



COLOR GUIDE

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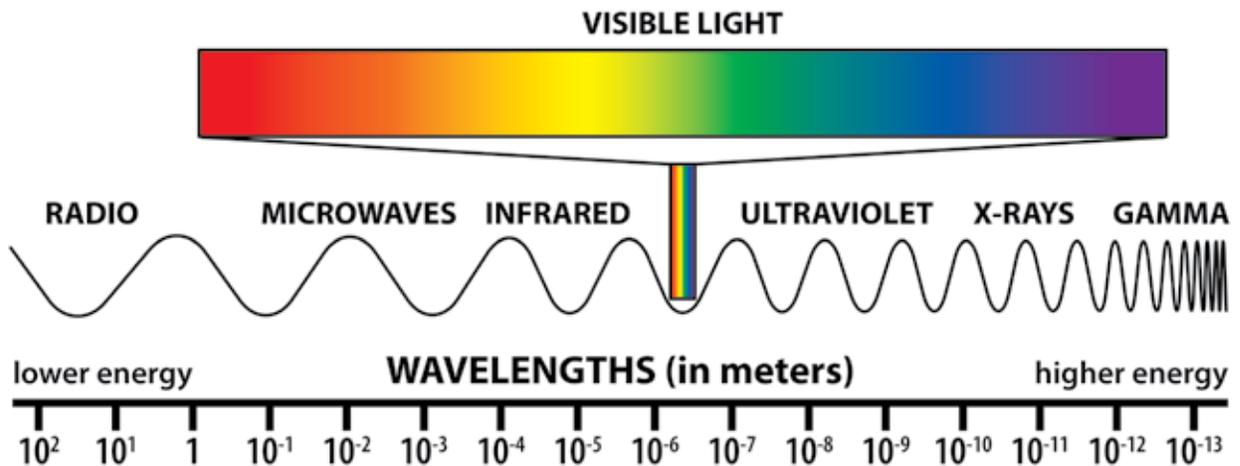
> the science of color

> what is color?

By definition, color is simply *what the eye sees when light is reflected or scattered off of an object.*

Objects can absorb, reflect or scatter light wavelengths. The wavelength that is reflected back to the eye is the color perceived by the brain. So, to answer the age-old question, this is why the sky is blue. When light enters the atmosphere, longer wavelengths such as reds, oranges and yellows are affected very little. But shorter wavelengths are absorbed by molecules in the air. This absorbed wavelength is then radiated and scattered out.

On a more scientific level, light is electromagnetic radiation. It is characterized by a wavelength (known as the visible spectrum) that can be perceived by light receptors in our eye. Just outside our range to see wavelengths are Infrared (longer wavelengths than red) and Ultraviolet (shorter wavelengths than violet). These, along with X-rays, Gamma Rays, Radio Waves, etc. are actually all light as well. They just have wavelengths that cannot be interpreted by our eyes.



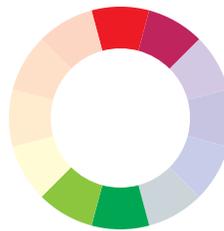
> the color wheel



> color schemes



PRIMARY:
Red, Yellow and Blue
These colors are mixed to create all other colors on the color wheel; no other colors can be mixed to create them.



DOUBLE COMPLEMENTARY:
An adjacent pair of complementary colors.



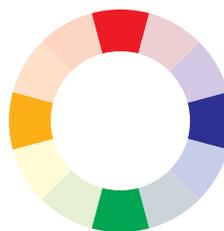
SECONDARY:
Orange, Green and Violet
These colors are created by mixing two primary colors.



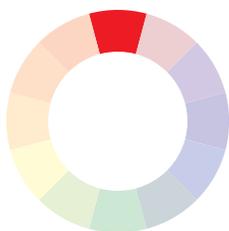
TRIAD:
Three colors equidistant on the color wheel.



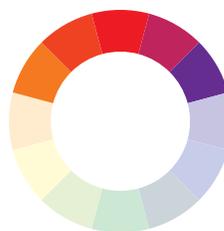
TERTIARY (INTERMEDIATE):
Red-Violet, Blue-Violet, Blue-Green, Yellow-Green, Yellow-Orange, Red-Orange
These colors are created by mixing a primary with its adjacent secondary.



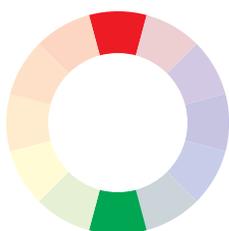
TETRAD:
Four colors equidistant on the color wheel.



MONOCHROMATIC:
Color scheme using one color plus its tints and shades.



ANALOGOUS:
Color scheme using colors that are adjacent on the color wheel and share a common hue.



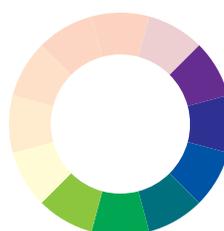
COMPLEMENTARY:
Color scheme using colors that are opposite each other on the color wheel; these colors enhance each other when placed side by side.



WARM:
Reds, Oranges and Yellows
Colors that are more vivid and energetic. Red-violet is the opposite temperature of the colors it is adjacent to.



