

# Grade K

## Computing Systems CS

### D. Devices D

- 1 Demonstrate how to operate a variety of computing devices. K.CS.D.01
- 

### HS. Hardware and Software HS

- 1 Use appropriate terminology to locate and identify common computing devices and components in a variety of environments (e.g. turn on, navigate, open/close programs/apps). K.CS.HS.01
  - 2 Identify and use software that controls computing devices (e.g. programs, browsers, websites, and applications). K.CS.HS.02
- 

### IO. Input and Output IO

- 1 Identify and apply basic input/output skills. K.CS.IO.01
    - a Input (keyboarding, mouse, touchscreen, voice, camera, robotics, interactive board) K.CS.IO.01.A
    - b Output (monitor, screen, printer, robotics, audio). K.CS.IO.01.B
- 

### T. Troubleshooting T

- 1 Recognize that computing systems might not work as expected and use accurate terminology to identify simple hardware or software problems (e.g. volume turned down on headphones, monitor turned off). K.CS.T.01
- 

## Networks & the Internet NI

### NCO. Network Communication & Organization NCO

- 1 Recognize and use computing devices to connect with people or other devices using a network to communicate, access, and share information as a class (e.g. the internet, video conferencing, email, file transfer). K.NI.NCO.01
- 

### C. Cybersecurity C

- 1 Use a form of secure access to protect private information and discuss the effects of password misuse (e.g. logging into a device, educational websites, authentication, thumbprint recognition). K.NI.C.01
- 

## Data Analysis DA

### S. Storage S

- 1 With guidance, demonstrate that computing devices can save information as data that can be searched, modified, and saved or deleted (e.g. save photos, files, or videos). K.DA.S.01

---

**C. Collection** C

- 1 Students will learn how data about themselves and the world around them is collected, used, and organized in a meaningful way. K.DA.C.01
- 

**CVT. Visualization & Transformation** CVT

- 1 Students represent collected data in a visual way through a computing device (e.g. charts, graphs, tables). K.DA.CVT.01
- 

**IM. Inference and Models** IM

- 1 Students look for patterns in data, make predictions, make a model, and draw conclusions (e.g. make predictions on weather data, butterfly life cycle, etc.) and present in a picture graph or pattern. K.DA.IM.01
- 

**Algorithms and Programming** AP**A. Algorithms** A

- 1 Construct and execute algorithms (set of step-by-step instructions) that includes sequencing and simple loops to accomplish a task, both independently, collaboratively, with or without a computing device (e.g. verbally, kinesthetically, with robot devices or a programming language, block coding). K.AP.A.01
- 

**V. Variables** V

- 1 With guidance, recognize that numbers represent different types of data using numbers or other symbols (e.g. thumbs up/thumbs down for yes/no color by number, arrows for direction, encoding/decoding a word using numbers or pictographs). K.AP.V.01
- 

**C. Control** C

- 1 With guidance, independently or collaboratively create programs to accomplish tasks using a programming language, robot device, or unplugged activity that includes sequencing events and simple loops (e.g. emphasizing beginning, middle, and end; collaborative programming). K.AP.C.01
- 

**M. Modularity** M

- 1 With guidance, decompose (break down) a larger problem into smaller subproblems or combine simple tasks to make something more complex. K.AP.M.01

---

**PD. Program Development** PD

- 1 Create a design document to illustrate thoughts, ideas and stories in a sequential manner (e.g. storyboard, mindmap, sequential graphic organizer). K.AP.PD.01
  - 2 With guidance, give credit to ideas, creations, and solutions of others while developing algorithms (e.g. using code, music, pictures). K.AP.PD.02
  - 3 With guidance, independently or collaboratively construct, execute, and debug (identify and fix) algorithms using a programming language and or an unplugged activity that includes sequencing (e.g. use block based programming). K.AP.PD.03
  - 4 Use correct terminology in the development of an algorithm to solve a simple problem (e.g. beginning, middle, end). K.AP.PD.04
- 

**Impacts of Computing** IC**C. Culture** C

- 1 Understand different ways in which types of technologies are used in your daily life. K.IC.C.01
- 

**SI. Social Interactions** SI

- 1 With guidance identify appropriate manners while participating in an online environment. (Digital Citizenship - focus on Digital Literacy and Digital Etiquette) K.IC.SI.01
- 

**H. History** H

- 1 Discuss examples of how computing technology has changed and improved the way people live, work, and interact. K.IC.H.01
- 

**SLE. Safety, Law, & Ethics** SLE

- 1 Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software. K.IC.SLE.01
- 

**CP. Community Partnerships** CP

- 1 Understand that a wide range of jobs require knowledge or use of computer science. K.IC.CP.01