

<b>COURSE: Elementary Computers &amp; Technology</b>	<b>GRADE(S): 5</b>
<b>UNIT: Computer Basics</b>	<b>TIMEFRAME: 1 class period</b>

**PA STANDARDS:**

- 15.4.5.C:** Describe the purpose, use, and care of peripheral devices of computer systems including input, processing, storage, and output devices.  
**15.4.5.M:** Discuss the impact of emerging technologies on a variety of careers.

**ISTE STANDARDS:**

- Technology operations and concepts:** Students demonstrate a sound understanding of technology concepts, systems, and operations.
- a. Understand and use technology systems
  - d. Transfer current knowledge to learning of new technologies

**UNIT OBJECTIVES:**

- Review components of a computer system: monitor, keyboard, hard drive, CPU, mouse, floppy disk drive, CD drive
- Use correct terms when referring to computer hardware and software
- Review and discuss the district's Acceptable Use Policy
- Review and discuss computer lab rules and proper care of technology devices

**ACTIVITIES:**

- Create an example junk file, save to the hard drive, and delete it
- Review components of a computer system: monitor, keyboard, hard drive, CPU, mouse, floppy disk drive, CD drive
- Complete Brainpop Video Quiz

**ASSESSMENTS:**

- Teacher observation
- Teacher developed tests and worksheets
- Student demonstration in collaborative groups

**DIFFERENTIATED INSTRUCTION:**

- Assistance** – Teacher/peer and Web-based tutorials  
**Adjustment** – length/breadth (provide hard copy of computer terminology)  
**Alternative** – assignments/projects

<b>COURSE: Elementary Computers &amp; Technology</b>	<b>GRADE(S): 5</b>
<b>UNIT: Internet Safety &amp; Digital Citizenship</b>	<b>TIMEFRAME: 1 class period</b>

**STANDARDS:**

**15.4.5.B:** Identify and demonstrate understanding of ethical, safe, and social online behavior and potential consequences of unethical, unsafe, and inappropriate behavior.

**ISTE STANDARDS:**

**Digital citizenship:** Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

- a. Advocate and practice safe, legal, and responsible use of information and technology
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
- c. Demonstrate personal responsibility for lifelong learning
- d. Exhibit leadership for digital citizenship

**UNIT OBJECTIVES:**

- Identify the use of safety and security rules needed to protect student safety and identity online.
- Define and identify cyberbullying behavior.

**ACTIVITIES:**

- NetSmartz PowerPoint
- Discussion of how current real life interactions online may affect students' lives for a long time.
- Develop list of rules for responsible digital citizenship.
- Discussion of consequences of cyberbullying

**ASSESSMENTS:**

- Teacher observation
- Internet Safety Quiz

**DIFFERENTIATED INSTRUCTION:**

**Assistance** – Teacher/peer and Web-based tutorials  
**Adjustment** – length/breadth  
**Alternative** – assignments/projects

<b>COURSE: Elementary Computers &amp; Technology</b>	<b>GRADE(S): 5</b>
<b>UNIT: Word Processing/Keyboarding</b>	<b>TIMEFRAME: 5 periods</b>

**STANDARDS:**

- 15.3.5.A:** Create work product with a variety of formats including note taking, outlines, essays, correspondence, journals and presentations.
- 15.4.5.D:** Demonstrate the ergonomically correct use of more sophisticated input technologies.

**ISTE STANDARDS:**

- Technology operations and concepts:** Students demonstrate a sound understanding of technology concepts, systems, and operations.
- a. Understand and use technology systems
  - b. Select and use applications effectively and productively
  - c. Troubleshoot systems and applications
  - d. Transfer current knowledge to learning of new technologies

**UNIT OBJECTIVES:**

- Identify and locate the home row keys and place their fingers on the keys correctly
- Use the appropriate fingers to reach and strike the correct keys.
- Focus their eyes on the text as opposed to the keyboard when typing.
- Use the spell checker.
- Manipulate margins, indents, and line spacing.
- Insert and position a graphic into a document.
- Edit, save, and print files.
- Copy, cut, and paste text within and between documents.
- Change the printing direction to landscape orientation.
- Use print preview to check page layout and change margins.
- Compare and contrast Google Docs and Microsoft Word

**ACTIVITIES:**

- Teacher demonstration
- Teacher prepared document containing errors for students to correct
- Research project relating to classroom curriculum topics (animals, famous Americans, biographies, constellations, explorers, etc.) Project will include title, written indented paragraphs, and inserted graphics from the word processing software or other resources. Required line spacing and margins. Save files and print.
- Curriculum related projects (animal characteristics, diamante poetry, limericks, Haiku poems, signs) printed in landscape orientation
- Check print preview before printing projects listed above.

### **ASSESSMENTS:**

- Hard copy of student corrections
- Hard copies of student first draft, revisions, and final project
- Final copy of student project
- Teacher observation

### **DIFFERENTIATED INSTRUCTION:**

**Assistance** – Teacher/peer and Web-based tutorials

**Adjustment** – length/breadth

**Alternative** – assignments/projects (provide digital file to edit)

<b>COURSE: Elementary Computers &amp; Technology</b>	<b>GRADE(S): 5</b>
<b>UNIT: Multimedia Presentation</b>	<b>TIMEFRAME: 5 periods</b>

**STANDARDS:**

- 15.3.5.A:** Create work product with a variety of formats including note taking, outlines, essays, correspondence, journals and presentations.
- 15.3.5.G:** Prepare appropriate information for impromptu and planned presentations.
- 15.4.5.G:** Create a digital project using appropriate software/application for an authentic task.
- 15.4.5.K:** Use digital media to enhance a content-specific work product.

