

Computer Science: 6-8

Computer Systems and Computational Thinking

- 1 Analyze and devise problem-solving strategies cooperatively and collaboratively.** [CS.6-8.1](#)
- 2 Systematically identify and fix problems with computing, devices and their components.** [CS.6-8.2](#)
- 3 Analyze connections between elements of computer science and mathematics.** [CS.6-8.3](#)

Networks and Cyber Infrastructure

- 4 Use various computer applications and online resources to explore how networks and cyber infrastructure work together to provide security and prevent system compromise.** [CS.6-8.4](#)
- 5 Model appropriate data privacy and cyber security procedures when using a computer.** [CS.6-8.5](#)
- 6 Understand how information is transmitted via wired and wireless networks and the security vulnerability of each.** [CS.6-8.6](#)

Data and Information

- 7 Convert various types of data into different formats.** [CS.6-8.7](#)
- 8 Use digital tools to collect, organize, and analyze data.** [CS.6-8.8](#)
- 9 Produce accurate and correct information from data.** [CS.6-8.9](#)

Programming and Algorithms

- 10 Analyze the problem and use a tool (e.g., flow chart) to design an algorithm to solve complex problems.** [CS.6-8.10](#)
- 11 Understand the function of control structures to create specific behaviors (e.g., sequential, selection, repetition).** [CS.6-8.11](#)
- 12 Write computer program(s) to solve simple problems and document the process for others to reference.** [CS.6-8.12](#)
- 13 Seek and incorporate feedback from team members and users to refine a solution that meets user needs.** [CS.6-8.13](#)

Impacts of Computing

- 14 Determine the uses of computing concepts and technology in global collaboration.** [CS.6-8.14](#)

15 Explain how computer science fosters innovation in all careers and disciplines. CS.6-8.15

16 Discuss issues of bias and accessibility in the design of existing technologies. CS.6-8.16