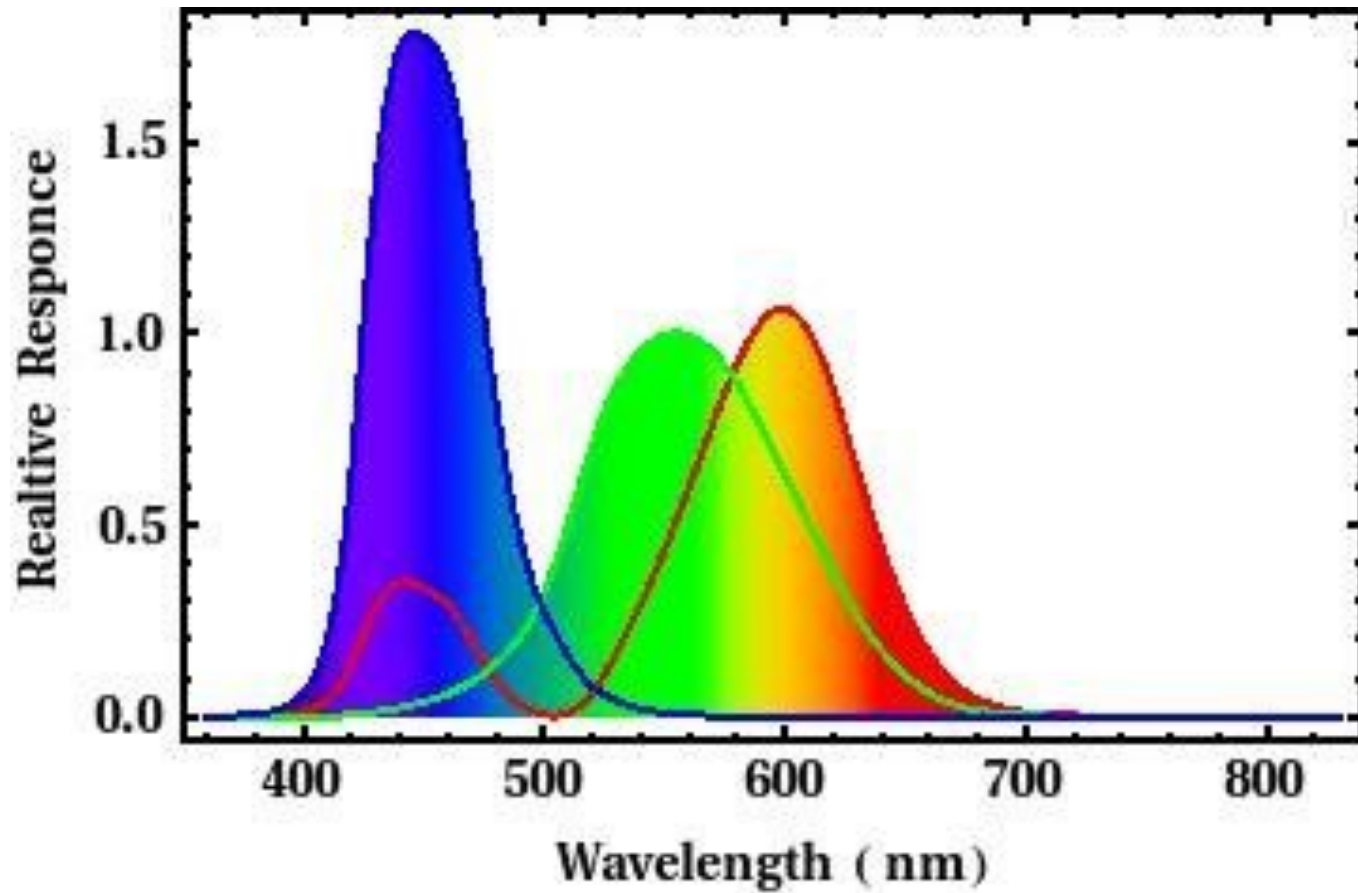


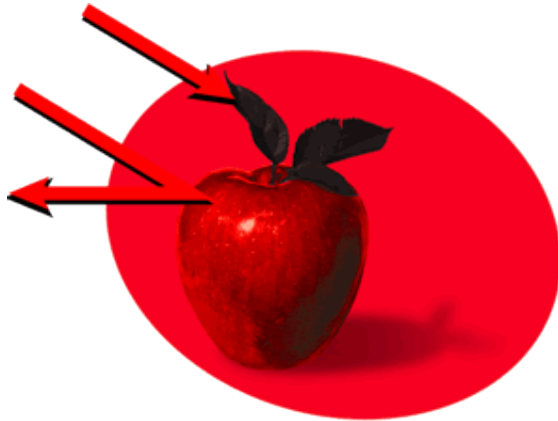
Do Now:

Why does a clear, cloudless sky  
look blue?

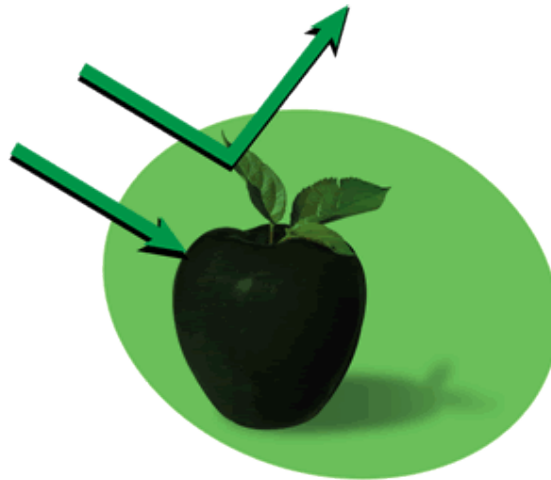
# Light and Color



# The color of opaque objects is the color that the object reflects.



In red light, the apple appears red because it reflects the red light. But the leaves look black.



In green light, the apple appears black because no red light strikes it. But the leaves look green.



In blue light, both the apple and the leaves appear black.

With different colored light shining on an object, the actual color of the object gets reflected and the other colors get absorbed.

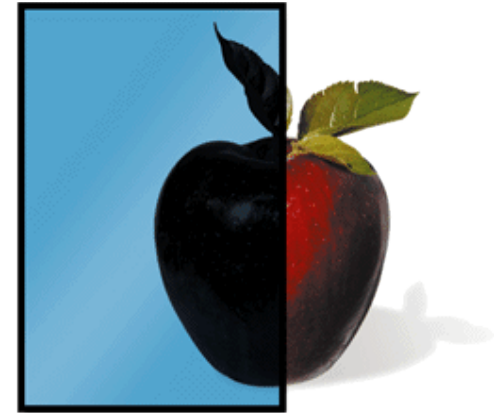
The color of transparent or translucent objects is the color of the light it transmits.



The red filter transmits red light, so the apple looks red. But the leaf looks black.



The green filter transmits green light, so the leaf looks green. But the apple looks black.

