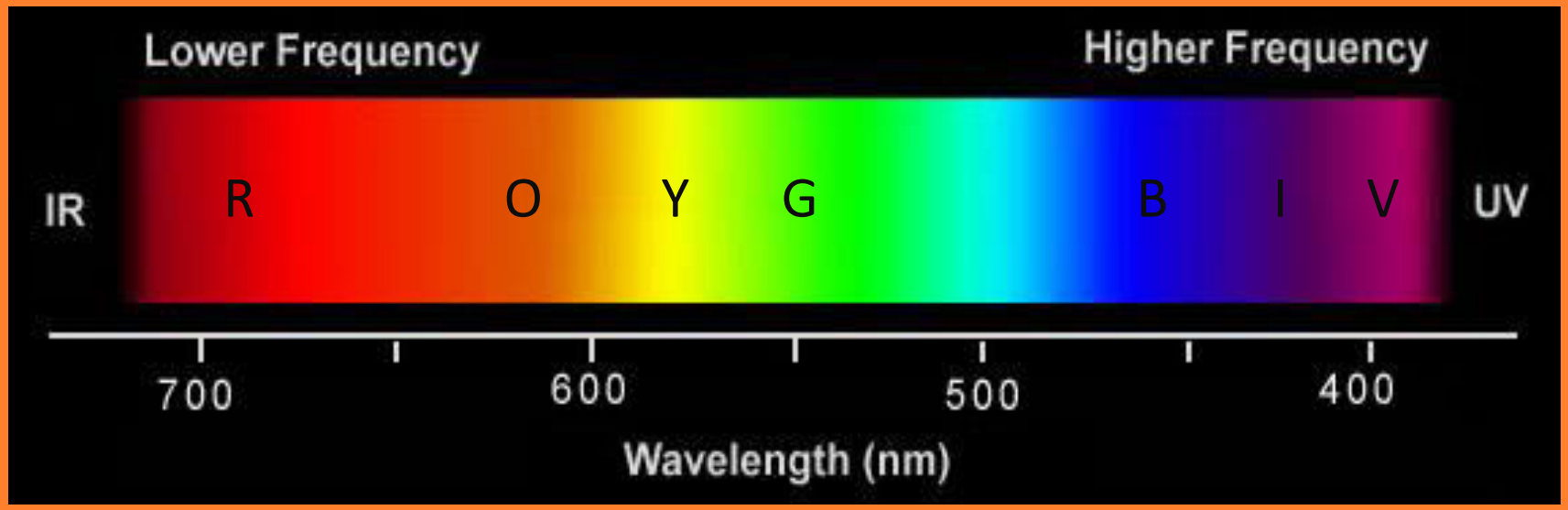
Color Theory

- Just like line, shape, form, and value, **COLOR** is an **element of art**.

- **COLOR** is produced when light strikes an object and reflects back to the viewers' eyes.

- The different wavelengths create different colors. The colors are represented in the visual spectrum, a rainbow. The first color, Red, represents the longest wavelength, while Violet is the shortest, the last.

Visual Color Spectrum



The Visual Color Spectrum is measured in nanometers. Each person has a different range they are able to see. This is why most color blind people have a difficult time with red and purple, being at the extreme ends of the spectrum.

Colors have **3 properties**:
(1) **hue:** the color name, e.g., red, yellow, blue, etc.
(2**) intensity:** bright or dull
(3) **value:** the lightness or darkness of a color.

When the spectrum is organized as a color wheel, the colors are divided into groups called **primary, secondary and intermediate (or tertiary)** colors; **analogous** and **complementary**, and also as **warm and cool colors**.

