

SOUTH DAKOTA EDUCATIONAL TECHNOLOGY STANDARDS

**K-2**

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**Kindergarten Nature, Concepts and Systems**  
**(systems thinking, interactions, and design)**  
**Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the history and progression of technology in relation to the development and design of future technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.NC.1.1 Identify three human-made objects.</b> <b>Examples:</b> computer, telephone
	✓ Identify tools in technology. <ul style="list-style-type: none"><li>• Definition of a tool.</li></ul>

**Indicator 2:** Analyze the parts of a technological system in terms of input, process, output, and feedback.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.NC.2.1 Identify that parts make a whole.</b> <b>Example:</b> An engine is part of a car. <b>Example:</b> A mouse is part of a computer. <b>Example:</b> Math KN.1.2.

**Indicator 3:** Analyze the relationships and the connections between technologies in different fields of study and how they apply to communities.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.NC.3.1 Identify technologies used in the home.</b> <b>Examples:</b> telephone, television

**Indicator 4:** Students understand the purpose and demonstrate the use of the design process in problem solving.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
	✓ Identify a problem.
	✓ Gather information to solve a problem.
	✓ Identify a solution.

**Kindergarten Nature, Concepts and Systems  
(systems thinking, interactions, and design)**

**Performance Descriptors**

<b>Advanced</b>	<p><b>Kindergarten students performing at the advanced level:</b></p> <ul style="list-style-type: none"> <li>• Distinguish between natural and human-made objects.</li> <li>• Identify the specific missing part.</li> <li>• Choose appropriate technologies at home.</li> </ul>
<b>Proficient</b>	<p><b>Kindergarten students performing at the proficient level:</b></p> <ul style="list-style-type: none"> <li>• Identify three human-made objects.</li> <li>• Identify that parts make a whole.</li> <li>• Illustrate technologies used in the home.</li> </ul>
<b>Basic</b>	<p><b>Kindergarten students performing at the basic level:</b></p> <ul style="list-style-type: none"> <li>• Identify one human-made object.</li> <li>• Identify that something is missing.</li> <li>• Identify one technology used at home.</li> </ul>

**Note:** At the K-2 level, the teachers need to focus on observing and collecting information about the progress students are making related to the checkmark statements.

**Kindergarten Social Interaction  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the safe, ethical, legal, and societal issues related to technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Comprehension)	<b>K.SI.1.1 Demonstrate respect for the work of others.</b>
(Comprehension)	<b>K.SI.1.2 Identify five ways to respect equipment.</b>
	✓ Describe how using a password helps protect the privacy of information.
	✓ Identify safe technology behaviors. <b>Example:</b> Telephone (9-1-1)

**Indicator 2:** Students investigate the advantages and disadvantages of technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.SI.2.1 Recognize that an advantage is desirable and that a disadvantage is undesirable.</b> <b>Example:</b> Being nice to your partner is an advantage. <b>Example:</b> Being a bully is a disadvantage.

**Kindergarten Social Interaction  
Performance Descriptors**

<b>Advanced</b>	<b>Kindergarten students performing at the advanced level:</b> <ul style="list-style-type: none"><li>• Describe respect for the work of others.</li><li>• Model respect for equipment.</li><li>• Predict whether or not a given situation produces an advantage.</li></ul>
<b>Proficient</b>	<b>Kindergarten students performing at the proficient level:</b> <ul style="list-style-type: none"><li>• Demonstrate respect for the work of others.</li><li>• Identify five ways to respect equipment.</li><li>• Recognize that an advantage is desirable and that a disadvantage is undesirable.</li></ul>
<b>Basic</b>	<b>Kindergarten students performing at the basic level:</b> <ul style="list-style-type: none"><li>• Know the meaning of respect.</li><li>• Name one way to respect equipment.</li><li>• Recognize that an advantage is desirable.</li></ul>

**Note: At the K-2 level, the teachers need to focus on observing and collecting information about the progress students are making related to the checkmark statements.**

**Kindergarten Information and Communication Tools  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students recognize and demonstrate skills in operating technological systems.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.CT.1.1 Describe technology using accurate terminology.</b> <b>Example:</b> Monitor, keyboard
(Application)	<b>K.CT.1.2 Use input/output devices to operate various technologies.</b> <b>Examples:</b> mouse, phones, VCR's, TV's, printers
	✓ Identify basic file management commands (New, Open, Save, Print).
	✓ Locate letters, numbers, and special keys on the keyboard.

