**Lesson 7: CSS Rule Theories**

**The Set Up:**

***Preparation:***

For this lesson, access the 3 .html documents within the “06\_ruletheories” folder inside the Shared drive. Copy and paste the entire “06\_ruletheories” folder inside your “CSS” folder. You will move through the 4 theories, pausing to apply your learning using the relevant .html document directly after your reading of each theory.

**The Learning:**

***Rule Theories:***

There are 4 theories (but we will only look at 3 for now) that determine how CSS rules interact/overlap with one another to produce the desired formatting. These rules are listed in reverse order-of-importance, “Specificity Theory” being most important (thereby able to overrule the other theories):

1. **Cascade Theory** (cascade.html) – Describes the order and placement of rules; if two rules conflict (meaning, they try to apply different formatting to the same element), this theory determines which one wins out.
	* When two rules conflict, it is the last one declared that wins (since this one is closer, in proximity, to the actual content)
2. **Inheritance Theory** (inheritance.html) – Describes how one rule (child) can be affected by previously declared (parent) rules;
	* Parent/Child? Example: <body><h1><p></p></h1></body>
		+ The <body> tag is the parent (since it is the outermost tag)
		+ Both the <h1> and <p> tags are children of the <body> tag (since they are nested inside the <body> tag
	* The styles you apply to the parent (ex. the <body> tag) will be inherited by (or, applied to) the children (ex. the <h1> or <p> tags) until you make a CSS rule that is specific to the children (see “Specificity Theory,” below).
	* Redundant, repeating code should be avoided whenever possible; by using inheritance, you can apply the same formatting across multiple elements with a single rule by adding a parent element (ex. <div>) that contains them
3. **Specificity Theory** (specificity.html) – Describes how browsers determine what formatting to apply when two or more rules conflict with one another. This is determined by the other 2 rules discussed above, as well as the specificity of the individual element
	* The more specific a selector is, the more preference it will be given
		+ Ex. a “grandchild” (ex. <p>) is more specific than a “child” (ex. <div>) is more specific than a “parent” (ex. <body>)
		+ Ex. if both a “div p” and a “p” selector exist, the “div p” declaration would be used, since it is more detailed/specific
	* Inline CSS trumps Internal/External CSS
	* However, if two CSS rules (ex. one Inline and one Internal) do not conflict (ex. “font-family” and “color”), they may both influence the formatting of the page.

**The Doing:**

***Comprehension Question:***

* What are the 3 CSS rule theories called?
* What is a “parent” element? A “child” element? Give an example.
* Which theory has the biggest impact over formatting?
* Why is it important to avoid “redundancy” (i.e. repeating CSS styles across multiple parent/child selectors)?