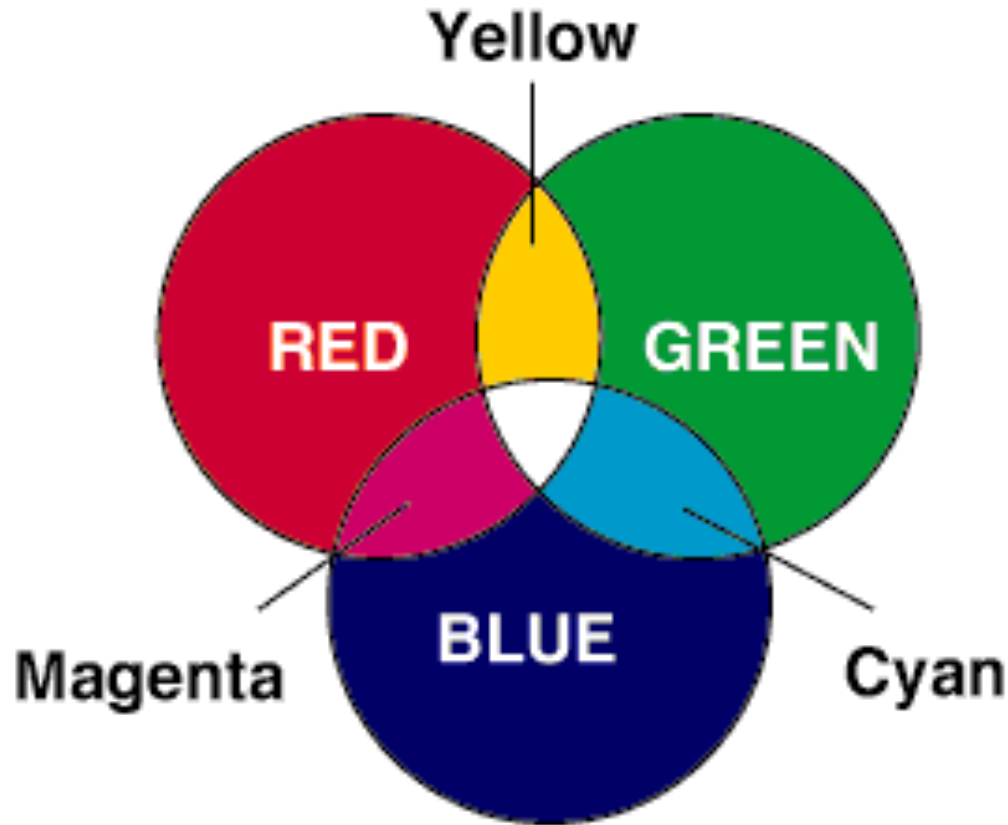


The blue filter transmits blue light. Both the apple and the leaf look black.

The filters only allow certain colors to pass through them. The rest get absorbed or reflected.

