

# Web Development Foundations

Web Development Foundations (WDF) explores Internet history, coding principles, and languages. WDF teaches HTML, CSS, and JavaScript so students can design, create, and breathe life into visually appealing web pages. Upon completion of this course, students will have a solid understanding of computer science principles and the ability to code interactive web pages from scratch.

**Grades: 6-10**

**HTML | CSS | JavaScript**

## Course Objectives



Learn the historical context of how computers, code, and the web came to be and use HTML to write and code their own informational document.



Understand and implement design concepts of unity, color theory, white space, and typography to create a professional-looking web page.



Understand and apply computer science concepts including sequencing, selection, looping, and state management by coding in JavaScript.



Use event-driven development to create interactive web applications.



## Technical Requirements

### Operating System

- Chromebook: Chrome OS 100.0 or later
- Windows: 7, 8, 8.1, 10 or later
- Mac: OS X El Capitan 10.11 or later
- Linux: 64-bit Ubuntu 18.04+, Debian 10+, openSUSE 15.2+, or Fedora Linux 32+

### Software Installed

- Google Chrome



# Course Outcomes

## Certifications

This course prepares students for the following certifications:

- Knowledge Pillars HTML & CSS Coding Specialist
- Certiport IT Specialist - HTML and CSS Certification



## Project Portfolio

Students will build a variety of websites and web applications. By the end of the course, students will have the experience designing and building their own web pages, resulting in a strong portfolio of their own individual projects to prove their knowledge and skill.

# STEAM Connections



Students dive into ecology topics including conservation, restoration, and succession as they incorporate such topics into their projects.



Students learn about the history and development of computers and the Internet and become familiar with computer science principles using JavaScript.



Students explore emerging technologies to see the progress, possibilities, and problems these technologies present.



Students learn and apply design principles, including color, typography, layout, and composition, to create visually appealing web pages and web applications.



Students use arithmetic and logical operations in their code to achieve desired results.



**All Mastery Coding courses come with year-round professional development and comprehensive teacher support**