

# Second Grade

## Computing Systems 2.CS

### D. Devices 2.CS.D

- 1 Select and use appropriate computing devices or software to perform a variety of tasks for an intended outcome. 2.CS.D.01
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### HS. Hardware & Software 2.CS.HS

- 1 Identify the components of a computing system and what the basic functions are (e.g., hard drive and memory) as well as peripherals (e.g., printers, scanners, external hard drives) and external storage features and their uses (e.g., cloud storage). 2.CS.HS.01
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### T. Troubleshooting 2.CS.T

- 1 Identify, using accurate terminology, simple hardware and software problems that may occur during use (e.g., program is not working as expected, no sound is coming from the device, caps lock turned on) and discuss problems with peers and adults. 2.CS.T.01
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## Networks & The Internet 2.NI

### NCO. Network Communication & Organization 2.NI.NCO

- 1 Recognize that computing devices can be connected in a variety of ways. 2.NI.NCO.01
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### CY. Cybersecurity 2.NI.CY

- 1 Explain what passwords are, why we use them, and use strong passwords to protect computing devices and information from unauthorized access. 2.NI.CY.01
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## Data Analysis 2.DA

### S. Storage 2.DA.S

- 1 With guidance, develop and modify an organizational structure by creating, copying, moving, and deleting files and folders. 2.DA.S.01
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### CVT. Collection, Visualization, & Transformation 2.DA.CVT

- 1 With guidance, collect and present the same data in various visual formats. 2.DA.CVT.01

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**IM. Inference & Models** 2.DA.IM

- 1 With guidance, construct and interpret data with up to four categories and present it in a chart, bar graph, or pictograph (visualization) in order to draw conclusions with or without a computing device. 2.DA.IM.01
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**Algorithms and Programming** 2.AP**A. Algorithms** 2.AP.A

- 1 With guidance, model daily processes by creating and following algorithms (sets of step by step instructions) to complete tasks verbally, kinesthetically, with robot devices, or a programming language. 2.AP.A.01
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**V. Variables** 2.AP.V

- 1 Model the way a computer program stores, accesses, and manipulates data that is represented as a variable. 2.AP.V.01
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**C. Control** 2.AP.C

- 1 With guidance, independently and collaboratively create programs to accomplish tasks using a programming language, robot device, or unplugged activity that includes sequencing and repetition. 2.AP.C.01
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**M. Modularity** 2.AP.M

- 1 With guidance, decompose (break down) the steps needed to solve a problem into a precise sequence of instructions. 2.AP.M.01
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**E Program Development** 2.AP.PD

- 1 Independently or with guidance, create a grade-level appropriate artifact to illustrate thoughts, ideas, or stories in a sequential manner (e.g., story map, storyboard, and sequential graphic organizer). 2.AP.PD.01
  - 2 Give credit to ideas, creations and solutions of others while writing and developing programs. 2.AP.PD.02
  - 3 With guidance, independently and collaboratively debug programs using a programming language and/or unplugged activity that includes sequencing and repetition. 2.AP.PD.03
  - 4 Use correct terminology (e.g., debug, program input/output, code) to explain the development of an algorithm to solve a problem in an unplugged activity, hands on manipulatives, or a programming language. 2.AP.PD.04
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**Impacts of Computing** 2.IC**CU. Culture** 2.IC.CU

- 1 Compare how people live and work before and after the implementation or adoption of new technology. 2.IC.CU.01

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**SI. Social Interactions** 2.IC.SI

- 1 With guidance, develop a code of conduct, explain, and practice grade-level appropriate behavior and responsibilities while participating in an online community. Identify and report inappropriate behavior. 2.IC.SI.01

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**SLE. Internet Safety, Law, & Ethics** 2.IC.SLE

- 1 Individually and collaboratively identify ways to stay safe online. 2.IC.SLE.01