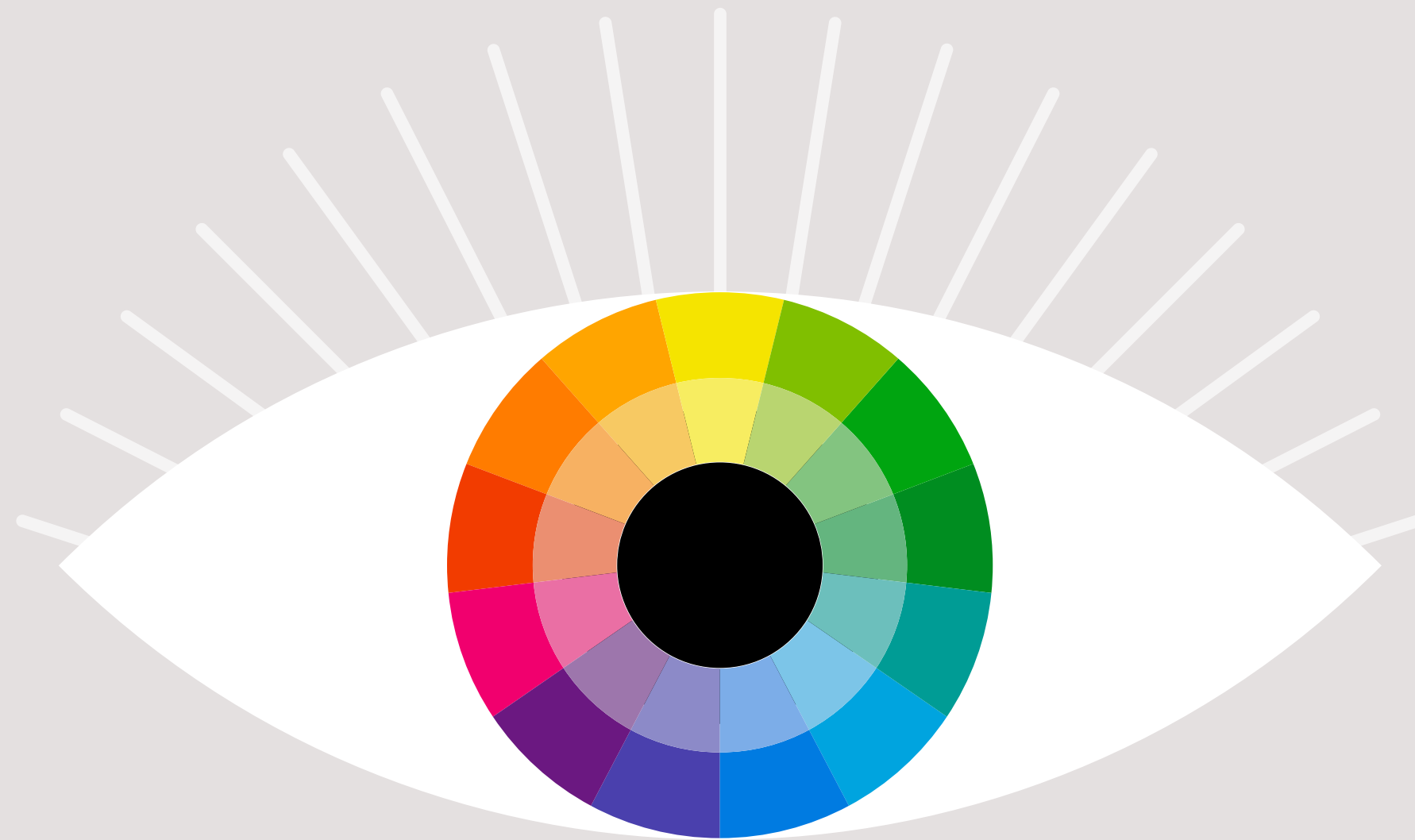


How many ways are there to specify colour in CSS?

Do we need to know them all?

What are the practical uses of each?



By: Latifa Siddiqah Latif



How many colours are there?



RGB Colour Space

16,777,216

256 x 256 x 256

https://www.rapidtables.com/web/color/RGB_Color.html

Named Colours

These are simply colours that you can refer to by name - and CSS will understand like 'red' and 'blue'.