SPLIT COMPLEMENTARY:
Color scheme using a color matched with the two colors adjacent to its complement.



COOL:
Greens, Blues and Violets
Colors that are more calm and soothing. Yellow-green is the opposite temperature of the colors it is adjacent to.

> color mixing

> value

Value is simply the *lightness or darkness* of a color achieved by the mixing of white or black to a hue.



> tint

Tinting is the adding of white to a hue to create a lighter value.



> shade

Shading is the adding of black to a hue to create a darker value.



> intensity

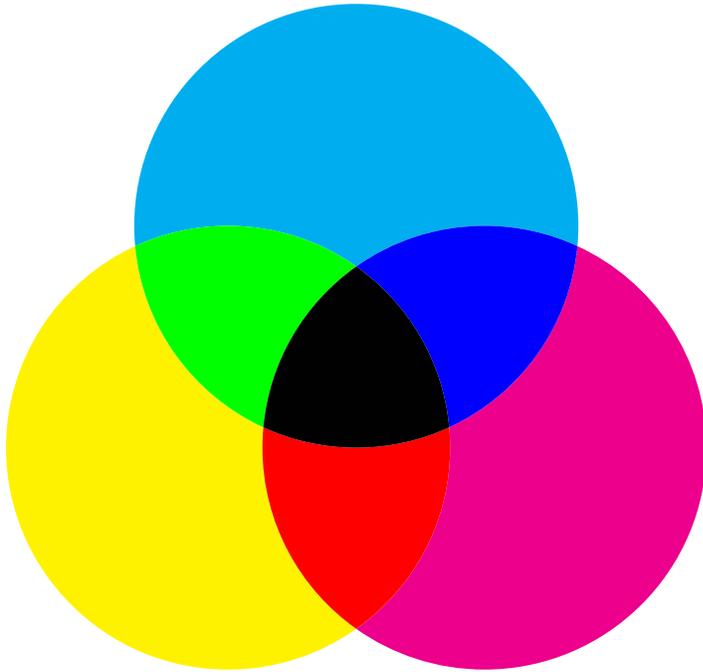
Intensity is the *brightness or dullness* of a hue. Brightness is native to the hue and cannot be mixed to be brighter, although the intensity of a hue can be dulled by mixing it with its complementary hue.



> CAUTION!

Value and intensity are commonly confused terms, and are very different things. Value is the lightness and darkness of a color. Intensity is the brightness and dullness of a color.

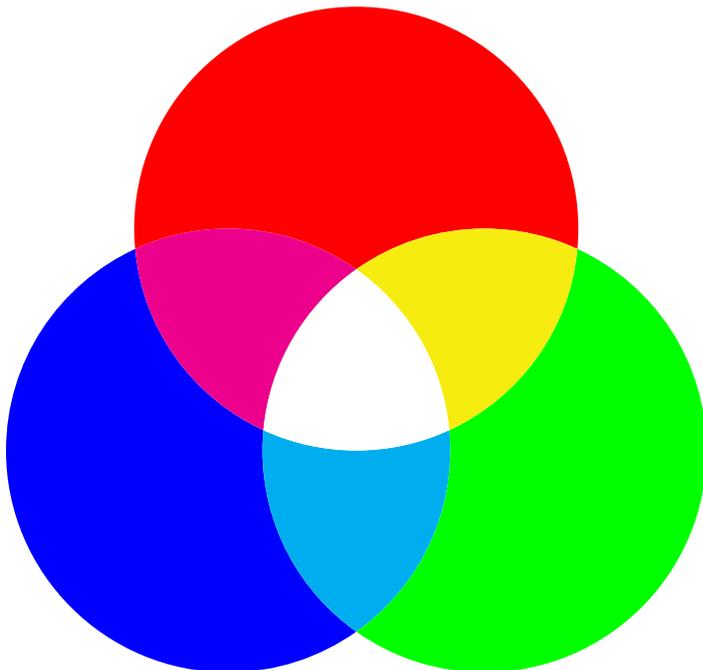
> color formats



CMYK: for printing color

Cyan-Magenta-Yellow-Black (or Key)

Subtractive color process used for printing color; start with white paper then add color. Capable of producing 1,000,000 colors.



RGB: for projecting color

Red-Green-Blue

Additive color process used for displaying color on screens; start with a black screen then add color. Capable of producing 16,777,216 colors.

