

Part II: polarization

You have 3 polarizing sheets in the kit. Remove any plastic covering on them.

1. Take one polarizer and look at a bright light source such as light bulb or the sky (Not the SUN directly!!) and rotate the sheet. What happens to the light coming through the filter? Does it change in brightness?

2. Take an additional filter and hold it over the other filter while viewing the light bulb. Now slowly rotate the second filter while holding the first in place. What happens now as you rotate the second screen?

3. Hold the two filters together and rotate the second so that the view is all black. Now place the third filter in **front** of the other two and slowly rotate it while holding the others still? What happens to the brightness of the light? Does it change at all?

4. Hold the two filters together and rotate the second so that the view is all black. Now place the third filter in **between** the other two and slowly rotate it while holding the others still? What happens to the brightness of the light? Does it change at all? What is different from what you did in step 3?

Part III: Color filters

You have 4 color filters in your kit (Red, Blue, Yellow, and Green)

1. Take the filters and view a bright light source (a light bulb or the sky, and not the Sun directly) using the different combinations held together as listed in the table below. Write the color you see with each combination.

Combination of color filters	Color observed
Red	
Yellow	
Green	
Blue	
Red + Yellow	
Red + Blue	
Blue + Yellow	
Red + Yellow + Blue	
Red + Green	
Yellow + Green	