**Indicator 2:** Students use technology to enhance learning, extend capability, and promote creativity.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>

**Indicator 3:** Students evaluate and select information tools based on the appropriateness to specific tasks.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.CT.3.1 Recognize technology as a tool to help complete a task.</b> <b>Examples:</b> Telephone-talk, drill-make holes

**Kindergarten Information and Communication Tools  
Performance Descriptors**

<b>Advanced</b>	<b>Kindergarten students performing at the advanced level:</b> <ul style="list-style-type: none"><li>• Communicate about technology using accurate terminology.</li><li>• Utilize basic file management commands (New, Open, Save, Print).</li><li>• Describe a technology tool and its use.</li></ul>
<b>Proficient</b>	<b>Kindergarten students performing at the proficient level:</b> <ul style="list-style-type: none"><li>• Describe technology using accurate terminology.</li><li>• Use input/output devices to operate various technologies.</li><li>• Recognize technology as a tool to help complete a task.</li></ul>
<b>Basic</b>	<b>Kindergarten students performing at the basic level:</b> <ul style="list-style-type: none"><li>• Communicate about technology.</li><li>• Operate a mouse or keyboard.</li><li>• Recognize technology as a tool.</li></ul>

**Note: At the K-2 level, the teachers need to focus on observing and collecting information about the progress students are making related to the checkmark statements.**

**Kindergarten Information and Communication Processes  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the purpose of information technologies to communicate with a variety of collaborators.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
	(Mastery of this indicator does not emerge until 2 <sup>nd</sup> grade.)

**Indicator 2:** Students exchange information and ideas for an identified purpose through Information Technologies.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.CP.2.1 Identify information technologies used for communicating ideas.</b> <b>Example:</b> List cell phone or telephone.

**Kindergarten Information and Communication Processes  
Performance Descriptors**

<b>Advanced</b>	<b>Kindergarten students performing at the advanced level:</b> <ul style="list-style-type: none"> <li>• Identify alternative devices or method for communicating an idea</li> </ul>
<b>Proficient</b>	<b>Kindergarten students performing at the proficient level:</b> <ul style="list-style-type: none"> <li>• Identify two information technologies used for communicating ideas.</li> </ul>
<b>Basic</b>	<b>Kindergarten students performing at the basic level:</b> <ul style="list-style-type: none"> <li>• Identify one information technology used for communicating ideas.</li> </ul>

**Kindergarten Information Literacy and Decision Making  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students use technology to locate and acquire information.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>K.IL.1.1 Identify what information is.</b> <b>Example:</b> Child's name, school name, age, birthday, gender
(Knowledge)	<b>K.IL.1.2 Recognize that information can be represented in a variety of ways.</b> <b>Examples:</b> Numbers, words, pictures, sounds

**Indicator 2:** Students determine the reliability and relevancy of information.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
	✓ Distinguish between fact and fiction. <ul style="list-style-type: none"> <li>• Real and make-believe</li> </ul>

**Kindergarten Information Literacy and Decision Making  
Performance Descriptors**

<b>Advanced</b>	<b>Kindergarten students performing at the advanced level:</b> <ul style="list-style-type: none"> <li>• Choose the most appropriate format(s) for information for a given situation.</li> </ul>
<b>Proficient</b>	<b>Kindergarten students performing at the proficient level:</b> <ul style="list-style-type: none"> <li>• Identify what information is.</li> <li>• Recognize that information can be represented in a variety of ways.</li> </ul>
<b>Basic</b>	<b>Kindergarten students performing at the basic level:</b> <ul style="list-style-type: none"> <li>• Recognize one form of information.</li> </ul>

**First Grade Nature, Concepts and Systems**  
**(systems thinking, interactions, and design)**  
**Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the history and progression of technology in relation to the development and design of future technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Analysis)	<b>1.NC.1.1 Distinguish between the natural and human-made world.</b> <b>Example:</b> forest vs. city skyline
(Comprehension)	<b>1.NC.1.2 Describe how people use tools.</b> <b>Examples:</b> Builders use hammers, farmers use tractors, store clerks use cash registers

**Indicator 2:** Students analyze the parts of a technological system in terms of input, process, output, and feedback.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>1.NC.2.1 Identify common systems in school and home.</b> <b>Examples:</b> Electrical (Pole to building to wires to outlet)
	<ul style="list-style-type: none"> <li>✓ Identify system components. <ul style="list-style-type: none"> <li><b>Example:</b> Chocolate chip cookies</li> <li>• Input (situation &amp; resources) <ul style="list-style-type: none"> <li><b>Example:</b> chocolate chips &amp; flour, hunger</li> </ul> </li> <li>• Process <ul style="list-style-type: none"> <li><b>Example:</b> Heat</li> </ul> </li> <li>• Output <ul style="list-style-type: none"> <li><b>Example:</b> Cookies</li> </ul> </li> <li>• Feedback <ul style="list-style-type: none"> <li><b>Example:</b> Burnt? Goey?</li> </ul> </li> </ul> </li> </ul>

**Indicator 3:** Students analyze the relationships and the connections between technologies in different fields of study and how they apply to communities.