> emotive qualities: red



> red

Red is a very dynamic color. It can evoke a myriad of strong, opposing meanings: love and anger, blood and bloodshed. You must be careful in your use of the color, or your audience may be overwhelmed by its presence, or may perceive an emotion you do not intend. When red seems expected or cliché, consider using a high-intensity pink instead.



bright red

assertive, dramatic, exciting, energetic, hot, love, passion, provocative, powerful
negative: aggression, anger, danger, defiance



dark red

country, earthy, sturdy, warm, willpower
negative: malice, wrath



deep red

elegant, luxurious, refined, rich



bright pink

exciting, flirty, high energy, playful, sensual, wild
negative: gaudy



light pink

affectionate, delicate, feminine, innocent, romantic, soft, sweet, young
negative: passive



dusty pink

cozy, nostalgic, soft

> emotive qualities: orange



> orange

The fruit arrived in Europe from southeast Asia and became exclusive to the rich and powerful. In fact, most oranges are named after foods and are considered an appetite stimulating color. Outgoing and optimistic, it is more friendly than red. Bright orange is also perceived as the hottest of all colors, like the embers of a summer campfire.



bright orange

cheerful, friendly, fun, hot, radiant,
spontaneous
negative: frivolous, loud, raucous



red orange

desire, energetic, hot, intense, pleasure



yellow orange

juicy, tangy, vital



peach

embracing, modest, nurturing, tactile,



coral

energizing, desire



ginger

change, exotic, pungent, spicy
negative: deceit

> emotive qualities: yellow



> yellow

Forever connected to the Sun, yellow is bright and energetic. It is curious and intellectual as it stimulates the brain. It is the highest visible color of the spectrum. Black and yellow are the two most contrasting colors to the human eye. Seeing these two colors together, especially alternating, denote danger. Conversely, white and yellow are the two least contrasting colors.



bright yellow

enlightening, joyful, lively, luminous, surprise
negative: betrayal, caution, fear, irrational



light yellow

alert, easy, open-minded, pleasing
negative: trepidation



golden yellow

comforting, nourishing



amber

abundant, autumn, mellow



metallic gold

divine, opulent, prestigious, rich, valuable
note: metallic colors are special inks that are not producible in CMYK or RGB formats

> emotive qualities: **green**



> green

We see green more in our lifetime than any other color. It is inescapable as the dominant color in nature, thus humans respond to green on a very visceral level. We fundamentally see green as life and growth. Green is a soothing color and psychologically affects us by slowing our breathing rate and reducing stress.



bright green

fresh, lively, lush, Spring
negative: envy



light green

calm, new, soothing, young



chartreuse

artsy, bold, pungent, trendy
negative: gaudy, tacky, sick



lime

refreshing, tart, youthful
negative: acidic



olive

classic, military, safari
negative: drab



dark green

environment, fertile, growth, healthy, money,
nature, reliable, stately, traditional
negative: greed



teal

cool, serene, tasteful

> emotive qualities: blue



> blue

Blue exudes a calm, cool permanence, like a cloudless sky over a calm mountain lake. It evokes honor, quality and trust like the blue ribbon awarded in a contest, which is why it so commonly appears in corporate logos.



bright blue

electric, exhilarating, impressive, royal, stirring



light blue

calm, clean, cold, constant, expansive, heavenly
peaceful, quiet, restful, transcendent



dark blue

authority, confident, conservative, classic,
introspective, nautical, reliability, trust
negative: depressed, melancholy, sad



perrywinkle

cordial, friendship, genial, lively



turquoise

compassionate, cool, faithful, invigorating,
tropical, water

> emotive qualities: violet



> violet

Violet is a complex enigma of conservative blue and explosive red. Those who do not like violet are often very analytical and left brained. Often, artists will skew their violet more towards the red or the blue to make sure the emotive message is more clear than would be the case with a pure 50-50 mix.



blue violets

contemplative, meditative, mysterious, spiritual



red violets

dramatic, creative, sensual, thrilling, witty



deep violets

prestigious, rich, royal
negative: aloof, introverted, subduing



lavender

fancy, nostalgic, romantic, scented



mauve

old-fashioned, sentimental, thoughtful

> emotive qualities: brown



> brown

This color is most associated with earth. It has a wide range, from unassuming taupe to luxurious chocolate. It has a tendency to feel slightly warm due to its inherent mix of reds and yellow with black.



earth brown

durable, genuine, natural, reliable, solid, steady, supportive, wholesome
negative: frugal, heavy, unsophisticated



red brown

comfort, genuine, reassurance, robust, warm



tan

conservative, outdoorsy, practical, rustic, sincere
negative: boring, unsophisticated



ivory

classic, good taste, neutral, soft, smooth
negative: bland



terra cotta

earthy, welcoming, wholesome

> emotive qualities: neutrals



> white, black and gray

Grayscale can convey a wide range of emotions. How you use white can make the difference between feeling clean, or just feeling barren. Black can convey a high level of class, or feeling ominous and forboding. Grays can be even more paradoxical. Basic and boring, or sleek and modern. Do not assume that the term neutral means you are safe when incorporating it into your artwork, that they are devoid of meaning. Neutrals can be quite the opposite.



white

clean, ethereal, innocence, light, pristine, pure, silent
negative: clinical, plain, sterile



light gray

calm, practical, soothing
negative: detached, disinterested, indecisive, old, stifling



gray

basic, compromise, enduring, fundamental, impartial, reserved, timeless
negative: conforming, constrained, solemn



charcoal

business, mature, professional, responsible, serious, staunch, steadfast
negative: detached



black

elegant, powerful, sophistication
negative: death, evil, heavy, menacing, mourning, oppressive, underworld



silver

classy, modern, sleek, smooth
note: metallic colors are special inks that are not producible in CMYK or RGB formats