

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

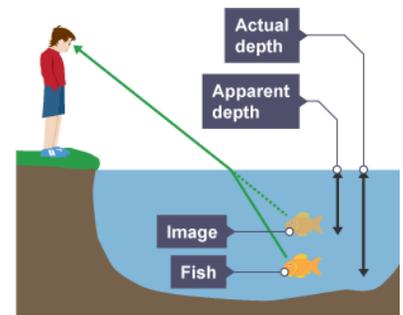
Title: Wave and Light Behaviors

**Standard: 8.2.5**

**Student Friendly Objective:** I can use a model to demonstrate how waves get reflected, absorbed, or transmitted through various materials.

**Task 1:**

1. A penny lies in the bottom of a teacup filled with water. As you look down on the penny does it look closer, farther away, or at the same depth, compared to its actual depth? Explain your selection, using diagrams and words. *(The diagram needs to be removed from the test but provides the bending of light diagram that explains the phenomenon.)*



2. The best definition of refraction is \_\_\_\_\_.
  - a. passing through a boundary
  - b. bouncing off a boundary
  - c. changing speed at a boundary
  - d. changing direction when crossing a boundary
3. A light ray in air enters and passes through a block of glass. What can be stated with regard to its speed after it emerges from the block?
  - a. speed is less than when in glass
  - b. speed is less than before it entered glass
  - c. speed is same as that in glass
  - d. speed is same as that before it entered glass
4. A ray of white light, incident upon a glass prism, is dispersed into its various color components. Which one of the following colors experiences the greatest amount of refraction?
  - a. orange
  - b. violet
  - c. red
  - d. green
5. Compare and contrast sound and light waves. \_\_\_\_\_

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*Note: Some of the ideas and scenarios in this Assessment were shared by Arthur Beauchamp, Sacramento Area Science Project, specifically to use in this project. We received permission to adapt the materials for our use. (Source: Sacramento Area Science Project <<http://www.schools.utah.gov/CURR/science/Meetings-Conferences/2014/BehaviorLight.aspx>>)*

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