

Exploring Computer Science

Please note that in summer 2024, ECS did a soft launch of version 10 of the curriculum. The information below applies to version 9.

Exploring Computer Science is a high school introduction to the world of computer science and problem solving. It is a yearlong course consisting of 6 units, approximately 6 weeks each. The curriculum package comes with daily instructional lesson plans for teachers, plus supplemental extension resources. Learn about our framework, context, alignment, and [units](#) below.

Computing is situated within economic, social, and cultural contexts and, therefore, influences and is influenced by each of these. So, in order to fully prepare students for various academic and applied tracks, ethical and social issues in computing and careers in computing are incorporated into the six units:

- Emphasis is placed on how computing enables innovation in a variety of fields and the impacts that those innovations have on society.
- Students are introduced to the ethical issues raised by the proliferation of computers and networks, as well as the positive and negative impacts of new technologies on human culture. Students will be able to identify ethical behavior and articulate both sides of ethical topics.
- Students study the responsibilities of software users and software developers with respect to intellectual property rights, software failures, and the piracy of software and other digital media.
- They are introduced to the concept of open-source software development and explore its implications.
- Students identify and describe careers in computing and careers that employ computing.

Units

Unit 1: Human Computer Interaction

Unit 2: Problem Solving

Unit 3: Web Design

Unit 4: Programming

Unit 5: Computing & Data Analysis

Unit 6: Robotics



Unit 6 Alternate: E-Textiles



Unit 6 Alternate: Artificial Intelligence