**ISTE STANDARDS:**

- Communication and collaboration:** Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
- a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
  - b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- Technology operations and concepts:** Students demonstrate a sound understanding of technology concepts, systems, and operations.
- a. Understand and use technology systems
  - b. Select and use applications effectively and productively
  - c. Troubleshoot systems and applications
  - d. Transfer current knowledge to learning of new technologies

**UNIT OBJECTIVES:**

- Define the basic elements of a multimedia presentation.
- Open and modify a simple multimedia presentations by adding text and graphics.
- Add photos from a variety of sources into a presentation.
- Create a series of screens in a multimedia presentation.
- Use animation techniques to enhance a presentation.
- Insert and delete a new page for a multimedia presentation.
- Capture, resize, and save photo and scanned images.

### **ACTIVITIES:**

- Identify slides, text boxes, graphics, sounds, buttons, of a sample multimedia presentation
- Create 3-4 slide presentation based on related curriculum topics (examples: book report, science experiment, body system, animals, constellations, etc.); include title card, text boxes, graphics, sounds, and buttons
- Add/import photos, student author picture, etc. to the slide show
- Simple research project related to curriculum (examples: animals, Revolutionary War, westward expansion, book projects)
- Newspaper article related to fifth grade curriculum (explorers, colonies, book reviews, science experiments)

### **ASSESSMENTS:**

- Final multimedia presentation
- Student biography project
- Student research project
- Teacher observation
- Completed cropped photo activity
- Evaluation of newspaper article

### **DIFFERENTIATED INSTRUCTION:**

**Assistance** – Teacher/peer and Web-based tutorials

**Adjustment** – length/breadth

**Alternative** – assignments/projects (provide digital file to edit)

<b>COURSE: Elementary Computers &amp; Technology</b>	<b>GRADE(S): 5</b>
<b>UNIT: Internet Fundamentals</b>	<b>TIMEFRAME: Across Course</b>

**STANDARDS:**

- 15.4.5.K:** Use digital media to enhance a content-specific work product.  
**15.4.5.L:** Discuss the characteristics of a credible website.

**ISTE STANDARDS:**

**Research and information fluency:** Students apply digital tools to gather, evaluate, and use information.

- a. Plan strategies to guide inquiry
- b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
- c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- d. Process data and report results

**Technology operations and concepts:** Students demonstrate a sound understanding of technology concepts, systems, and operations.

- a. Understand and use technology systems
- b. Select and use applications effectively and productively
- c. Troubleshoot systems and applications
- d. Transfer current knowledge to learning of new technologies

**UNIT OBJECTIVES:**

- Research and use basic and advanced search techniques
- Navigate the Internet to access and retrieve information relevant to a curricular topic.
- Use appropriate citations for on-line information in a bibliography.
- Understand and exercise copyright laws concerning fair use of electronic information.
- Bookmark curricular related sites for use throughout the course

**ACTIVITIES:**

- Students will access and bookmark curricular resource sites.
- Students will utilize Internet Resources across all curricular areas to further enhance and engage the students' learning.
- Students will utilize Internet Resources to research a given topic to gain information about a topic for research report or classroom projects and cite sources correctly.

**ASSESSMENTS:**

- Teacher Observation
- Completed research project evaluation

**DIFFERENTIATED INSTRUCTION:**

**Assistance** – Teacher/peer and Web-based tutorials

**Adjustment** – length/breadth

**Alternative** – assignments/projects

<b>COURSE: Elementary Computers &amp; Technology</b>	<b>GRADE(S): 5</b>
<b>UNIT: Spreadsheets</b>	<b>TIMEFRAME: 2 periods</b>

**STANDARDS:**

- 15.3.5.A:** Create work product with a variety of formats including note taking, outlines, essays, correspondence, journals and presentations.
- 15.3.5.D:** Explain and use vocabulary terms related to business and commerce.
- 15.3.5.G:** Prepare appropriate information for impromptu and planned presentations.

**ISTE STANDARDS:**

- Technology operations and concepts:** Students demonstrate a sound understanding of technology concepts, systems, and operations.
- a. Understand and use technology systems
  - b. Select and use applications effectively and productively
  - c. Troubleshoot systems and applications
  - d. Transfer current knowledge to learning of new technologies

**UNIT OBJECTIVES:**

- Understand the purpose of a spreadsheet.
- Identify the parts of a spreadsheet.
- Enter and delete text or numbers into a spreadsheet.
- Move to a specific cell in a spreadsheet.
- Select a cell or a block of cells in a spreadsheet.
- Create charts.

**ACTIVITIES:**

- Discussion of real life uses of spreadsheet
- Teacher demonstration of use of spreadsheets (examples: grade averages, sports averages, checkbooks, etc.)
- Teacher demonstration
- Gather data for a given topic and place data into a spreadsheet.

**ASSESSMENTS:**

- Hard copy of student spreadsheet
- Project evaluation
- Teacher observation

**DIFFERENTIATED INSTRUCTION:**

- Assistance** – Teacher/peer and Web-based tutorials
- Adjustment** – length/breadth
- Alternative** – assignments/projects (provide digital file to edit)