Intensity/Saturation

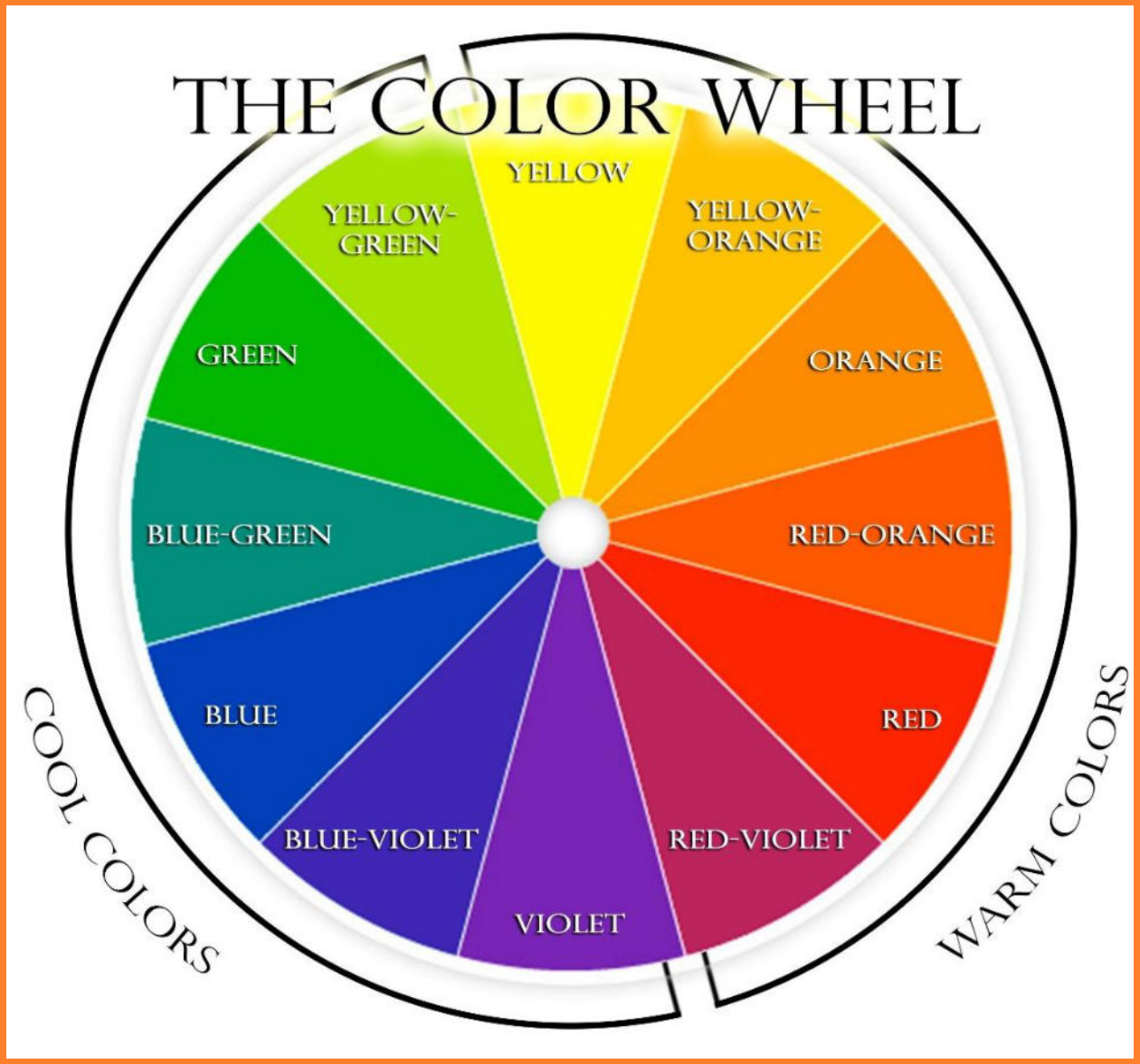
High Intensity **Low Intensity**

Color has many different shades. The intensity or saturation is used to describe the brightness and purity of a color. When a hue is strong and bright, it is said to be high in intensity or fully saturated. When a color is faint, dull and gray, it is said to be low in intensity.

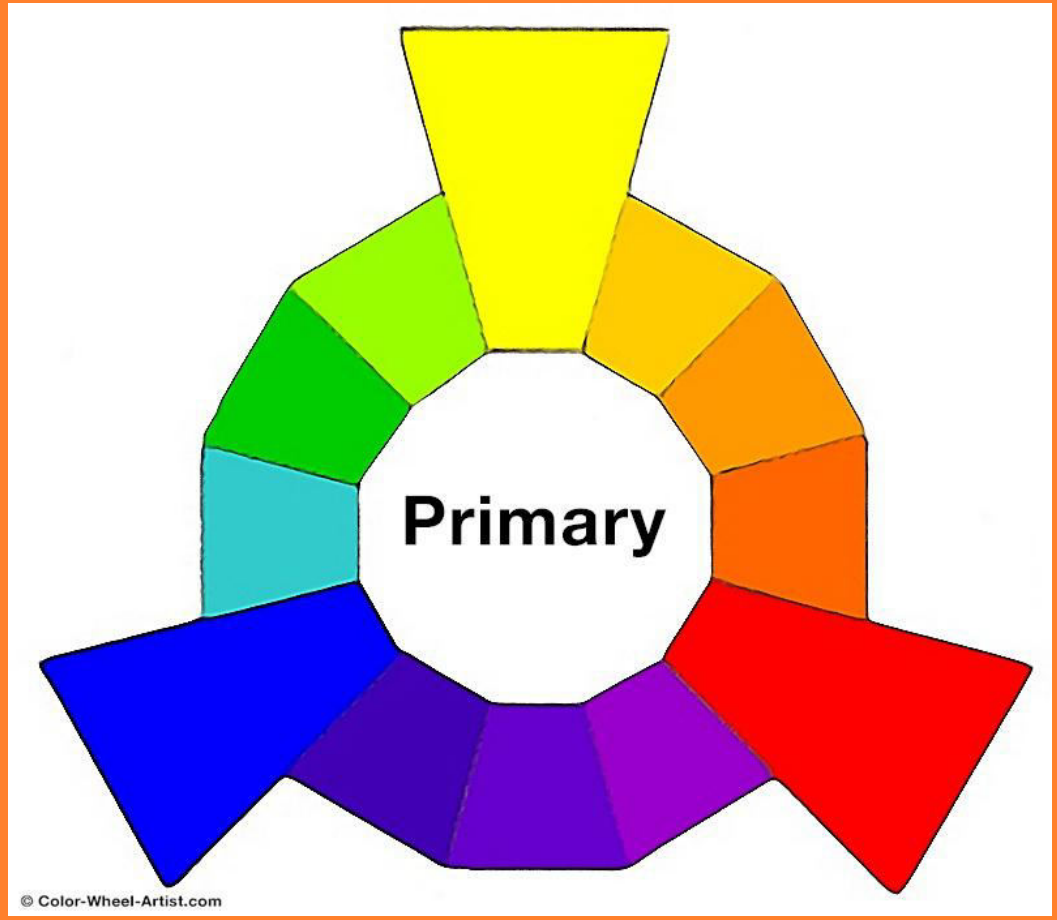
Value in Color

When describing a hue, value refers to its lightness or darkness. Value changes are often obtained by adding black or white to a hue.

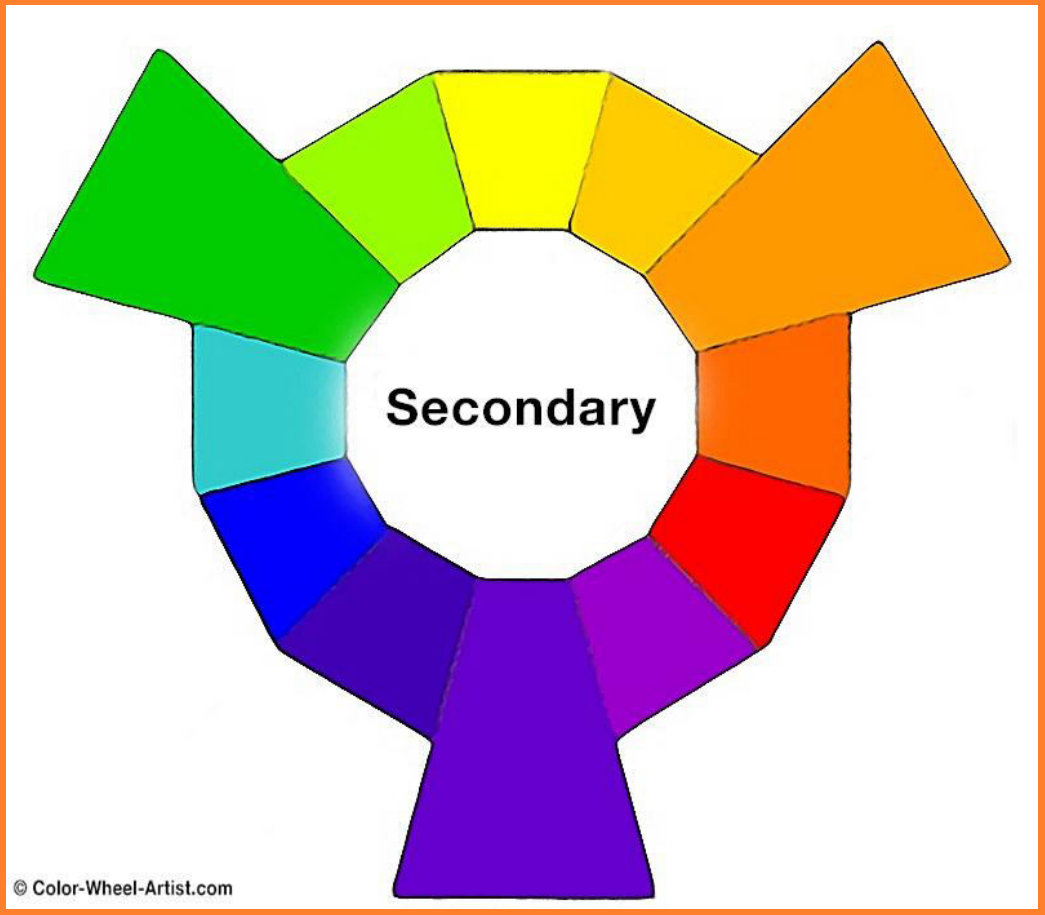
Here is an example of a value scale that has values ranging from the darkest dark, to the whitest white


