Unit 3: CSS - Styling Websites

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 1**
Length: **5 Days**
Status: **Published**

Summary

The structure of a website is determined by the HTML code. Ideally, styling should not be done within elements (inline styling). It is preferable to use CSS (cascading style sheets) to code the style of our website. In this unit, students learn how to use CSS to style elements using tags, classes, and IDs. Lastly, some details about the "cascade" in "cascading style sheets" are discussed. For this unit, the focus is on using internal style sheets to style a webpage.

Revised Date: July 2025

P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
	Network security depends on a combination of hardware, software, and practices that protect data while it is at rest, in transit, and in use. The needs of users and the sensitivity of data determine the level of security implemented. Advanced attacks take advantage of common security vulnerabilities.
	The design and use of computing technologies and artifacts can positively or negatively affect equitable access to information and opportunities.
	Decisions to develop new technology are driven by societal and cultural opinions and demands that differ from culture to culture.
	Changes caused by the introduction and use of a new technology can range from gradual to rapid and from subtle to obvious, and can change over time. These changes may vary from society to society as a result of differences in a society's economy, politics, and culture.
	Engineers use science, mathematics, and other disciplines to improve technology. Increased collaboration among engineers, scientists, and mathematicians can improve their work and designs. Technology, product, or system redesign can be more difficult than the original design.
	Development and modification of any technological system needs to take into account how the operation of the system will affect natural resources and ecosystems. Impacts of technological systems on the environment need to be monitored and must inform decision-making. Many technologies have been designed to have a positive impact on the environment and to monitor environmental change over time.

Essential Questions/Enduring Understandings

Essential Questions:

- What is the advantage to using CSS over inline styling?

Enduring Understandings:

- Using CSS allows us to define as much style about the page as possible in one place. With the style in one place on the webpage, it is easy to change and to debug.

Objectives

Students Will Know:

- the syntax necessary to style elements by tag, class, and ID.

Students Will be Skilled at:

- using the "cascade" to achieve desired styling effects on web pages.

Learning Plan

- Explain to students the rationale for CSS. As with HTML, white space is not critical to code execution, but it does help with readability, debugging, and showing relationships between different parts of the code.
- Go through examples of how to style elements using:
    - tags
    - classes
    - IDs
- Provide students with samples of single-page websites, and have them work together to change them into websites utilizing internal style sheets.

Assessment

- Assessments

    - Formative: Daily assessments using examples from class notes and CodeHS.com, AP Classroom/Albert Checks for Understanding

    - Summative: Teacher-created assessments/projects and CodeHS Computer Science Projects, AP Classroom/Albert Unit Assessments

- Benchmark: Check for understanding benchmark assessments on CodeHS, AP Classroom/Albert/Khan Academy Diagnostics

- Alternative Assessments: Student-centered activities such as a doorbell coding project, game design projects, and other activities involving real world applications shown below:

    - Students convert their "About Me" project from Unit 1 into a website that utilizes an internal stylesheet. There should be as little inline styling as possible.

Materials

- Core instructional materials: Core Book List
- Supplemental materials:
    - CodeHS (for remediation and differentiation as deemed appropriate)
    - Internet
    - Computers
    - Projection system for lecture
    - w3schools