

Activity 8a: Light and Color

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First: Explain, in one sentence, what is meant by the Electromagnetic Spectrum.

Part 1: Mixing primary colors of light.

The primary colors of LIGHT (*not paint, which is a pigment!*) are **RED, GREEN, and BLUE**, and **these three colors, in equal proportions, make WHITE light**. Whatever your kindergarten teacher told you about the primary colors being red, yellow, and blue was **WRONG**. They were mixing up primary colors and primary pigments.

Changing the proportions of RED, GREEN, and BLUE light, relative to the others, can make any color you want. This is how our eyes see color, and this is how color is created on your computer and television and smart phone screens.

Use the interactive color mixing demonstration

HERE (<https://www.physicsclassroom.com/Physics-Interactives/Light-and-Color/RGB-Color-Addition/RGB-Color-Addition-Interactive>)

Try to make the following colors:

1. turquoise, 2. sea green, 3. pale orange, 4. medium brown, 5. gray, and
6. your favorite color

To show how you made each color, fill in the following table with the percentages of Red, Green, and Blue for each color you made.

	% Red	% Green	% Blue
Turquoise			
Sea Green			
Pale Orange			
Medium Brown			
Gray			
Favorite Color			

Did anything surprise you?