

Colors play a big role in the look of your web pages as well. There are different ways that colors values can be used in CSS. Color names, hexadecimal codes and rgb values are three.

There are quite a few predefined color names that are recognized by the browser. For example, something as basic as Blue is recognized or more unique blues like Navy or DarkBlue.

Another way color value is used is with Hexadecimal colors. These are six-digit codes that represent the amount of red, green and blue in a color. When using these hexadecimal codes, you always precede each code with a #hashtag when you are using them as a value in CSS. The first 2 digits represent red, the next two green and the last two blue. FF is the highest value and 00 is the lowest. So for example #FF0000 would be pure red. #FFFFFF is white and #000000 is black. The black and white values may seem backwards to you but with monitors, when they are turned off here is no light getting emitted so that would be black or 000000. When every pixel is all the way on it is #FFFFFF or white all the way on or all the light is getting emitted. You might see shorten hexadecimal codes for example, black and white can be #000 and #FFF.

Another way you might see color represented is with rgb values. Again, with rgb the red, green and blue amounts in the color are represented. Each color has a range of 0 to 255.

One nice thing about rgb is that you can add an alpha value or an a to the rgb which allows you to specify the opacity of the element as well. This fourth value ranges from 0.0 totally see through or invisible to 1.0 totally opac or solid. The value of 1.0 is the default and would be 100% opacity. 0.7 would be only 70% opacity so you can see through it now and 0.2 would be 20% opacity.

Let's take a look at how we can apply these values to our elements.

The color property allows you to specify the color of text inside an element. If I want to change the default color that text comes in from our browser, I can apply a declaration to change that color. Here the color of the a tag is now white.

We can also change the background color of each HTML element. Remember each element is in a box and the property of background-color will let us specify a background color that will show up in the box of that element. By default, browsers have a white colored background. So, we can change that with the background-color property. For example, here the ul element in my nav has the background-color of rgb(75,75,42) and with the white text it gives the menu a whole new look.

We can place an opacity on the ul here so now we see a small amount of opacity of that same color. These red, green, blue values happen to be the same green color but we are adding that 4<sup>th</sup> opacity value to make it see through.

We can also give different parts of my page different colors. Here there is a body background color of blue and a different element inside of body that holds all the rest of my content has a background color of white. Then the ul of course has a different background color as we've seen. So, you can really create a different look for your page by adding colors.

One thing you really need to be careful with when you start changing colors on your page is to make sure you have a high enough contrast between your foreground and background colors. For example, if you have text or a logo that you place on the foreground and have a different color for the background, you need to have a high contrast between those two colors otherwise it may not be legible for your user.

There are sites like [contrast-ratio.com](https://contrast-ratio.com) that will let you put both your foreground and background colors in to make sure there is enough contrast if you aren't sure.

There are also some colors that just don't go well together even if there is enough contrast. Or colors that are very strong and should only be used sparingly like as an accent color. Make sure you are using colors that work well together to give your web page a nice look.

There are great resources like [colors.adobe.com](https://colors.adobe.com) and [coolors.co](https://coolors.co) that can give you nice color scheme ideas. Adobe colors also allows you to pick a color scheme that fits your site using a color wheel.