

Instructional Technology

First Grade

Essential Curriculum

Standard 1. 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 the using Engineering Design Process (EDP).
- b. Create original works as a means of personal or group expression using various software applications.
- c. Use digital models and simulations to explore.
- d. Identify trends and forecast possibilities.

Standard 2. Communication and 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.
 - i. Develop age-appropriate digital media to learn about and share information and works with others. (e.g., collaborate with a partner to illustrate and present a narrative or informational writing using collaborative graphic organizer, etc.).
- b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats.
 - i. Share curriculum-related (grade or content level specific) concepts with their classmates, families, and others using developmentally appropriate online curriculum-based resources (e.g., online songs, stories, artifacts, and information about their lives, communities, and cultures).
- c. Develop cultural understanding and global awareness by engaging with learners of other cultures.
 - i. Use technology tools to exchange- classroom to classroom- stories, artifacts, and information about their lives, communities, and cultures (varying levels of complexity).
- d. Contribute to project teams to produce original works or solve problems.
 - i. Share steps for using age-appropriate technology tools to create a product; with a partner or team solve a problem; or illustrate a song, rhyme, or story.

Standard 3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information.

- a. Plan strategies to guide inquiry.
- b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
 - i. Explore and use age-appropriate information resources available through technology.
- c. Evaluate and select information sources and digital tools based on the appropriateness to

- specific tasks.
- i. Select relevant information from teacher-selected technology resources (such as databases, library catalogs, and electronic reference materials).
 - ii. Explain evaluation strategies when using electronic resources (such as publication date, fact vs. fiction, author, ease of use).
 - iii. Describe how technology tools are used to organize information/collect data.
- d. Process data and report results.
- i. Collect data using technology.
 - ii. Reflect, as part of a larger group, on the appropriateness of the selected technology tool(s) for organizing information.
 - iii. Participate, as part of a class, in organizing information using technology tools (such as graphic organizers and slide presentations).

Standard 4. Critical Thinking, Problem Solving, and 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.
 - i. With the guidance of the teacher, students use technology to help identify the type of problem and the data needed to answer that type of problem.
- b. Plan and manage activities to develop a solution or complete a project.
 - i. With the guidance of the teacher, use technology to record questions.
 - ii. Identify which technology tools can be used to gather observations of a subject.
- c. Collect and analyze data to identify solutions and/or make informed decisions.
 - i. Identify technology tools that help gather information.
 - ii. Participate in a class lesson using technology tools to collect data.
 - iii. Use electronic tools to collect data.
 - iv. Identify electronic sources of information.
 - v. Select relevant information from appropriate technology resources.
 - vi. Describe how technology tools are used to collect data.
 - vii. Participate in a class lesson using technology tools to interpret data.
 - viii. Use electronic tools to analyze data.
 - ix. Describe how technology tools are used to organize data.
 - x. Participate in a class lesson using technology tools to display data.
 - xi. Use electronic tools to display data.
 - xii. Identify various media formats to communicate information.
 - xiii. Use various media formats, with assistance, to communicate conclusions.
- d. Use multiple processes and diverse perspectives to explore alternative solutions.
 - i. Reflect and discuss, as part of a larger group, on the appropriateness of the selected technology for the given task.
 - ii. Reflect and discuss the advantages of using technology tools to gather, analyze, and communicate conclusions.

Standard 5. 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.
 - i. Describe the personal consequences of inappropriate use of technology.
 - ii. Identify examples of someone's personal information.
 - iii. Identify examples of trusted adults in your community.
 - iv. List consequences of clicking on pop-ups ads and unwanted content.
 - v. Identify ads located on a website.
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
 - i. Recognize the different ways that people communicate online (e.g. email, chat, text, social media, web conferencing) Understand that students can be a part of a community that interacts online.

Standard 6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.*

- a. Understand and use technology systems.
- b. Select and use applications effectively and productively.
- c. Use the keyboard to type letters and numbers and know how to use special key functions.
- d. Troubleshoot systems and applications.
- e. Transfer current knowledge to learning of new technologies.

*Refer to [Technology Literacy Checklist](#) for Grade 1.