

Standard 1.0 – Technology Systems: Develop foundations in the understanding and uses of technology systems

Grades 9 through 12

A. Systems

1. Demonstrate knowledge of technology systems

- a) Use network resources effectively and efficiently
- b) Explore and use a variety of input and output devices effectively and efficiently for academic, personal, and work related purposes
- c) Recognize and identify hardware and software problems and implement strategies to minimize their impact on operations
- d) Manage files and folders to organize and retrieve information efficiently
- e) Convert file formats for academic, personal, and work related purposes
- f) Evaluate new and emerging technologies
- g) Transfer knowledge and adapt practices to new and emerging technologies
- h) Use technology, including assistive technology, to maximize accessibility for academic, personal, and work related purposes

Standard 2.0 – Digital Citizenship: Demonstrate an understanding of the history of technology and its impact on society, and practice ethical, legal, and responsible use of technology to assure safety.

Grades 9 through 12

A. Technology and Society

1. Evaluate how technology affects the individual and society

- a) Recognize and explain how technology facilitates interconnectedness and fosters cultural and global awareness
- b) Evaluate the role of technology in the global society including its impact on:
 - individuals
 - families
 - communities
 - workplaces
 - economies
 - the environment
- c) Identify the technology skill requirements for potential careers
- d) Propose and justify a technological solution to a societal issue

Standard 2.0 – Digital Citizenship: Demonstrate an understanding of the history of technology and its impact on society, and practice ethical, legal, and responsible use of technology to assure safety.

Grades 9 through 12

B. Legal and Ethical Issues

1. Practice responsible and appropriate use of technology systems, software, and information in academic, personal, and work related environments

- a) Understand and apply acceptable use policies and practices
- b) Adhere to ethical standards of conduct in the use of technology
- c) Recognize personal differences and practice digital etiquette within diverse communities
- d) Practice responsible use of technology systems including the proper care of equipment and safe and correct security procedures

2. Demonstrate an understanding of current legal standards

- a) Adhere to local, state, and federal laws
- b) Respect intellectual property rights and adhere to copyright guidelines of all digital content
- c) Cite electronic sources of text and digital information properly (such as MLA, APA, Chicago)

3. Understand current safety guidelines

- a) Adhere to privacy and safety guidelines, policies, and procedures
- b) Model personal safety within a variety of digital communities

Standard 3.0 – Technology for Learning and Collaboration: Use a variety of technologies for learning and collaboration

Grades 9 through 12

A. Learning

1. Select and use technology tools to enhance learning

- a) Select and use technology tools, including software, hardware, and learning management systems to learn new content or to reinforce skills
- b) Evaluate the choice of specific technology tools to complete tasks and support personal learning needs

B. Encourage Collaboration

1. Select and use technology tools to encourage collaboration locally and globally

- a) Select and use technology tools, including software, hardware, and learning management systems to support collaboration
- b) Practice digital etiquette to support collaboration
- c) Evaluate the choice of specific technology tools to support collaboration

C. Increase Productivity

1. Select and use technology tools to increase productivity

- a) Select and use technology tools to improve or increase the quality, quantity, or rate of production
- b) Evaluate the use of specific technology tools to improve or increase the quality, quantity, or rate of production

Standard 4.0 – Technology for Communication and Expression: Use technology to communicate information and express ideas using various media formats

Grades 9 through 12

A. Communication

1. Select and use technology to communicate with diverse audiences locally and globally

- a) Select and use multiple media and formats to communicate information
- b) Apply the concepts of universal design to develop, share, and publish information
- c) Evaluate the use of media and formats for various audiences and purposes

B. Expression

1. Select and use technology to express ideas

- a) Select and use technology tools to creatively express and share ideas
- b) Evaluate the effectiveness of selected technology tools for the intended purpose

Standard 5.0 – Technology for Information Use and Management: Use technology to locate, evaluate, gather, and organize information.

Grades 9 through 12

A. Locate, Evaluate, and Gather Information

1. Select and use information resources available through technology

- a) Select and use technology tools to plan strategies to guide personal and academic inquiry.
- b) Use technology tools to identify relevant resources.
- c) Select and evaluate information from appropriate technology resources.
- d) Analyze the advantages and disadvantages of the technology selected.

B. Organize information

1. Select and use technology tools to organize information

- a) Use appropriate technology tools to support organization of information for analysis and synthesis
- b) Defend the selection of the specific technology tool to organize information



Standard 6.0 – Technology for Problem-Solving and Decision-Making: Demonstrate ability to use technology and develop strategies to solve problems and make informed decisions

Grades 9 through 12

Components of a Problem Solving Process Supported by Technology

A. Investigate Problems and Propose Solutions

1. Understand the Problem

2. Devise a Plan

3. Carry Out the Plan

4. Analyze Data

5. Communicate Conclusion

B. Examine the Solution

The components of the problem solving process are the same for all disciplines and across all grade levels. Academic rigor comes from the complexity of the problem and the technology used to solve the problem.

Grades 9 through 12

A. Investigate Problems and Propose Solutions

1. Understand the Problem

- Use technology to help define the problem and the data and information needed to solve that type of problem
- Evaluate the effectiveness of the selected technology resources and adjust as needed

Standard 6.0 – Technology for Problem-Solving and Decision-Making: Demonstrate ability to use technology and develop strategies to solve problems and make informed decisions

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2. Devise a Plan

- Identify possible technology tools to gather data
- Use technology to help formulate a research question about a problem/situation that requires further study
- Use technology to develop a plan for how to answer questions about a problem/situation that requires further study
- Identify technology resources to gather information about a problem/situation that requires further study
- Select an appropriate technology tool to gather data
- Evaluate the effectiveness of the selected technology resources and adjust as needed

3. Carry Out the Plan

- Collect data and information using technology tools
- Use communication tools to gather information
- Apply evaluation strategies when using electronic resources
- Make and record observations using technology
- Use technology tools to track and communicate project progress
- Evaluate the effectiveness of the selected technology resources and adjust as needed

Standard 6.0 – Technology for Problem-Solving and Decision-Making: Demonstrate ability to use technology and develop strategies to solve problems and make informed decisions

Grades 9 through 12

4. Analyze Data

- Analyze data and evaluate information using technology tools
- Evaluate the effectiveness of the selected technology resources and adjust as needed

5. Communicate Conclusion

- Display data and information using technology tools
- Use communication tools to communicate conclusions
- Present information and conclusions in formats that are appropriate to a specific audience
- Evaluate the effectiveness of the selected technology resources and adjust as needed

B Examine the Solution

- Defend the use of the selected technology for individual learning of the specific task
- Evaluate the appropriateness of media formats for communicating data