South Carolina Computer Science and Digital Literacy Standards

# Grade K

Adopted 2017

## Process Standards

1. **Foster an inclusive computing culture.**
   a. Recognize that equitable access to computing benefits society as a whole. 1.A
   b. Consider others' perspectives as well as one's own perspective when developing computational solutions. 1.B
   c. Consider the needs of a variety of end users regarding accessibility and usability. 1.C

2. **Collaborate around computing.**
   a. Select appropriate technological tools that can be used to collaborate on a project. 2.A
   b. Collaborate productively with individuals of varying perspectives, skills, and backgrounds. 2.B
   c. Set and implement equitable expectations and workloads when working in teams. 2.C
   d. Integrate constructive feedback while working in teams. 2.D

3. **Recognize, define, and analyze computational problems.**
   a. Recognize when it is appropriate to solve a problem computationally. 3.A
   b. Make sense of computational problems and persevere in solving them. 3.B
   c. Relate computational problems to prior knowledge. 3.C
   d. Recognize that there may be multiple approaches to solving a problem. 3.D
   e. Approach problem solving iteratively, using a cyclical process. 3.E

4. **Create, test, and refine computational artifacts.**
   a. Consider the purpose of computational artifacts for practical use, personal expression, and/or societal impact. 4.A
   b. Recognize when to use the same solution for multiple problems. 4.B
   c. Test computational artifacts systematically by considering multiple scenarios and using test cases. 4.C
   d. Approach troubleshooting systematically. 4.D
   e. Consider performance, reliability, usability, and accessibility when evaluating and refining computational artifacts. 4.E

**5. Communicate about computing.**

a. Select and use appropriate technological tools to convey solutions to computing problems. 5.A

b. Communicate about computational processes and solutions using appropriate terminology consistent with the intended audience and purpose. 5.B

c. Articulate ideas responsibly by observing intellectual property rights and giving appropriate attribution. 5.C

## Content Standards

### DL. Digital Literacy K.DL

1. Use software applications to create an authentic product. K.DL.1
    1. Recognize a program to use for word processing. K.DL.1.1
    2. Recognize a program to use for creating presentations. K.DL.1.2
2. Learn the fundamentals of digital citizenship and appropriate use of digital media. K.DL.2
    1. Understand safety rules when using a computing device. K.DL.2.1
3. Exhibit responsibility when using connected computing devices. K.DL.3
    1. Learn how to protect personal information (e.g., username, password). K.DL.3.1
4. Demonstrate effective keyboarding skills on a computing device. K.DL.4
    1. Locate letter and number keys. K.DL.4.1

### CS. Computing Systems K.CS

1. Understand that computing devices are used to perform a variety of tasks and take many forms. K.CS.1
    1. Identify traditional computing devices (e.g., tablets, smartphones, desktops, laptops) and non-traditional computing devices (e.g., microwave, oven, car). K.CS.1.1
    2. Recognize that people use computing devices to perform tasks. K.CS.1.2
2. Explore hardware (i.e., physical components) and software of computing systems. K.CS.2
    1. Use appropriate terminology in naming and identifying hardware (e.g., monitor, keyboard, mouse, earbuds, headphones, printer). K.CS.2.1
    2. Learn to handle computing devices with proper care (e.g., do not place food or drink near a computer or tablet; hold tablets or laptops with both hands when transporting them). K.CS.2.2
3. Recognize that computing systems might not work as expected because of hardware or software problems. K.CS.3
    1. Identify simple hardware problems (e.g., computer is not plugged into power source). K.CS.3.1

## NI. Networks and the Internet K.NI

1. Discover that computing devices and the internet enable us to connect with other people, places, information, and ideas. K.NI.1
    1. Recognize that people can communicate with others by using connected computing devices (e.g., cell phones, tablets). K.NI.1.1

## DA. Data and Analysis K.DA

1. Discover how data can be stored in and retrieved from multiple locations. K.DA.1
    1. Recognize that data can be collected and stored on different computing devices over time (e.g., progress in a video game). K.DA.1.1
    2. Recognize that data can be retrieved from different computing devices (e.g., progress in a video game; pictures from a smartphone). K.DA.1.2
2. Explore how computing devices collect and display data. K.DA.2
    1. Identify and give examples of data (e.g., lunch choice, weather conditions). K.DA.2.1
3. Explore how data can be displayed for communication in many ways. K.DA.3
    1. Recognize data displayed in picture graphs. K.DA.3.1
4. Understand how data can be used to make decisions. K.DA.4
    1. Draw conclusions and make predictions from picture graphs (e.g., make predictions based on weather data presented in a picture graph). K.DA.4.1

## IC. Impact of Computing K.IC

1. Understand how computing devices have changed people's lives. K.IC.1
    1. List different ways in which computing devices are used in your daily life. K.IC.1.1
    2. Discover how some tasks can be completed with or without a computing device. K.IC.1.2
2. Discover how computing devices have affected the way people communicate. K.IC.2
    1. List different computing devices used for communication. K.IC.2.1