TEK	Description	TEK integration	Possible Implementation
3.1.A	decompose story problems into smaller, manageable subproblems and identify a solution to the problems	<ul> <li>SS: 3.17.A</li> <li>ELA:3.11.A, 3.11.B</li> <li>Math:3.3.A</li> <li>Science: 3.2.C</li> </ul>	<ul> <li>Break down a community problem (e.g., how to increase recycling rates) into smaller parts (e.g., educating the community, providing recycling bins) and developing a solution.</li> <li>Decompose a story into key components (e.g., setting, characters, plot) and identify solutions to plot problems or conflicts within the story.</li> <li>Decompose a scientific investigation into smaller parts (e.g., forming a hypothesis, conducting experiments, analyzing data) and identify solutions to the investigation's questions.</li> </ul>
3.1.B	identify simple and complex patterns in story problems	<ul> <li>SS: 3.17.B</li> <li>ELA:3.9.D</li> <li>Math:3.4.B</li> <li>Science: 3.5.A</li> </ul>	<ul> <li>Identify patterns in historical events or social issues, such as migration patterns or economic cycles, and use these patterns to understand and solve related problems.</li> <li>Identify narrative patterns in stories, such as the hero's journey or repeated themes, and use these patterns to plan and write new stories</li> <li>Identify numerical patterns in math story problems, such as sequences, repeated operations, or relationships between numbers, and use these patterns to solve the problems.</li> <li>Identify patterns in scientific observations, such as changes in states of matter under different conditions, and use these patterns to predict outcomes in experiments.</li> </ul>
3.1.C	develop a plan collaboratively and document a plan that outlines specific steps taken to complete a project	<ul> <li>SS: 3.17.A</li> <li>ELA:3.11.A, 3.11.D</li> <li>Math:3.4.D</li> <li>Science: 3.2.C</li> </ul>	<ul> <li>Collaboratively develop a plan to address a community issue (e.g., reducing litter in the park), outlining specific steps to gather information, propose solutions, and implement the chosen solution.</li> <li>Develop a collaborative plan to solve a complex math project, such as designing a classroom budget, documenting each step from problem identification and data collection to calculations and presentation.</li> <li>Plan and execute a science experiment as a group, documenting each step of the scientific method, including hypothesis formation, data collection, analysis, and conclusion.</li> </ul>
3.1.D	debug simple algorithms (set of procedures) by identifying and removing errors	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Code.org:  ◆ Course D
3.2.A	use variables within a program to store data	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Code.org:  ◆ Course D

3.2.B	use a design process to create programs that include sequences, loops, and conditionals to express ideas or address a problem.	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Code.org:
3.3.A	explain the importance of and demonstrate personal skills and behaviors, including metacognition, effective communication, following directions, and mental agility, needed to implement the design process successfully	<ul> <li>SS: 3.17.A</li> <li>ELA:3.11.A, 3.11.D</li> <li>Math:3.4.B</li> <li>Science: 3.2.C</li> </ul>	<ul> <li>Emphasize the importance of metacognition in reflecting on the problem-solving process, effective communication in discussing options, following directions in implementing the solution, and mental agility in evaluating and adjusting the plan.</li> <li>Teach metacognition in understanding and solving problems, effective communication in discussing strategies, following directions in solving multi-step problems, and mental agility in applying different method</li> </ul>
3.3.B	apply an appropriate design process using components such as peer and teacher feedback to create new and useful solutions to authentic problems.	<ul> <li>SS: 3.17.A</li> <li>ELA:3.11.A,3.11.D</li> <li>Math:3.4.B</li> <li>Science: 3.2.C</li> </ul>	School Improvement Project  Identify an area for improvement in the school environment (e.g., enhancing the playground, improving the cafeteria).  Develop a preliminary design plan, outlining proposed improvements and solutions.  Present the plan to classmates and teachers for feedback. Incorporate the feedback to refine and improve the design plan.  Implement the final plan and monitor its impact, making further adjustments as needed.  Reflect on the importance of peer and teacher feedback in the design process and the effectiveness of the implemented solution.
3.4.A	Creativity and innovationemerging technologies. The student demonstrates an understanding that technology is dynamic and impacts different communities.	<ul> <li>SS: 3.14.A</li> <li>ELA:3.14.A</li> <li>Math:</li> <li>Science: 3.3.C</li> </ul>	Emerging Technologies Research Project  Identify an emerging technology (e.g., artificial intelligence, electric vehicles, virtual reality).  Research the development of this technology, its current applications, and its impact on different communities.  Create a comprehensive project that includes:  A written report detailing the technology's history and impact  A visual timeline or infographic  An analysis of the technology's applications in problem-solving  A presentation on the scientific principles and data associated with the technology  Present the project to the class, highlighting how the technology is dynamic and its diverse impacts on communities.
3.5.A	identify and collect numerical data such as the price of goods or temperature	<ul><li>SS: 3.17.A</li><li>ELA:</li></ul>	Collect data on the prices of goods in different stores and use this data to compare and make informed decisions about purchasing.