Practical use:

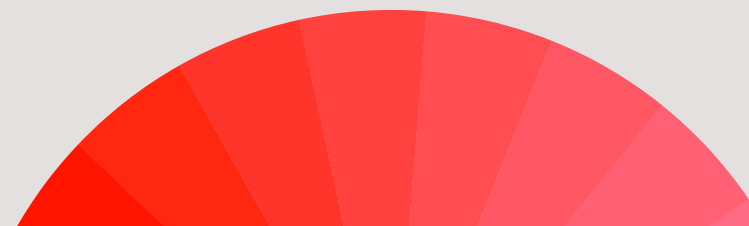
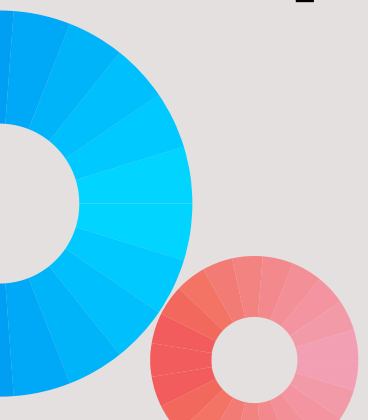
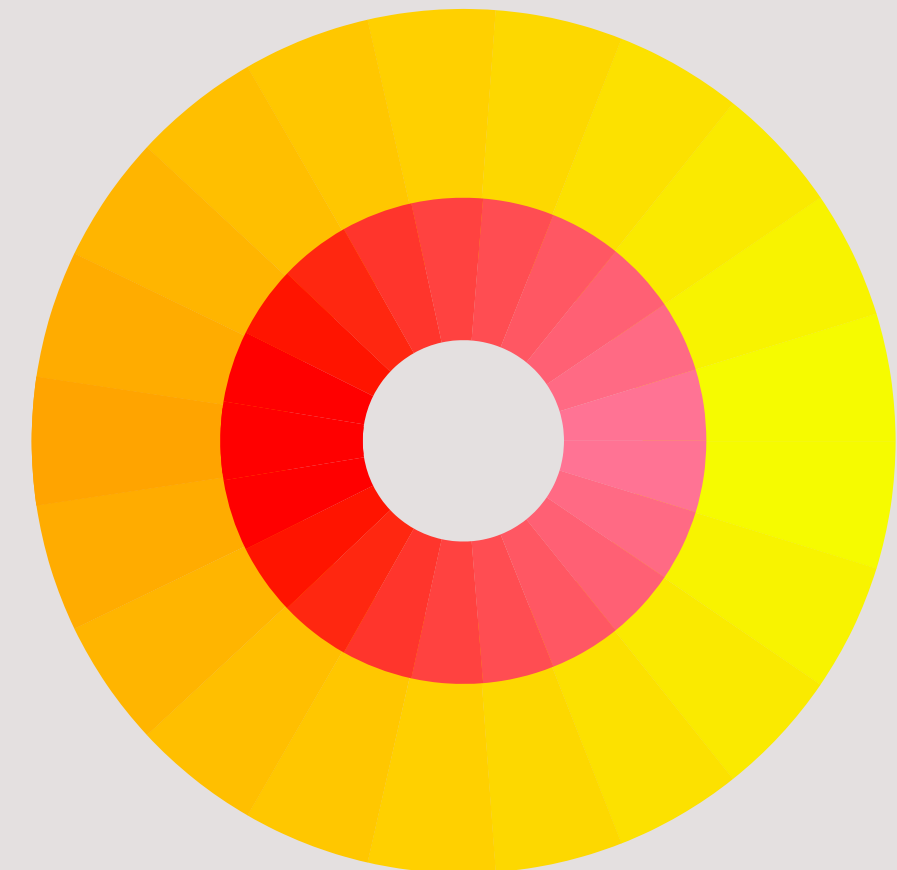
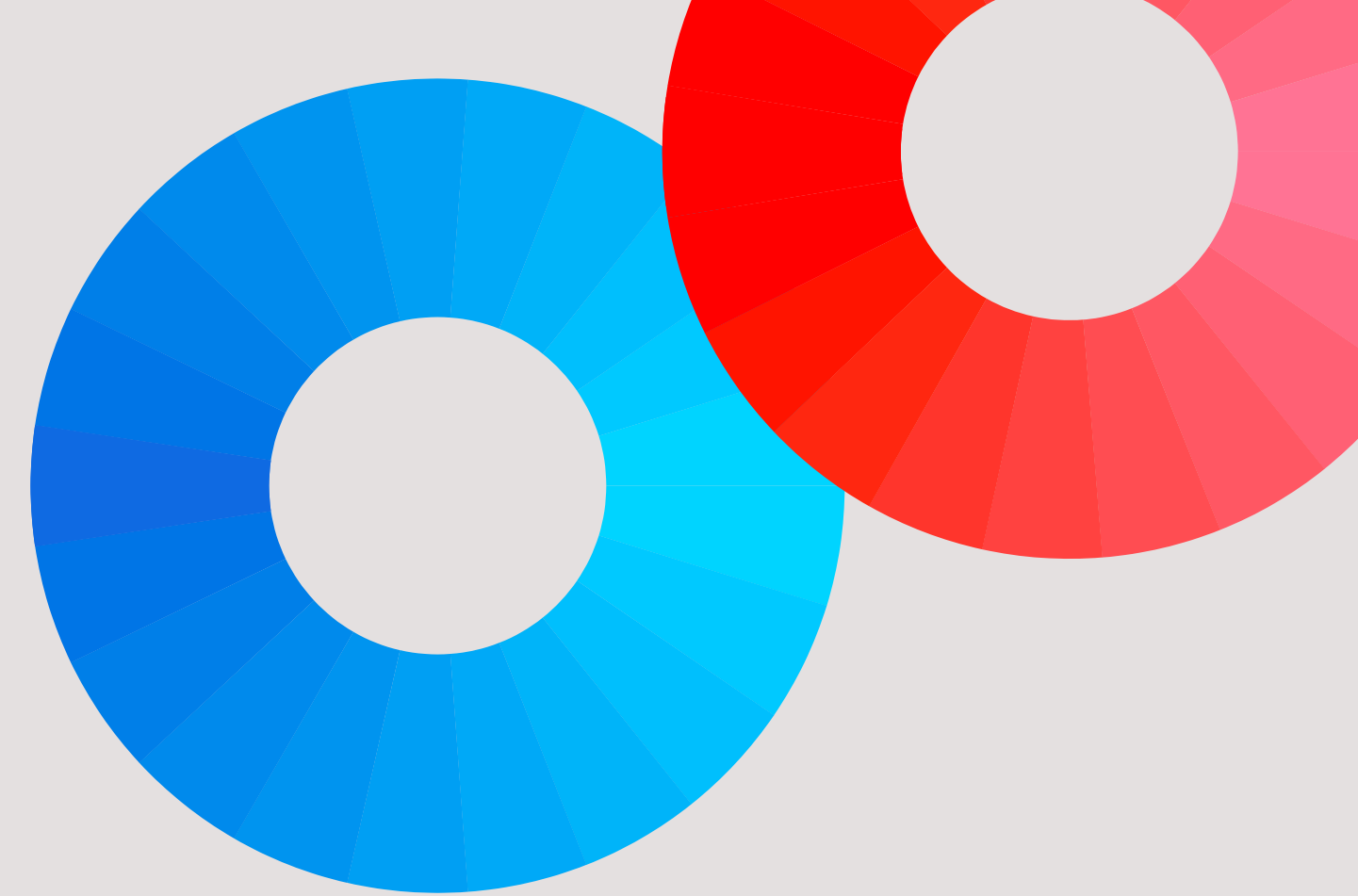
Quick and easy

