

# Grades K, 1, 2

Adopted 2016

## Personal, Community, Global, and Ethical Impact SC.CS-PC

### 1. Responsible use of technology and information SC.CS-PC.1

1. Demonstrate proper care for electronic devices (e.g., handling devices carefully, logging off or shutting down correctly, and keeping devices away from water/food). SC.K2.CS-PC.1.1
2. Describe the attributes of a good digital citizen: one who protects private information, balances time online, reports cyberbullying, and recognizes inappropriate content/contact. SC.K2.CS-PC.1.2
3. Identify safe and unsafe examples of online communications. SC.K2.CS-PC.1.3
4. Explain that a password helps protect the privacy of information. SC.K2.CS-PC.1.4

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### 2. The impact of computing resources on local and global society SC.CS-PC.2

1. Identify and describe how people use many types of technologies in their daily work and personal lives. SC.K2.CS-PC.2.1
2. Communicate about technology using developmentally appropriate terminology. SC.K2.CS-PC.2.2
3. Recognize that people use computing technology in the workplace to perform many important tasks and functions. SC.K2.CS-PC.2.3

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### 4. Security, privacy, information sharing, ownership, licensure and copyright SC.CS-PC.4

1. Explain that some information is private and should not be shared online. SC.K2.CS-PC.4.1

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## Communication and Collaboration SC.CS-CC

### 1. Communication and collaboration SC.CS-CC.1

1. Identify a variety of digital tools used for communication and collaboration (e.g., online library catalogs and databases). SC.K2.CS-CC.1.1
  2. Conduct basic keyword searches, and exchange information and feedback with teachers and other students (e.g., e-mail and text messaging). SC.K2.CS-CC.1.2
  3. Collaborate and cooperate with peers, teachers, and others using technology to solve problems. SC.K2.CS-CC.1.3
  4. Provide and accept constructive criticism on a collaborative project. SC.K2.CS-CC.1.4
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## Communication Systems and Computing SC.CS-CS

### 1. Modeling and Simulations SC.CS-CS.1

1. Define simulation and identify the concepts illustrated by a simple simulation (e.g., growth, human health, and the butterfly life cycle). SC.K2.CS-CS.1.1
  2. Describe how models and simulations can be used to solve real world issues in science and engineering. SC.K2.CS-CS.1.2
  3. Describe how models represent a real-life system (e.g., globe or map). SC.K2.CS-CS.1.3
  4. Solve questions individually and collaboratively using models. SC.K2.CS-CS.1.4
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### 2. Problem solving and Algorithms SC.CS-CS.2

1. Arrange or sort information into useful order, such as sorting students by birth date, with or without technology. SC.K2.CS-CS.2.1
  2. Solve age-appropriate problems (e.g., puzzles and logical thinking programs) with or without technology (i.e., computational thinking). SC.K2.CS-CS.2.2
  3. Solve real life issues in science and engineering using computational thinking. SC.K2.CS-CS.2.3
  4. Define an algorithm as a sequence of defined steps. SC.K2.CS-CS.2.4
  5. Create simple algorithm, individually and collaboratively, without using computers to complete the task (e.g., making a sandwich, getting ready for school). SC.K2.CS-CS.2.5
  6. Illustrate thoughts, ideas, and stories in a step-by-step manner use writing tools, digital cameras, and drawing tools. SC.K2.CS-CS.2.6
  7. Develop and present an algorithm using tangible materials. SC.K2.CS-CS.2.7
  8. Gather and organize information using concept-mapping tools. SC.K2.CS-CS.2.8
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### 3. Digital tools SC.CS-CS.3

1. Create a digital artifact (independently and collaboratively) that clearly expresses thoughts and ideas. SC.K2.CS-CS.3.1
  2. Create, review and revise artifacts that include text, images and audio using digital tools. SC.K2.CS-CS.3.2
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### 4. Hardware and software SC.CS-CS.4

1. Recognize different kinds of computing devices in the classroom and other places (e.g., laptops, tablets, smart phones, desktops, printers). SC.K2.CS-CS.4.1
2. Recognize and operate different types of computers, applications and peripherals (e.g., use input/output devices such as a mouse, keyboard, or touch screen; find, navigate, launch a program). SC.K2.CS-CS.4.2
3. Explain that a computer program is running when a program or command is executed. SC.K2.CS-CS.4.3

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## 6. Human-Computer interactions and Artificial Intelligence SC.CS-CS.6

1. Identify tasks that are made easier because of computers. SC.K2.CS-CS.6.1
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### Computer Practices and Programming SC.CS-CP

#### 1. Data Analysis SC.CS-CP.1

1. Identify different kinds of data (e.g., text, charts, graphs, numbers, pictures, audio, video, and collections of objects). SC.K2.CS-CP1.1
  2. Collect and manipulate data using a variety of computing methods (e.g., sorting, totaling, and averaging). SC.K2.CS-CP.1.2
  3. Propose a solution to a problem or question based on an analysis of the data and critical thinking, individually and collaboratively. SC.K2.CS-CP.1.3
  4. Create data visualizations (e.g., charts and infographics), individually and collaboratively. SC.K2.CS-CP.1.4
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#### 2. Computer Programming Basics SC.CS-CP.2

1. Define a computer program as a set of commands created by people to do something. SC.K2.CS-CP.2.1
  2. Perform a simple task (e.g., making a sandwich and brushing teeth) breaking it into small steps. SC.K2.CS-CP.2.2
  3. Explain that computers only follow the program's instructions. SC.K2.CS-CP.2.3
  4. Construct a simple program using tools that do not require a textual programming language (e.g. block-based programming language). SC.K2.CS-CP.2.4
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#### 3. Programming Applications SC.CS-CP.3

1. Create developmentally appropriate multimedia products with support from teachers, family members, or student partners. SC.K2.CS-CP.3.1
2. Prepare a simple presentation of digital products and applications. SC.K2.CS-CP.3.2