Hue, Saturation, and Lightness

The RGB color scheme is convenient because it’s very close to how computers represent colors internally. There’s another equally powerful system in CSS called the hue-saturation-lightness color scheme, abbreviated as *HSL*.

The syntax for HSL is similar to the decimal form of RGB, though it differs in important ways. The first number represents the degree of the hue, and can be between 0 and 360. The second and third numbers are percentages representing saturation and lightness respectively. Here is an example:

color: hsl(120, 60%, 70%);

*Hue* is the first number. It refers to an angle on a color wheel. Red is 0 degrees, Green is 120 degrees, Blue is 240 degrees, and then back to Red at 360. You can see an example of a color wheel below.

*Saturation* refers to the intensity or purity of the color. The saturation increases towards 100% as the color becomes richer. The saturation decreases towards 0% as the color becomes grayer.

*Lightness* refers to how light or dark the color is. Halfway, or 50%, is normal lightness. Imagine a sliding dimmer on a light switch that starts halfway. Sliding the dimmer up towards 100% makes the color lighter, closer to white. Sliding the dimmer down towards 0% makes the color darker, closer to black.

HSL is convenient for adjusting colors. In RGB, making the color a little darker may affect all three color components. In HSL, that’s as easy as changing the lightness value. HSL is also useful for making a set of colors that work well together by selecting various colors that have the same lightness and saturation but different hues.