

Bending Light Lab Skill Builder

1. What evidence did you collect that light waves can be bent.

2. Explain how/why refraction occurs?

3. What is the index of refraction?

4. Compare the index of refraction between water and air.

5. Specifically, what happens to the speed of light as it encounters water?

6. What does the Law of Reflection state?

7. In the space below, draw and label the procedure you chose to verify the Law of Reflection. Clearly identify the normal, angle of incidence (i) and the angle of reflection (r) angle of incidence.

7-8 are answered using the Figure 1

7. This figure is an example of:

- A. Reflection
- B. Opaqueness
- C. Refraction
- D. Retrofitted

8. The direction of the lines change because:

- E. Light travels at different speeds through different materials
- F. The straw is bending under weight of the water
- G. The glass is deceiving your eyes
- H. Mr. Emmons is trying to mess with your mind



Figure 1

9. Most windows in the world are

- A. Translucent
- B. Opaque
- C. Transparent
- D. Transcendent

10. The color we actually see is the one that has been

- A. Refracted
- B. Reflected
- C. Absorbed
- D. Retrofitted

11. _____ is caused when light waves travel through materials of different densities

- A. Refraction
- B. Reflection
- C. Redistribution
- D. Reversal

12. A 3 centimeter thick piece of plywood will be _____

- A. Translucent
- B. Transparent
- C. Opaque
- D. Opulent

13. Frosted glass is an example of a _____ material.

- A. Translucent
- B. Transparent
- C. Opaque
- D. Opulent

14. Electromagnetic waves are

- A. Transverse waves
- B. Compression waves
- C. A combination of compression and transverse waves

15. Which of the following is not an electromagnetic wave?

- A. Radio
- B. Visible Light
- C. Ultra-violet
- D. Tsunami