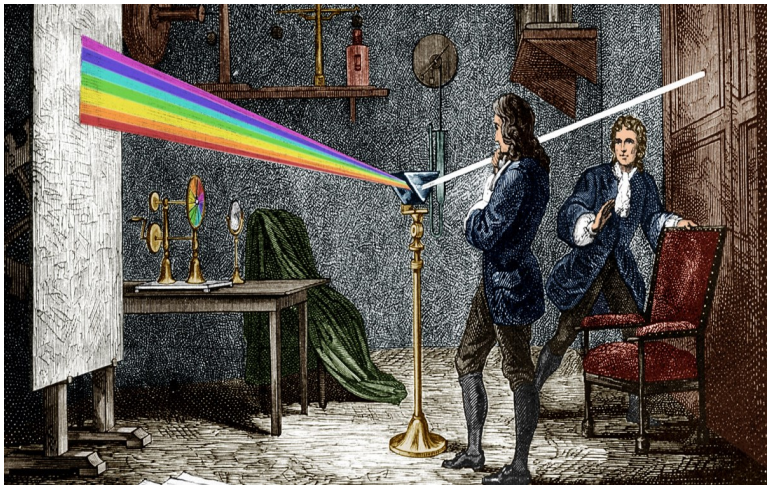
COLOUR THEORY

Colour Wheel & Colour Types

Colour is the element of art that refers to reflected light.

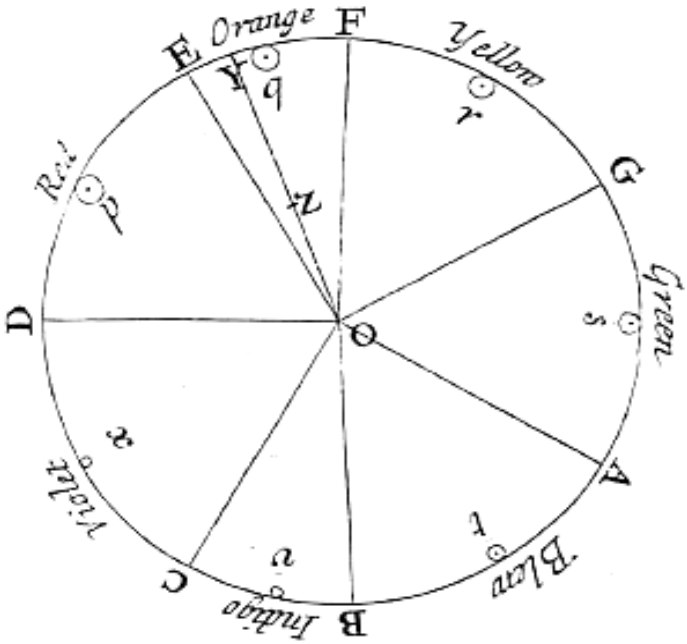
Colour Theory is both the science and the art of using colour. It explains how humans see colour and how colours mix, match, or contrast with each other. The colour wheel is a visual representation of colours arranged according to their chromatic relationship.



Sir Isaac Newton developed the first circular diagram of colours in the1600's! Newton observed the way each colour of light would bend as it passed through a prism.

"ROY G BIV" was the result of Newton's discovery. His experiments led to the theory that red, yellow and blue were the primary colours from which all other colours are derived.

In Newton's color wheel (below left), the colors are arranged clockwise in the order they appear in the rainbow, each "spoke" of the wheel is assigned a letter. The Colour Wheel we know and recognize today has 12 fundamental colours: yellow, yellow-orange, orange, red-orange, red, red-violet, violet, blue-violet, blue, blue-green, green, and yellow-green.



Color Circle by Sir Isaac Newton, *(1672)*

Farbkreis by Johannes Itten, *Art of Colour*, *(1961)*

PRIMARY

The primary colours are yellow, red, and blue. No two colours can be mixed to create a primary colour. All other colours found on the colour wheel can be created by mixing primary colours.

