

Computer Technology: Literacy and Usage

KINDERGARTEN

Standard 1.0

Students will understand basic operations and concepts of technology.

Learning Expectations

- 1.1. Students will demonstrate an understanding of the nature and operation of technology systems.
- 1.2. Students will exhibit a proficiency in the use of technology.
- 1.3. Students will develop basic skills (alpha numeric and symbol characters) in using keyboard using the touch system.

Accomplishments

- K.1.1. Students will demonstrate an understanding of the nature and operation of technology systems.
 - a. Identify the computer as a machine that helps people work and play.
 - b. Identify and use input devices such as a disk drive, mouse, keyboard, CD-Rom, etc.
 - c. Identify and use output devices such as a disk drive, monitor, printer, CD-Drive, etc.
 - d. List the rules for the proper care of computer equipment
 - e. Demonstrate proper care for computer and other technologies properly.
 - f. Use and apply appropriate computer and keyboarding terminology.
- K.1.2. Students will exhibit a proficiency in the use of technology.
 - a. Demonstrate proper sequence for turning on and turning off computers and other technologies.
 - b. Operate a mouse (click, double-click, click and drag, click and hold/draw.
 - c. Open/Launch a program/application from an icon
 - d. Quit a program/application.
 - e. Follow directions in a menu-driven program.
 - f. Minimize and maximize windows.
 - g. Operate stroll bars.
 - h. Print, save and reopen documents/files with teach guidance.
- K.1.3. Students will develops basic skills (alpha, numeric, and symbol characters) in using keyboard using the touch system.
 - a. Use the correct hand and body position while applying the proper touch method of keying for the home row keys (A, S, D, F, J,K, L, ;).
 - b. Use appropriate hand pressure on mouse and keyboard.

- c. Operate special purpose keys (return/enter, spacebar, esc, arrows, shift, backspace).
- d. Know the relative position of the alpha/numeric keys.
- e. Color a drawing of the keyboard indicating which finger should operate which keys.

Performance Indicators

By the end of the second grade the student will be able to

- Identify the home row keys (A, S, D, F, J, K, L, ;).
- Have an awareness of the layout of the computer keyboard
- use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, VCRs, audiotapes, and other technologies.
- use keyboarding skills to produce grade appropriate projects.
- use a variety of media and technology resources for directed and independent learning activities.
- communicate about technology using developmentally appropriate and accurate terminology.
- use developmentally appropriate multimedia resources (e.g., interactive books, educational software, multimedia encyclopedias) to support learning.

Sample Performance Tasks

- a. Using pictures of the various parts of a computer (e.g. disk drive, CPU, monitor, keyboard, mouse, etc.) and word cards, students match the words with the pictures and tell what each part does. Using a checklist to evaluate this task, proficiency would include student application of this knowledge to components of a real computer.
- b. Using a checklist, students will demonstrate how to turn on the computer, open a designated program, exit that program, and shut down the computer with teacher supervision. Proficiency of this task is met when all items on the list are completed.
- c. Using a word-processing and drawing program, students write statements, use computer drawing tools to illustrate their statements, and print them out for presentation to the class. Using a rubric to evaluate this task, proficiency will show accurate use of word-processing, drawing and printing.

Standard 2.0

Students will understand the importance of social, ethical, and human issues associated with technology.

Learning Expectations

- 2.1. Students will understand the ethical, cultural, and societal issues related to technology.
- 2.2. Students will practice responsible use of technology systems, information literacy, and software.
- 2.3. Students will develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

Accomplishments

- K.2.1. Students will understand the ethical, cultural, and societal issues related to technology.
 - a. Demonstrate the safe use of electronic technologies.
 - b. Describe how computers are used in our daily living (home and work).
 - c. Respect the privacy of others.
- K.2.2. Students will practice responsible use of technology systems, information literacy, and software.
 - a. Understand and follow classroom rules for technology use.
 - b. Recognize the importance of supervised use of technology.
 - c. Notify the teacher immediately if an inappropriate website appears when using the internet.
- K.2.3. Students will develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.
 - a. Respect the rights of others.
 - b. Recognize that technology can be used to assist learning.

Performance Indicators

By the end of the second grade the student will be able to:

- work cooperatively and collaboratively with peers, family members, and others when using technology.
- demonstrate positive social and ethical behaviors when using technology.
- practice responsible use of technology systems and software.

Sample Performance Task

- a. Using pictures from magazines, newspapers, and/or drawings, students will make posters of the different ways computers are used in their lives. The students will then display and explain their choices of pictures.
- b. Student will participate in a classroom discussion of responsible use of technology systems and information literacy.

Standard 3.0

Students will use technology productivity tools.