Bloom's Taxonomy Level	Standard, Supporting Skills, and Examples
(Comprehension)	<p><b>1.NC.3.1 Illustrate technologies used at school.</b></p> <p><b>Examples:</b> digital cameras, computers, DVD players</p> <p><b>Example:</b> Math 1.S.1.1</p> <p><b>Example:</b> Math 2.S.1.2</p> <p><b>Example:</b> Social Studies 1.US.1.1</p>

**Indicator 4:** Students understand the purpose and demonstrate the use of the design process in problem solving.

Bloom's Taxonomy Level	Standard, Supporting Skills, and Examples
(Application)	<p><b>1.NC.4.1 Use a simplified version of the design process to solve problems.</b></p> <ul style="list-style-type: none"> <li>• Identify the problem</li> <li>• Gather information to solve the problem</li> <li>• Identify a solution</li> </ul> <p><b>Example:</b></p> <p><u>Identify the problem:</u> Can't log in.</p> <p><u>Gather information:</u> Incorrect password.</p> <p><u>Identify a solution:</u> Re-enter password correctly.</p> <p><b>Example:</b></p> <p><u>Identify the problem:</u> Can't use pencil.</p> <p><u>Gather information:</u> Pencil point is broken.</p> <p><u>Identify a solution:</u> Use pencil sharpener.</p>
	<p>✓ Identify possible alternative solutions to problems.</p>

**First Grade Nature, Concepts and Systems  
(systems thinking, interactions, and design)**

**Performance Descriptors**

<b>Advanced</b>	<b>First Grade students performing at the advanced level:</b> <ul style="list-style-type: none"><li>• Describe the advantages/disadvantages of tools.</li><li>• Describe the advantages/disadvantages of natural and human-made for a specific purpose.</li><li>• Describe the functions of common systems.</li><li>• Choose appropriate technologies at home and school.</li><li>• Compare and contrast alternative solutions to problems.</li></ul>
<b>Proficient</b>	<b>First Grade students performing at the proficient level:</b> <ul style="list-style-type: none"><li>• Distinguish between the natural and human-made world.</li><li>• Describe how people use tools.</li><li>• Identify common systems in school and home.</li><li>• Illustrate technologies used at school.</li><li>• Use a simplified version of the Design process to solve problems.</li></ul>
<b>Basic</b>	<b>First Grade students performing at the basic level:</b> <ul style="list-style-type: none"><li>• Identify a tool.</li><li>• Identify common systems in school or home.</li><li>• Identify one technology used at school.</li><li>• Recognize a problem exists.</li></ul>

**First Grade Social Interactions**  
**Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the safe, ethical, legal, and societal issues related to technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<p><b>1.SI.1.1 Identify ownership rights of student-created work (copyright).</b>  <b>Example:</b> student project</p>
(Knowledge)	<p><b>1.SI.1.2 Identify appropriate and safe technology behaviors.</b></p> <ul style="list-style-type: none"> <li>• Describe how using a password helps protect the privacy of information.</li> </ul> <p><b>Examples:</b> Don't divulge your name, address, phone number online  <b>Example:</b> Passwords protect data, locks protect houses</p>

**Indicator 2:** Students investigate the advantages and disadvantages of technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<p><b>1.SI.2.1 List advantages of tools/technology at home and at school.</b>  <b>Examples:</b> microwave oven, projectors</p>

**First Grade Social Interactions  
Performance Descriptors**

<b>Advanced</b>	<b>First grade students performing at the advanced level:</b> <ul style="list-style-type: none"><li>• Describe ownership rights of any creative work.</li><li>• Use a password to protect the privacy of information.</li><li>• Explain how the home and school is improved through the use of tools/technology.</li></ul>
<b>Proficient</b>	<b>First grade students performing at the proficient level:</b> <ul style="list-style-type: none"><li>• Identify ownership rights of student-created work.</li><li>• Describe how using a password helps protect the privacy of information.</li><li>• Identify safe technology behaviors.</li><li>• List advantages of tools/technology at home and at school.</li></ul>
<b>Basic</b>	<b>First grade students performing at the basic level:</b> <ul style="list-style-type: none"><li>• Describe ownership.</li><li>• Recognize there are passwords.</li><li>• List one advantage of tools/technology at home and at school.</li></ul>

**First Grade Information and Communication Tools  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students recognize and demonstrate skills in operating technological systems.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Application)	<b>1.CT.1.1 Use basic file management commands (New, Open, Save, Print).</b>
(Application)	<b>1.CT.1.2 Use letters, numbers, and special keys on the keyboard.</b> <ul style="list-style-type: none"> <li>• Shift, Return/Enter, Space, Backspace/Delete, Caps Lock, Ctrl, Alt, Arrows</li> </ul>
	✓ Recognize the differences between files and folders.

