

# Lesson 10: Styling Text with CSS

Web Lab

## Overview

This lesson introduces CSS as a way to style elements on the page. Students learn the basic syntax for CSS rule-sets and then explore properties that impact HTML text elements. They work on a HTML page about Guinness World Record holders, adding their own style to the provided page. In the last level, students apply what they have learned about styles for text elements to their personal web page.

## Purpose

While there are many CSS properties, the properties highlighted in the levels are simple properties that can style text elements. Students will use these properties often. More properties are covered in subsequent lessons.

## Agenda

Warm Up (5 minutes)

Activity (40 minutes)

Wrap Up (10 minutes)

[View on Code Studio](#)

## Objectives

Students will be able to:

- Use CSS selectors to style HTML text elements.
- Create and link to an external style sheet.
- Explain the differences between HTML and CSS in both use and syntax.

## Preparation

- Create a new poster titled **CSS Properties** if your students will not be tracking new CSS properties in their journals

## Vocabulary

- **CSS** - Cascading Style Sheets; a language used to describe how HTML elements should be styled
- **CSS Selector** - the part of a CSS rule-set that defines which HTML elements the style should be applied to

## Introduced Code

- `text-decoration: value`
- `text-align: value`
- `font-size: value`
- `font-family: value`
- `color: value`

# Teaching Guide

## Warm Up (5 minutes)

### Journal: HTML Appearance

**Prompt:** In the past few lessons, we've been using HTML to write our web pages. HTML lets us use tags to define the structure of a page. With your partner, come up with a list of all the different HTML tags as you can recall, and what they mean.

**Discuss:** Choose one of the tags that describes text on the screen (`<p>`, `<li>`, `<h1>`, etc.) and have the students describe how the contents of that tag appear on a web page. Ask students whether they would *always* want those elements to appear in that exact way. For example, `<p>` always means that the content is a paragraph, but should paragraphs always look the same on every page and on every site?

#### Remarks

So far we have only made web pages where we control the content and structure, such as which parts of the pages are headers, lists, or paragraphs. We've been using HTML as the language to specify the content and structure of the pages. While HTML allows us some control over how the page looks, it doesn't give developers much control over the specific look and style of each element. To do that, we need a language to express *style*. Web developers use CSS to specify the style of a page.

#### Discussion Goal

**Goal:** Students may mention that the `<h1>` tag has large font, or that the `<li>` tag puts a number or bullet before the text. Some other options that they may not consider are that all the text appears in black, and uses the same font. None of the text is underlined or bolded. Prompt students to realize that there are other possible styles that they see on web pages that are not the default appearance when HTML is used.

## Activity (40 minutes)

### Web Lab: Introduction to CSS

**Transition:** Send students to Code Studio.

#### Code Studio levels

##### Lesson Overview

##### Student Overview

##### Exploration: Adding Style

##### Teacher Overview

##### Student Overview

Have students explore this level with a partner. Afterwards lead a short share out so that partners can share with the class their responses to the three questions in the instructions. The subsequent video should help reinforce what students discovered so there's no need to lead a lengthy debrief conversation. [View on Code Studio](#)

##### Video: Intro to CSS\_2018

##### Student Overview

##### Styling Text

4

5

(click tabs to see student view)

##### CSS and Style Sheets

##### Teacher Overview

##### Student Overview

# Introducing Content-Structure-Style

This map level, and in particular the first section, introduce the Content-Structure-Style paradigm that students will use to help understand the differences between HTML and CSS. While they have previously been using HTML tags to label and categorize their content, they're now learning how to control the style of the different elements in their page using CSS. Students may have some misconceptions at this point since their browser has used default styles for their different kinds of content (e.g. `<h1>` tags by default make text larger). As they move through these lessons they should come to see that tagging content really just allows the browser's default styles, or the styles they define using CSS, to be applied to the correct pieces of content in their web pages.

## Fonts and Style

7

8

9

10

[\(click tabs to see student view\)](#)

## CSS Text Properties

[Teacher Overview](#)[Student Overview](#)

# Differences in Browsers and Operating Systems

As mentioned in this map, you may find that different combinations of computers and browsers render fonts differently. While there is a common specification for how HTML and CSS should be read and displayed on the screen, each browser does so in a slightly different way, which can lead to the same page looking different on different computers. If your students encounter this, you can reassure them that it's a common challenge that web developers face.

In the case of `font-family: fantasy`, you can actually specify a list of fonts, from most to least specific. That way, if a user's computer has the exact font you specified, that's what they'll see, but if not the browser will try the next font on your list. To try and ensure that users see the font in the example image, you could write the css as `font-family: Papyrus, fantasy`. That way, even if a user's browser has a different default font for "fantasy", it will try to load the specific font "Papyrus" first.

## Video: Intro to CSS Part 2\_2018

[Student Overview](#)

## Styling your Website

13

14

[\(click tabs to see student view\)](#)

## Wrap Up (10 minutes)

### Recording CSS Properties

**Review:** Briefly review the "Content-Structure-Style" paradigm introduced in the map level during the lesson. Aim to distinguish between how HTML indicates the structure of a document and CSS now allows students to set the styles.

**Set Up:** Have students create a new T-chart in their journals called CSS Properties where students can easily get to it.

**Group:** Place students in groups of two to five - you'll need at least one group for each of the properties introduced in this lesson.

**Jigsaw:** Assign each group one of the properties introduced today. Each group needs to come up with the a description and example for their property.

**Share:** Have groups add their properties to their journals or to the class "CSS Properties" poster.

#### Teaching Tip

**Journal or Poster?** Just as with the "HTML Tags" page in their journals, you may choose to have your class keep track of CSS Properties in a shared class poster.

## Standards Alignment

**View full course alignment**

CSTA K-12 Computer Science Standards (2017)

- ▶ **AP** - Algorithms & Programming



This curriculum is available under a Creative Commons License (CC BY-NC-SA 4.0).

If you are interested in licensing Code.org materials for commercial purposes, **contact us**.