THE COLOR WHEEL
YELLOW
YELLOW-ORANGE
ORANGE
RED-ORANGE
RED
RED-VIOLET
VIOLET
BLUE-VIOLET
BLUE
BLUE-GREEN
GREEN
YELLOW-GREEN
COOL COLORS
WARM COLORS

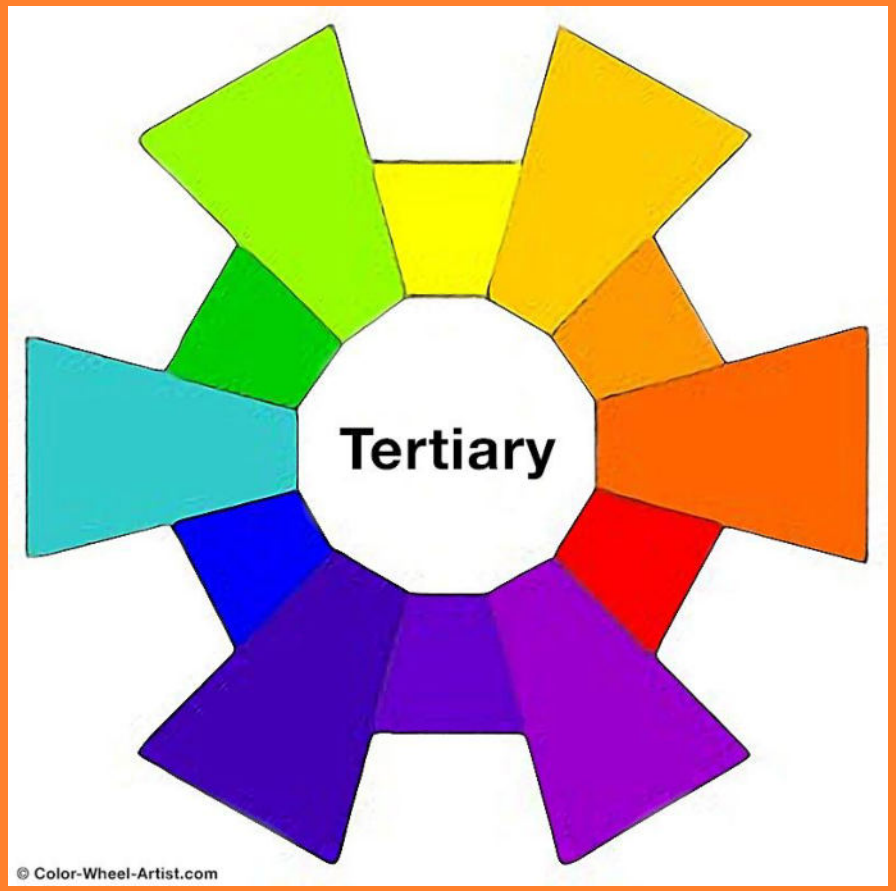
Primary colors - The colors yellow, red, and blue make it possible to make all the other colors of the spectrum.



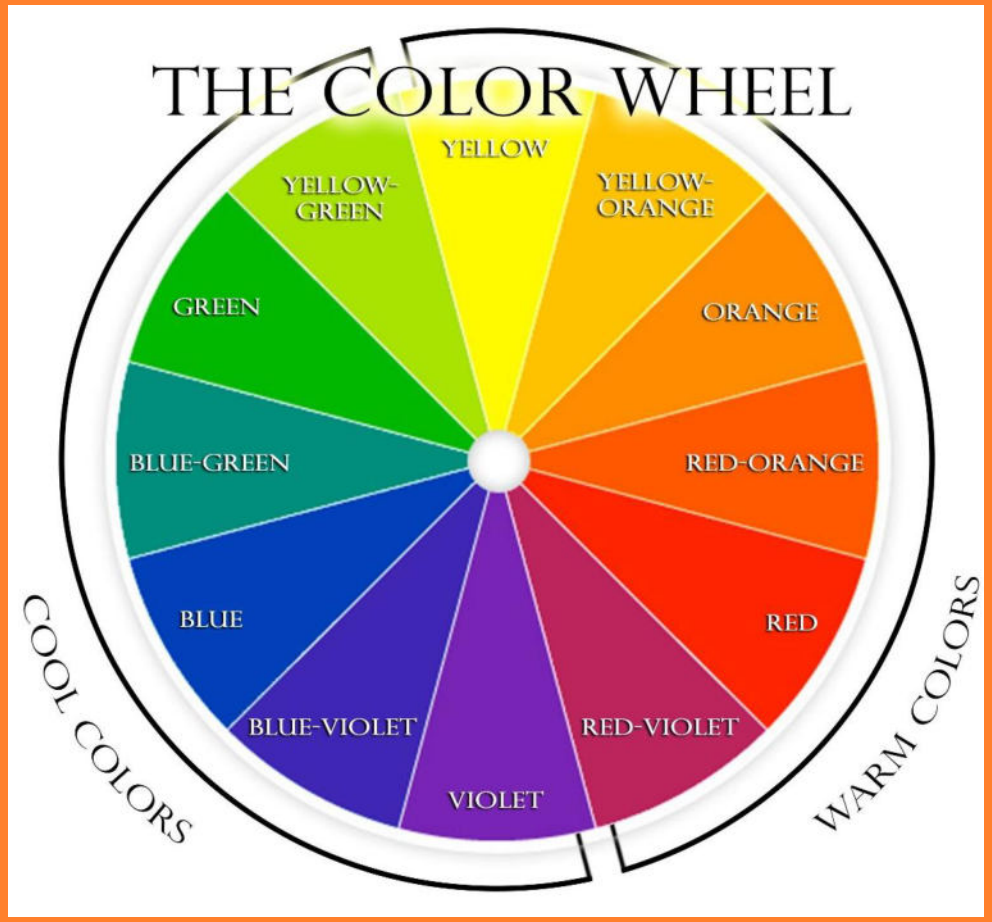
Secondary colors - The colors obtained by mixing equal amounts of two primary colors.



