

TEK	Description	TEK integration	Possible Implementation
1.1.A	identify and discuss a problem or task and break down (decompose) the solution into sequential steps	<ul style="list-style-type: none"> <li>SS: 1.17.A</li> <li>ELA: 1.11.Bi</li> <li>Math: 1.1.C. 1.3.A</li> <li>Science: 1.2.C</li> </ul>	<ul style="list-style-type: none"> <li>Discuss a problem related to how families use technology (e.g., managing screen time) and break down steps to address it.</li> <li>Discuss a writing task and break it down into steps such as brainstorming, drafting, and editing sentences to form a coherent story</li> <li>Identify a scientific investigation (e.g., observing plant growth) and break it down into sequential steps: forming a question, planning the investigation, conducting the investigation, and recording results.</li> </ul>
1.1.B	identify the simple patterns found in the solutions to everyday problems or tasks;	<ul style="list-style-type: none"> <li>SS: 1.5.A</li> <li>ELA: 1.8.A</li> <li>Math: 1.6.A</li> <li>Science: 1.4.A</li> </ul>	<ul style="list-style-type: none"> <li>Discuss how communities use patterns in resource management (e.g., recycling routines) and identify the patterns.</li> <li>Identify patterns in story elements (e.g., beginning, middle, end) and how they help solve narrative problems.</li> <li>Identify patterns in data collected during experiments (e.g., temperature changes throughout the day) and how recognizing these patterns helps understand scientific phenomena</li> </ul>
1.1.C	create a simple algorithm (step-by-step instructions) for an everyday task.	<ul style="list-style-type: none"> <li>SS: 1.14.A</li> <li>ELA: 1.7.A</li> <li>Math: 1.1.D</li> <li>Science: 1.2.A</li> </ul>	<ul style="list-style-type: none"> <li>Create a step-by-step plan for writing a story, including brainstorming, drafting, revising, and editing.</li> <li>Create a step-by-step algorithm for solving a math problem, such as addition or subtraction, and explain the steps.</li> <li>Create a step-by-step procedure for conducting a simple scientific investigation, such as observing plant growth</li> </ul>
1.2.A	create a sequence of code that solves a simple problem with or without technology	<ul style="list-style-type: none"> <li>SS: 1.5.A</li> <li>ELA:</li> <li>Math: 1.1.C</li> <li>Science: 1.2.C</li> </ul>	<p>Activity:</p> <p>Coding with Ozobots or lego robotics</p> <ul style="list-style-type: none"> <li>Use Ozobots or legos robotics to navigate a simple maze.</li> <li>Write the sequence of movements needed to reach a destination.</li> </ul> <p>Integration:</p> <p>1. Recycling Code (Social Studies)</p> <ul style="list-style-type: none"> <li>Create a sequence of steps (code) to sort and recycle different materials.</li> <li>Steps: Collect materials -&gt; Sort into categories (paper, plastic, metal) -&gt; Place in appropriate bins.</li> </ul> <p>3. Math Problem Code (Math)</p> <ul style="list-style-type: none"> <li>Create a sequence of steps (code) to solve an additional problem.</li> </ul>