**Indicator 2:** Students use technology to enhance learning, extend capability, and promote creativity.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
	✓ <b>Use a directed variety of media and technology resources to create a product.</b> <b>Example:</b> Software, inter-active white boards <ul style="list-style-type: none"> <li>• Identify hardware/software problems.</li> </ul>

**Indicator 3:** Students evaluate and select information tools based on the appropriateness to specific tasks.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>1.CT.3.1 Describe five technology tools and their uses.</b> <b>Examples:</b> Internet, DVD player, projector, cell phone, pager

**First Grade Information and Communication Tools  
Performance Descriptors**

<b>Advanced</b>	<b>First grade students performing at the advanced level:</b> <ul style="list-style-type: none"><li>• Independently save and retrieve a file to/from a specified folder.</li><li>• Identify and use correct finger placement of home row keys.</li><li>• Select an appropriate tool for a task given a list of technologies.</li></ul>
<b>Proficient</b>	<b>First grade students performing at the proficient level:</b> <ul style="list-style-type: none"><li>• Use basic file management commands (New, Open, Save, Print).</li><li>• Use letters, numbers, and special keys on the keyboard.</li><li>• Describe five technology tools and their uses.</li></ul>
<b>Basic</b>	<b>First grade students performing at the basic level:</b> <ul style="list-style-type: none"><li>• Operate a mouse, keyboard, and monitor.</li><li>• Identify letter keys.</li><li>• Describe two technology tools and their uses.</li></ul>

**First Grade Information and Communication Processes  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the purpose of information technologies to communicate with a variety of collaborators.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
	✓ Participate with others when using technology tools to convey ideas or illustrate simple concepts.

**Indicator 2:** Students exchange information and ideas for an identified purpose through Information Technologies.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<p><b>1.CP.2.1 Students are able to identify alternative devices or method for communicating and idea.</b></p> <p><b>Examples:</b> cell phone or email, VCR or DVD, call Mom and tell her I'm home from school</p>

**First Grade Information and Communication Processes  
Performance Descriptors**

<b>Advanced</b>	<p><b>First grade students performing at the advanced level:</b></p> <ul style="list-style-type: none"> <li>• Use information technologies to communicate and share an idea, with assistance.</li> </ul>
<b>Proficient</b>	<p><b>First grade students performing at the proficient level:</b></p> <ul style="list-style-type: none"> <li>• Identify alternative devices or methods for communicating an idea.</li> </ul>
<b>Basic</b>	<p><b>First grade students performing at the basic level:</b></p> <ul style="list-style-type: none"> <li>• Identify two information technologies used for communicating ideas.</li> </ul>

**Note:** At the K-2 level, the teachers need to focus on observing and collecting information about the progress students are making related to the checkmark statements.

**First Grade Information Literacy and Decision Making  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students use technology to locate and acquire information.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<b>1.II.1.1 Identify where information can be found.</b> <b>Examples:</b> Classroom, library, Internet

**Indicator 2:** Students determine the reliability and relevancy of information.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
	✓ Distinguish between fact and opinion. <ul style="list-style-type: none"> <li>• Real and point of view</li> </ul>

**First Grade Information Literacy and Decision Making  
Performance Descriptors**

<b>Advanced</b>	<b>First grade students performing at the advanced level:</b> <ul style="list-style-type: none"> <li>• Access information from identified sources.</li> </ul>
<b>Proficient</b>	<b>First grade students performing at the proficient level:</b> <ul style="list-style-type: none"> <li>• Identify where information can be found.</li> </ul>
<b>Basic</b>	<b>First grade students performing at the basic level:</b> <ul style="list-style-type: none"> <li>• Identify one source of information</li> </ul>

**Second Grade Nature, Concepts and Systems**  
**(systems thinking, interactions, and design)**  
**Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the history and progression of technology in relation to the development and design of future technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Comprehension)	<p><b>2.NC.1.1 Describe the progression of technology.</b></p> <p><b>Example:</b> Social Studies 2.US.1.1</p> <p><b>Example:</b> Social Studies 2.US.1.2</p> <ul style="list-style-type: none"> <li>• Communication technology <ul style="list-style-type: none"> <li><b>Example:</b> Quill to pencil to keyboard</li> </ul> </li> <li>• Transportation technology <ul style="list-style-type: none"> <li><b>Example:</b> Wagon to car to airplane</li> </ul> </li> <li>• Health technology <ul style="list-style-type: none"> <li><b>Example:</b> Leeches to surgery</li> </ul> </li> <li>• Agricultural technology <ul style="list-style-type: none"> <li><b>Example:</b> Oxen to tractor</li> </ul> </li> <li>• Energy technology <ul style="list-style-type: none"> <li><b>Example:</b> Fire to solar power</li> </ul> </li> </ul>