Intermediate colors - Also known as tertiary colors, they are produced by mixing unequal amounts of two primary colors. For example, adding more red to the combination of red and yellow will produce the intermediate color of red-orange. Intermediate colors are located between the primary and secondary colors on a color wheel.



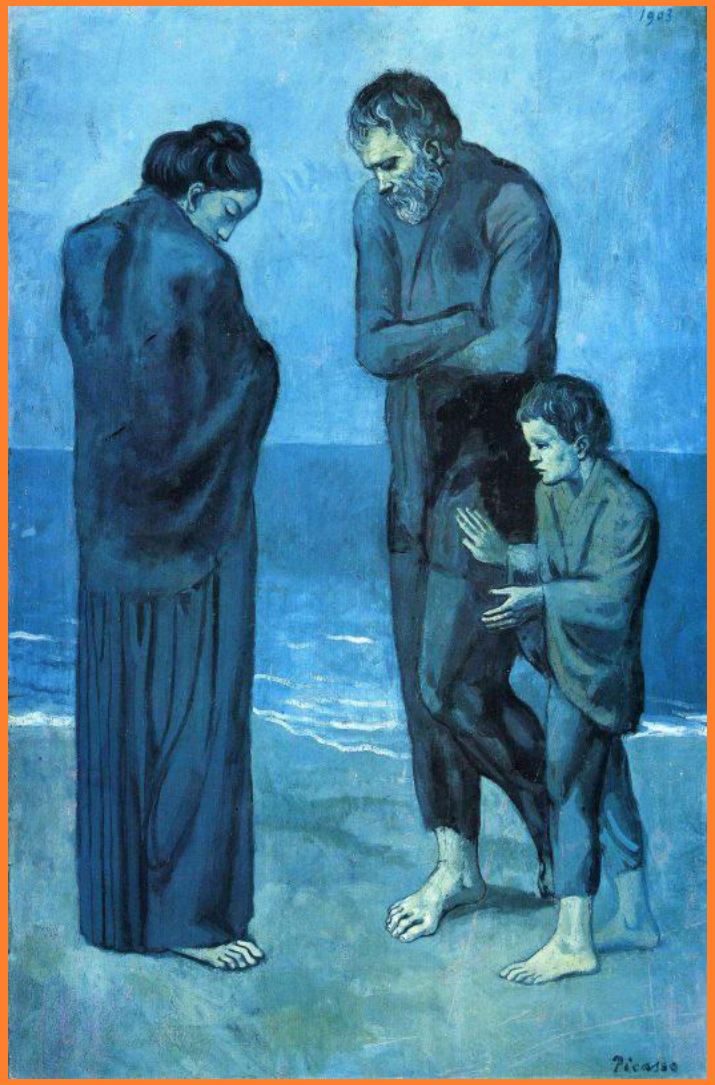
Color Temperature



Colors are often described as having temperature — ***as warm (reds, oranges, and yellows)*** **or** ***cool (greens, blues, and violets).***

Cool colors-Colors whose relative visual temperature makes them seem cool. These are often associated with water, sky, and foliage, and suggest cool temperatures. Psychologically, cool colors are said to be calming. Optically, cool colors generally appear to recede.

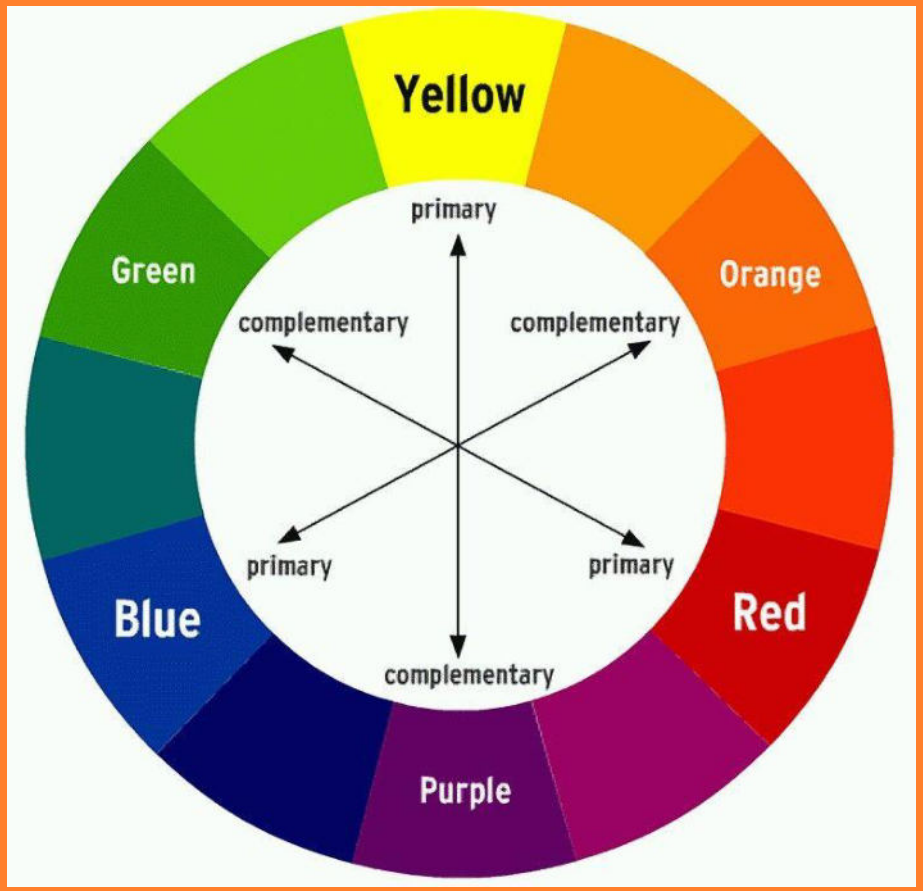
Warm colors-Colors whose relative visual temperature makes them seem warm. These are often associated with fire and the sun. Psychologically, warm colors are said to be stimulating and passionate. Optically, warm colors



