

Computer Science: 9-12

Computer Science and Computational Thinking

- 1 Develop and apply criteria for evaluating a computer system for a given purpose.** CS.9-12.1
- 2 Explain how abstractions hide the underlying implementation details of computing systems embedded in everyday objects.** CS.9-12.2

Networks and Cyber Infrastructure

- 3 Analyze reliable and safe communication methods to transmit information among computing devices over the network.** CS.9-12.3
- 4 Analyze the utilization of computers and networks.** CS.9-12.4

Data and Information

- 5 Store, transmit, and manipulate data electronically.** CS.9-12.5
- 6 Use tools to graphically represent the data and information.** CS.9-12.6
- 7 Create computational models for simulating real-world system.** CS.9-12.7

Programming and Algorithms

- 8 Organize and create a modular program.** CS.9-12.8
- 9 Compare the effectiveness of the algorithms.** CS.9-12.9
- 10 Create computer program(s) to solve specific problems relevant to various real-world topics both independently and collaboratively.** CS.9-12.10

Impacts of Computing

- 11 Explain the national and global economic impact of cybercrime.** CS.9-12.11
- 12 Analyze the negative and positive impact of new technology socially and globally.** CS.9-12.12
- 13 Test and refine computational artifacts to reduce bias and equity deficits.** CS.9-12.13
- 14 Use tools and methods for collaborating on a project to increase connectivity of people in different cultures and career fields.** CS.9-12.14