**Indicator 2:** Students analyze the parts of a technological system in terms of input, process, output, and feedback.

<p><b>Bloom's Taxonomy Level</b></p>	<p><b>Standard, Supporting Skills, and Examples</b></p>
<p>(Comprehension)</p>	<p><b>2.NC.2.1 Define each component in a systems-thinking model.</b></p> <ul style="list-style-type: none"> <li>• Input, process, output, feedback</li> </ul> <p><b>Example:</b></p> <div style="text-align: center;"> <p><i>INPUT</i>                      <i>PROCESS</i>                      <i>OUTPUT</i></p> <pre> graph LR     subgraph INPUT         direction TB         I1[Need: what you want the system to do]         I2[Resources: the ingredients that go into the system - tools, information, people, time, energy, capital, materials]     end     subgraph PROCESS         direction TB         P[The steps that lead to a result]     end     subgraph OUTPUT         direction TB         O[The result that comes out of the system]     end     subgraph FEEDBACK         direction TB         F[Comparing the result to the original need; adjustments are made to the inputs and/or process]     end     I1 --&gt; P     I2 --&gt; P     P --&gt; O     O --&gt; F     F --&gt; I1     F --&gt; P         </pre> </div>

**Indicator 3:** Students analyze the relationships and the connections between technologies in different fields of study and how they apply to communities.

Bloom's Taxonomy Level	Standard, Supporting Skills, and Examples
(Analysis)	<p><b>2.NC.3.1 Classify whether technologies are used in the home, school, or community.</b></p> <p><b>Example:</b> toaster-home; fax machine-school; cell phone-community</p>
(Knowledge)	<p><b>2.NC.3.2 Recognize that technology has an interrelationship with the environment.</b></p> <p><b>Example:</b> M&amp;M Color Graphing activity in Excel.</p> <p><b>Example:</b> Science 2.NC.2.checkmark</p>
(Knowledge)	<p><b>2.NC.3.3 Identify responsible digital citizenship relative to technology and its use.</b></p> <p>Identify each of the following components as elements that comprise digital citizenship.</p> <ul style="list-style-type: none"> <li>• Etiquette: electronic standards of conduct or procedure <b>Example:</b> Using caps lock appears to be shouting. <b>Example:</b> Different audiences use different terms (LOL- laugh out loud) to communicate the same information.</li> <li>• Communication: electronic exchange of information</li> <li>• Education: the process of teaching and learning about technology and the use of technology</li> <li>• Access: full electronic participation in society</li> <li>• Commerce: electronic buying and selling of goods <b>Example:</b> Buying and selling on the internet</li> <li>• Responsibility: electronic responsibility for actions and deeds <b>Example:</b> Following copyright laws when copying and pasting from websites.</li> <li>• Rights: those freedoms extended to everyone in a digital world <b>Example:</b> Freedom of speech has created lots of information on the internet. <b>Example:</b> Students own their own work</li> <li>• Safety: physical well-being in a digital technology world <b>Example:</b> Practicing child protection measures when communicating online.</li> </ul>

	<ul style="list-style-type: none"> <li>• Security (self-protection): electronic precautions to guarantee safety</li> </ul> <p><b>Example:</b> Password protection, secured websites, not giving out personal information to unknown persons.</p>
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**Indicator 4:** Students understand the purpose and demonstrate the use of the design process in problem solving.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Application)	<p><b>2.NC.4.1 Choose among given alternatives to solve a problem.</b></p> <p><b>Example:</b> Can't log in. Is the caps lock on? Is the password typed correctly?</p> <ul style="list-style-type: none"> <li>• Test alternative solutions</li> </ul>