Simple scenarios - basic colours are sufficient
e.g. quick styling and prototyping

```
color: blue;
```

```
color: MediumVioletRed;
```

<https://css-tricks.com/snippets/css/named-colors-and-hex-equivalents/>



RGB

```
color: rgb(153, 85, 187);
```

Colours are a unique combination of **red**, **green** and **blue**.
Hence the '**rgb()**' notation.

0-255 (256) --> 8 bits, (0 or 1), $2^8 = 256$

Practical use:

Control over each colour component
e.g. Digital Video editing - adjusting colours, filters, and enhancing visual effects

RGBA

```
color: rgb(153, 85, 187, 0.5);
```

An additional *alpha* channel is added for transparency

Practical use:

To create semi-transparent colours and overlays



HEX

color: #9955BB;

Represented using 3- or 6-digit code (#RRGGBB, or #RGB)
16 base - (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F)

Practical use:

Used for its conciseness and precision.

Versatile and consistent across different platforms and software.

e.g. Design tools e.g. Adobe Photoshop or Illustrator and others
online - consistency across the softwares

HEX A

color: #9955BB50;

An additional *alpha* channel is added for transparency

Practical use:

To create semi-transparent colours and overlays

HSL

```
color: hsl(280, 42.86%, 53.33%);
```

Hue, Saturation and Lightness

Hue is represented in degrees (0 to 360), and Saturation/Lightness are percentages.

