CodeHS

Web Design (Picasso) CSTA K-12 Computer Science Standards Alignment Overview

The Web Design course is a first computer science course introducing the basics of designing a web page, how information and images are rendered on the Web, and designing user interfaces. This document is an overview of how the Web Design course aligns with the CSTA K-12 Computer Science Standards.

CSTA K-12 Computer Science Standards Concepts

Algorithms & Programming

Complex websites are designed as systems of interacting or nested modules, each with a specific role, coordinating for a common overall purpose. These modules can be combinations of data (images, text, etc.) which allow for better management of complex sites.
- Standards: 2-AP-16, 3A-AP-16, 3A-AP-23

Computing Systems

Computing Systems is a core concept throughout the Web Design course. Students learn about internet and how humans interact with websites. Students learn about website organization including the relationship between hardware and software and how they can create mobile responsive sites. Troubleshooting websites is a core concept of the Web Design course as well. Sites might not work as expected because of problems in the HTML, CSS, or browser. Students are expected to identify problems in their sites and fix them.

Data & Analysis

The Web Design course teaches students how to make choices about how data elements are organized and where data is stored on websites. Students can consider these choices in terms of speed, reliability, accessibility, privacy, and integrity and how those choices impact their own site development.

Impacts of Computing

Computing has had significant impacts in several fields. In this course, students learn about the positive and negative impacts the Internet has had on culture, social interactions, safety, and

privacy. Students also learn the ethical considerations of sharing their code with others, and finding solutions to CodeHS exercises online.

- Standards: 2-IC-21, 2-IC-22

Networks & the Internet

In Web unit, students learn learn about network communication and organization, basic Internet protocols, and Internet addressing, Students learn about the importance of cybersecurity and the various security measures we take to protect information and privacy on the Internet.

- Standards: 2-NI-04