

Sixth Grade

Computing Systems 6.CS

D. Devices 6.CS.D

- 1 Evaluate existing computing devices and recommend improvements to the design based on personal interaction with the device. 6.CS.D.01
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HS. Hardware & Software 6.CS.HS

- 1 Model multiple methods of combining hardware and software to collect and exchange data. 6.CS.HS.01
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T. Troubleshooting 6.CS.T

- 1 Identify and resolve software and hardware problems with computing devices and their components involving settings and connections. 6.CS.T.01
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Networks & The Internet 6.NI

NCO. Network Communication & Organization 6.NI.NCO

- 1 Model a simple protocol for transferring information using packets. 6.NI.NCO.01
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CY. Cybersecurity 6.NI.CY

- 1 Identify existing cybersecurity concerns with the Internet and systems it uses. 6.NI.CY.01
 - 2 Explain the importance of secured websites and describe how encryption works. 6.NI.CY.02
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Data Analysis 6.DA

S. Storage 6.DA.S

- 1 Create multiple representations of the same data. 6.DA.S.01
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CVT. Collection, Visualization, & Transformation 6.DA.CVT

- 1 Collect data using computational tools and transform the data to make it more useful. 6.DA.CVT.01
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IM. Inference & Models 6.DA.IM

- 1 Use data to highlight or propose cause-and-effect relationships, predict outcomes, and communicate ideas. 6.DA.IM.01
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Algorithms & Programming 6.AP

A. Algorithms 6.AP.A

- 1 Use an existing algorithm in natural language or pseudocode to solve complex problems. 6.AP.A.01
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V. Variables 6.AP.V

Students will continue to apply the standards and practices from the previous grade levels.

C. Control 6.AP.C

- 1 Develop programs that utilize combinations of repetition, conditionals, and the manipulation of variables representing different data types. 6.AP.C.01
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M. Modularity 6.AP.M

- 1 Decompose problems into parts to facilitate the design, implementation, and review of programs. 6.AP.M.01
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PD. Program Development 6.AP.PD

- 1 Seek and incorporate feedback from team members to refine a solution to a problem. 6.AP.PD.01
 - 2 Incorporate existing code, media, and libraries into original programs and give attribution. 6.AP.PD.02
 - 3 Test and refine programs using teacher provided inputs. 6.AP.PD.03
 - 4 Break down tasks and follow an individual timeline when developing a computational artifact. 6.AP.PD.04
 - 5 Document text-based programs in order to make them easier to follow, test, and debug. 6.AP.PD.05
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Impacts of Computing 6.IC

CU. Culture 6.IC.CU

- 1 Explain how computing impacts people's everyday activities and careers. 6.IC.CU.01
 - 2 Identify and discuss the technology proficiencies needed in the classroom and the workplace, and how to meet the needs of different users. 6.IC.CU.02
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SI. Social Interactions 6.IC.SI

- 1 Describe and use safe, appropriate, and responsible practices (i.e., netiquette) when participating in online communities. 6.IC.SI.01
- 2 Individually and collaboratively develop and conduct an online survey that seeks input from a broad audience. Use the survey to evaluate whether it is feasible to solve a problem computationally. 6.IC.SI.02

SLE. Internet Safety, Law, & Ethics 6.IC.SLE

- 1 Differentiate between appropriate and inappropriate content on the Internet, and identify the characteristics of unethical and illegal online behavior. 6.IC.SLE.01