

Seven Strands for Advancing Digital Age Learning - (K, 1, 2)

ISTE-S (1) Empowered Learner	Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.
1.1. Articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.	1.1.1. Learn how to write a goal. 1.1.2. Use technology to achieve a goal. 1.1.3. Use technology to receive feedback that improves student practices and learning.
1.2. Build networks and customize their learning environments in ways that support the learning process.	1.2.1. Encourage students to engage in positive, safe, legal and ethical behavior when using technology. 1.2.2. Model online Netiquette when participating in online social interactions or when using networked devices.
1.3. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	1.3.1. Students are able to transfer their knowledge to explore emerging technologies. 1.3.2. Students can behave positively when using technology. 1.3.3. Use learning based software that reinforces classroom curriculum.
1.4. Understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.	1.4.1. Demonstrate how a current technology works. 1.4.2. Design a new technology that could be used in the future.

<p style="text-align: center;">ISTE – S (2) Digital Citizen</p>	<p>Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.</p>
<p>2.1. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.</p>	<p>2.1.1. Explain what a password is. 2.1.2. Discuss why passwords shouldn't be shared. 2.1.3. Discuss what happens when someone sends a mean email message.</p>
<p>2.2. Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.</p>	<p>2.2.1. Describe what it means to behave positively when using technology. 2.2.2. List ways to stay safe when using technology. 2.2.3. Discuss why it is important not to send mean or hurtful email to a classmate.</p>
<p>2.3. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.</p>	<p>2.3.1. Explain why it's not acceptable to use someone else's work that is posted on the Internet without their permission.</p>
<p>2.4. Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.</p>	<p>2.4.1. Discuss how personal information must be protected and not shared with unknown people on the Internet.</p>

<p align="center">ISTE-S (3) Knowledge Constructor</p>	<p>Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.</p>
<p>3.1. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.</p>	<p>3.1.1. Choose a topic to research. 3.1.2. Locate topic information and resources.</p>
<p>3.2. Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.</p>	<p>3.2.1. Use information from multiple resources. 3.2.2. Evaluate information to determine if it relates to the lesson. 3.2.3. Determine if information is true or false.</p>
<p>3.3. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.</p>	<p>3.3.1. Sort information into themes. 3.3.2. Choose and organize information from digital resources. 3.3.3. Gather information and select themes in ways that are meaningful and shareable.</p>
<p>3.4. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.</p>	<p>3.4.1. Discuss and provide examples of a problem. 3.4.2. Make suggestions how to resolve a problem. 3.4.3. Choose a problem and draw a picture that demonstrates a solution.</p>

<p align="center">ISTE-S (4) Innovative Designer</p>	<p>Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.</p>
<p>4.1. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.</p>	<p>4.1.1. Use a series of steps to solve a problem. 4.1.2. Test the solution to determine if it's sound. 4.1.3. Apply learned knowledge to solve other problems.</p>
<p>4.2. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.</p>	<p>4.2.1. Make artifacts created by new methods, original thinking or improvements to an existing artifact. 4.2.2.. Explore robotics, simulations, prototypes, etc. as possible ways to design objects.</p>
<p>4.3. Develop, test and refine prototypes as part of a cyclical design process.</p>	<p>4.3.1. Brainstorm steps to solve a problem and design a solution. 4.3.2. Test prototype. 4.3.3. Modify prototype as needed. 4.3.4. Test prototype until problem is solved.</p>
<p>4.4. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.</p>	<p>4.4.1. Explain that there may be more than one solution to a problem. 4.4.2. Explain how there can be no solution to a problem. 4.4.3. Draw a picture of a problem and its solution.</p>

<p style="text-align: center;">ISTE-S (5) Computational Thinker</p>	<p style="text-align: center;">Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.</p>
<p>5.1. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.</p>	<p>5.1.1. Explain what data is. 5.1.2. Draw a picture to model how something works. 5.1.3. Find and name a problem. 5.1.4. Draw a solution for the problem.</p>
<p>5.2. Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making</p>	<p>5.2.1. Collect data. 5.2.2. Use a computer to show the data in a picture. 5.2.3. Manipulate the data in different ways to represent a number. 5.2.4. Decide which picture best represents the number.</p>
<p>5.3. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.</p>	<p>5.3.1. Discuss a problem. 5.3.2. Break the problem in to its parts. 5.3.3. Decide what is the problem is asking. 5.3.4. Draw a model that shows the problem. 5.3.5. Write or draw a solution for the problem.</p>
<p>5.4. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.</p>	<p>5.4.1. Explain what Automation is. 5.4.2. Name a problem that is solved using step-by-step directions. 5.4.3. Solve a problem by using multiple steps.</p>

<p style="text-align: center;">ISTE-S (6) Creative Communicator</p>	<p>Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.</p>
<p>6.1. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.</p>	<p>6.1.1. Use a digital camera. 6.1.2. Learn how to take a picture with the camera. 6.1.3. Take a picture and share it with a classmate. 6.1.4. Collaborate with the classmate to write (or tell) a short story about the picture.</p>
<p>6.2. Create original works or responsibly repurpose or remix digital resources into new creations.</p>	<p>6.2.1. Choose a topic to create a collage. 6.2.2. Use a digital tool/software to design pictures. 6.2.3. Share your artwork with classmates.</p>
<p>6.3. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.</p>	<p>6.3.1. Choose a topic to discuss. 6.3.2. Write talking points. 6.3.3. Use a media tool, such as Prezi, PowerPoint, Canva, Google Slides, Haiku Deck, Adobe Spark, Visme, or Slide Dog to share ideas.</p>
<p>6.4. Publish or present content that customizes the message and medium for their intended audiences.</p>	<p>6.4.1. Design a poster for a lost dog. 6.4.2. Use words and pictures to describe the lost dog. 6.4.3. Publish/print the lost dog poster.</p>

ISTE-S (7) Global Collaborator	Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.
7.1. Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.	6.1.1. Learn about life in various regions of the United States and foreign countries. 6.1.2. Ask parents to email friends and relatives who live in places other than students' home town. 6.1.3. Friends and relatives should email students describing their home town, state or country. 6.1.4 Students will report to the class what they learned from friends and relatives.
7.2. Use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	6.2.1. Identify a problem in your school or neighborhood. 6.2.2. Discuss who in your school or neighborhood could help resolve the problem. 6.2.3. Make your own suggestions how to solve the problem. 6.2.4. Listen to other solutions from your classmates. 6.2.5. Choose a solution that you believe will solve the problem.
7.3. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.	6.3.1. Learn to work in groups. 6.3.2. Remember to raise your hand and speak only when called upon. 6.3.3. Take turns speaking. 6.3.4. Be kind when talking about someone's work. 6.3.5. Help others who need help.
7.4. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.	6.4.1. Use the Internet to find a local or global issue. 6.4.2. Identify the local issue and draw a picture of the issue. 6.4.3. Identify the global issue and write a sentence describing the issue. 6.4.4. Brainstorm a solution for the local issue. 6.4.5. Brainstorm a solution for the global issue. 6.4.6 Create a digital presentation to share your solutions.