

Using colours in CSS


















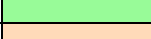













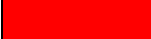








Working with Intel and CoderDojo, you have learned about using CSS and hopefully you will feel confident to try to build your own pages, and apply stylesheets, using Notepad++.

In one of the videos, Steve talked about one of his favourite colours being 'powder blue'. As a CSS expert, he knows lots about the colours that can be used in CSS, and will be recognised by a browser. In case you want to use background colours (or colours for borders and other formatting), below is a table that shows some of the popular colours, and the names you need to use in CSS.



There are 141 colour names altogether, with 17 standard colours. The ones below are just a selection. Keep reading after the table to find out more about the hexadecimal numbers that define each colour.

Colours in CSS and HTML5

Colour name	Hexadecimal	Colour	Colour name	Hexadecimal	Colour
Aqua	00FFFF		MediumPurple	9370DB	
Aquamarine	7FFFD4		MintCream	F5FFFA	
Blue	0000FF		MistyRose	FFE4E1	
BlueViolet	8A2BE2		Navy	000080	
Brown	A52A2A		Olive	808000	
Chartreuse	7FFF00		Orange	FFA500	
Chocolate	D2691E		OrangeRed	FF4500	
Coral	FF7F50		PaleGreen	98FB98	
CornflowerBlue	6495ED		PeachPuff	FFDAB9	
Crimson	DC143C		Peru	CD853F	
Cyan	00FFFF		Pink	FFC0CB	
DarkBlue	00008B		Plum	DDA0DD	
DeepPink	FF1493		PowderBlue	B0E0E6	
DimGray	696969		Purple	800080	
DodgerBlue	1E90FF		Red	FF0000	
FireBrick	B22222		RosyBrown	BC8F8F	
Fuchsia	FF00FF		RoyalBlue	4169E1	
Gold	FFD700		SaddleBrown	8B4513	
Gray	808080		Salmon	FAB072	
Green	00FF00		Silver	C0C0C0	

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Colour name	Hexadecimal	Colour	Colour name	Hexadecimal	Colour
Indigo	4B0082		SkyBlue	87CEEB	
LawnGreen	7CFC00		SpringGreen	00FF7F	
LightBlue	ADD8E6		SteelBlue	4682B4	
LightPink	FFB6C1		Tomato	FF6347	
Maroon	800000		Violet	EE82EE	
MediumBlue	0000CD		Yellow	FFFF00	

What are hexadecimals?

In the table above, each colour has a hexadecimal value. Hexadecimals are another way of counting. The system uses 16 symbols, which are the numbers 0 to 9 and the letters A to F.

This is also known as base-16, because of its 16 symbols. In normal life, we use the decimal number system, which has 10 symbols (0-9) used to count, and is known as base-10.

Computers use hexadecimals all the time, often when they generate error codes. Colours in HTML are defined using a hexadecimal notation and this refers to the combination of Red, Green and Blue values that make them up. Hexadecimal is abbreviated to HEX and Red, Green and Blue to RGB.

The way HEX works for colours is that each pair of symbols refers to the RGB. So, if we take the colour blue, this has a HEX of 0000FF. So if we look at this in terms of RGB we get...

R (red) is 00

G (green) is 00

B (blue) is FF

The highest colour value in RGB is 255 for each colour, and the lowest is 0.

The HEX value FF is the highest value you can give to a colour. So this means, for blue that...

R (red) is 0

G (green) is 0

B (blue) is 255

And the result is blue.

Can you work out what the colour red would be in hexadecimals? And the colour green? Remember, that these are the main colours in the RGB system, so you need to combine the 00 and FF pairs to get the right combination. Check your answer by looking at the table above.

Other facts about colours...

In the RGB system, each of the colours red, blue and green has 256 different shades (from 0 to 255 inclusive). When you combine all three (which is how colours are produced), the total number of colours that can be produced is...

$$256 \times 256 \times 256 = 16,777,216$$

So over **16 million colours** are available and modern computers are able to display all of them, which makes our display screens so amazing when we're looking at photographs or playing games.



Exploring the RGB system

You can explore the RGB system in your MS Word program. Both font colour and fill colour (from the top toolbar) have options for 'More colors' in their colour palettes and here you can type in different values for Red, Green and Blue and see the effects.

Try this in a table. Click into a cell, right-click and choose Borders and Shading. Then click on the drop down arrow under Fill (which shows 'No Color'), select 'More colors' and then the Custom tab. You can see the RGB values and can experiment with different cell fill colours.

