

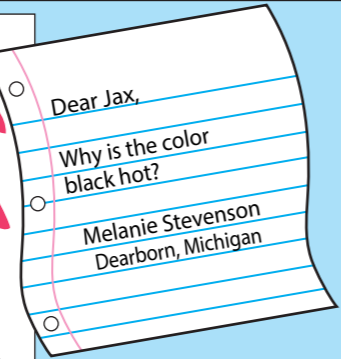
## experiment #1

WHAT YOU NEED: Prism – sunshine

Optional: shallow pan – mirror – water

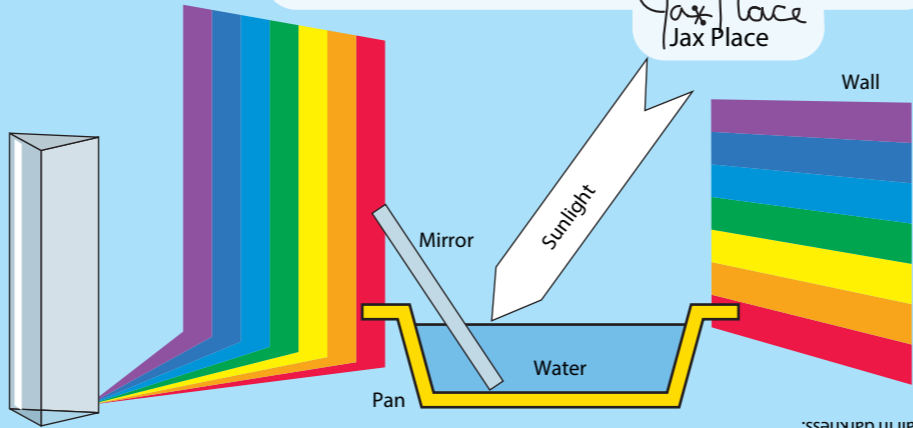
WHAT TO DO: Use either of the drawings as a guide and make your own rainbow. If you use the water method, be sure to let the water get very still and to tilt the mirror slowly until you see colors.

WHAT IS GOING ON: What looks like white light is really all colors of light mixed together. We see colors because colored light bounces off things. When we see something, we do not see the thing. We see light bouncing off the thing!



Dear Melanie,  
Back in olden times in the 1960s, earthtones were hot. Now the hot colors are black, green and purple. Black is hot because it can make you look artistic and all groovy, especially black turtle-necks. But I think you might be asking about another kind of hot — the temperature kind of hot. Black things get hotter in sunlight because all colors turn into heat. Black gets hotter because it absorbs the most colors.

*Jax Place*  
Jax Place



**Sunlight in**      **Reflected light bouncing back**

If something is yellow, it absorbs all colors of light except for yellow. It reflects, or bounces back, yellow light.

If something is blue, it absorbs all colors of light except for blue. It reflects, or bounces back, blue light.

If something is red, it absorbs all colors of light except for red. It reflects, or bounces back, red light.

If something is white, it absorbs no colors of light. It reflects, or bounces back, all the colors of light.

Since all colors are reflected, no colors are absorbed and no heat is produced.

No colors are reflected. All colors are absorbed and converted into heat.

If something is black, it absorbs all colors of light. It reflects, or bounces, no colors. All the absorbed colors turn into heat.

P.S. from Beakman: If no light is bouncing off something, then there isn't any color. That means there is no color at all in darkness.

