

COURSE: Elementary Computers & Technology	GRADE(S): 6
UNIT: Computer Basics	TIMEFRAME: 1 class period

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:

- Brainpop jr. video - Parts of a Computer
- Quizzes and activities after video

ASSESSMENTS:

- Teacher Observation
- Brain Pop jr. Quiz

DIFFERENTIATED INSTRUCTION:

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

COURSE: Elementary Computers & Technology	GRADE(S): 6
UNIT: Internet Safety & Digital Citizenship	TIMEFRAME: 1 class period

STANDARDS:

- 15.4.8.B:** Interpret and apply appropriate social, legal, ethical, and safe behaviors of digital citizenship.
- 15.3.8.M:** Demonstrate proper etiquette when networking either face-to-face or online.
- 15.3.8.T:** Discuss the rules of digital citizenship.

ISTE STANDARDS:

- Digital citizenship** Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
- Advocate and practice safe, legal, and responsible use of information and technology
 - Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
 - Demonstrate personal responsibility for lifelong learning
 - Exhibit leadership for digital citizenship

UNIT OBJECTIVES:

- Identify the use of safety and security rules needed to protect student safety and identity online.
- Identify on line requests for information as either legitimate or suspicious.
- Define and identify cyberbullying behavior.
- Identify the roles and responsibilities of bystanders to cyberbullying.
- Identify that once information and pictures are posted online, there is no going back to control the use of the information and pictures.

ACTIVITIES:

- View video clip on website
<http://www.commonsemmedia.org/educators/lesson/ups-and-downs-digital-life-6-8>
Unit: Internet Safety / CIPA Subject/Course: Computer & Information Technology
Created by: M.Simmons
- Discussion of how current real life interactions online may affect students' lives for long time.
- Develop list of rules for responsible digital citizenship.
- Discussion of consequences of cyberbullying

ASSESSMENTS:

Participation in Internet Safety discussions.

DIFFERENTIATED INSTRUCTION:

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

COURSE: Elementary Computers & Technology	GRADE(S): 6
UNIT: Word Processing/Keyboarding	TIMEFRAME: 5 periods

STANDARDS:

- 15.4.8.D:** Create projects using emerging input technologies.
15.3.8.E: Choose appropriate print and electronic resources to meet project need.

ISTE STANDARDS:

- Technology operations and concepts:** Students demonstrate a sound understanding of technology concepts, systems, and operations.
- Understand and use technology systems
 - Select and use applications effectively and productively
 - Troubleshoot systems and applications
 - 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.
- Format font style, size, color
- Center text, left justify text
- Choose landscape or portrait page orientation
- Use numbering and bullets
- Change line spacing
- Add text boxes when needed
- Insert simple tables
- Create Word Art
- Create word processing projects using the keyboard.
- Search for appropriate graphics
- Add appropriate graphics to projects
- Size graphics larger and smaller
- Use spell check and thesaurus tools
- Print projects

ACTIVITIES:

- Use keyboard to word process sentences, poems, paragraphs, reports
- Use Google Docs and/or Microsoft Word to create projects
- Integrate projects with content areas

ASSESSMENTS:

- Teacher Observation
- Student projects

DIFFERENTIATED INSTRUCTION:

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

COURSE: Elementary Computers & Technology	GRADE(S): 6
UNIT: Multimedia Presentation	TIMEFRAME: 5 periods

STANDARDS:

- 15.3.8.E:** Choose appropriate print and electronic resources to meet project need.
- 15.3.8.G:** Develop appropriate information and content for presentations, meetings, discussions, and group assignments.
- 15.3.8.H:** Deliver presentations using a variety of techniques and media; employ conventions of language.
- 15.3.8.U:** Identify and employ various electronic communication options related to desired outcomes.
- 15.3.8.W:** Use electronic communication with peers and/or educators to produce a work product.
- 15.3.8.X:** Demonstrate effective techniques for good communication.

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
- 6. 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.
- Create a collaborative presentation in Google Slides

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, scanned images from books, student author picture, etc. to the slide show
- Simple research project related to curriculum (examples: animals, United States history topics, science topics, book projects)

ASSESSMENTS:

- Teacher observation
- Final multimedia presentation

DIFFERENTIATED INSTRUCTION:

Assistance – Teacher/peer and Web-based tutorials

Adjustment – length/breadth

Alternative – assignments/projects

COURSE: Elementary Computers & Technology	GRADE(S): 6
UNIT: Internet Fundamentals	TIMEFRAME: Throughout Course

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 utilizing multiple search engines.
- 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:

- Teacher demonstration of search techniques
- Review of advanced search process
- Use of scavenger hunt worksheet
- Research reports
- Compile bookmarks of relevant websites

ASSESSMENTS:

- Teacher observation
- Evaluation of Scavenger hunt worksheet

DIFFERENTIATED INSTRUCTION:

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

COURSE: Elementary Computers & Technology	GRADE(S): 6
UNIT: Spreadsheets	TIMEFRAME: 2 periods

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.
- The student will be able to change column widths in a spreadsheet.
- The student will be able to create, edit, store, retrieve, and print a worksheet.
- The student will be able to complete calculations on a worksheet by keyboard, point mode, auto, function.
- Create charts.

ACTIVITIES:

- Teacher modeling of spreadsheet skills
- Students create a spreadsheet of vacation expenses

ASSESSMENTS:

- Teacher observation
- Evaluation of student spreadsheet project

DIFFERENTIATED INSTRUCTION:

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