Cool Color Scheme

Warm Color Scheme

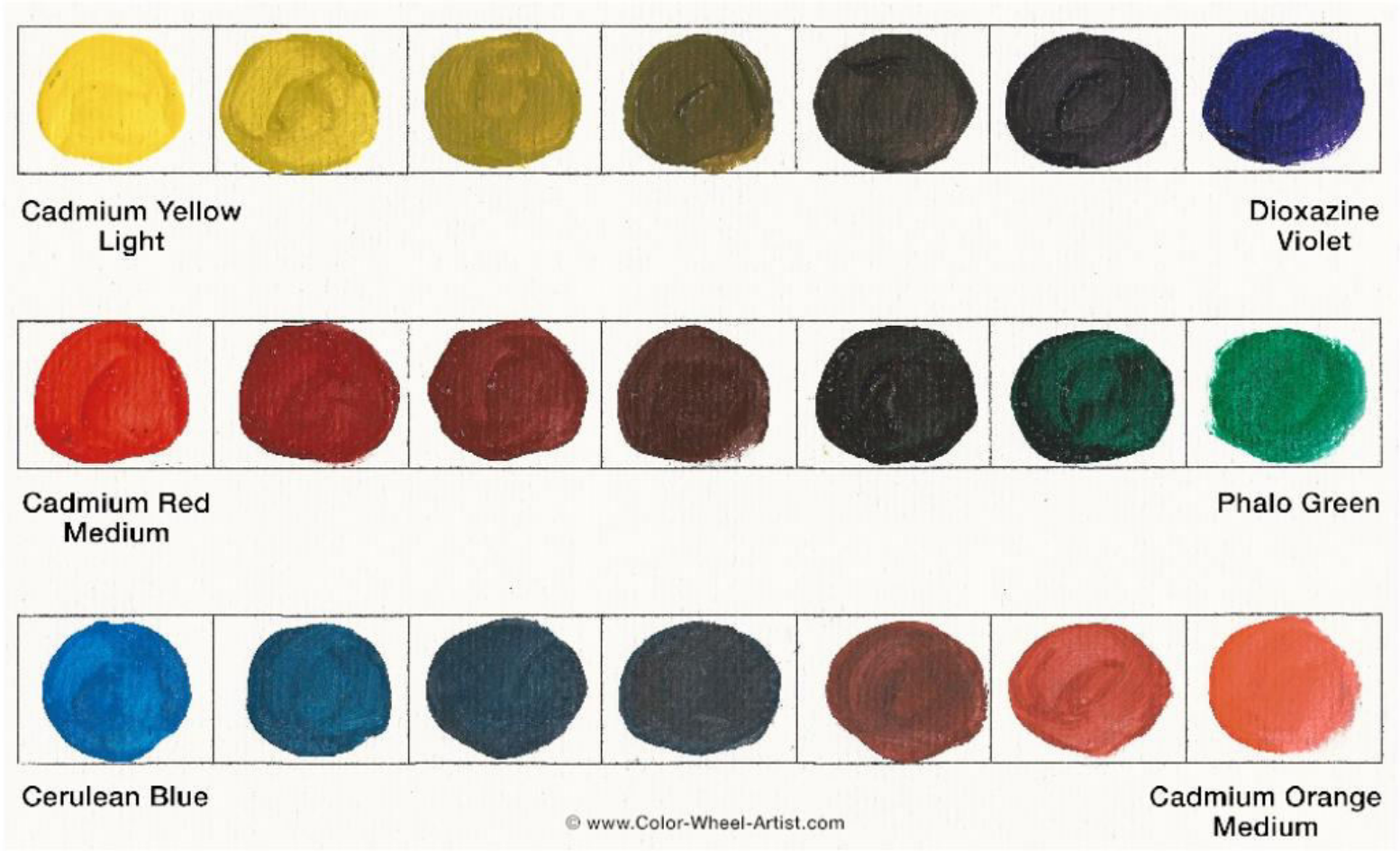
Complementary Colors

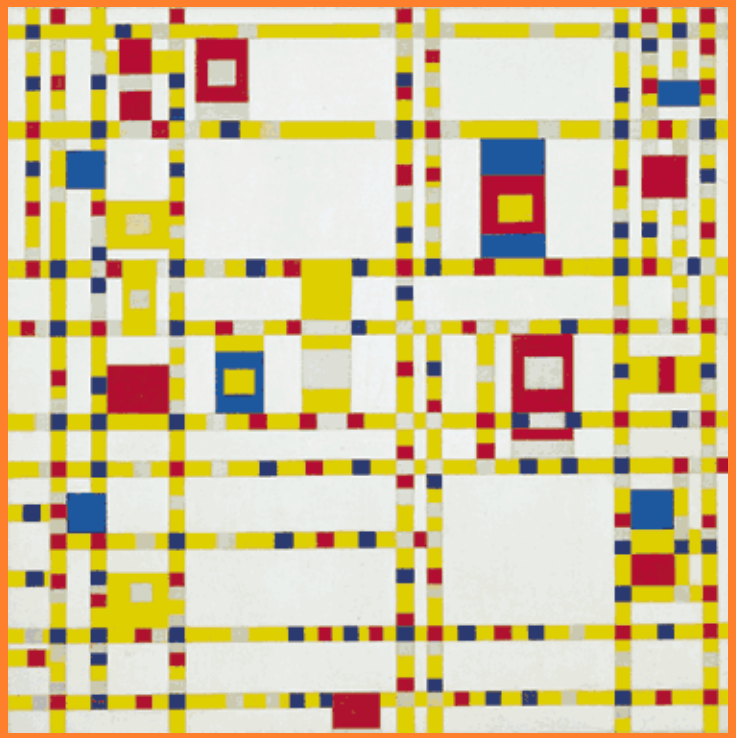


Complementary colors – Colors that are directly opposite each other on the color wheel, such as red and green, blue and orange, and violet and yellow. When complements are blended together they form neutral browns or grays.

