

# Colors of Sunlight Mini Experiments

Discover the science of sunlight and colors!

Instructions: Discover the science of colors and sunlight with eight mini experiments. Explore at your own pace!

Optional: Print and cut out cards. Fold and glue together to make a double-sided card.

Where materials are needed, they are noted on the card.

<p><b>Mini Experiment 1</b></p> <p><b>Light or Dark?</b></p> <p>Go in a dark room, then go in a room with a window (during the daytime). Do you see more colors in the dark or in the light?</p>	<p><b>Explore</b></p> <p>The light of the Sun shines on the Earth during the daytime. We see colors when it is light.</p> <p>Image: Sam T on Flickr.</p>
<p><b>Mini Experiment 2</b></p> <p><b>Speed of Light!</b></p> <p>Go for a walk for 8 minutes. Set a timer and see how far you get in the time it takes</p> <p>Materials: Timer or watch.</p>	<p><b>Explore</b></p> <p>Sunlight travels faster than anything we know! It takes just over 8 minutes for sunlight to travel from the Sun to the Earth!</p>

### Mini Experiment 3

#### Make Waves!

Can you blow waves over a bowl of water with a straw?  
We see light waves from the Sun as beautiful colors!

Materials: Water, bowl, straw.

### Explore

Sunlight is made of waves. These waves travel from the Sun to the Earth. How else do you know that makes waves? The ocean!



Image: Pixabay.

### Mini Experiment 4

#### Wave Shapes!

Walk in the shape of little waves, then walk in the shape of big waves. You just made two different wavelengths

### Explore

The sun sends us different sizes of waves, called wavelengths. We see different wavelengths as colors. Longer wavelengths appear red, and shorter wavelengths appear violet.

Image: Wikimedia Commons.

### Mini Experiment 5

Make a Rainbow.

## Mini Experiment 6

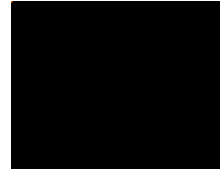
### Bouncy Colors!

Compare the bounce of a playdough ball and a bouncy ball (use two colors if available). Which ball bounces more? Imagine light bouncing off in a similar way.

Materials: Playdough, bouncy ball.

## Explore

Objects on Earth absorb and bounce back different wavelengths of sunlight. The colors we see are the waves that are reflected (bounced back). A leaf looks green to us because it absorbs red light and reflects green light.



## Mini Experiment 7

### Find Colors!

Look around you. Name several colors that you can see right now. What are your favorite colors?

## Explore

Special cones inside our eyes allow us to see many different colors. People everywhere around the world see colors. Colors might have different names and meanings.