

Nova's Light and Shadow Experiment Record

Learning objective: To observe how light travels in straight lines and how shadows are formed by blocking light sources.

Help Nova the owl investigate how light behaves! Use this template to record your findings during your science investigation. Ensure you describe your light source, the object used to block the light, and the resulting shadow clearly.

Word bank: straight line · light source · opaque · translucent · transparent · shadow · reflection · blocked

1. The Investigation Setup: Which light source are you using and what object are you using to create a shadow? Explain why you chose this object. (2 marks)

2. Observation: Describe what happened to the shadow when you moved the object closer to the light source. Did the size change? (2 marks)

3. Scientific Reasoning: Use your knowledge of light to explain why a shadow is formed when an object is placed in the path of a beam of light. (3 marks)

4. Light Materials: Can you find one object in the room that is transparent and one that is opaque? How do they behave differently when light hits them? (2 marks)

5. Conclusion: Based on your experiment, how does light travel? Use evidence from your test to support your answer. (2 marks)

Extension challenge: If you were to use a flashlight and a piece of colored transparent plastic, how would the shadow change? Write a prediction below your drawing.