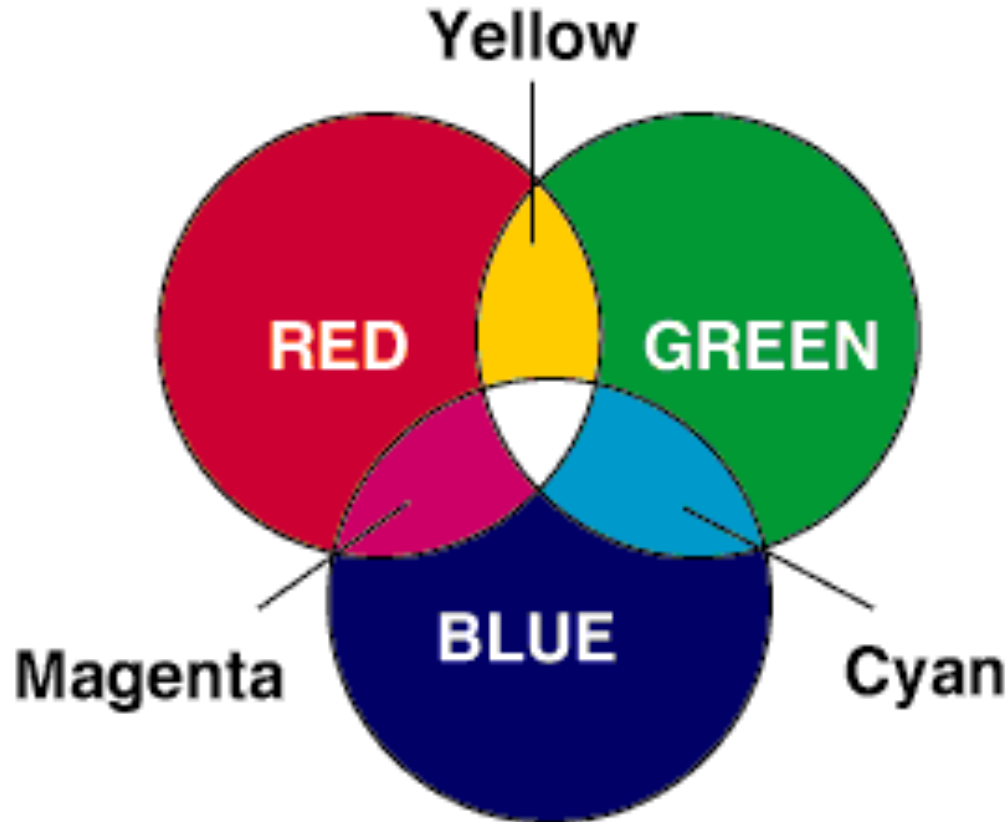
# Primary Colors of Light

When primary colors of light are mixed in equal quantities, they produce white light. When combined in other quantities, they can produce other colors called secondary colors.



# Complimentary Colors

Any 2 colors that combine to form white light are called **complimentary colors**.

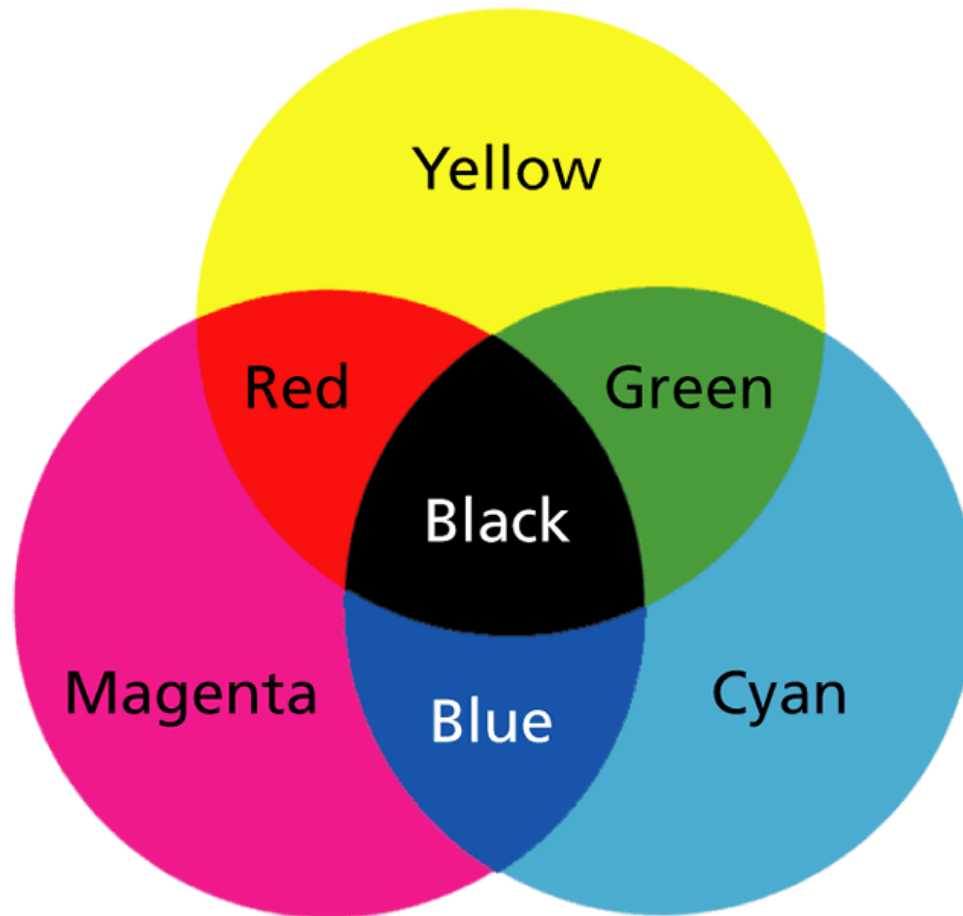


# Pigments

- Pigments are colored substances that are used to color other materials.
- Primary pigments are the secondary colors of light - yellow, cyan, and magenta
- Secondary pigments are the primary colors of light - red, blue, and green

# Pigments

Combining equal amounts of primary pigments results in black.





# Closure:

- An actor's red shirt and blue pants both appear black on stage. What color is the stage light shining on the actor?