SECONDARY

The secondary colours are orange, violet, and green which are created by mixing equal parts of any two primary colours

TERTIARY

Tertiary colours are created by mixing equal parts of a secondary colour and a primary colour. There are six tertiary colours: red-violet, red-orange, blue-green, yellow-green, blue-violet, and yellow-orange.

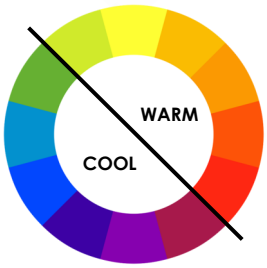
ANALAGOUS

Analagous colours are colours that are next to each other on the colour wheel: green, yellow-green, and yellow.

COMPLIMEN-TARY

Complimentary colours are wo colours that are on opposite sides of the colour wheel: red and green.

COLOUR TEMPERATURE



The colour wheel can also be divided into warm and cool colours, also known as colour temperatures. Warm colours are red, yellow, orange, and cool colours are blue, green, purple.

MONO-CHROMATIC

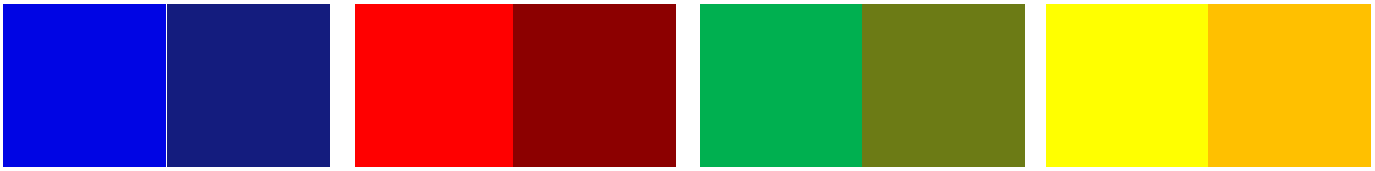
Monochromatic means one (mono) colour (chroma). So monochromatic is tints and shades of the same colour.

COLOUR THEORY

Hue, Value, & Saturation

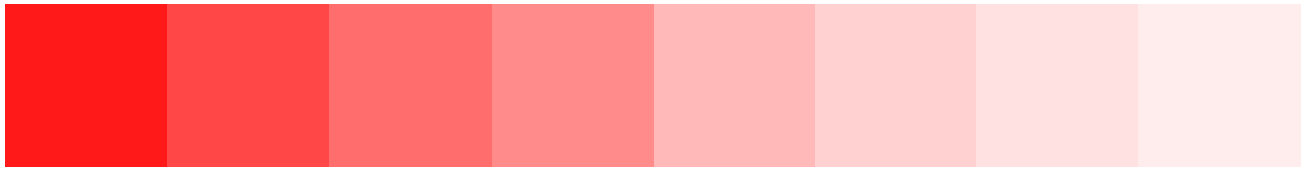
HUE

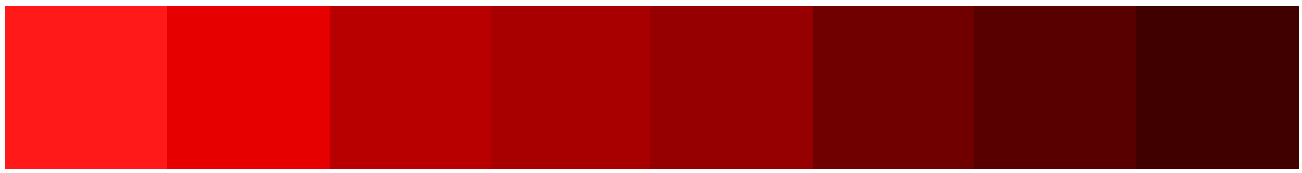
Hue refers to the dominant wavelength of colour. For example, the hue of navy is blue, the hue of burgundy is red, the hue of olive green is green, and the hue of mustard is yellow.