Practical use:

Intuitive for designers, especially when working with colour variations.

e.g. animation and interaction gradient effects - smooth transitioning colours

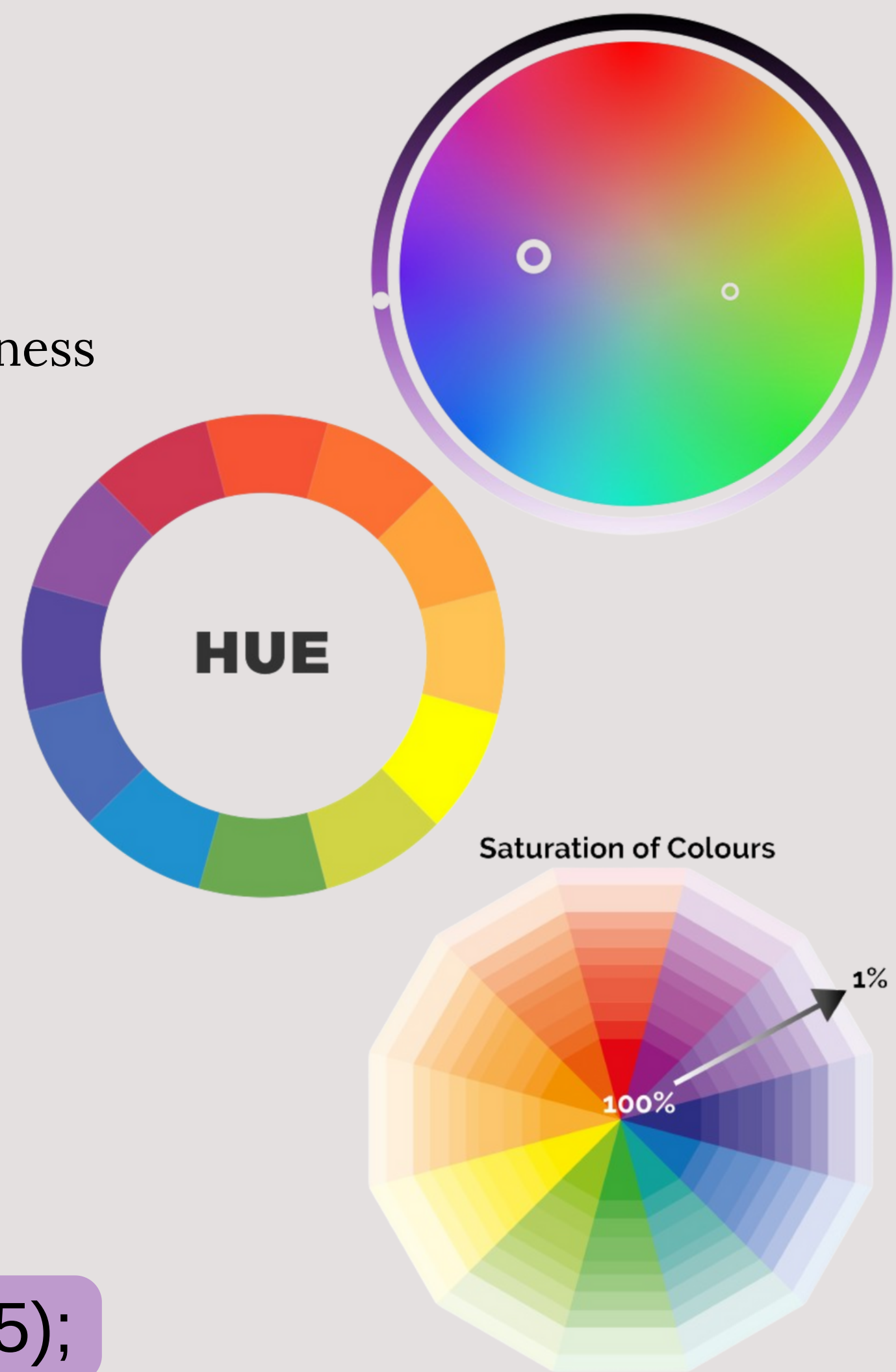
HSL A

An additional *alpha* channel is added for transparency

Practical use:

Transparency control

```
color: hsl(280, 42.86%, 53.33%, 0.5);
```



HWB

```
color: hwb(280 33.33% 26.67%);
```

Hue, whiteness and blackness.