Complementary Color Scheme

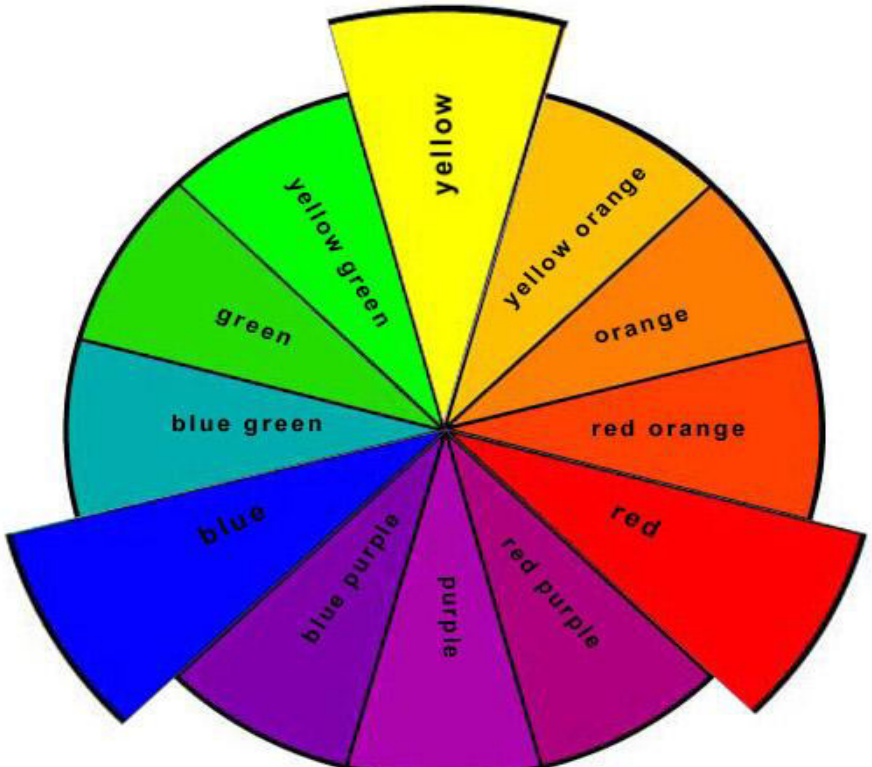
Complementary Color Blends





Color Triad

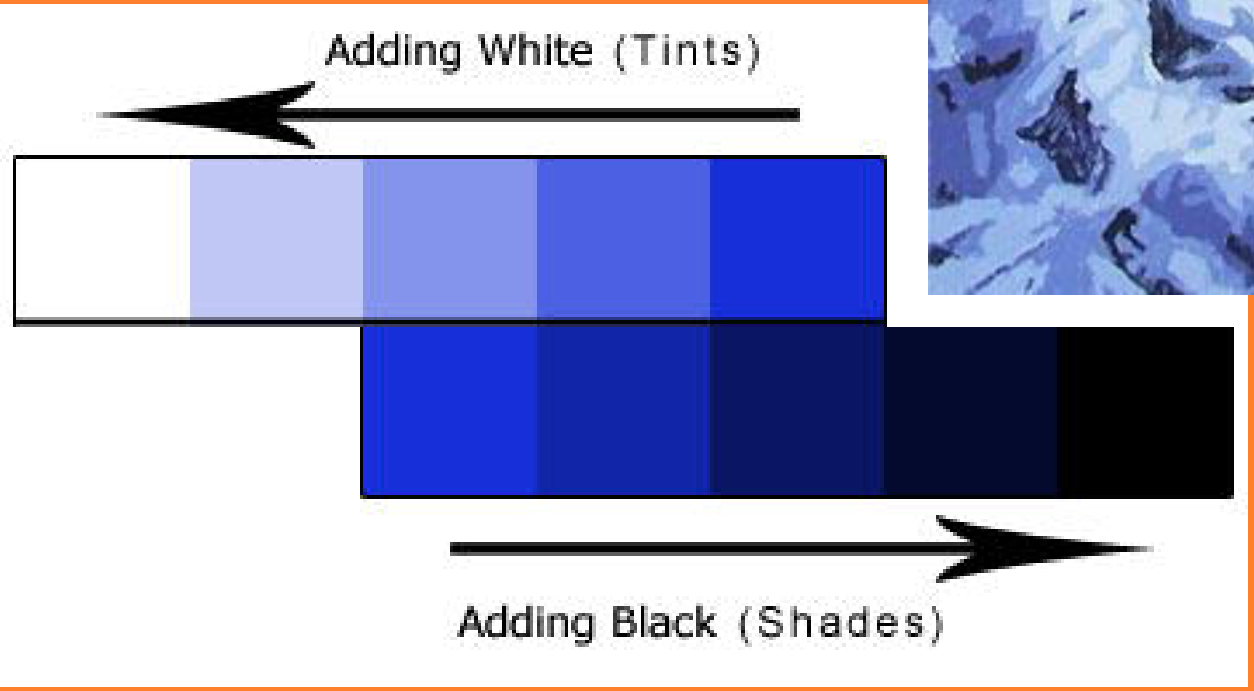
triad - Three colors equally spaced on the color wheel. For example, red, yellow and blue form a triad, as do orange, green and violet, and so on.



Piet Mondrian, (Dutch) 1872-1944, *Boogie-Woogie, 1942-43. Oil on canvas, 50 x 50" (127 x 127 cm) . The Museum of Modern Art, New York.*

Monochromatic

A color scheme consisting of one color and its values (tints and tones).



Analogous

analogous colors – A set of 3 to 5 colors that are next to each other on the color wheel and are closely related.

For example, blue, blue-green, and green all have the color blue in common.

