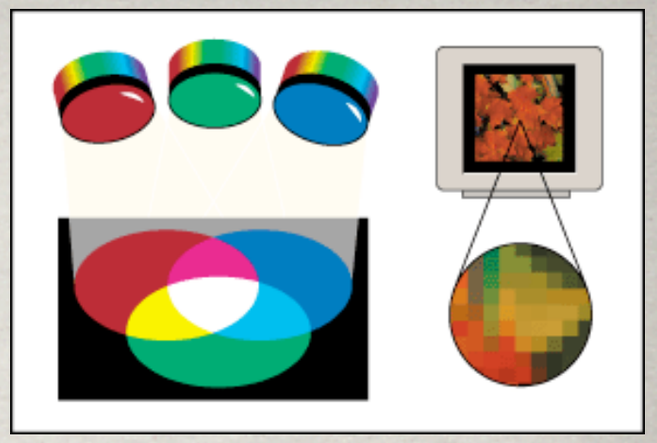
Color Models

R G B vs C Y M K

Computer Color



- RGB: red, green & blue

- It is based on the principles of the **additive primaries**.
- The additive color model of light (conventional or digital) and is used for all monitors & projection systems.
- It consists of 256 levels each of red, green, and blue.
- 256 red x 256 green x 256 blue = 16.7 million colors
- It has a range from 0 - 255 } 0 = black / 255 = white
- 255 red + 255 green + 255 blue is the same as mixing the three primary colors in conventional photography - it makes white.
- 0 red + 0 green + 0 blue would equal black } the absence of light.

Computer Color

- CYMK: cyan, yellow, magenta & black

- CYMK is used in printing, and is best for color correction of images.
- It is based on the principles of the **subtractive primaries**.

- In nature, our eyes perceive pigments according to the subtraction color mode. When light strikes an object, it **absorbs** (subtracts) some of the light and reflects the rest. The reflected light is the color that you see.
- In theory, equal amounts of **cyan**, **yellow**, and **magenta** absorb all colors leaving **black**.
- In truth, it only leaves a dark **muddy gray**.
- The addition of a fourth color (**K**) **black** is used to increase the depth of the image.