Practical use:

e.g. designing for print – control amount of paper (whiteness) and ink (blackness) – helps manage ink saturation

Alpha channel

Doesn't have its own property like hwba(), add it to the end with a forward slash

```
color: hwb(280 33.33% 26.67% / 50% );
```

HWB Calculator:



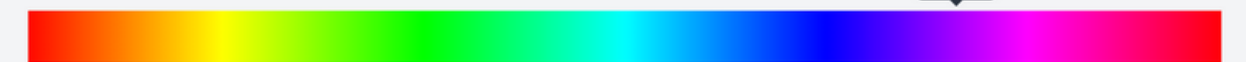
hwb(280, 33.33%, 26.67%)

#9955BB

rgb(153, 85, 187)

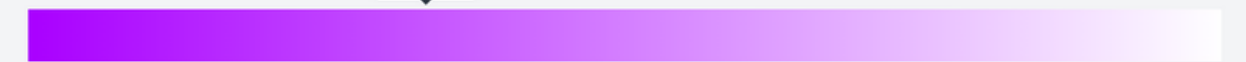
hsl(280, 43%, 53%)

H: 280



280

W: 33.33



33.33

B: 26.67



26.67

<https://www.w3docs.com/nx/color/color-hwb?color=>

<https://torquemag.io/2022/06/declare-colors-css/>

Lab

```
color: lab(48.08, 45.65, -42.7);
```

CIELab, L*A*B*, or most commonly called, Lab. Represents colours based on human vision and perception

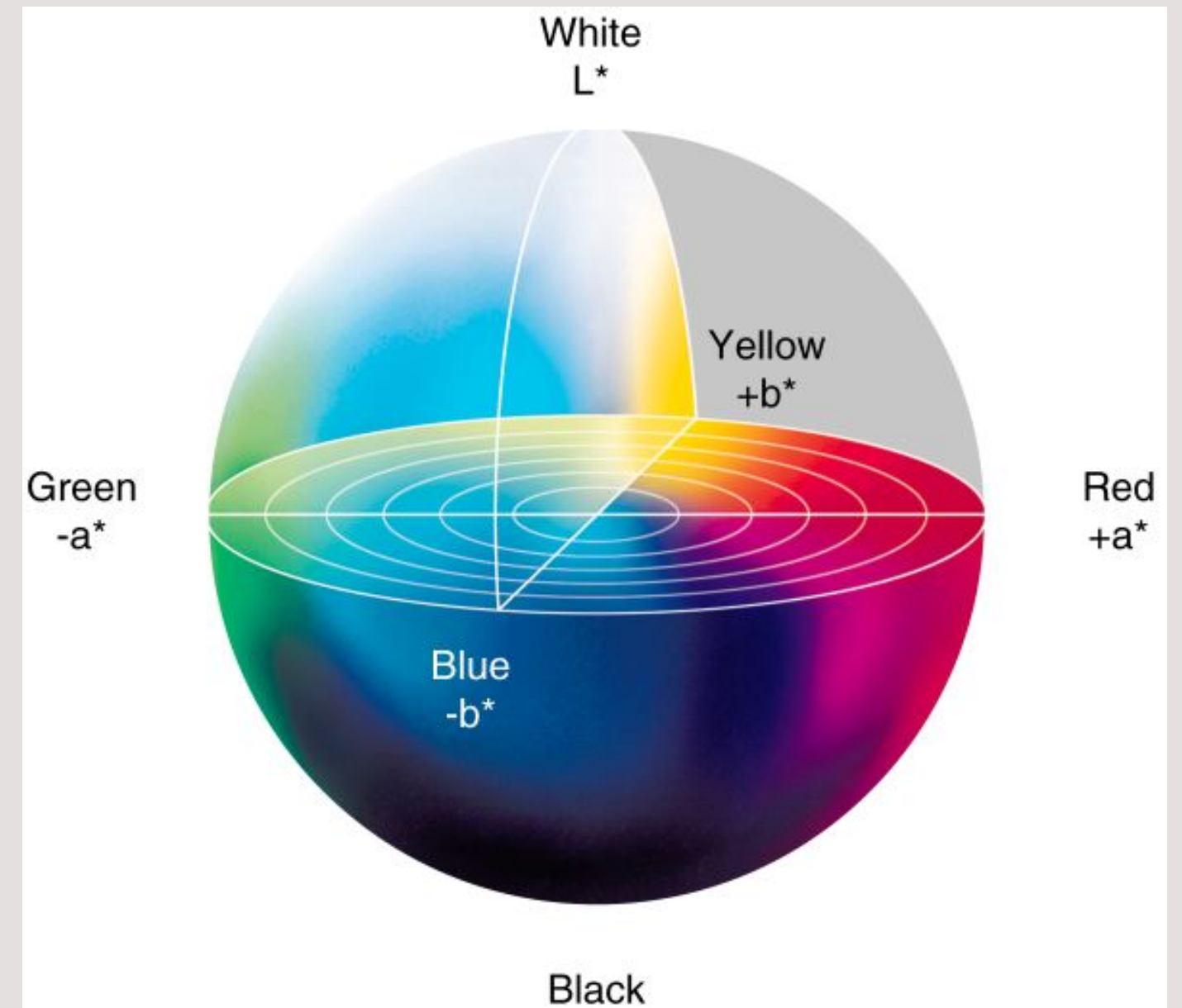
Practical use:

e.g. Quality Control in Manufacturing, Printing and Prepress

Alpha channel

Doesn't have its own property like hwba(), add it to the end with a forward slash

```
color: lab(48.08, 45.65, -42.7/0.5);
```



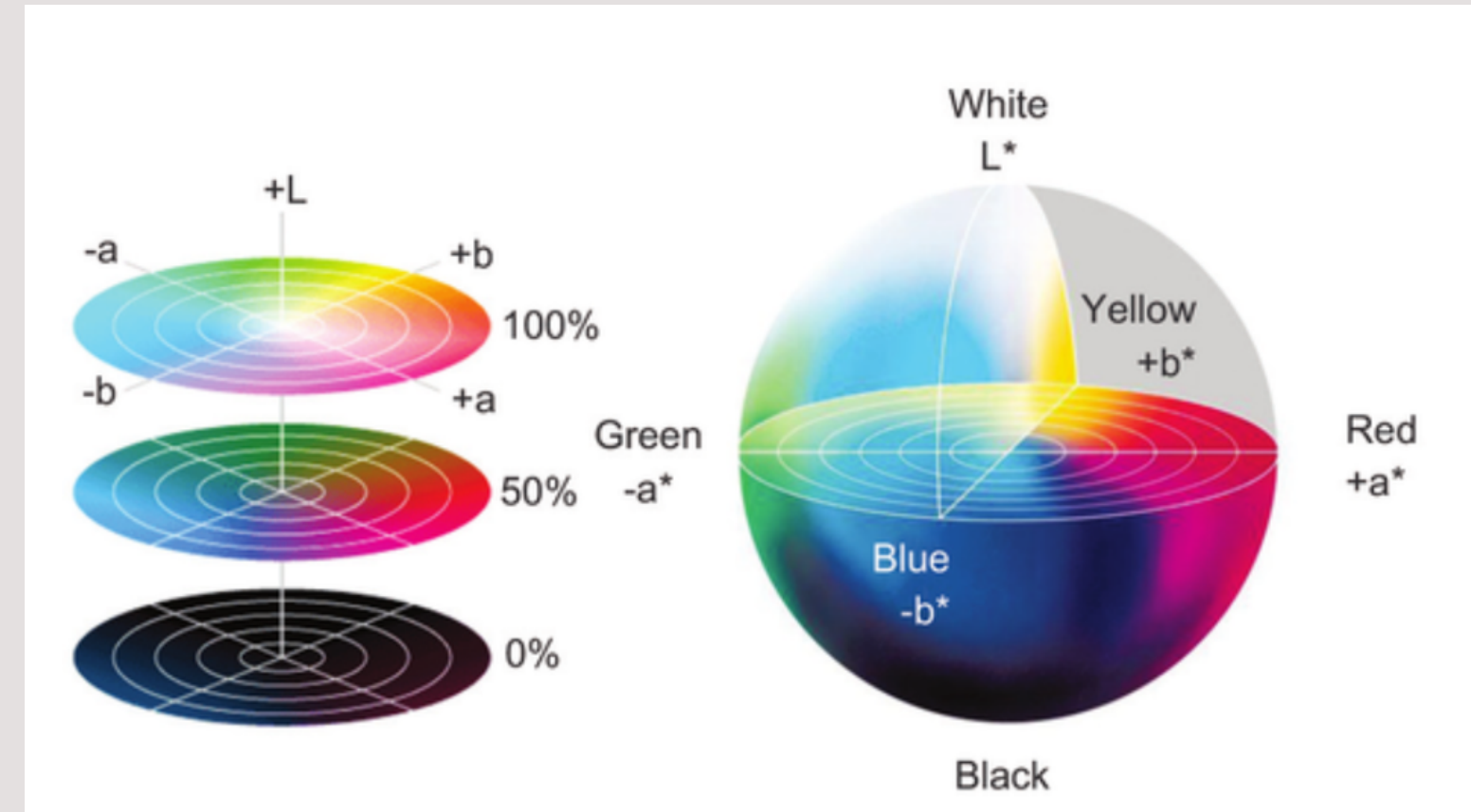
LCH

```
color: lch(47.77% 59.89 314.28);
```

LCH stands for Lightness (L), Chroma (C), and Hue (H). This colour space provides an alternative way to describe colours with more intuitive and perceptually relevant parameters.

