

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Secrets of the Invisible Path: A 3rd Grade Optics Challenge

Young scientists investigate how light rays bounce off periscopes and bend through magnifying jars during this hands-on station assessment.

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**1. If you are playing hide-and-peek and use a shiny metal spoon to see around a corner, what is the light doing when it hits the spoon?**

- A. Disappearing into the metal
- B. Reflecting off the surface
- C. Bending through the metal
- D. Turning into heat

**2. True or False: Light travels in a straight line until it hits an object or moves into a different material.**

- A. True
- B. False

**3. When you look through a glass of water, a pencil inside might look broken because the light rays are \_\_\_\_\_.**

- A. Stopping
- B. Bouncing
- C. Refracting
- D. Reflecting

**4. Why does a periscope help a person in a submarine see things above the water's surface?**

- A. It uses lenses to make things look closer
- B. It uses mirrors to bounce light down a tube
- C. It glows in the dark so you can see
- D. It turns the water clear

**5. A magnifying glass is a special tool that uses a \_\_\_\_\_ to make small bugs look much larger.**

- A. Mirror
- B. Shadow
- C. Lens
- D. Laser

**6. True or False: Smooth, white paper reflects light the exact same way a silver mirror does.**

- A. True
- B. False

**7. Imagine you are wearing a pair of eyeglasses. How do the glasses help you see more clearly?**

- A. They block all the bright light

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- B. They reflect your eyes back at you
- C. They bend light so it hits your eye correctly
- D. They make the room brighter

**8. If you shine a flashlight onto a still pond at night, you might see the moon in the water. This is an example of \_\_\_\_.**

- A. Reflection
- B. Shadows
- C. Refraction
- D. Absorbing

**9. True or False: A glass prism can split white sunlight into all the colors of the rainbow.**

- A. True
- B. False

**10. Which of these objects is designed specifically to bend light to help scientists see tiny bacteria?**

- A. A flat wall mirror
- B. A microscope lens
- C. A wooden ruler
- D. A tinted window