		<ul><li>Math:3.8.A</li><li>Science: 3.5.A</li></ul>	<ul> <li>Collect numerical data, such as daily temperatures or the prices of different items, and summarize the data using various graphical representations.</li> <li>Collect and record daily temperature data and analyze trends over time, presenting findings in charts or graphs.</li> </ul>
3.5.B	use various search strategies with adult assistance.	<ul> <li>SS: 3.14.A</li> <li>ELA:3.13.A,3.14.A</li> <li>Math:</li> <li>Science: 3.3.A</li> </ul>	<ul> <li>Use search strategies to find information about historical events or figures, and analyze various sources such as images, maps, and articles.</li> <li>Use search engines and digital libraries to gather information for writing reports or essays, ensuring the use of effective search strategies.</li> <li>Use search strategies to find scientific data, research findings, and explanations of scientific concepts.</li> </ul>
3.6.A	analyze data in graphs to identify and discuss trends and inferences	<ul> <li>SS: 3.17.B</li> <li>ELA:3.14.A</li> <li>Math:3.8.A</li> <li>Science: 3.2.C</li> </ul>	<ul> <li>Analyze graphs related to community data, such as population growth or economic changes, and discuss trends and inferences based on the data.</li> <li>Collect scientific data, represent it in graphs, and analyze the graphs to identify trends and make inferences about scientific phenomena.</li> </ul>
3.7.A	use digital tools to communicate and publish results to inform an intended audience.	<ul> <li>SS: 3.17.A</li> <li>ELA:3.14.A,3.14.B</li> <li>Math:</li> <li>Science: 3.2.D</li> </ul>	Identify an environmental issue (e.g., recycling, water conservation) and research its impact.     Use digital tools to create a comprehensive campaign that includes informative blog posts, digital posters, and video presentations.     Publish the content on a class website or social media platform to inform the school community about the issue.     Present the campaign to classmates, teachers, and parents during a school event or assembly.
3.8.A	define digital footprint	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Common Sense Media:
3.8.B	define digital etiquette	<ul> <li>SS: 3.17.A</li> <li>ELA:3.14.A</li> <li>Math:</li> <li>Science:</li> </ul>	Common Sense Media:
3.8.C	define digital collaboration	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Common Sense Media:     Our Digital Citizenship

3.9.A	demonstrate adherence to local acceptable use policy (AUP) that reflects positive social behavior in the digital environment;	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Be Internet Awesome:  Have students play their way through Interland You can also go through the Be Internet Awesome Curriculum
3.9.B	communicate the purpose of copyright law and identify appropriate and inappropriate uses of digital content and information;	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Nearpod Interactive Video: What is Copyright?
3.9.C	identify the required elements of citations for digital forms of media	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Nearpod:  • Watch Interactive Video • Play Drag and Drop
3.10.A	demonstrate account safety, including creating a strong password and logging off accounts and devices;	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Common Sense Education: Nearpod: Password Power-Up or Google slides  Be Internet Awesome:  Secure Your Secrets, How to Build A Great Password
3.10.B	describe ways to employ safe practices such as protecting digital identity and avoid online dangers such as accessing unsafe websites or clicking on suspicious links;	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Be Internet Awesome:  Don't Fall for Fake, Pop-Ups, Catfishing and Other Scams Share with Care, When Not to Share Have students play their way through Interland
3.10.C	discuss cyberbullying and explain how to respond to cyberbullying.	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Common Sense Education:  Nearpod: The Power of Words or (slides in drive)  Be internet Awesome:  It's Cool to be Kind: Noticing Feelings Peardeck  It's Cool to be Kind. Ways to Show Kindness Online  Have students play their way their Interland
3.11.A	compare and contrast applications such as word processor, spreadsheet, and presentation tools for relevance to an assigned task	<ul> <li>SS: 3.17.A</li> <li>ELA:3.14.A</li> <li>Math:</li> <li>Science:</li> </ul>	Compare digital tools to determine which is best for presenting a research project on a historical event or community issue, such as a word processor for writing the report, a spreadsheet for organizing data, and a presentation tool for the final presentation.
3.11.B	perform software application functions	• SS: 3.17.A	Nearpod: Creating Documents

	such as inserting or deleting text, inserting images, and formatting page layout and margins.	<ul><li>ELA:3.13.A, 3.14.A</li><li>Math:</li><li>Science:</li></ul>	
3.12.A	communicate an understanding of terminology related to operating systems and network systems such as internet, intranet, wireless network, short-range wireless technology, and learning management systems	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Video: Networking for Kids: How does the internet really work?
3.12.B	identify where and how to save files such as using appropriate naming conventions and effective file management strategies	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Nearpod: Organizing Files
3.12.C	demonstrate proper touch keyboarding techniques with accuracy and ergonomic strategies such as correct hand and body positions;	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Have students practice on: https://www.typingclub.com/
3.12.D	identify and practice using keyboard or other input device shortcuts for actions such as copy, paste, undo, or closing windows;	<ul><li>SS:</li><li>ELA:</li><li>Math:</li><li>Science:</li></ul>	Nearpod: Keyboarding Shortcut Commands Nearpod: Keyboarding Shortcut Scenarios
3.12.E	identify minor technical problems with hardware and software and solve the issues with assistance.	SS: ELA: Math: Science:	Nearpod: Getting Help

## <u>Key:</u>

Computational Thinking
Creativity & Innovation
Data literacy, management, and representation
Digital citizenship
Practical technology concept