

Instructional Technology

Second 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 using the 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. Collaborate and 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 web based collaborative story building tools).
- 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 and 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.
 - i. Use teacher-selected technology tools to organize information/collect data.
- 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 appropriate 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).
- d. Process data and report results.
- i. Collect data using technology.
 - ii. Participate, as part of a class, in organizing information using technology tools (such as graphic organizers and slide presentations).
 - iii. Describe how technology tools are used to organize information/collect data.
 - iv. Reflect, as part of a larger group, on the appropriateness of the selected technology tool(s) for organizing information.

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. Use technology to record questions.
 - ii. Identify sources of information, including technology resources, to gather information.
- 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. Select relevant information from appropriate technology resources.
 - v. Use teacher-selected technology tools to collect data.
 - vi. Use various electronic information retrieval sources to obtain information on a topic.
 - vii. Participate in a class lesson using technology tools to interpret data.
 - viii. Use electronic tools to organize and analyze data.
 - ix. Participate in a class lesson using technology tools to display data.
 - x. Use electronic tools to display data.
 - xi. Communicate conclusions with various audiences, independently or with assistance, using different media formats.
- d. Use multiple processes and diverse perspectives to explore alternative solutions.
 - i. Articulate the advantages of using technology tools to gather, analyze, and

- communicate conclusions.
- ii. Assess the use of the selected technology for gathering data, analyzing data, and communicating 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. Develop a set of rules that outline the roles and responsibilities within an online community.
 - ii. Model effective email communication which takes the purpose, audience, and message of the email into account.
 - iii. Understand that the Internet provides a means of communicating with real people.
 - iv. Describe how email messages are sent and received.
 - v. Demonstrate an appreciation of how real people send messages to one another on the Internet through a role-playing activity.
 - vi. Compare and contrast characteristics of an email and/or blog using a friendly letter format.
 - vii. Compare and contrast being connected to different people and places, in person and on the Internet.
 - viii. Demonstrate an understanding of how people can connect on the Internet by drawing a map of their online community.
 - ix. Recognize that facial and vocal cues are absent in online and email communication.
 - x. Demonstrate an understanding of the difference between effective and ineffective email communication.
 - xi. Understand the components of a quality comment.
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
 - i. Analyze and evaluate a sample communication to determine meaning.
 - ii. Create quality feedback to a fellow student via an online community.
 - iii. Compare and contrast how they are connected to different people and places in person and on the Internet.
 - iv. Demonstrate an understanding of how people can connect on the Internet by drawing a map of their online community.
 - v. Apply the rules of appropriate online behavior in an effective, collaborative learning environment.
 - vi. Create a list of rules to show responsible use of online tools.
- c. Demonstrate personal responsibility for lifelong learning.
 - i. Understand that materials found online are the intellectual property of others.
 - ii. Practice citing sources collected from the Internet.
- d. Exhibit leadership for digital citizenship.
 - i. Model technology use, sharing, and safety rules and encourage peers to follow accepted guidelines.
 - ii. Learn that good digital citizens are responsible and respectful in the digital world and beyond.

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. Troubleshoot systems and applications.
- d. Transfer current knowledge to learning of new technologies.
- e. Use the keyboard to type letters and numbers and know how to use special key functions.

*Refer to [Technology Literacy Checklist](#) for Grade 2.