

Computer Technology: Literacy and Usage

SECOND GRADE

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 keying skills (alpha numeric and special characters) in using keyboard using the touch system.

Accomplishments

- 2.1.1. 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-Drive, 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.
 - g. Explore basic navigation of the operating system as it relates to applications used on the computer.
 - h. Differentiate between the operating system and an application/program.
 - i. OPTIONAL – If available, use a computer program, such as LOGO to demonstrate how computers use instruction
- 2.1.2. 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 teacher guidance.

2.1.3. Students will develop basic keying 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, ;); Row above (Q,W,E,R,T,Y,U,I,O,P,[,], \); and Row below (Z,X,C,V,B,N,M,“,”, “.”, /).
- 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.
- f. Key words consisting of letters utilizing the home row keys, the row below and the row above using the proper touch keying technique for the development of speed.
- g. Proofread and correct errors using backspace, delete, undo, erase.

Performance Indicators

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

- 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

- 2.2.1. Students will understand the ethical, cultural, and societal issues related to technology.
 - a. Demonstrate the safe use of electronic technologies.
 - b. Identify, discuss and visually represent uses of technology in the community (bar codes, scanners, handheld, etc.).
 - c. Identify the influence and effects of technology on everyday life and learning.
 - d. Respect the privacy of others.
- 2.2.2. Students will practice responsible use of technology systems, information literacy, and software.
 - a. Understand and follow classroom rules for technology use.
 - b. Discuss the Acceptable Use Policy.
 - c. Recognize the importance of supervised use of technology.
 - d. Identify and discuss appropriate and safe behaviors online.
 - e. Notify the teacher immediately if an inappropriate website appears when using the internet.
 - f. Know how “pop-up” windows happen and not to respond to them.
- 2.2.3. 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.
- c. Discuss ownership of computer-created work.
- d. Use teacher selected Internet resources to locate, discuss, and compare information about the local community.

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
- 3.3. enhanced models, prepare publications, and produce other creative works.

Accomplishments

- 2.3.1. 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. Recognize, discuss, and use word processing as a tool to enter, edit, print, and save assignments.
 - e. Use and discuss basic word processing terms/concepts such as desktop, menu/tool bar, document, text, etc.

- f. Use a prepared spreadsheet to enter/edit data and observe the changes that occur to make predictions.
 - g. Use an age appropriate spreadsheet application to enter, display data as a class/group.
 - h. Identify various sources of data.
- 2.3.1. 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.
 - d. Recognize the characteristics of multimedia (text, audio, images, video, etc.).
 - e. Identify and discuss multimedia terms/concepts (slide/card, link/button, text box, navigate, transition) as a class/group.
 - f. Create a simple graph/chart from data in a spreadsheet.
 - g. Explore the navigation of software utilized in the classroom.

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

- 2.4.1. 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. Use multimedia software to communicate information and ideas.
 - c. Use the computer as a writing tool.
- 2.4.2. Students will use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
 - a. Experiment with basic formatting options in a word processor to produce a publication for each of the following: a student, a teacher, a friend, and a parent.
 - b. Suggest ways telecommunications can be used to share information electronically.
 - c. Explore the use of multimedia software to enhance the communication of information and ideas.

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 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

- 2.5.1. Students will use technology to locate, evaluate, and collect information from a variety of sources.
 - a. Use electronic reference tools as a resource.
 - b. Evaluate acquired information for usefulness
- 2.5.2. Students will use technology tools to process data and report results.
 - a. Use electronic reference tools as a resource, such as a simple database/spreadsheet
 - b. Acquire information from a computer.
 - c. Identify the need for data to be organized.
 - d. Develop a small basic data base.
 - e. Develop a small basic spreadsheet.
 - f. Use the computer as a writing tool.
- 2.5.3. Students will evaluate and select new information resources and technological
 - a. Choose an application based on its appropriateness for specific tasks.
 - b. Evaluate acquired information for usefulness.
 - c. Explore the gathering of information using a variety of electronic resources, including but not limited to the Internet.

- d. Perform an Internet search under the direction and supervision of a teacher.

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

- 2.6.1. 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. Recognize that the computer relies on sequential steps in order to perform tasks.
 - c. 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
 - d. Use teacher selected websites to acquire information related to a given problem.
 1. Analyze the information gathered
 2. Collaborate with the teacher/student to reach a decision based on the information gathered.

3. OPTIONAL – If available, use a computer program, such as LOGO to demonstrate how computers use instruction.

- 2.6.2. Students will employ technology in the development of strategies for solving problems in the real world.
- a. Use the computer and technology resources to gather information on different ways to solve a specific problem.
 - b. Use developmentally appropriate software to follow sequential directions and proper steps to solve a problem for a given simple task.
 - c. Use multimedia software to express ideas, strategies use, and solution for a given problem and/or task.
 - d. Use some method of storyboarding to create a presentation on the steps used to solve the problem.

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

- a. 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.
- 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.