			<ul style="list-style-type: none"> <li>Steps: Identify the numbers -&gt; Add the numbers -&gt; Write the answer -&gt; Check the work.</li> </ul>
1.3.A	practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully	<ul style="list-style-type: none"> <li>SS: 1.18.A</li> <li>ELA: 1.11.Ci</li> <li>Math: 1.1.C</li> <li>Science: 1.2.C</li> </ul>	<ul style="list-style-type: none"> <li>Follow directions to gather and organize information from various sources to create a project about a historical figure or event.</li> <li>Practice mental agility and attention to detail by following directions to edit and revise a written draft.</li> <li>Follow a sequence of steps to solve a math problem, demonstrating the ability to follow directions and apply logical thinking</li> <li>Follow directions to conduct a simple science experiment, demonstrating personal skills like careful observation and recording data accurately.</li> </ul>
1.3.B	use a design process with components such as asking questions, brainstorming, or storyboarding to identify and solve authentic problems with adult assistance.	<ul style="list-style-type: none"> <li>SS: 1.15.A</li> <li>ELA: 1.7.A</li> <li>Math: 1.5.B</li> <li>Science: 1.2.A</li> </ul>	<ul style="list-style-type: none"> <li>Use a design process to create a project on good citizenship, brainstorming ways to demonstrate these characteristics in daily life.</li> <li>Use storyboarding to illustrate different strategies for solving math problems.</li> </ul>
1.4.A	identify examples of how technology has impacted different communities	<ul style="list-style-type: none"> <li>SS: 1.16.A</li> <li>ELA: 1.13.A</li> <li>Math: 1.1.D</li> <li>Science: 1.5.A</li> </ul>	<ul style="list-style-type: none"> <li>Create a timeline showing how different technologies have changed over time and impacted communities.</li> <li>Read stories or informational texts about technological advancements and their effects on communities</li> <li>Explore how technology, such as calculators or educational apps, helps solve math problems.</li> <li>Investigate technological tools (e.g., weather forecasting tools, medical devices) and their impact on communities. Collect and compare data on their usage and benefits</li> </ul>
1.5.A	explore and collect many types of data such as preferences or daily routines of people, events, or objects;	<ul style="list-style-type: none"> <li>SS: 1.18.A</li> <li>ELA: 1.6.A</li> <li>Math: 1.8.A</li> <li>Science: 1.5.A</li> </ul>	<ul style="list-style-type: none"> <li>Collect data on historical events or community helpers using different visual sources and create a simple report or chart.</li> <li>Gather and record data on personal preferences related to different books or stories read in class.</li> <li>Collect data on classmates' favorite fruits, sort and organize it into categories, and represent them using tally marks or a T-chart.</li> </ul>
1.5.B	conduct a basic search using provided keywords and digital sources with adult assistance.	<ul style="list-style-type: none"> <li>SS: 1.18.A</li> <li>ELA:</li> <li>Math:</li> <li>Science: 1.2.A</li> </ul>	<p>Activity: Internet Search Practice</p> <ul style="list-style-type: none"> <li>Use a search engine to find information about a specific topic, such as animals or weather.</li> <li>Discuss how to choose effective keywords and evaluate search results</li> </ul>

1.6.A	describe and demonstrate respectful behavior within a digital environment.	<ul style="list-style-type: none"> <li>• SS: 1.17.A</li> <li>• ELA:</li> <li>• Math:</li> <li>• Science:</li> </ul>	Follow the lesson from Common Sense Education: <a href="#">Pause &amp; Think Online</a>
1.7.A	explain and demonstrate the importance of acceptable use of digital resources and devices as outlined in local policies or acceptable use policy (AUP);	<ul style="list-style-type: none"> <li>• SS: 1.17.A</li> <li>• ELA:</li> <li>• Math:</li> <li>• Science:</li> </ul>	Follow the lesson from Common Sense Education: <a href="#">Internet Traffic Light</a>
1.7.B	communicate an understanding that all digital content has owners and explain the importance of respecting others' belongings as they apply to digital content and information	<ul style="list-style-type: none"> <li>• SS: 1.17.A</li> <li>• ELA:</li> <li>• Math:</li> <li>• Science:</li> </ul>	<p>1. Introduction</p> <ul style="list-style-type: none"> <li>• Start by asking, "What is something you own that is very special to you?" Allow students to share items like toys, books, or clothes.</li> <li>• Explain that just like they own their toys and books, people own the pictures, videos, and music they create and put on the internet. This is called digital content.</li> <li>• Story: "There was a boy named Sam who loved to take pictures of his dog. One day, Sam shared his favorite photo online. He was very proud of it. Later, Sam saw someone else using his picture without asking. Sam felt sad because it was his special photo. Sam's teacher explained that everyone should ask for permission before using someone else's work, just like asking before borrowing a toy."</li> </ul> <p>2. Discussion</p> <ul style="list-style-type: none"> <li>• Discuss why it's important to respect other people's digital content. Use simple terms like "It's nice to ask before using someone else's work" and "It's like borrowing a toy; you need permission."</li> <li>• Explain that respecting others' digital content means not copying, using, or sharing it without asking first.</li> </ul> <p>3. Activity: "My Respect Poster"</p> <ul style="list-style-type: none"> <li>• Give each student a piece of paper and crayons or markers.</li> <li>• Ask them to draw or write one way they can respect others' digital content (e.g., asking for permission, giving credit to the creator).</li> </ul> <p>6. Wrap-Up and Recap</p> <ul style="list-style-type: none"> <li>• Review the importance of respecting digital content ownership.</li> <li>• Encourage students to always ask a grown-up if they can use or share something they find online.</li> </ul>
1.8.A	identify ways to keep a user account safe, including not sharing login information and logging off accounts and devices;	<ul style="list-style-type: none"> <li>• SS: 1.17.A</li> <li>• ELA:</li> <li>• Math:</li> <li>• Science:</li> </ul>	<a href="#">Watch Brainpop jr Internet Safety:</a> <ul style="list-style-type: none"> <li>• Discuss why it is important to keep users accounts safe and ways to do so</li> <li>• Have students create a poster about ways to keep accounts safe</li> </ul>

