Properties of Light lab: part 2. Reflection and refraction

Reflection of Light

1. We have all seen how words get reversed in a mirror. What happens in two mirrors?

2. Look at the angle of the light beam as it approaches and leaves the mirror. Can you make a rule about these angles?

3. With the pencils, is there a rule you can make about where the image of the pencil appears to be compared to where is actually is?

4. The purpose of this lab is to understand the properties of light. Is there some general property of light that all of these observations confirm? Hint: what kind of a path does the light travel in for all these examples?

Refraction

The definition of refraction is simply put as bending. So in this station we are looking at the bending of light.

1. With the half sphere we can bend the laser beam. Why does the beam bend different amounts as we move the sphere side to side in front of the beam?

2. By comparing how an empty box affects the beam to how a box with water affects the beam we can learn something. What else might we try?