



Web Development Foundations

Web Development Foundations (WDF) explores Internet history, coding principles, and languages. WDF teaches HTML and CSS for students to create visually appealing web pages, and by embedding JavaScript students breathe life into their 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.

At a Glance

Capstone Project	Builds Portfolio	Grade Band	Prerequisites
YES	YES	6-10	None

Hardware/Software Requirements

Any internet-enabled computer with a keyboard, mouse, and Google Chrome installed will work for this course.

Who is this for?

This course was designed for grades 6-10 and is recommended for students who:

- Don't have previous coding experience
- Want to make their own web pages
- Want to better understand computers and the web

Topics and Technologies

- HTML
- Document-Object Model (DOM)
- Parent-child hierarchy
- CSS
- computer science principles
- debugging
- DOM manipulation
- event-driven development



Web Development Foundations

Overview

This course covers the following:

- **HTML:** Students will learn the historical context of how computers, code, and the web came to be and use markup language to write and code their own informational document.
- **CSS:** Students will implement design concepts of unity, color theory, white space, and typography to create a professional looking web page that works on any device with a web browser.
- **JavaScript:** Students will write JavaScript to breathe life into their web pages by leveraging computer science concepts including sequencing, selection, looping, state management, boolean arithmetic, and event driven development to create web applications that respond to user behavior.

Projects

- **HTML Page:** A cumulative project where students do research on a topic that interests them and create a webpage using all of the tags from previous chapters.
- **Static Webpage:** Students create a static multimedia webpage with colors and layout of their design.
- **Interactive Web Application:** Students use events and state management to create an interactive web application.