demonstrate a clear understanding of technology systems and operations and practice safe, legal and ethical behavior.

6. 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.

GL	K	1	2
S6 a, b	Develop skills to use technology effectively.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Use correct vocabulary to describe digital technologies. ▪ Meet keyboarding proficiency standards for grade level. ▪ Open, save and print files. 		
Examples	<p>Use left and right hand side of keyboard, thumb on spacebar.</p>	<p>Use left and right hand side of keyboard, thumb on spacebar and little finger on the enter key.</p> <p>Demonstrate correct posture while using the keyboard.</p> <p>Demonstrate ability to save and retrieve a file to and from a specified folder with assistance.</p>	<p>Demonstrate correct home row on the keyboard.</p> <p>Use district program or age appropriate online keyboarding programs.</p> <p>Demonstrate correct posture while using the keyboard.</p> <p>Demonstrate ability to save and retrieve a file to and from a specified folder.</p>

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6. 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.
- d. transfer current knowledge to learning of new technologies.

GL	K	1	2
S6 a-d	Use a variety of hardware to support learning.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Use digital equipment* effectively. ▪ Identify and solve common problems related to digital equipment. 		
Examples	Use digital equipment to share work with class.	Use digital equipment to capture an image. Check that monitor is turned on.	Use digital equipment to capture sound. Verify that computer is turned on.

* Digital equipment can include digital and document cameras, microphones, computers, various handheld devices, assistive technologies, scanners, classroom response systems, microscopes, pedometers, interactive whiteboards, GPS, etc.

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- b.** select and use applications effectively and productively.
- c.** troubleshoot systems and applications.
- d.** transfer current knowledge to learning of new technologies.

GL	K	1	2
S6 b-d	Select and use common applications.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Use classroom software to reinforce skills in reading and mathematics. ▪ Use basic navigation skills that increase in complexity across grade levels. ▪ Communicate learning in reading and writing with beginning level features of a word processing or publishing program. 		
Examples		<p>Open and close applications.</p> <p>Use clip art to illustrate a story.</p>	<p>Open and close applications and print documents.</p> <p>Create a digital image to illustrate a story.</p>

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GL	K	1	2
S6 a-d	Select and use online applications.		
Evidence of Learning	<ul style="list-style-type: none"> ▪ Visit teacher-selected websites. 		
Examples		Use interactive reading websites to practice reading skills.	Use a variety of interactive websites to practice subject specific skills.