**Second Grade Nature, Concepts and Systems  
(systems thinking, interactions, and design)**

**Performance Descriptors**

<b>Advanced</b>	<p><b>Second grade students performing at the advanced level:</b></p> <ul style="list-style-type: none"> <li>• Compare and contrast technology in various eras.</li> <li>• Apply the systems-thinking model.</li> <li>• List advantages/disadvantages of technologies used in the home, school, or community.</li> <li>• Solve a problem independently.</li> <li>• Describe appropriate and inappropriate uses of any creative work.</li> <li>• Use passwords with keyboard modifiers (shift, etc.).</li> <li>• Practice safe online behaviors.</li> </ul>
<b>Proficient</b>	<p><b>Second grade students performing at the proficient level:</b></p> <ul style="list-style-type: none"> <li>• Describe the progression of technology.</li> <li>• Define each component in a systems-thinking model.</li> <li>• Classify whether technologies are used in the home, school, or community.</li> <li>• Choose among given alternatives to solve a problem.</li> <li>• Describe ownership rights of technology-created work.</li> <li>• Use an individual password to protect the privacy of information.</li> <li>• Utilize safe technology behaviors.</li> </ul>
<b>Basic</b>	<p><b>Second grade students performing at the basic level:</b></p> <ul style="list-style-type: none"> <li>• Distinguish whether a tool is from the past or present.</li> <li>• Identify one component of the systems-thinking model</li> <li>• List technologies used at school</li> <li>• Follow given directions to solve a problem.</li> <li>• Describe ownership rights.</li> <li>• Recognize that using a password helps protect the privacy of information.</li> <li>• Identify safe technology behaviors.</li> </ul>

**Second Grade Social Interactions**  
**Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the safe, ethical, legal, and societal issues related to technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Comprehension)	<p><b>2.SI.1.1 Describe ownership rights of technology-created work (copyright).</b></p> <p><b>Examples:</b> book report, art project</p>
(Application)	<p><b>2.SI.1.2 Utilize safe technology behaviors.</b></p> <ul style="list-style-type: none"> <li>• Use an individual password to protect the privacy of information.</li> </ul> <p><b>Examples:</b> email, internet (games, registration, sales, pop-ups)</p>

**Indicator 2:** Students investigate the advantages and disadvantages of technology.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<p><b>2.SI.2.1 Identify advantages of tools/technology in the community.</b></p> <p><b>Examples:</b> cable TV, bar code scanners</p>

**Second Grade Social Interactions  
Performance Descriptors**

<b>Advanced</b>	<p><b>Second grade students performing at the advanced level:</b></p> <ul style="list-style-type: none"><li>• Describe appropriate and inappropriate uses of any creative work.</li><li>• Use passwords with keyboard modifiers (shift, etc.).</li><li>• Practice safe online behaviors.</li><li>• Explain how a community is improved through the use of tools/technology.</li></ul>
<b>Proficient</b>	<p><b>Second grade students performing at the proficient level:</b></p> <ul style="list-style-type: none"><li>• Describe ownership rights of technology-created work.</li><li>• Use an individual password to protect the privacy of information.</li><li>• Utilize safe technology behaviors.</li><li>• Identify advantages of tools/technology in the community.</li></ul>
<b>Basic</b>	<p><b>Second grade students performing at the basic level:</b></p> <ul style="list-style-type: none"><li>• Describe ownership rights.</li><li>• Recognize that using a password helps protect the privacy of information.</li><li>• Identify safe technology behaviors.</li><li>• Identify one advantage of tools/technology in the community.</li></ul>

**Second Grade Information and Communication Tools  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students recognize and demonstrate skills in operating technological systems.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Comprehension)	<b>2.CT.1.1 Demonstrate saving and retrieving a file to/from a specified, existing folder with assistance.</b>
	✓ Identify and use correct finger placement of home row keys.

**Indicator 2:** Students use technology to enhance learning, extend capability, and promote creativity.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Application)	<p><b>2.CT.2.1 Use a directed variety of media for learning activities.</b></p> <p><b>Examples:</b> software, hardware, dictionary, encyclopedia, audio-video player, phones, web resources, inter-active books</p> <p><b>Example:</b> Social Studies 2.US.1.1</p> <ul style="list-style-type: none"> <li>• Identify hardware/software problems.</li> </ul>

**Indicator 3:** Students evaluate and select information tools based on the appropriateness to specific tasks.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Knowledge)	<p><b>2.CT.3.1 Select an appropriate tool for a task given a list of technologies.</b></p> <p><b>Example:</b> To write letters using a word processing program not a spreadsheet program.</p>

**Second Grade Information and Communication Tools  
Performance Descriptors**

<b>Advanced</b>	<p><b>Second grade students performing at the advanced level:</b></p> <ul style="list-style-type: none"><li>• Independently create a folder to save and retrieve a file.</li><li>• Independently select appropriate resources for independent and directed learning activities.</li><li>• Apply an appropriate tool for a given task.</li></ul>
<b>Proficient</b>	<p><b>Second grade students performing at the proficient level:</b></p> <ul style="list-style-type: none"><li>• Demonstrate saving and retrieving a file to/from a specified, existing folder with assistance.</li><li>• Use a directed variety of software, hardware, dictionary, encyclopedia, audio-video player, phones, web resources, and/or inter-active books for learning activities.</li><li>• Select an appropriate tool for a task given a list of technologies.</li></ul>
<b>Basic</b>	<p><b>Second grade students performing at the basic level:</b></p> <ul style="list-style-type: none"><li>• Save or open a file with assistance.</li><li>• Use a directed variety of software and hardware resources for learning activities.</li><li>• Select an appropriate tool for a task given a choice of two technologies.</li></ul>

