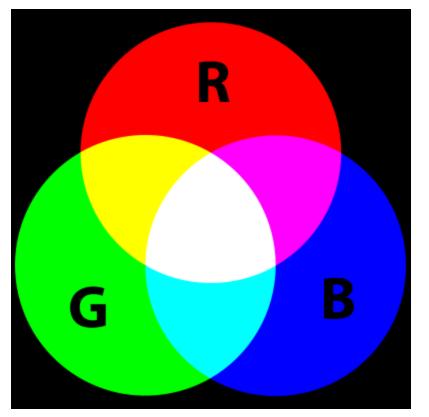
# All Mixed Up

adding color to your life

#### **Primary Colors**



### Primary Colors (Additive)

- RGB are the primary colors of light
- This means they can create the most number of new colors when they are combined
- All screens utilize RGB pixels to make all the colors we can see

### A bit of code

- Hex values represent colors in code
- Hex numbers range from 00 FF, where 00 means none of that color, and FF means full color
- #00FF00 RGB each have a hex number, combine to make a color.

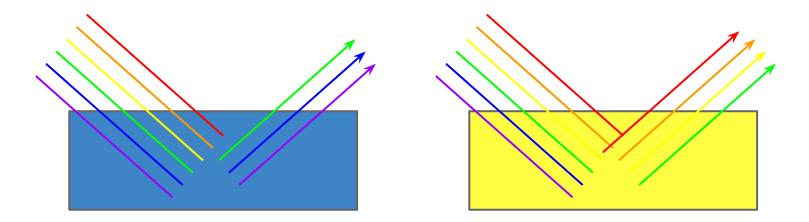
### **Complementary Colors**

- Red + Green = Yellow
- Green + Blue = Cyan
- Blue + Red = Magenta
- Any two colors that when added together make white

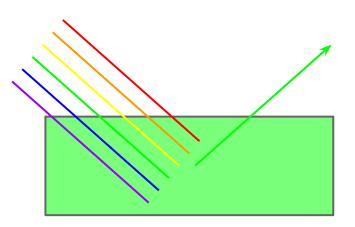
## Mixing by Subtraction (painting)

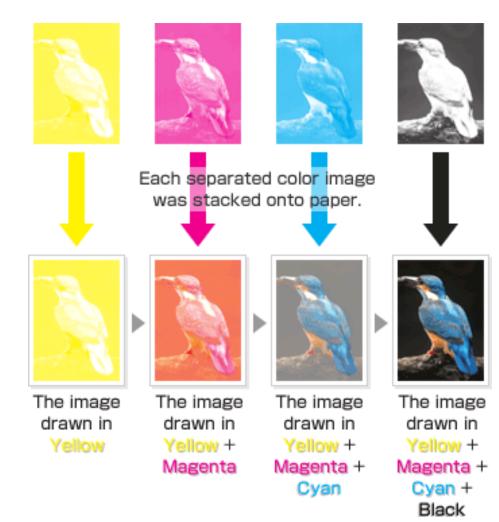
- Dyes are mixed so they only reflect the color that we want to be seen
- Red, Blue, Yellow?
  - Cyan, Magenta, Yellow
- Used in painting and printing

#### **Color by Subtraction**



#### **Color by Subtraction**





### Why is the sky blue?

- Scattering
- Small wavelengths are scattered the most
- We're bad at seeing violet

### Why are sunsets red?

- Light has to travel farther through the atmosphere
- Longest wavelengths are scattered the least