

Grade 3

Computing Systems CS

D. Devices D

- 1 Identify how computing devices can be connected to other devices to extend their capabilities. 3.CS.D.01
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HS. Hardware and Software HS

- 1 Model how information flows through hardware and software to accomplish tasks. 3.CS.HS.01
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IO. Input and Output IO

- 1 Demonstrate proper use of grade level appropriate input devices and produce digital artifacts with a controlled audience. 3.CS.IO.01
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T. Troubleshooting T

- 1 Identify, using accurate terminology, simple hardware and software problems and strategies for solving these problems. 3.CS.T.01
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Networks & the Internet NI

NCO. Network Communication & Organization NCO

- 1 Model how a device on a network sends and receives information. 3.NI.NCO.01
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C. Cybersecurity C

- 1 Identify problems that relate to inappropriate use of computing devices and networks. 3.NI.C.01
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Data Analysis DA

S. Storage S

- 1 Compare and contrast the formats and storage requirements for different types of information (e.g., music, video, images, and text). 3.DA.S.01
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C. Collection C

- 1 Gather relevant and reliable data to solve a problem or answer a question. 3.DA.C.01
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CVT. Visualization & Transformation CVT

- 1 Create a simple data visualization based on data collected by or provided to student. 3.DA.CVT.01

IM. Inference and Models IM

- 1 Utilize data to make predictions and discuss whether there is adequate data to make reliable predictions. 3.DA.IM.01
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Algorithms and Programming AP**A. Algorithms** A

- 1 Compare multiple algorithms for the same task. 3.AP.A.01
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V. Variables V

- 1 Utilize simple programs that use variables to store and modify grade level appropriate data. 3.AP.V.01
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C. Control C

- 1 Create simple programs using a programming language that utilize sequencing, repetition, conditionals, and variables to solve a problem or express ideas independently. 3.AP.C.01
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M. Modularity M

- 1 Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions. 3.AP.M.01
 - 2 With grade appropriate complexity, modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features. 3.AP.M.02
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PD. Program Development PD

- 1 Create a plan using an iterative process to plan the development of a program while solving simple problems (e.g., storyboard, flowchart, pseudo-code, story map). 3.AP.PD.01
 - 2 Use proper citations and document when ideas are borrowed and changed for their own use (e.g., using pictures created by others, using music created by others, remixing programming projects). 3.AP.PD.02
 - 3 Analyze and debug (identify/fix errors) a program that includes sequencing, repetition and variables in a programming language. 3.AP.PD.03
 - 4 Communicate and explain your program development using comments, presentations and demonstrations. 3.AP.PD.04
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Impacts of Computing IC**C. Culture** C

- 1 Identify possible problems and how computing devices have built in features for increasing accessibility to all users. 3.IC.C.01

SI. Social Interactions SI

- 1 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. (Digital Citizenship - review of all nine components, but focused on Digital Communication and Digital Etiquette.) 3.IC.SI.01
- 2 Identify how computational products may be, or have been, improved to incorporate diverse perspectives. 3.IC.SI.02

H. History H

- 1 Identify computing technologies that have changed the world, and express how those technologies influence, and are influenced by, society. 3.IC.H.01

SLE. Safety, Law, & Ethics SLE

- 1 Identify types of digital data that may have intellectual property rights that prevent copying or require attribution. 3.IC.SLE.01

CP. Community Partnerships CP

- 1 Design a visual product depicting the connections between computer science and other fields. 3.IC.CP.01