

**Howard County Public School System
Educational Technology**

**Essential Curriculum
Pre-kindergarten**

Goal 1: Technology Systems – The students at pre-kindergarten 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 function of the major hardware components in a computer system
 2. Use the mouse (or track pad) to perform computer functions (such as accessing an application, indicating a choice, or activating a hyperlink)
 3. Recognize symbols and icons used to identify common functions (such as the arrow, hyperlinks, printer, save)
 4. Use the keyboard to type letters and numbers and know how to use special key functions

Goal 2: Digital Citizenship – The students at pre-kindergarten 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 the students in their daily life
 1. Identify examples of technology used in their daily lives (such as telephone, microwave, television, cameras, and computer)
 2. Identify examples of how technology affects the environment (including home and school environments)
 3. Participate in class or small group lessons on how technology tools are used to meet personal needs

Legal and Ethical Issues

Objective - The student will be able to:

- a. Practice responsible and appropriate use of technology systems, software, and information
 1. Understand and follow the acceptable use policy

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

2. Work cooperatively and collaboratively with others when using technology in the classroom
3. Recognize responsible use of technology systems and software
4. Demonstrate proper care of equipment (such as following lab rules, handling equipment with care)
- b. Demonstrate an understanding of current legal standards
 1. Recognize social and ethical behaviors when using technology
- c. Understand current online safety guidelines
 1. Discuss safety issues related to use of the Internet

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

Learning

Objective - The student will be able to:

- a. Explore and use technology tools in an instructional setting for learning
 1. Explore and use teacher- selected technology tools, including software and hardware, to learn new content or reinforce skills
 2. Explore teacher-selected, technology tools that enhance learning
 3. Reflect and discuss, as part of a larger group, on the appropriateness of the selected technology for the given task *

Collaboration

Objective - The student will be able to:

- a. Explore and use technology in an instructional setting to encourage collaboration
 1. Participate in a class or small group lessons using technology for shared writing or language experience stories
 2. Participate in a class lesson using technology tools exploring, collecting, and displaying data *
 3. Reflect and discuss the advantages of collaboration supported by technology tools

Increase Productivity

Objective - The student will be able to:

- a. Explore and use technology to increase productivity
 1. Use appropriate technology tools to support learning goals
 2. Identify that a variety of forms of digital content (CDs, DVDs, websites, videos) can be used to learn information about a subject.

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

Goal 4: Technology for Communication and Expression: The students at pre-kindergarten will use technology to communicate information and express ideas using various media formats

Communication

Objective - The student will be able to:

- a. Explore how technology is used for communication
 1. Recognize that technology helps with communication at home
 2. Recognize that technology helps with communication at school
- b. Explore the various media formats used in daily life
 1. Recognize that various media formats are used to communicate ideas (such as CD, DVD, VHS, digital, and analog)

Expression

Objective - The student will be able to:

- a. Explore and use technology in an instructional setting to express ideas
 1. Use multimedia tools to express original ideas with print, drawings, digital images, sounds, and/or personal recordings
 2. Prepare writing and data for display with tools such as visual organizer, word processing, or multimedia software *

Goal 5: Technology for Information Use and Management: The students at pre-kindergarten 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. Explore and use age-appropriate information resources available through technology with assistance
 1. Select relevant information from teacher-selected technology resources (such as picture interface databases and bookmarked files) *
 2. Understand that electronic resources can be evaluated using the same strategies as print resources (such as fact vs. fiction, author, ease of use)
 3. Collect data using technology *

Organize Information/Data

Objective - The student will be able to:

- a. Use technology tools to organize information

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

1. Describe how technology tools are used to organize and display information/data *

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

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.

Investigate Problems and Propose Solutions

Objective - The student will be able to:

- a. Understand the Problem
 1. With the guidance of the teacher, students understand that there are different types of problems and that technology can help identify the type of problem and the data needed to answer that type of problem
- b. Devise a Plan
 1. With the guidance of the teacher, use technology to record questions
 2. Participate in a class lesson to identify sources of information, including technology, to answer questions
- c. Carry Out the Plan
 1. Participate in a class lesson using technology to explore collecting data
 2. Select relevant information from teacher-selected technology resources
- d. Analyze Data
 1. Describe how technology tools are used to organize data
- e. Communicate Conclusion
 1. Determine how data will be displayed
 2. Participate in a class lesson using technology tools to display data
 3. Describe how technology tools are used to display data
 4. Recognize that various media formats are used to communicate conclusions

Examine the Solution

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

Objective - The student will be able to:

- a. Reflect and discuss, as part of a larger group, on the appropriateness of the selected technology for the given task
- b. Reflect and discuss the advantages of using technology tools to gather, analyze, and communicate conclusions

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