**Second Grade Information and Communication Processes  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students understand the purpose of information technologies to communicate with a variety of collaborators

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Comprehension)	<p><b>2.CP.1.1 With assistance, demonstrate the ability to work with others when using technology tools to convey ideas or illustrate simple concepts.</b></p> <p><b>Examples:</b> Web quest, DDN sessions, email</p>

**Indicator 2:** Students exchange information and ideas for an identified purpose through Information Technologies.

<b>Bloom's Taxonomy Level</b>	<b>Standard, Supporting Skills, and Examples</b>
(Application)	<p><b>2.CP.2.1 Use information technologies to communicate and share an idea, with assistance.</b></p> <p><b>Examples:</b> Email, Power Point</p>

## Information and Communication Processes

### Performance Descriptors

<b>Advanced</b>	<b>Second grade students performing at the advanced level:</b> <ul style="list-style-type: none"><li>• Independently demonstrate the ability to work with others when using technology tools to convey ideas or illustrate simple concepts</li><li>• Describe how a message communicated through information technology is affected by an audience.</li></ul>
<b>Proficient</b>	<b>Second grade students performing at the proficient level:</b> <ul style="list-style-type: none"><li>• With assistance, demonstrate the ability to work with others when using technology tools to convey ideas or illustrate simple concepts.</li><li>• Use information technologies to communicate and share an idea with assistance.</li></ul>
<b>Basic</b>	<b>Second grade students performing at the basic level:</b> <ul style="list-style-type: none"><li>• With assistance share their ideas with a partner using technology.</li><li>• State and share an idea.</li></ul>

**Second Grade Information Literacy and Decision Making  
Grade Standards, Supporting Skills, and Examples**

**Indicator 1:** Students use technology to locate and acquire information.

Bloom's Taxonomy Level	Standard, Supporting Skills, and Examples
(Knowledge)	<b>2.II.1.1 Select from several teacher-selected Internet sites to locate information.</b>
	✓ Use keywords with assistance as a search strategy. <b>Examples:</b> Yahoo!igans, encyclopedia

**Indicator 2:** Students determine the reliability and relevancy of information.

Bloom's Taxonomy Level	Standard, Supporting Skills, and Examples
(Analysis)	<b>2.II.2.1 Distinguish among fact, fiction, and opinion.</b>
	<b>Example:</b> Dogs are animals, dogs are rocks, dogs are better than cats

**Second Grade Information Literacy and Decision Making  
Performance Descriptors**

<b>Advanced</b>	<b>Second grade students performing at the advanced level:</b> <ul style="list-style-type: none"> <li>• Independently search to locate information from the Internet.</li> <li>• Generate a fact, fiction, and an opinion for a given topic.</li> </ul>
<b>Proficient</b>	<b>Second grade students performing at the proficient level:</b> <ul style="list-style-type: none"> <li>• Select from several teacher-selected Internet sites to locate information.</li> <li>• Distinguish among fact, fiction, and opinion.</li> </ul>
<b>Basic</b>	<b>Second grade students performing at the basic level:</b> <ul style="list-style-type: none"> <li>• Locate information from a teacher-selected Internet site.</li> <li>• Distinguish between fact and fiction.</li> </ul>

**NATURE, CONCEPTS AND SYSTEMS  
(SYSTEMS THINKING, INTERACTIONS, AND DESIGN)**

**K-2**

**Indicator 1:** Students understand the history and progression of technology in relation to the development and design of future technology.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
K.NC.1.1 Identify three human-made objects. (Knowledge)	1.NC.1.1 Distinguish between the natural and human-made world. (Analysis)	2.NC.1.1 Describe the progression of technology. (Comprehension)
	1.NC.1.2) Describe how people use tools. (Comprehension)	

**Indicator 2:** Students analyze the parts of a technological system in terms of input, process, output, and feedback.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
K.NC.2.1 Identify that parts make a whole. (Knowledge)	1.NC.2.1 Identify common systems in school and home. (Knowledge)	2.NC.2.1) Define each component in a systems-thinking model. (Comprehension)

**Indicator 3:** Students analyze the relationships and the connections between technologies in different fields of study and how they apply to communities.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
K.NC.3.1 Identify technologies used in the home. (Knowledge)	1.NC.3.1 Illustrate technologies used at school. (Comprehension)	2.NC.3.1 Classify whether technologies are used in the home, school, or community. (Analysis)

**Indicator 4:** Students understand the purpose and demonstrate the use of the design process in problem solving.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
✓ Identify a problem.	1.NC.4.1 Use a simplified version of the design process to solve problems. (Application)	2.NC.4.1 Choose among given alternatives to solve a problem. (Application)
✓ Gather information to solve a problem.	✓ Identify possible alternative solutions to problems.	
✓ Identify a solution.		