1.8.B	identify and discuss what information is safe to share online such as hobbies and likes and dislikes and what information is unsafe such as identifying information	<ul style="list-style-type: none"> <li>• SS: 1.17.A</li> <li>• ELA:</li> <li>• Math:</li> <li>• Science:</li> </ul>	<p><a href="#">Watch: Adventures on the internet:</a></p> <ul style="list-style-type: none"> <li>• Show a chart with two columns: "Safe to Share" and "Unsafe to Share."</li> <li>• Distribute cards with different types of information (e.g., "My favorite color," "My home address," "My pet's name," "My school name").</li> <li>• Ask students to help place each card in the correct column on the chart. <ul style="list-style-type: none"> <li>◦ Safe to Share: Hobbies, likes, dislikes</li> <li>◦ Unsafe to Share: Full name, address, phone number, school name</li> </ul> </li> </ul>
1.8.C	discuss and define cyberbullying with teacher support and guidance	<ul style="list-style-type: none"> <li>• SS: 1.17.A</li> <li>• ELA:</li> <li>• Math:</li> <li>• Science:</li> </ul>	<p>Watch: <a href="#">How to show empathy online</a></p> <ul style="list-style-type: none"> <li>• Define cyberbullying: "Cyberbullying is when someone uses a computer or phone to be mean to others."</li> <li>• Discuss why cyberbullying is hurtful and what students should do if they experience or see it: Tell a teacher, parent, or trusted adult.</li> </ul>
1.9.A	select and use a variety of applications, devices, and online learning environments to create an original product	<ul style="list-style-type: none"> <li>• SS: 1.17.A</li> <li>• ELA: 1.12.A</li> <li>• Math:</li> <li>• Science: 1.5.A</li> </ul>	<ul style="list-style-type: none"> <li>• Use an application like Canva to design a poster about good digital citizenship.</li> <li>• Use a word processing tool like Google Docs to write a short story.</li> <li>• Use Google Forms to create a survey about classmates' favorite toys.</li> <li>• Conduct a simple science experiment, such as observing plant growth. <ul style="list-style-type: none"> <li>◦ Use a tablet or digital camera to document each step with photos and videos.</li> </ul> </li> </ul>
1.9.B	describe basic computer hardware, including a variety of input and output devices, and software using accurate terminology	<ul style="list-style-type: none"> <li>• SS:</li> <li>• ELA:</li> <li>• Math:</li> <li>• Science:</li> </ul>	<p><a href="#">Seesaw Activity</a></p> <p>I. Introduction (5 minutes): Have students complete this activity as a whole group or assign it independently to review previously taught skills.</p> <ul style="list-style-type: none"> <li>• Page 1: Watch the video as a whole class.</li> <li>• Page 2: Discuss as a whole class.</li> </ul> <p>II. Practice (10 - 15 minutes): Have students complete the activity on their own or in small groups.</p> <ul style="list-style-type: none"> <li>• Page 1: Click the speaker to listen.</li> <li>• Page 2: Click the speaker to listen to each label to learn the name and function of each hardware component.</li> <li>• Page 3: Sort the pictures into hardware and not hardware.</li> </ul>

			<ul style="list-style-type: none"> <li>• Page 4: Create your own hardware robot by moving hardware components. Use the draw tool to add details. Next, use the mic to record a description of your hardware robot.</li> <li>• Page 5: Click the speaker to listen.</li> </ul> <p>V. Show What You Know (10 - 15 minutes)</p> <p>Preview activity as a whole class before assigning to students to complete in centers, with a partner, or independently.</p> <ul style="list-style-type: none"> <li>• Page 1: Click the speaker to listen to each Code Crew member and draw a line to match them with the hardware they use.</li> </ul>
1.9.C	perform software application functions such as file management, collaboration, and the creation and revision of digital artifacts using a variety of developmentally appropriate digital tools and resources;	<ul style="list-style-type: none"> <li>• SS: 1.18.B</li> <li>• ELA:11.Bi</li> <li>• Math:1.8.A</li> <li>• Science: 1.5.A</li> </ul>	<p>Activity: Collaborative Class Project</p> <ul style="list-style-type: none"> <li>• Use Google Slides or a similar application for a collaborative class project on a science topic, such as the life cycle of a plant.</li> <li>• Each student creates a slide showing a different stage of the life cycle, incorporating text, images, and voice recordings.</li> <li>• Teach students how to save their work, share it with classmates, and provide feedback on each other's slides.</li> <li>• Integrate lessons on sequencing from ELA, data representation from Math, and life sciences from Science</li> </ul>

**Key:**

Computational Thinking

Creativity & Innovation

Data literacy, management, and representation

Digital citizenship

Practical technology concept