Learning Expectations

- 3.1. Students will use technology tools to enhance learning, increase productivity, and promote creativity.

- 3.2. Students will use productivity tools to collaborate in constructing technology enhanced models, prepare publications, and produce other creative works.

Accomplishments

- K.3.1. Students will use technology tools to enhance learning, increase productivity, and promote creativity.
 - a. Use the computer and technology resources to practice learning skills such as computer puzzles, matching games, logical thinking programs, etc.
 - b. Follow directions in a menu-driven program.
 - c. Identify and explain the function of the icons used in the various programs.
 - d. Create text using the computer

- K.3.2. Students will use productivity tools to collaborate in constructing technology enhanced models, prepare publications, and produce other creative works.
 - a. Use the computer and technology resources to practice learning skills in relation to other subject areas such as math, science, English, etc.
 - b. Use text, paint, and/or drawing tools to create simple documents.
 - c. Recognize that different software programs are design for specific purposes.

Performance Indicators:

By the end of the second grade the student will be able to:

- Use a variety of media and technology resources for directed and independent learning activities.
- Create developmentally appropriate multimedia products with support from teachers, family members, or student partners.
- Use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories.

Sample Performance Task

- a. *Using a word-processing and drawing program, students write statements, use computer drawing tools to illustrate their statements, and print them out for presentation to the class. Using a rubric to evaluate this task, proficiency will show accurate use of word-processing, drawing and printing.*
- b. Following teacher instruction on entering data and making a chart, students will make a graph. This activity will be evaluated through a teacher observation checklist with proficiency shown by the printed graph.

Standard 4.0

Students will use technology communications tools.

Learning Expectations

- 4.1. Students will use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- 4.2. Students will use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

Accomplishments

- K.4.1. Students will use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
 - a. Recognize and discuss telecommunications as a way to share information electronically.
 - b. Discuss ways multimedia software is used to communicate information and ideas.
- K.4.2. Students will use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
 - a. Recognize and discuss telecommunications as a way to share information electronically.
 - b. Use multimedia software to communicate information and ideas.
 - c. Identify various technology communication tools such as radio, television, telephone, internet, e-mail, fax, etc.
 - d. Operate a telephone/cell phone and basic video and audio equipment.

Performance Indicators

By the end of the second grade the student will be able to:

- use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories.
- gather information and communicate with others using telecommunications with support from teachers, family members, or student partners.

Sample Performance Task

- Using multimedia software, students communicate ideas through text and graphics by creating letters or class presentations. Proficiency will be determined using a rubric.

Standard 5.0

Students will select and use appropriate technology research tools.

Learning Expectations

- 5.1 Students will use technology to locate, evaluate, and collect information from a variety of sources.
- 5.2 Students will use technology tools to process data and report results.
- 5.3 Students will evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

Accomplishments

NOTE: At this level the teacher will direct the activities. Students use of the internet and other research sources will be determined by the teacher. Students should be aware that technology can be used for gathering information.

- K.5.1. Students will use technology to locate, evaluate, and collect information from a variety of sources.
 - a. Use the internet to go to a teacher selected sites.
 - b. Print/copy information from those sites.
- K.5.2. Students will use technology tools to process data and report results.
 - a. Discuss what they found at the sites.
 - b. Talk about the information as to its helpfulness for the assigned task.
 - c. Recognize that information needs to be organized.

Performance Indicators

By the end of the second grade the student will be able to:

- use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories.

Sample Performance Task

- Given a question or a topic related to any content area, the student will use developmentally appropriate technology to respond to the question or collect

information on the topic. Proficiency will be determined using a rubric developed by the teacher.

Standard 6.0

Students will utilize technology problem-solving and decision-making tools.

Learning Expectations

- 6.1 Students will use technology resources for solving problems and making informed decisions.

- 6.2 Students will employ technology in the development of strategies for solving problems in the real world.

Accomplishments

- K.6.1. Students will use technology resources for solving problems and making informed decisions.
 - a. Recognize that computers were created to assist in solving problems. (Computer History)
 - b. Use a step-by-step process for solving a problem.
 1. Order specific steps in the solution of a problem.
 2. Choose the proper steps in the solution of a problem.
 3. Choose and order the steps in the solution of a problem
- K.6.2. Students will employ technology in the development of strategies for solving problems in the real world.
 - a. Use the computer and technology resources as a learning tool.
 - b. Use multimedia software to express ideas and solve problems.
 - c. Use some method of storyboarding to create a presentation.

Performance Indicators:

By the end of the second grade the student will be able to:

- use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories.

Sample Performance Task

- Students will use the internet with teacher's assistance to examine selected websites to acquire information and illustrate thoughts, ideas, or stories with multimedia software.