



CS Applications: Web Development, Part 2

Grades 6-12

Programming Language:

JavaScript
HTML
CSS

Software used in Course:

Google Chrome
Phoenix Code or Pickcode.io

Supported Devices

Mac
Windows
Chromebook

Instructional Models:

Direct Instruction
Instructional Scaffolding
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

In this follow-up to Web Development, Part 1, students dive deeper into the world of web development by building websites that solve problems. In Unplugged and Coding lessons, students review foundational JavaScript, HTML, and CSS concepts and explore advanced programming constructs and techniques like JavaScript animations, objects, and methods. Students examine the societal impacts of technology in Digital Citizenship lessons and explore a wide range of career paths in STEM Career lessons. By the end of this course, students will be able to demonstrate advanced web development techniques and problem-solving skills.

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:

- Implement JavaScript concepts to develop a website.
- Address a complex problem by applying a sequence of steps using flowcharts and pseudocode.
- Identify, evaluate, and address website errors through testing and debugging.
- Make websites accessible for diverse users by implementing accessibility techniques.
- Remix existing code to add features and give attribution to the original creators.