Practical use:

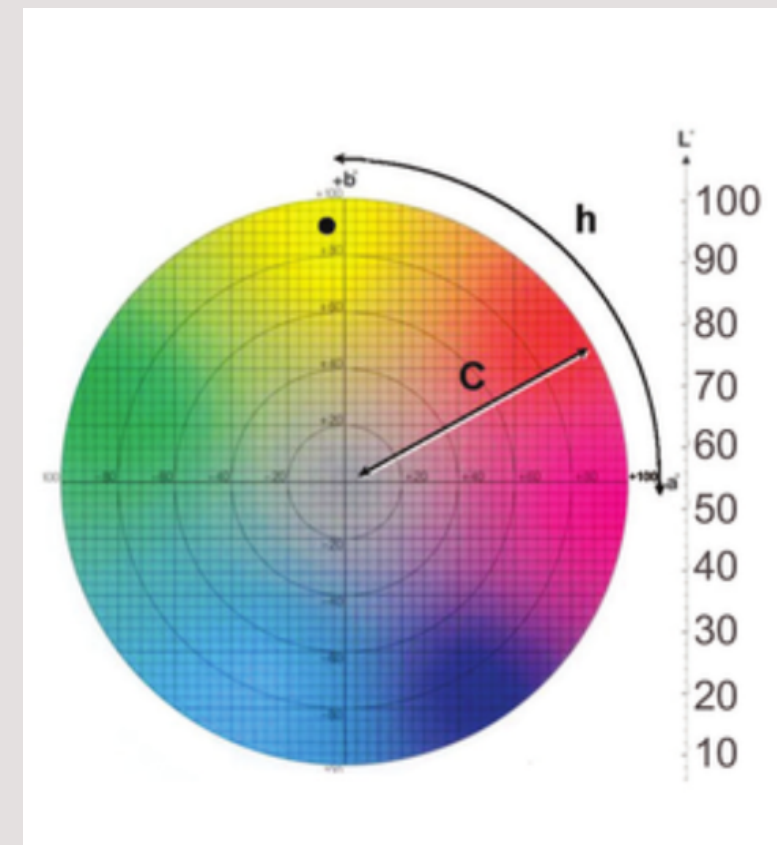
e.g. Quality Control in Manufacturing, Printing and Prepress



Alpha channel

Doesn't have its own property like hwba(), add it to the end with a forward slash

```
color: lch(47.77% 59.89 314.280.5);
```

