

**Howard County Public School System
Educational Technology**

**Essential Curriculum
Grade Three**

Goal 1: Technology Systems – The students at grade three will develop foundations in the understanding and uses of technology systems

Systems

Objective - The student will be able to:

- a. Understand the uses of technology systems
 1. Recognize and identify the functions of the major hardware components in a computer system
 2. Identify characteristics that describe input devices and output devices and name some devices that can provide input and output
 3. Understand that there are correct sitting, hand, arm, and fingering positions when keyboarding
 4. Identify and use functions represented by symbols and icons commonly found in applications

Goal 2: Digital Citizenship – The students at grade three will 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

Technology and Society

Objective - The student will be able to:

- a. Explain how technology affects people and society
 1. Explain how technology (such as computers, calculators, television, cameras, CD-ROM, and DVD) influences societies
 2. Identify examples of how technology has affected the environment, past and present
 3. Explain how technology tools have or can be used to meet the needs of societies

Legal and Ethical Issues

Objective - The student will be able to:

- a. Practice responsible and appropriate use of technology systems, software, and information
 1. Explain the purpose of and follow the acceptable use policy
 2. Work cooperatively and collaboratively with others when using technology

* Indicates the objective could be part of the problem solving and decision-making process indicated in Goal 6

3. Practice responsible use of technology systems and software
 4. Demonstrate proper care of equipment (such as following lab rules, handling equipment with care, appropriate printing of resources)
 5. Recognize the potential harm of intrusive applications (such as worms, viruses, spyware, pop-up windows, etc.)
 6. Use safe and correct security procedures (such as protecting password and user ID)
- b. Demonstrate an understanding of current legal standards
1. Demonstrate social and ethical behaviors when using technology (such as appropriate copying and pasting, legal downloading, intellectual property recognition, and obeying copyright laws)
 2. Discuss the importance of having access to current, accurate information
 3. Comply with copyright laws and fair use provisions
 4. Practice strategies for avoiding plagiarism
 5. Cite sources of text and digital information used properly
- c. Understand current online safety guidelines
1. Understand that the Internet is a global community with guidelines
 2. Explain safety and privacy issues related to use of the Internet
 3. Use safe and correct security procedures when working online (such as not disclosing personal information and protecting passwords)
 4. Describe procedures for exiting an inappropriate site (such as clicking the home, turning off monitor, notifying an adult)
 5. Understand the purpose of technology protection measures including filtering systems

Goal 3: Technology for Learning and Collaboration – The students at grade three will use a variety of technologies for learning and collaboration

Learning

Objective - The student will be able to:

- a. Use and explain how the technology enhances learning
 1. Use technology tools, including software and hardware, from a range of teacher-selected options to learn new content or reinforce skills
 2. Explain how selected technology tools are being used to support learning
 3. Reflect as an individual on appropriateness of selected technology for the given task *
 4. Describe how technology tools are used to collect information *
 5. Assess the use of the selected technology for the individual learning for the specific task *

Collaboration

Objective - The student will be able to:

* Indicates the objective could be part of the problem solving and decision-making process indicated in Goal 6

- a. Use and explain how technology tools encourages collaboration
 - 1. Use technology tools to work collaboratively within the classroom
 - 2. Use technology tools to exchange ideas with individuals or groups outside of the classroom
 - 3. Participate as part of a class in online collaborative projects or information exchanges
 - 4. Articulate the advantages of collaboration supported by technology tools

Increase Productivity

Objective - The student will be able to:

- a. Use and explain how technology tools increase productivity
 - 1. Explain how the selected technology tools are being used to accomplish tasks efficiently
 - 2. Use templates or create new documents to complete learning assignments
 - 3. Collect, analyze, and display data and information using tools, such as calculators, spreadsheets, and graphing programs *
 - 4. Use suitable electronic resources to edit final copies of texts for correctness in language usage and conventions, such as capitalization, punctuation, and spelling
 - 5. Use various electronic retrieval sources to obtain information on a topic *

Goal 4: Technology for Communication and Expression – The students at grade three will use technology to communicate information and express ideas using various media formats

Communication

Objective - The student will be able to:

- a. Use technology for communication
 - 1. Explain how communication tools help gather information, share ideas, and respond to questions when communicating with various audiences, including school, community, parents, and experts *
 - 2. Use technology tools identified by the teacher to communicate with various audiences
 - 3. Present information, independently or with assistance, to various audiences including school and community
- b. Use and explain the purposes of different media formats
 - 1. Communicate independently, with various audiences, using different media formats
 - 2. Explain the purpose for a chosen media format

Expression

Objective - The student will be able to:

* Indicates the objective could be part of the problem solving and decision-making process indicated in Goal 6

- a. Use and explain how technology can be used to express ideas
 - 1. Use multimedia and publishing tools to express original ideas with print, drawings, digital images, existing or original video, sounds, and/or personal recordings
 - 2. Present ideas and information in formats such as electronic presentations, web pages, or graphic organizers that are appropriate to a specific audience *
 - 3. Change, edit, and revise graphs, graphics, presentations, and word processing documents *

Goal 5: Technology for Information Use and Management: The students at grade three will use technology to locate, evaluate, gather, and organize information and data.

Locate, Evaluate, and Gather Information/Data

Objective - The student will be able to:

- a. Use and evaluate information resources available through technology independently or with assistance
 - 1. Select relevant information from appropriate technology resources *
 - 2. Select and read to gain information from electronic personal interest materials, such as brochures, books, magazines, cookbooks, and web sites *
 - 3. Apply evaluation strategies when using electronic resources (such as publication/copyright date, fact vs. fiction, source credibility, ease of use)
 - 4. Understand library catalog search strategies
 - 5. Understand search strategies for age-appropriate Web search engines/directories
 - 6. Collect data using technology *

Organize Information/Data

Objective - The student will be able to:

- a. Use and evaluate technology tools to organize information
 - 1. Use technology tools, independently or with assistance, to support note-taking *
 - 2. Use technology tools, independently or with assistance, to support data collection *
 - 3. Describe how technology tools are used to organize information/collect data *
 - 4. Evaluate the effectiveness of technology tools for organizing information*

Goal 6: Technology for Problem-Solving and Decision-Making: The students at grade three will demonstrate the ability to use technology and develop strategies to solve problems and make informed decisions

Components of a Problem Solving Process Supported by Technology

* Indicates the objective could be part of the problem solving and decision-making process indicated in Goal 6

- 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.

Investigate Problems and Propose Solutions

Objective - The student will be able to:

- a. Understand the Problem
 1. 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. Devise a Plan
 1. Use technology to record questions
 2. Identify which technology tools can be used to gather information
- c. Carry Out the Plan
 1. Explain how electronic tools help gather information from various audiences
 2. Use electronic tools to collect data
 3. Select relevant information from appropriate technology resources
- d. Analyze Data
 1. Use various electronic information retrieval sources to obtain information on a topic
 2. Use electronic tools to analyze data
- e. Communicate Conclusion
 1. Use electronic tools to display data
 2. Communicate conclusions with various audiences using different media formats

Examine the Solution

Objective - The student will be able to:

- a. Articulate the advantages of using technology tools to gather, analyze, and communicate conclusions
- b. Assess the use of the selected technology for gathering data, analyzing data, and communicating conclusions

* Indicates the objective could be part of the problem solving and decision-making process indicated in Goal 6