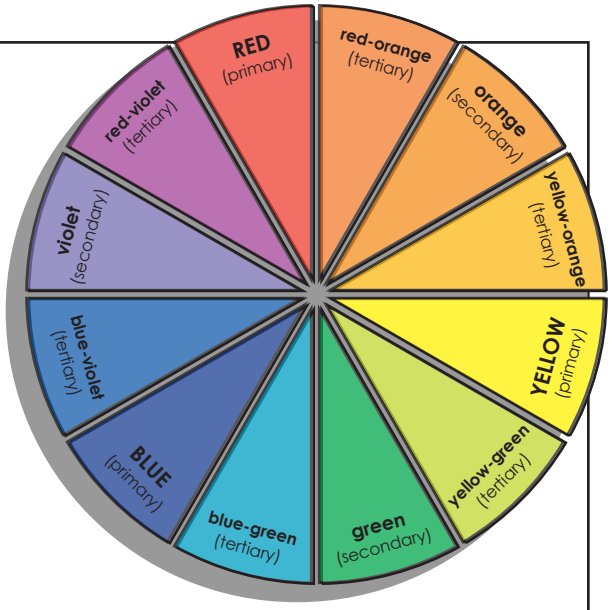
An exercise in color, (or "reinventing the wheel")



PRIMARY **pure colors (red, yellow, blue)**
"first," "principal colors,"
made by manufacture, not mixing

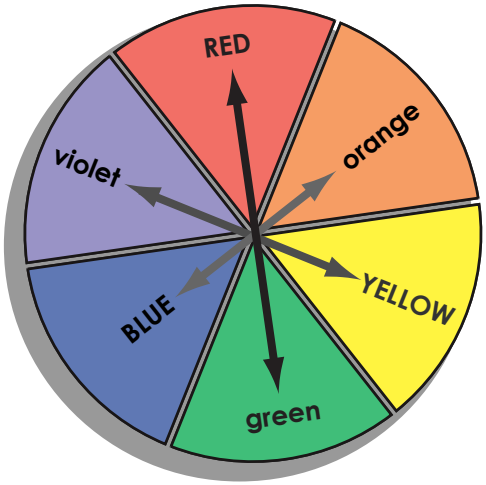
SECONDARY **mix any two primary colors**
red + yellow = **orange**
yellow + blue = **green**
blue + red = **violet**

TERTIARY **"intermediate" colors**
mix together a primary color with an equal amount of the secondary color next to it on the color wheel

(red-orange, yellow-green, blue-green, blue-violet, red-violet)

COMPLEMENTARY PAIRS

(such as red & green, orange and blue)



INTENSIFY VS. NEUTRALIZE

"simultaneous contrast" - seen side by side, complementary colors **intensify** each other,

Mixed together as a **"shade,"** they subdue or **neutralize** intensity

TINTS AND SHADES

Tint a color **mixed with white**, ranging from pure color at maximum intensity through to white

Tinting Strength ease or degree to which a color will **tint white** (high strength means little is necessary to tint white)

Shade a color **darkened by mixing with a dark color**, such as **black**, or a second color, usually its **complementary**.

Hue another name for color, (for ex. Phthalo blue, Ultramarine blue and Prussian blue, are all close in **"hue"** to each other)

Tone describes the **relative lightness or darkness** of a color (light, mid, dark) -the tone can lighten if white is added to a tint

Value describes the **lightness or darkness** of a color, such as light value (lemon yellow) or dark value (indigo) **(not the same as brightness or intensity!)**

Saturation describes the relative purity of a hue, aka. **"chroma"** or **"intensity"** - the pure colors of red, blue and yellow, are all **"fully saturated"** colors.

Color intensity the relative **chroma (saturation or intensity)** of secondary and tertiary mixes is a measure of their **purity or brightness**, which depends on the quality of the primary colors used to create them. (Most paint manufacturers produce multiple versions of each hue)

Lightfastness the grade of lightfastness is an indicator of the paint's **ability to resist fading** when exposed to light

Undertone the **bias of a color toward another color**, best seen when the color is brushed out thinly on a white surface (those colors with a **bias towards each other** will make the most **intense mixes**)

TRANSPARENCY VS. OPACITY

Transparency the degree to which a color allows light to pass through it and reflect back from the color beneath - used in glazing techniques **(adding white to a color can reduce transparency!)**

Opacity opposite of transparency, describes the degree to which light is prevented from passing through the color (aka. **"covering power"**)

WARM VS. COLD COLOR

Temperature describes a color as **"warm" (red, orange, yellow)** or **"cool" (green, blue, violet)** - All colors have warm or cool variants, such as alizarin crimson (blue bias, **"cool"** red) or cadmium red (orange bias, **"warm"** red)

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ref. Sidway, Ian. Color Mixing Bible, Watson-Guptill Publications, NY, 2002.