Families of analogous colors include the warm colors (red, orange and yellow) and the cool colors (green, blue and violet).

Arbitrary

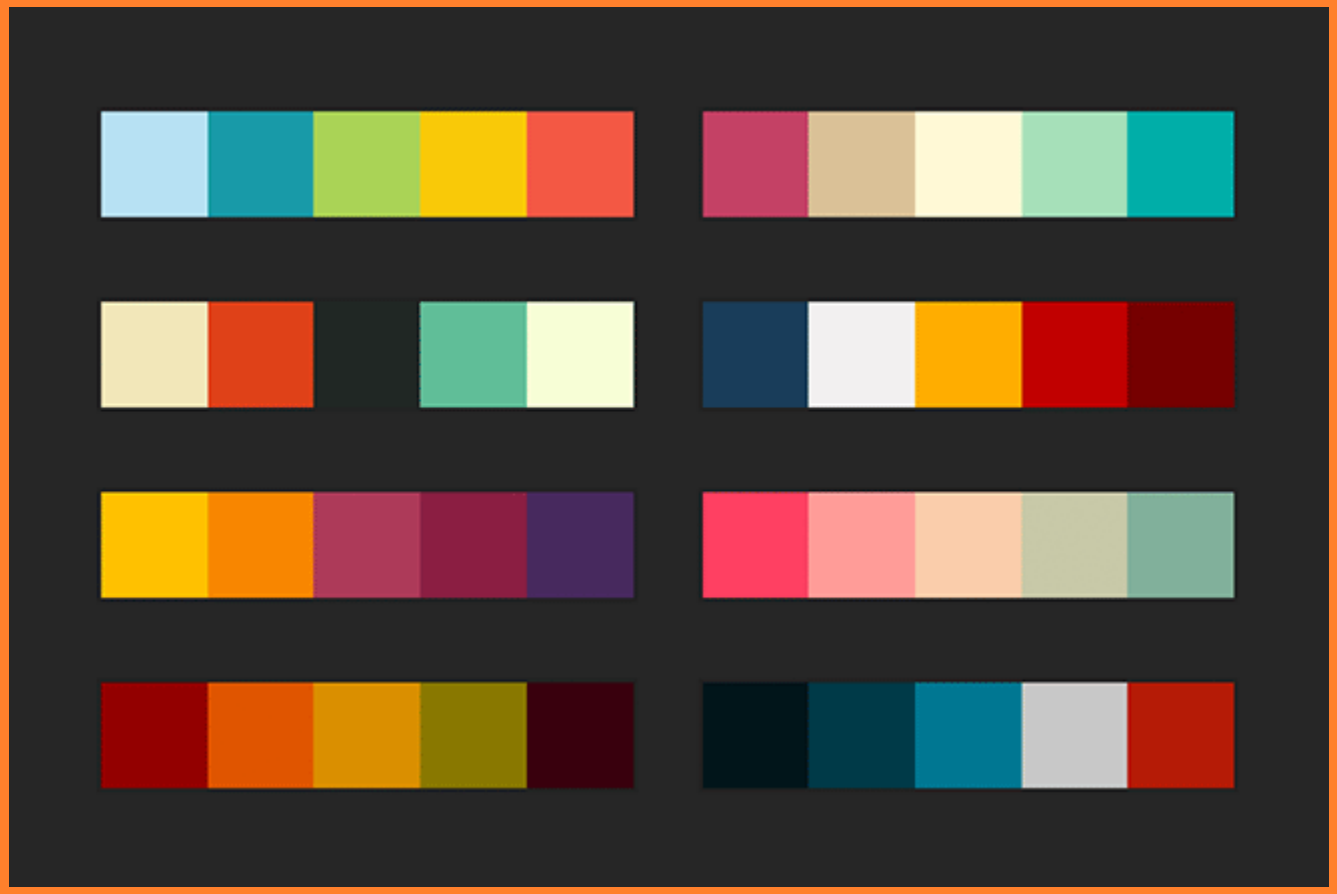
A color scheme that has no realistic or natural relation to the object this is depicted, but may have emotional or expressive significance.

