Nova’s Radiant Light Quiz

Learning objective: To understand that light reflects from surfaces, how shadows are formed, and the importance of light for vision.

Join Nova the barn owl on an illuminating journey! Read each question carefully and circle the best answer. Remember, light travels in straight lines!

Answer Key: 1. A (Luminous), 2. False (Light travels in straight lines), 3. Opaque, 4. B (Reflection), 5. True, 6. Transparent, 7. C (The sun is behind you), 8. False (Darkness is the absence of light), 9. Reflection, 10. D (A mirror).

Word bank: reflection · opaque · transparent · translucent · luminous · shadow

1. 1. Which word describes an object that creates its own light? A) Luminous*, B) Opaque, C) Reflected, D) Shadowy. (1 mark)

2. 2. True or False: Light travels in curved, wiggly lines. (1 mark)

3. 3. What type of material blocks light completely, creating a dark shadow? (1 mark)

4. 4. When light hits a shiny surface and bounces back, this is called: A) Absorption, B) Reflection*, C) Refraction, D) Diffusion. (1 mark)

5. 5. True or False: You cannot see anything in total darkness because there is no light to reflect off objects into your eyes. (1 mark)

6. 6. Which type of material allows almost all light to pass through it, like a clear window? (1 mark)

7. 7. To make a shadow appear behind you, where must the light source be? A) Directly above, B) In front of you, C) Behind you*, D) To your side. (1 mark)

8. 8. True or False: Shadows stay the exact same size all day long. (1 mark)

9. 9. What do we call the bouncing back of light from a mirror? (1 mark)

10. 10. Which of these is the best surface for a clear reflection? A) A piece of wood, B) A rough rock, C) A woolly jumper, D) A flat mirror*. (1 mark)

Draw: Draw a diagram showing a torch shining a beam of light at a mirror. Use a ruler to draw the straight lines of the light hitting the mirror and the reflection bouncing off.

Extension challenge: 1. Explain why shadows change length during the day as the Sun moves across the sky. 2. Compare and contrast transparent and translucent materials; provide one example of each. 3. Justify why it is dangerous to look directly at the Sun. 4. What might happen if light did not reflect off surfaces? 5. Design an experiment to test which surface in your classroom creates the brightest reflection. 6. If you were in a room with no windows and only one candle, how would the room change if you blew the candle out? Explain your reasoning.