COURSE: Elementary Computers & Technology	GRADE: 4
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:
- Understand and identify components of a computer and technology systems
- Use correct terminology 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:
- Review components of a computer system
- 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

COURSE: Elementary Computers & Technology	GRADE: 4
UNIT: Internet Safety & Digital Citizenship	TIMEFRAME: 1 class period

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 for kids (6-9)
● 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

COURSE: Elementary Computers & Technology	GRADE(S): 4
UNIT: Word Processing/Keyboarding	TIMEFRAME: 5 periods

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.
- Use the spell checker.
- Insert and position a graphic into a document.
- Edit, save, and print files.
- Copy, cut, and paste text within and between documents.
- Use print preview to check page layout and change margins.
- Create documents in both Google Docs and Microsoft Word

ACTIVITIES:

- Teacher demonstration
- Teacher prepared document containing errors for students to correct
- Technology project related to Science or Social Studies curriculum utilizing graphics and Word Art
- 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)

COURSE: Elementary Computers & Technology	GRADE(S): 4
UNIT: Multimedia Presentation	TIMEFRAME: 5 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.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 presentation by adding text and graphics.
- Add Clip Art 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.

ACTIVITIES:
- Identify slides, text boxes, graphics, sounds, buttons, and animations of a sample multimedia presentation
- Create 3-4 slide presentation based on related curriculum topics (examples: book report, science experiment, states and capitals, animals, etc.); include title card, text boxes, animations, and graphics

ASSESSMENTS:
- Final multimedia presentation
- Teacher observation

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

COURSE: Elementary Computers	GRADE(S): 4
UNIT: Internet Fundamentals	TIMEFRAME: Across 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 search techniques
- Navigate the Internet to access and retrieve information relevant to a curricular topic.
- 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 research a given topic for information for a research report or classroom project 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