High School Computer Science JavaScript

9th grade

Programming Language:
JavaScript
HTML
CSS

Software used in Course:
Brackets
Google Chrome
Google Sheets
Repl.it

Supported Devices
Mac
Windows
Chromebook

Instructional Models:
Direct Instruction
Instructional Sca!olding
Use of Learning Objectives
Relevant Vocabulary
Bloom's Taxonomy or Questions
Inquiry-Based Instruction
Project-Based Instruction
Cooperative Learning
Independent Study

Supported Learning Models:
Classroom
Blended
Hybrid
Synchronous
Asynchronous

Standards Aligned:
National and State
Computer Science
Standards

Reinforces:
Math
ELA
Social-Emotional Learning

Course Description

Explore computational thinking and computer science principles. Apply web development skills in JavaScript, HTML, and CSS. Develop websites that integrate data and interactive elements. Unplugged and Digital Citizenship lessons focus on technological trends, ethical behavior, and comparing the global and local impacts of technology. At the end of this course, students will have developed a strong programming foundation that prepares them for advanced coding courses and a technology-enabled workplace.

Learning Objectives

Each lesson plan is designed to enable students to achieve specific learning outcomes related to course aligned computer science competencies. For example, at the end of this course students will be able to:

- Construct a fully functioning website containing multiple pages and a responsive navigation bar.
- Apply basic CSS skills by building a framework for responsive screen sizing and a responsive navigation bar.
- Declare and call functions which solve a specific problem.
- Write pseudocode to interpret the functionality of conditionals and loops.
- Work collaboratively to evaluate the merits of their projects and solve any errors that appear in their websites.
- Understand the role and career of a web designer through discussions with their classmates.