Basic Syntax
Selector {  
property: value;  
}
Selector can be

- an HTML code  
  o Example h1
- An ID name (must match exactly with the ID of the element within your HTML code – no spaces should be in the ID name) Specify with a hashtag before the ID  
  o Example: #maincontent
- A class (the class name can be anything you want to call it, but no spaces in the name) specify with a period before the class name.  
  o Example: .redbold
- Or a combination:  
  o Example: #maincontent h2

Property is the CSS words for what we are setting

Value is what we are setting the property to.

Multiple properties with values can be added to one selector. It’s important to define the same selector ONLY ONCE. If you need to add in more styles for that selector add them to the existing style. Don’t start a whole new style.

**Punctuation is important!**

- Property should have a colon right after it (no spaces between the property and the colon)
- A semicolon should be right after the value  
  - If more than one value is listed, commas should separate the values with the semicolon placed after the last value

Example

#maincontent {
  width: 30%;
  font-family: "Times New Roman", serif;
  background: white;
}

Linking a style sheet to an HTML File

Place in the head section of the code:

```html
<link rel="stylesheet" type="text/css" href="filename.css">
```

*filename* is the name of the file include any folder designations if the file is not in the same folder as the HTML file.
Measures
Measures can be in pixels, ems, or percent

When to use which measure:

- Use pixels for images or other elements that contain items normally measured in pixels.
- For layout structures
  - Use ems if you want the structure to adjust to the text within the layout structure.
  - If using pixels, it is best to specify a min-width & a max-width so the structure will adjust as needed for screen size and other factors.
  - Use percent if you need an adjustable size for splitting the screen into columns.

Text Styles
Items in parenthesis below are descriptions of what the values should be and these should NOT be the words used in coding

- font-family: (specify fonts to be used)
  - Specify a set of fonts with the first being your preferred font and the last being one of the generic fonts (serif, sans-serif, cursive, fantasy, monospace)
    - Use commas between fonts.
    - Font names consisting of more than one word should have quotes around the words.
- font-size: (measure)
  - Use flexible units such as ems or percent, no spaces between the number and the unit.
    Examples:
    - font-size 120%;
    - font-size 2em;
  - Fixed fonts sizes such as pixels should be avoided as they interfere with accessibility and adjustability.
- line-height: (measure)
  - Unit should match font-size unit. Never use pixels! Use percent or em. 120% or 1.2em are good measures for line-height
- font-weight – sets bold
  - normal
  - bold
  - bolder
- font-style – sets italics
  - normal
  - italic
  - oblique
- color: (specify colors using hexadecimal codes, approved color words, rgb or rgba codes, etc.)
- text-align:
  - left
  - right
  - center
  - justify
- test-decoration:
o none
  ▪ Default value- specify only to take off existing text decoration, often used to remove underlines from links

o Underline
  o Use only to return an underline to a link that has been previously styled as none. Do not use underline for other than links because people try to click on words that have underlines.
  o Note: Underlines for titles of books, magazines, etc should be emphasized instead, underlining was the old markup for publishers to italicize text

o overline
o strikethrough

Helpful hint to take away the underline on a link, the selector must include the link code. Example
  • nav a {text-decoration:none;}

**Backgrounds**

- background-color: (specify colors using hexadecimal codes, approved color words, rgb or rgba codes, etc.)
  o Always keep high contrast between background and foreground color

- background-image: url("filename")
  o Be sure to include the folder name if the file is not in the same folder as the HTML page

- background-repeat:
  o repeat-x
  o repeat-y
  o no-repeat

- background-position: $x$ $y$ (where $x$ is the horizontal position and $y$ is the vertical position.)
  o $x$ can be left, center, right or a measure such as percent or pixel
  o $y$ can be top, center, bottom, or a measure such as percent or pixel

Check color contrast with WebAim’s Color Contrast Checker You will need the hexadecimal code for the color if you are using color words find the hexadecimal code at Color word and hexadecimal equivalent
**CSS spacing**

For padding, margins and borders -top -bottom, -left, -right can be added to set particular sides, if left off then all sides are set to the values specified. Padding creates space around an element, margins create space between elements, and borders draw a border around an element.

- padding: *(measure)*
- margin: *(measure)*
- border: *style width color;*
  - *style* can be solid, dotted, dashed, groove
  - *width* can be thin, medium, wide, or number of pixels
  - *color* is any color specification

Borders parameters can also be set individual by adding a -style or -width or -color

**Centering**

To center text use

```
text-align: center;
```

To center objects such as layout structures or images use

```
margin-left: auto;
margin-right: auto;
display: block;
```

Also, a width must be specified. Use either

```
width: *(specify measure)*;
```

or

```
max-width: *(specify measure)*;
min-width: *(specify measure)*;
```

**Navigation Buttons**

Navigation should be in lists with links. The codes involved include the navigation structure (nav) unordered list (ul), the line item (li), and the link code (a)

To remove the bullets and the indent, the selector should be the unordered list (ul). Be sure the specify an ID or nav code BEFORE the ul. Then apply the style. Example:

```
nav ul{list-style: none;
    padding: 0;}
```

When styling navigation to look like buttons, padding should be applied to the link code, so that the whole area is clickable. It’s best to specify in ems so the buttons will grow if the font increases. And remove the link underlines. For the selector, be sure the specify an ID or nav code BEFORE the link code so that only the links in the navigation are affected. To change the text color of the navigation, the style should be applied to the navigation link codes
Example:
```css
nav a{
padding: 1em;
text-decoration: none;
color: black;}
```

When styling navigation, the `nav` code can be used if there is only one set of navigation links or if all the navigation should be identical. The ID name can be used instead of the `nav` code anytime. Example:
```css
#mylinks a{
padding: 1em;
text-decoration: none;
color: black;}
```

**Layout**
- **width** – Specifies the width of an element
- **max-width** & **min-width** can be used together to specifies the maximum width and minimum width of an element, used to create flexible designs.
  - Specifies the width of an element
  - Best to specify in percent or em for flexibility
- **Float** – moves an element to the left or right and out of the normal flow of the document. And a width has to be set in order for an element to float
  - **left**
  - **right**
- **clear**
  - **left**
  - **right**
  - **both**
- **display** – specifies if an item is inline or block or both.
  - **block**
  - **inline**
  - **inline-block**
  - **none**

Most text elements are inline elements. It’s good to apply `block` to HTML 5 layout structures as some browsers don’t treat them as blocks. **None** can be used to temporarily hide an element such as in a drop down list.