VALUE

Value is the darkness or lightness of a colour. When dealing with pure colour, value can be affected by adding white, by adding black, or by adding the colours' compliment (ex. adding green to red will produce a shade of red). Adding white to a colour produces a tint & adding black or a colours' compliment produces a shade.





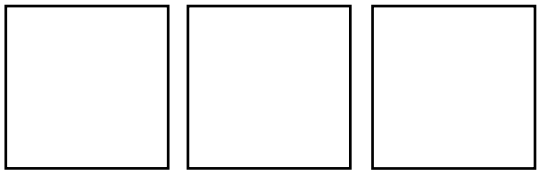
SATURATION

Saturation refers to the intensity or strength of the colour. A colour in its purest form is considered fully saturated. Adding neutral colours to a pure or fully saturated colour change the intensity and de-saturate it. Think vivid vs. dull.

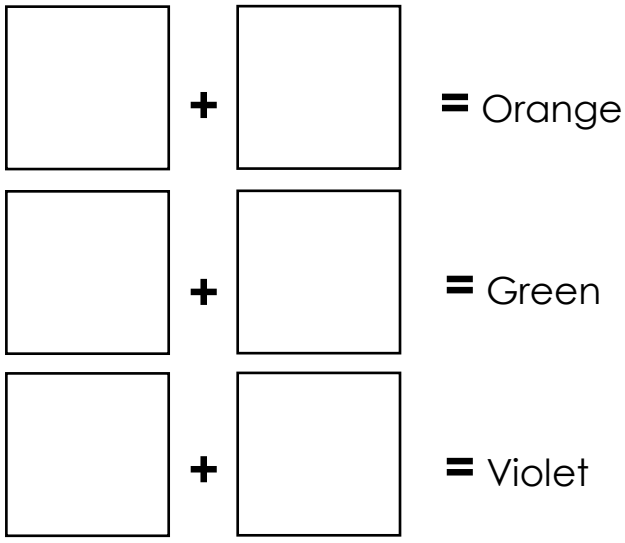
COLOUR THEORY QUIZ

Test your Colour Theory knowledge

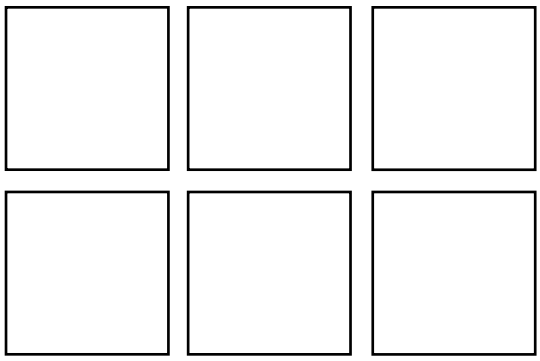
1. Primary Colours:



2. Secondary Colours:



3. Tertiary Colours:



ANSWER KEY

1. Yellow, red, blue ; 2. Red & yellow, yellow & blue, blue & red ; 3. Yellow-orange, red-orange, red-violet, blue-violet, blue-green, yellow-green ; 4. Refers to the dominant wavelength of colour, ex. Blue is the hue of navy ; 5. Colours which are directly across from each other on the colour wheel, ex. Yellow & violet ; 6. Meaning one colour, tints and shades of the same colour ; 7. Making a colour lighter by adding white ; 8. Making a colour darker by adding black or it's compliment

4. What is a **hue**? Explain and give an example:

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5. What are **complimentary colours**? Explain and give an example:

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6. What is **monochromatic**? Explain and give an example:

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7. What is a **tint**? How would you make a tint? Explain and give an example:

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8. What is a **shade**? How would you make a shade? Explain and give an example:

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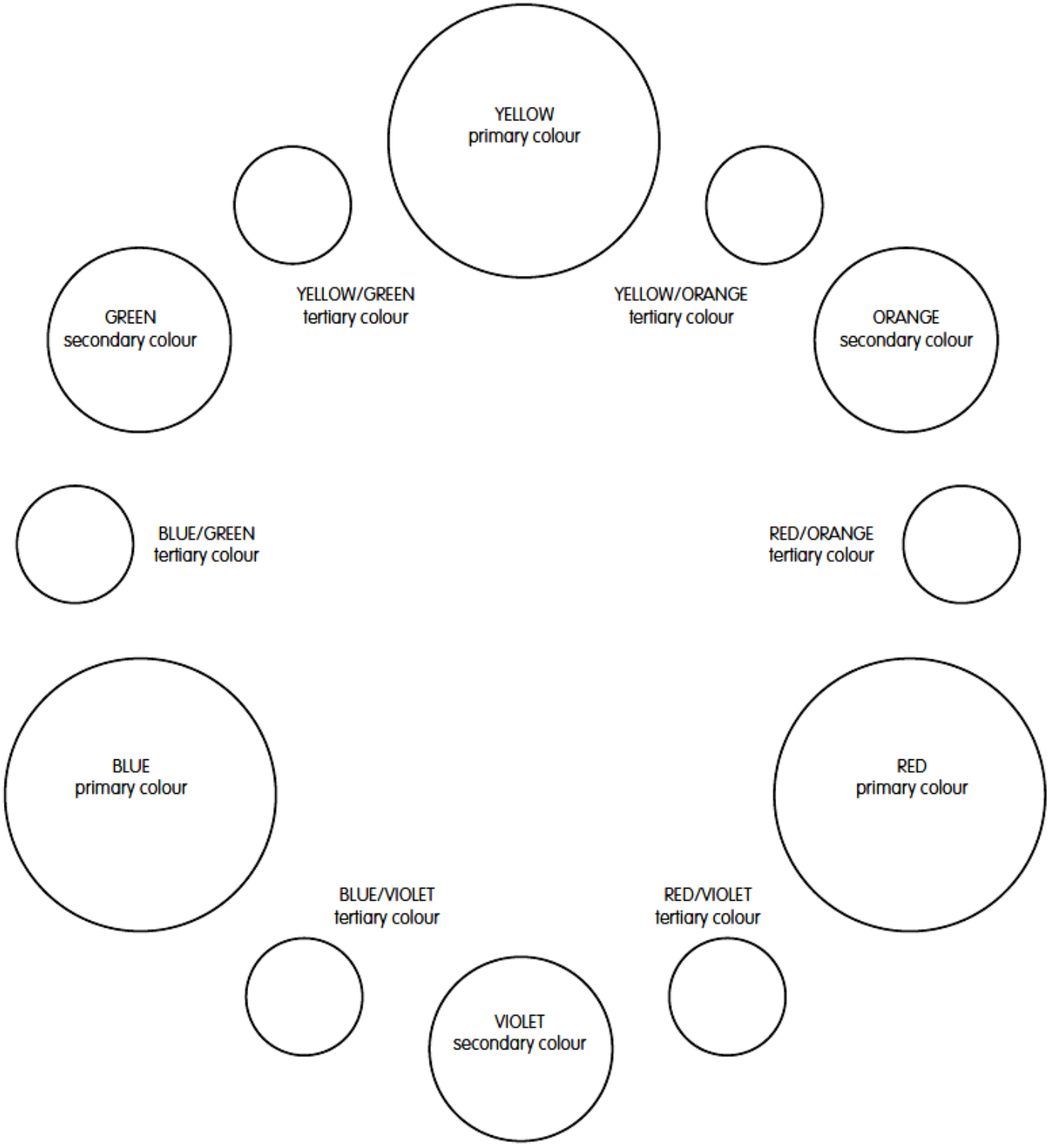
COLOUR THEORY

Complete the Colour Wheel



COLOUR THEORY

Practice mixing colours

						BROWN
						BLACK
						WHITE
						GREEN
						BLUE
						VIOLET
						RED
						ORANGE
						YELLOW
YELLOW	ORANGE	RED	VIOLET	BLUE	GREEN	