



SfS Away from the Classroom!

P13: Light Reflection, Transmission, and Absorption (Recommended for Grades 3-5)

Please use the following resources to learn about why we see objects with different colors.

Watch this Video: [Edmund Scientific video on light reflection, transmission and absorption](#)

Answer these questions:

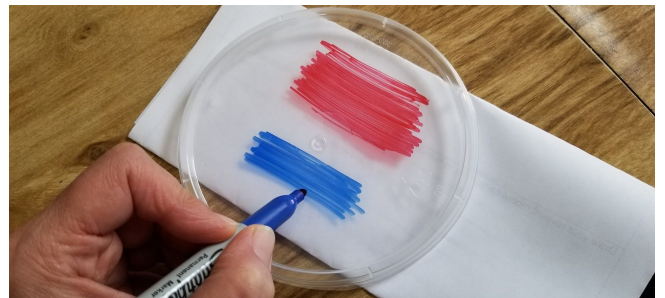
- What are the three different things that can happen to light when it strikes an object?
- Why do objects have different colors?
- White light (from a flashlight, a lamp, or the Sun) contains all the colors of light. When white light strikes a green filter, what happens to the green light? What happens to the other colors?
- Laser light has only one color. Why doesn't the light from a green laser go through a red gummy bear?

Activities: Follow these directions to explore how filters change the colors you see.

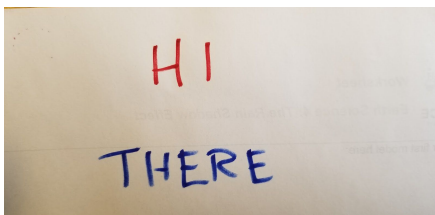
You will need:

- | | |
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| <ul style="list-style-type: none">• See-through colored plastic. Look for red, blue, or green. There are lots of possibilities:<ul style="list-style-type: none">○ colored plastic lids○ colored plastic wrap○ leftover 3D glasses | <ul style="list-style-type: none">• White paper• Markers or colored pencils• Colorful objects or images• Black background (cloth, construction paper)• Stickers• The colorful world around you! |
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DIY: If you can't find any clear colored plastic, you can make your own with a clear plastic lid and colored Sharpie markers like in this picture.



Use your markers or colored pencils to write a message on the white paper. Look at it through the filters. How does it change? Try other colors. What do you see?



You can also hold the filter up to your eye and see how it changes your view of the world! What do you think is happening in the images below?



Make observations & use Claims, Evidence, and Reasoning!

1. **Claim:** A red filter transmits red light, but absorbs every other color of light.
 - **Evidence:**
 - **Reasoning:**
2. **Claim:** White light is made up of all colors of light.
 - **Evidence:**
 - **Reasoning:**