Vermont Technology

Grades 3, 4, 5

Adopted 2010

Creativity and Innovation - Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

A. Apply existing knowledge to generate new ideas, products, or processes.

Students use digital representations of existing knowledge to extend their understanding and create new ideas, products, or processes.

B. Create original works as a means of personal or group expression.

Students utilize a variety of digital tools to create original works for use in an individual or group product.

C. Use models and simulations to explore complex systems and issues.

Students use and manipulate variables in digital simulations, models, or graphic representations to explore and explain ideas or concepts.

D. Identify trends and forecast possibilities.

Students use digital tools or resources to conduct research, identify patterns, interpret data, and make predictions.

Communication & 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.

A. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

Students use grade appropriate digital tools to publish/share ideas and resources, collaborate, and provide feedback to peers using an online environment.

B. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.

With guidance and working independently, students consider audience and purpose when creating digital products and communicating online.

Students explore the different media options available.

C. Develop cultural understanding and global awareness by engaging with learners of other cultures.

Students examine and interact with digital artifacts depicting other cultures as well as communicate electronically, with guidance, with people from other cultures in order to gain better awareness of differing lifestyles and societal norms.

	D. Contribute to project teams to produce original works or solve problems Using digital tools, students work collaboratively to develop group products or solve problems.
Research & Information Fluency - Students apply digital tools to gather, evaluate, and use information.	**A. Plan strategies to guide inquiry.** Students plan an investigation using one or more digital tools they have selected from a predetermined list.
	B. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. Students use digital tools to locate and organize information. With support, students evaluate the appropriateness of their information and cite their sources.
	C. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks. With guidance, students use advanced search options and strategies, and evaluate the authenticity and relevance of the information sources.
	D. Process data and report results. Students select from a predetermined list of digital tools to process (organize and synthesize) gathered information and present their findings.
Critical Thinking, Problem-Solving, & 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.	**A. Identify and define authentic problems and significant questions for investigation** Students use a variety of digital tools and resources to identify a school, local, or state issue, create a problem statement, and generate questions for investigation.
	B. Plan and manage activities to develop a solution or complete a project. Students use a variety of digital tools, selected by the teacher, to plan and manage individual or group learning projects.
	C. Collect and analyze data to identify solutions and/or make informed decisions. Students use a variety of digital tools and resources to gather, organize, and analyze data to draw a conclusion or solve a problem.
	D. Use multiple processes and diverse perspectives to explore alternative solutions. Students use a variety of digital tools and resources, selected by the teacher, to explore problems by collecting information from sources with diverse perspectives, summarizing the results, and proposing multiple solutions.

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

A. Advocate and practice safe, legal, and responsible use of information and technology.

Students become familiar with school Responsible Use Policies and use resources accordingly.

Students demonstrate an understanding of computer security risks and the importance of passwords.

Students identify unsafe online behavior (incl. loss of privacy) and the consequences of unsafe behaviors including cyberbullying and harassment.

Students recognize what should be reported and to whom.

With teacher guidance, students understand copyright and plagiarism and cite sources in all work.

B. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

Students use a variety of digital tools productively to accomplish academic tasks, collaborate with peers and make positive contributions to online communities.

Students practice proper online etiquette.

C. Demonstrate personal responsibility for lifelong learning.

Students use technology to access information beyond the classroom.

Students develop strategies to continue their learning through the use of current and emerging technologies.

D. Exhibit leadership for digital citizenship.

Students use digital tools and the Internet appropriately, leading by example and assisting peers when possible.

Technology Operations & Concepts - Students demonstrate a sound understanding of technology concepts, systems, and operations.

A. Understand and use technology systems.

Students independently manage and organize their own local and online workspaces.

Students input and access data with fluency.

Students keep their systems safe and secure.

B. Select and use applications effectively and productively.

Students effectively and efficiently use a variety of tools and applications to create, present, publish and illustrate information and ideas.

Students effectively and efficiently use a variety of tools and applications to collect, organize, analyze and present information and data.

C. Troubleshoot systems and applications.

Students communicate and problem solve technology issues using accurate terminology. They begin to analyze and solve user-level hardware and software problems, taking advantage of "Help" functions and peer supports.

D. Transfer current knowledge to learning of new technologies.

Students recognize common, similar features and functions in digital environments and independently apply those to new technology experiences.