Computer Science Essentials is a two-semester course designed to introduce students to foundational computer science concepts, including computer systems, programming, networks, and data management. Students will examine the history and impact of computers; computing laws and ethics; bias and equity issues in computing; and careers in computer science, with a particular focus on algorithms, data storage and analysis, hardware and software, robotics, cybersecurity, and the use of abstraction in computing. They will also explore networks, the internet, website design, and responsible digital citizenship. In unit activities, students will code their own programs through lab activities and develop a variety of computational artifacts through guided project work. Students will also conduct research on current computing topics, exchange ideas with peers, and apply critical thinking, writing, and communication skills across a range of activities. They will practice reasoning and computer literacy skills through additional activities that reinforce and extend their understanding of core computer science concepts.

There are no required materials for this course.

This updated course was originally created for Apex Courses and is now available in Courseware.

Length: Two Semesters

Unit 1: Computers and Society

Unit 2: Programming

Unit 3: Digital Information

Unit 4: Developing Programs for Everyone

Unit 5: Semester Wrap-Up

Unit 6: Computing Systems

Unit 7: The Internet

Unit 8: Your Digital Responsibility

Unit 9: Semester Wrap-Up

Copyright© Edmentum Inc. All Rights Reserved.