

Name: _____ Date: _____

Answer Key: Your Mission with the Sunbeams: An Optics Quest for 2nd Grade

Stop the shadows and track the glow by matching everyday objects to how they handle light in this quick discovery challenge.

1. Imagine you are wearing a pair of dark sunglasses. What do the lenses do to the bright sunlight?

Answer: A) They block some of the light so it is not too bright.

Sunglasses use dark lenses to block or absorb some of the light, making it easier for your eyes to see on a sunny day.

2. When you shine a flashlight on a shiny metal spoon, the light ____ off the surface and hits the wall.

Answer: B) bounces

Light bounces off shiny or smooth surfaces, which is a process called reflection.

3. True or False: A glass window lets light pass all the way through so you can see outside.

Answer: A) True

Clear materials like glass are transparent, meaning they allow light to move through them.

4. Which of these objects would be best to use if you wanted to see your own reflection?

Answer: C) A shiny silver tray

Smooth, shiny surfaces like metal trays or mirrors reflect light well enough to show an image.

5. A shadow is created when an object ____ the path of light.

Answer: B) blocks

Shadows form in the dark spaces where light cannot reach because a solid object is in the way.

6. True or False: Light travels in a curvy, wiggly line like a snake.

Answer: B) False

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Light actually travels in straight lines called rays unless it hits something that makes it bend or bounce.

7. If you look through a magnifying glass at a tiny bug, what happens to the way the bug looks?

Answer: C) The bug looks bigger.

A magnifying glass uses a curved lens to bend light, which makes objects appear larger than they really are.

8. True or False: You can see things in a pitch-black room with no light at all.

Answer: B) False

Your eyes need light to see; without any light reflecting off objects, everything looks black.

9. When light hits a puddle of water, you might see the sky in the water. This is an example of ____.

Answer: A) reflection

The surface of the water acts like a mirror, reflecting the light from the sky back to your eyes.

10. What is our biggest and most important source of light during the daytime?

Answer: C) The Sun

The Sun provides the natural light that allows us to see the world around us during the day.