Polychromatic

Multicolored

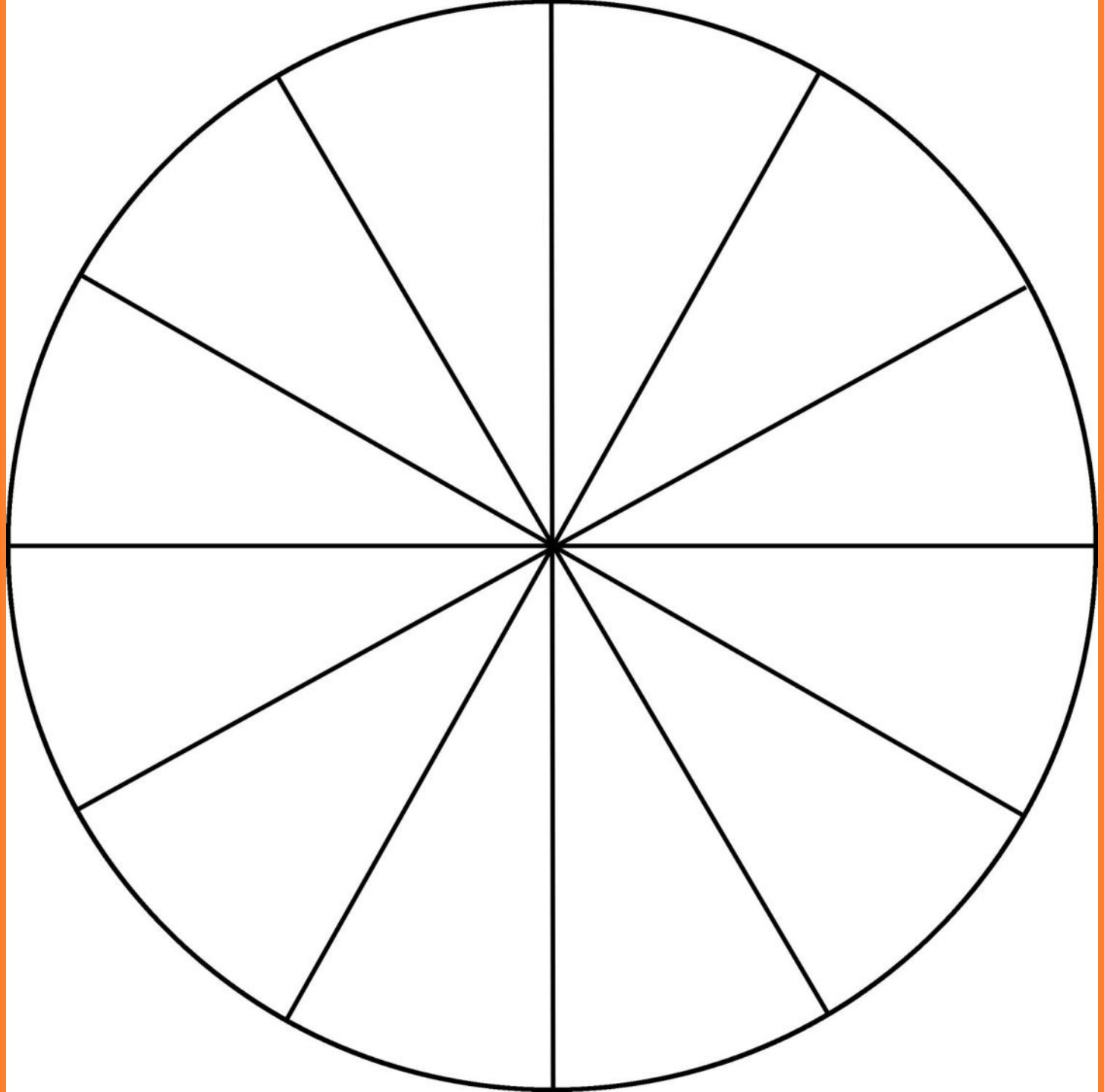
Color Scheme

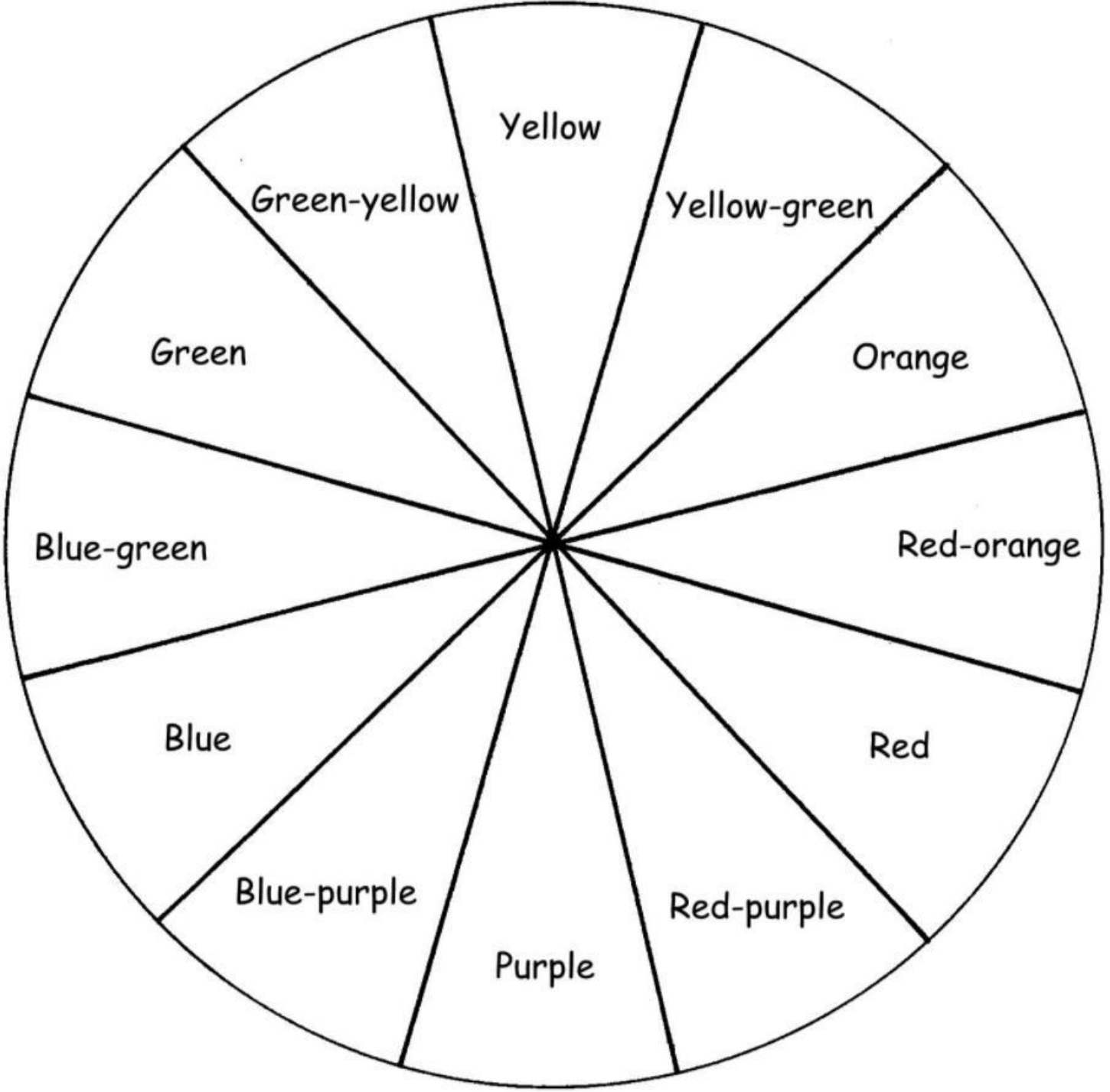
A plan for organizing colors



Color Wheel Assignment

Using the template in the following slide you will create 12 pie shape designs. They may all be the same image, or you can make each one different. If you image repeats, you can trace it onto the rest of your pie shapes. When your 12 designs are completed, you will assign each one a color from the color wheel. You will use colored pencil to color each of your pie shapes. That color should be the dominate color on that pie shape and must also have a **small amount of its complement** (the color directly across from it on the color wheel). When you are finished coloring all of your sections, you will assemble and glue them down in the proper order on the black construction paper, you have been given.




Yellow
Yellow-green
Orange
Red-orange
Red
Red-purple
Purple
Blue-purple
Blue
Blue-green
Green
Green-yellow

EXAMPLES


BANK
CAFÉ