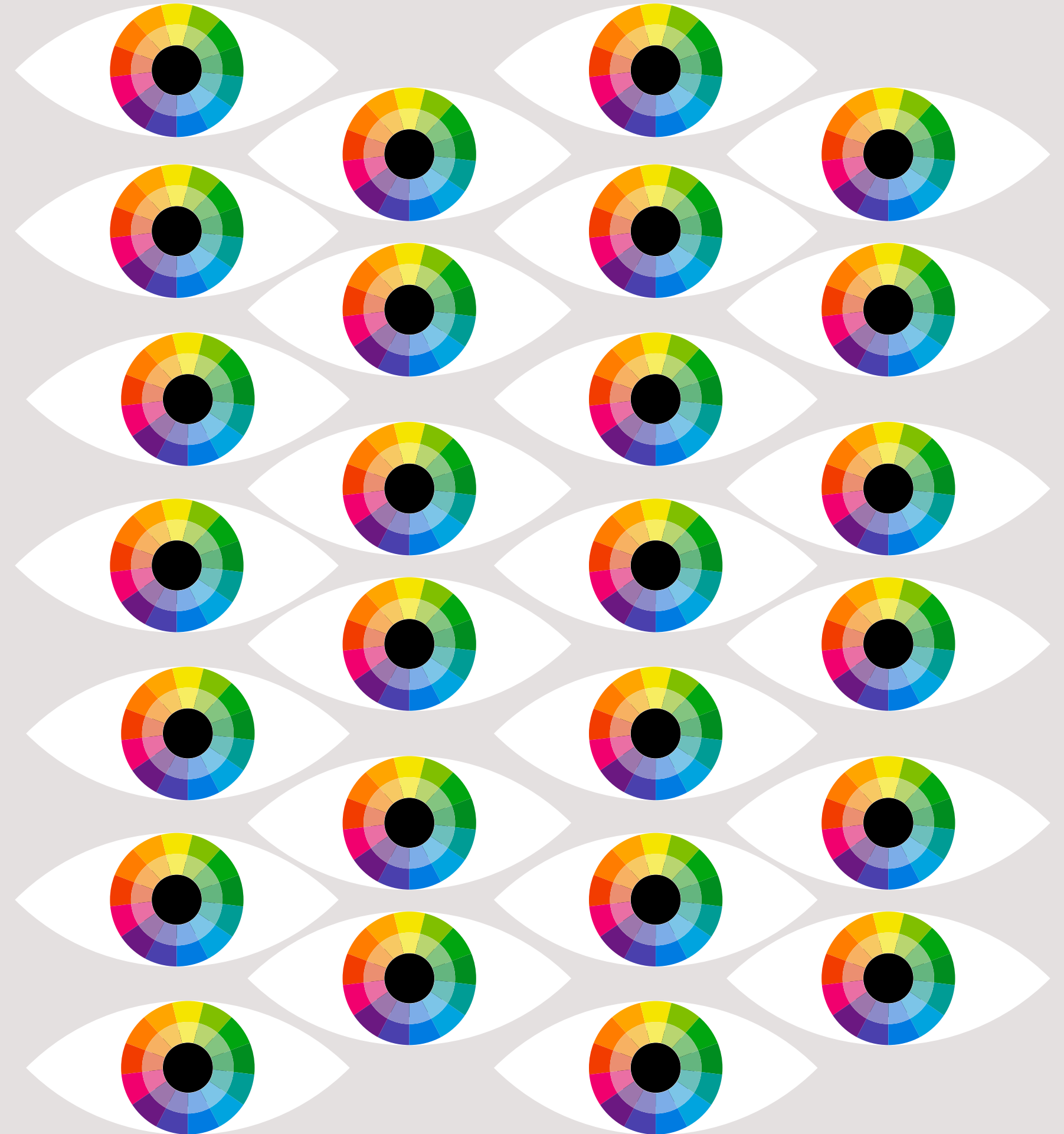


Do we need to know them all?

Yes? No?

Good to be familiar with the commonly used methods

Advantages and use cases?
Informed decision - when to use which colour representation



Useful Links/Tools

[Named Colours and Hex Equivalents](#) | CSS Tricks

[Color wheel - color theory and calculator](#) | Canva

[Color Converter](#) | W3Schools

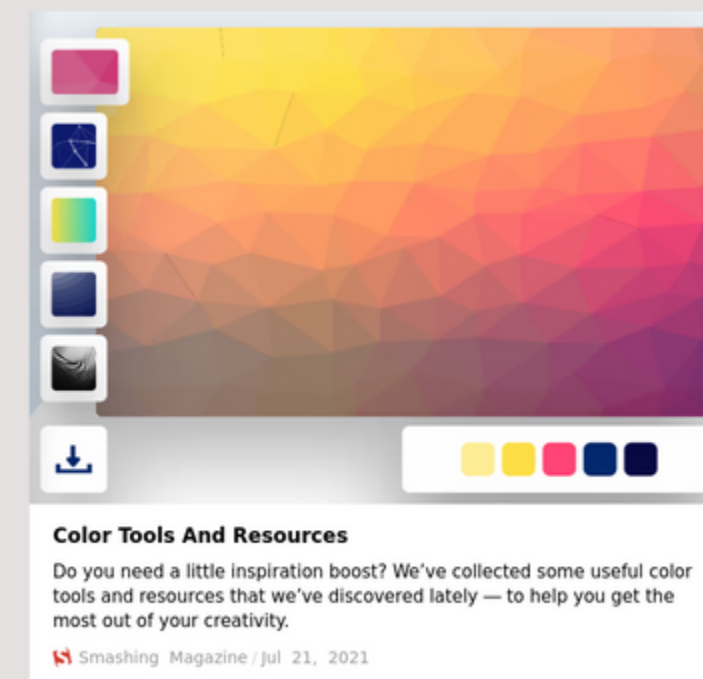
[Generate stunning palettes with Adobe's Color Wheel](#) | Adobe

[Colors](#)

[Overly descriptive colour palettes](#) | colors.lol

[pppalette](#)

[Curated colours in context](#) | HappyHues



[Smashing Magazine Colour Tools](#)



Thank you