

Introduction to CSS

20 minutes

Introduction to Web Frontend

Outcome 1.15

Outcome 1.16

Outcome 1.22

Outcome 2.20

Outcome 3.3

WHAT THIS LESSON DOES

Dive into the world of CSS, a programming language for styling web pages. Learn what CSS is, how to write CSS rules, and understand selectors and declaration blocks. Explore different types of selectors like element, ID, and class, and try your hand at creating your own CSS rules. This step-by-step lesson will guide you through the process, providing practical exercises to reinforce your learning.

CURRICULUM OUTCOMES

Outcome	What the specification asks for
1.15	consider the quality of the user experience when interacting with computers and list the principles of universal design, including the role of a user interface and the factors that contribute to its usability
1.16	compare two different user interfaces and identify different design decisions that shape the user experience
1.22	read, write, test, and modify computer programs
2.20	identify and fix/debug warnings and errors in computer code and modify as required
3.3	use appropriate programming languages to develop an interactive website that can display information from a database that meets a set of users' needs

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand the purpose and role of CSS in web development.
- Identify the structure and components of CSS rules.
- Apply CSS styles using element, ID, and class selectors.
- Demonstrate the use of inline styles with the style property.
- Practise writing basic CSS code to style HTML elements.

BEFORE THE LESSON

- Open the lesson's HTML/CSS/Run Code interactive yourself first and confirm styles render in the school browser, so students see colour changes update live.
- Have the player-profile HTML sample to hand; the exercises reuse it and expect students to add id and class attributes to it.

Introduction to CSS

HOW THE LESSON RUNS

What is CSS?

CSS rules

Element selector

ID selector

Class selector

Style property

Element selector exercise

ID selector exercise

Class selector exercise

TEACHING MOVES

- 1. What is CSS? Anchor it in what they know: HTML is structure and content, CSS is appearance. Read the red-paragraph example aloud and name each effect (colour, line height, bottom margin) as a separate instruction.
- 2. CSS rules. Draw the rule on the board and label the two halves: selector outside the braces, declaration block inside. Point out each declaration is property colon value, ended with a semicolon. This vocabulary recurs all module.
- 3. Element selector. Run the `p{color:blue}` example and ask them to predict which lines change before you click Run. Stress that every paragraph on the page is affected, not just one.
- 4. ID selector. Emphasise the hash prefix and the uniqueness rule: an id may appear once per page. Show that only the tagged paragraph turns red while the others stay unchanged.
- 5. Class selector. Contrast directly with ID: dot prefix, and reusable across many elements. Demonstrate two paragraphs sharing one class, then show an element carrying more than one class.
- 6. Style property. Show inline style on a single tag and name the trade-off: quick for one element, but not reusable and harder to maintain. Flag it as the least preferred of the three approaches.
- 7. Element selector exercise. Let them attempt before revealing the answer. Watch for missing braces or semicolons. Ask them to run and confirm all three paragraphs went blue.
- 8. ID selector exercise. Check they typed the hash and matched the id name exactly, including case. Confirm only the named paragraph changed and font-size used px.
- 9. Class selector exercise. This is the synthesis task: four classes then apply them. Encourage combining big and green on one element to see classes stack. Circulate and check the dot prefix is present.

WHAT TO WATCH FOR

- Students mix up ID and class selectors, using a hash for a class or forgetting classes can repeat while IDs cannot. Give a one-line rule: hash for the one, dot for the many. Have them point to which selector in the sample could legally appear twice.
- Rules silently fail because a semicolon or curly brace is missing, or the selector name does not match the attribute in the HTML. Teach them to read the rule structure back before running: selector, open brace, property colon value semicolon, close brace. Compare the CSS name character by character against the HTML attribute.
- Students assume a page that renders without error is correct, even when a style did not apply. Have them state the expected visual result first, then run and compare. If nothing changed, the selector did not match, not that CSS is broken.

DIFFERENTIATION

- Emerging: Give the element-selector exercise only and let them copy the shown pattern, changing just the colour value, before attempting IDs. Pair them so one reads the rule structure aloud while the other types.
- Developing: Ask them to explain in their own words why a class was the right choice over an ID for the repeated details text. Have them predict the outcome before each Run rather than clicking straight away.
- Proficient: Challenge them to apply two classes to one element and reason about which wins if both set colour, previewing the cascade and specificity ideas at Higher Level. Ask them to justify when inline style is defensible and when a class is better, as evidence they could reuse in an Applied Learning Task.