**Lesson 8: Basic Selector Types**

**The Set Up:**

***Preparation:***

Read through the notes in “The Learning” section, then complete the Code Academy and Thimble activities in “The Doing” section, below.

**The Learning:**

***HTML Tree Analogy***

You can think of an HTML document sort of like a tree. Elements branch out from the main trunk (<html></html> tags), and the branches multiply and become finer as you get to elements like <div> and <table> then even finer (aka, more specific) as you get to elements like <h1>, <p>, etc.

***HTML Parent-Child Analogy***

You can also think of an HTML document sort of like a family (or, combine the two analogies to think about it like a family tree).

* The grandparents (the oldest and uppermost level) are the <!DOCTYPE> and <html> tags
* The parents (the second oldest and uppermost level) are the <head> and <body> tags
  + The <head> and <body> tags can also be thought of as “children” elements of the grandparents
  + The <!DOCTYPE> and <html> tags can be thought of as the “parent” elements of the children
  + Since they are on the same level in the family, the <html> and <body> tags could also be thought of as “siblings.”
* The children (the second youngest and lowermost level) are the <div> tags
* The grandchildren (the youngest, and lowermost level) are the <h1-6> and <p> tags
* Just like in a real family, elements have children, grandchildren, great-grandchildren, and so on (though in terms of HTML, we don’t make this distinction – i.e. a child of an element, and all that child’s children, are children of the first parent – even if the child is several branches away). The <div>, <table>, <h1>, <p>, etc. are all child elements of their original parents.

***Element Selectors***

These are the most basic type of selectors; their names are the html tag used to define an element

* Very broad, so most often used to set global, site-wide styles
* Naming Example: For a <p>
  + HTML (no attribute is applied): <p>Content</p>
  + CSS (content of tag is used): p {color:blue;}

***Class Selectors***

These are html attributes that can be set within the start tag of any HTML element; their names are determined by you but must be preceded by “.” in CSS

* Can be named anything you want
* Can be used as many times on the page as needed
* More specific, so are most often used to set content-specific styles, but since they can be applied multiple times to multiple tags, they are often used to define the styles of groups of elements (ex. h1s, h2s, h3s, etc.).
* Naming Ex: for a <p> that has a “subheading” class
  + HTML (must be formatted as attribute): <p class=“subheading”>Content</p>
  + CSS (must be preceded by period): .subheading {color:blue;}

***ID Selectors***

These are html attributes that can be set within the start tag of any HTML element; their names are determined by you but must be preceded by “#” in CSS

* Can be named anything you want
* Cannot be used as many times on the page as needed – if a specific ID is already assigned to one element on the page, that particular ID cannot be assigned to any other element
* More specific, so are most often used to set content-specific styles, but since they can be applied only once, they are often used to define page sections (ex. heading, subheading, header, footer, sidebar1, sidebar2, etc.)
* Naming Ex: for a <div> that defines a sidebar which, naturally, has a “sidebar” ID
  + HTML (must be formatted as attribute): <div id=“sidebar”>Content</div>
  + CSS (must be preceeded by a pound symbol): #sidebar {color:blue;}

***Multiple Selectors***

Selectors can be combined in a few different ways in order to make more precise selections for CSS styling. You will learn more about this when you complete “The Doing” activity below in Code Academy!

**The Doing:**

***Code Academy Activity –*** [***CSS Selectors***](https://www.codecademy.com/courses/web-beginner-en-XUclI/0/1)

Activity Instructions: Visit the Code Academy website by clicking the hyperlink above. Complete Lessons 1-13 (don’t worry about pseudo-selectors and links – we will learn about them later)

***Mozilla Activity –*** [***My 6 Word Summer***](https://thimble.mozilla.org/en-US/anonymous/ee672c55-9866-45f4-b024-7e26f432927b/2500)

Activity Instructions: Visit the Thimble “My 6 Word Summer” link (above) – FYI the CSS within this activity is External CSS. Explore the HTML and CSS documents to get a feel for how they are formatted, and how they work together. Follow the tutorial instructions to “remix” the poster using what you already know about CSS. Once you are finished, show Ms. Hammond your product, and explain the changes you’ve made and what you’ve learned about CSS formatting, so far.

***Comprehension Question:***

* Explain the HTML tree analogy. How is this similar to the parent-child analogy?
* Why might someone choose to use a class or ID selector instead of an element selector?
* What is the difference between a class and an ID selector? Which one do you think you will use more frequently when designing your own websites? Why?