## SOCIAL INTERACTIONS

### K-2

**Indicator 1:** Students understand the safe, ethical, legal, and societal issues related to technology.

Kindergarten	First Grade	Second Grade
K.SI.1.1 Demonstrate respect for the work of others. (Comprehension)	1.SI.1.1 Identify ownership rights of student-created work. (Knowledge)	2.SI.1.1 Describe ownership rights of technology-created work (copyright). (Comprehension)
K.SI.1.2 Identify five ways to respect equipment. (Comprehension)	1.SI.1.2 Identify safe technology behaviors. (Knowledge)	2.SI.1.2 Utilize appropriate and safe technology behaviors. (Application)
✓ Recognize that using a password helps protect the privacy of information.		
✓ Identify safe technology behaviors.		

**Indicator 2:** Students investigate the advantages and disadvantages of technology.

Kindergarten	First Grade	Second Grade
K.SI.2.1 Recognize that an advantage is desirable and that a disadvantage is undesirable. (Knowledge)	1.SI.2.1 List advantages of tools/technology at home and at school. (Knowledge)	2.SI.2.1 Identify advantages of tools/technology in the community. (Knowledge)

## INFORMATION AND COMMUNICATION TOOLS

### K-2

**Indicator 1:** Students recognize and demonstrate skills in operating technological systems.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
K.CT.1.1 Describe technology using accurate terminology. (Knowledge)	1.CT.1.1 Use basic file management commands (New, Open, Save, Print). (Application)	2.CT.1.1 Demonstrate saving and retrieving a file to/from a specified, existing folder with assistance. (Comprehension)
K.CT.1.2 Use input/output devices to operate various technologies. (Application)	1.CT.1.2 Use letters, numbers, and special keys on the keyboard. (Application)	✓ Identify and use correct finger placement of home row keys.
✓ Identify basic file management commands (New, Open, Save, Print.)	✓ Recognize the differences between files and folders.	
✓ Locate letters, numbers, and special keys on the keyboard.		

**Indicator 2:** Students use technology to enhance learning, extend capability, and promote creativity.

Kindergarten	First Grade	Second Grade
	✓ Use a directed variety of media and technology resources to create a product.	2.CT.2.1 Use a directed variety of media for learning activities. (Application)

**Indicator 3:** Students evaluate and select information tools based on the appropriateness to specific tasks.

Kindergarten	First Grade	Second Grade
K.CT.3.1 Recognize technology as a tool to help complete a task. (Knowledge)	1.CT.3.1 Describe five technology tools and their uses. (Knowledge)	2.CT.3.1 Select an appropriate tool for a task given a list of technologies. (Knowledge)

## INFORMATION AND COMMUNICATION PROCESSES

### K-2

**Indicator 1:** Students understand the purpose of information technologies to communicate with a variety of collaborators.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
	✓ Participate with others when using technology tools to convey ideas or illustrate simple concepts.	2.CP.1.1 With assistance, demonstrate the ability to work with others when using technology tools to convey ideas or illustrate simple concepts. (Comprehension)

**Indicator 2:** Students use a variety of technologies to exchange information and ideas for an identified purpose.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
	✓ With assistance use a variety of technologies to communicate ideas.	2.CP.2.1 With assistance, use a variety of technologies to communicate and share an idea. (Application)

## INFORMATION LITERACY AND DECISION MAKING

### K-2

**Indicator 1:** Students use technology to locate and acquire information.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
K.IL.1.1 Identify what information is. (Knowledge)	1.IL.1.1 Identify where information can be found. (Knowledge)	2.IL.1.1 Select from several teacher-selected internet sites to locate information. (Knowledge)
K.IL.1.2 Recognize that information can be represented in a variety of ways. (Knowledge)		✓ Use keywords with assistance as a search strategy.

**Indicator 2:** Students determine the reliability and relevancy of information.

<b>Kindergarten</b>	<b>First Grade</b>	<b>Second Grade</b>
✓ Distinguish between fact and fiction.	✓ Distinguish between fact and opinion	2.IL.2.1 Distinguish among fact, fiction, and opinion. (Analysis)