Florida Computer Science

Grade 4

Communication and Collaboration Strand

1 **Demonstrate effective communication both individually and collaboratively.** SC.4.CC.1

- 1 Demonstrate ways that technology can foster teamwork. Example: Students can collaborate on geometric software to explore angle measures. SC.4.CC.1.1
- 2 Demonstrate collaboration and problem-solving. SC.4.CC.1.2
- 3 Discuss ways that collaboration can lead to innovation. Example: Students can read a text about a recent innovation and then discuss ways that collaboration was essential to the innovation process. SC.4.CC.1.3
- 4 Explain why providing and receiving feedback from others can improve performance for projects. SC.4.CC.1.4
- 5 Compare different communication technologies. SC.4.CC.1.5

2 **Evaluate digital information resources.** SC.4.CC.2

- 1 Gather information from a variety of digital resources. SC.4.CC.2.1
- 2 Organize information from digital resources. SC.4.CC.2.2

Personal Health and Safety Strand

1 **Practice safe and healthy Internet practices.** SC.4.HS.1

- 1 Discuss what makes websites and applications appropriate for use at school. SC.4.HS.1.1
- 2 Discuss how websites and applications can be utilized for different purposes. SC.4.HS.1.2
- 3 Evaluate the permanence of content posted online. SC.4.HS.1.3
- 4 Identify the legal and social consequences of cyberbullying. SC.4.HS.1.4

2 **Explore the mental and physiological effects of digital device use.** SC.4.HS.2

- 1 Identify the impact of digital device usage on behavior. SC.4.HS.2.1

Computing Components Strand

1 **Introduce foundational computer literacy skills.** SC.4.CO.1

1 Demonstrate keyboarding skills for communication. SC.4.CO.1.1

2 Create and edit multimedia artifacts using digital tools. SC.4.CO.1.2

3 Publish multimedia artifacts using digital tools based on feedback. SC.4.CO.1.3

4 Determine whether software can be described as a system or application software. SC.4.CO.1.4

5 Troubleshoot digital problems that may occur during daily use. SC.4.CO.1.5

6 Discuss ways computers connect. SC.4.CO.1.6

7 Compare hardware and software. SC.4.CO.1.7

Programming and Software Engineering Strand

1 **Explain the purpose of coding.** SC.4.PE.1

1 Explain that when writing programs, a specific initial program environment is necessary. Example: If the game has a character, like a dog, who advances on the screen when it eats a bone, then the dog may need to go in another direction when it gets to the end of the screen. SC.4.PE.1.1

2 Create a condition that will modify a situation or value in the program. Example: Use tally marks in a game to designate points and add or subtract tally marks based on the given condition of the game. SC.4.PE.1.2

2 **Classify visual representations of data.** SC.4.PE.2

1 Collect, organize and graph data. Example: Survey the class to determine the median number of siblings in their house. Organize the data in a way that you can create a graphical representation of the data collected. SC.4.PE.2.1

2 Analyze a graphical representation of data. Example: When a student is analyzing a graph, they will reference the collected data. SC.4.PE.2.2

3 **Analyze problem-solving strategies.** SC.4.PE.3

1 Describe how computational thinking can be used to solve real-world issues in science and engineering. SC.4.PE.3.1

2 Create a list of steps (algorithm) to solve a real-world problem. SC.4.PE.3.2

Technological Impact Strand

1 **Research a period of technological progress.** SC.4.TI.1

1 Explain how over time digital literacy has been used to simplify tasks and functions. SC.4.TI.1.1

2 Explore and identify the functions of adaptive technologies and how they have changed over time. SC.4.TI.1.2

3 Explain how Artificial Intelligence (AI) affects our ability to access, create and modify content. SC.4.TI.1.3

4 Compare human and computer performance on similar tasks. SC.4.TI.1.4

2 **Explain the consequences of the misuse of information.** SC.4.TI.2

1 Define plagiarism and explore the impacts of plagiarized materials. SC.4.TI.2.1