

Nova's Light and Shadow Experiment Record

Learning objective: To identify that light from light sources is necessary to see objects and that shadows are formed when the light from a light source is blocked by an opaque object.

Help Nova the owl investigate how shadows are made. Choose an object, find a light source, and follow the steps below to record your scientific findings. Remember to use your best handwriting and scientific vocabulary.

Word bank: light source · shadow · opaque · transparent · blocked · reflection · darkness · beam

1. The Light Source: Identify the light source you are using for your experiment and explain why it is important for this investigation. (2 marks)

2. The Object: What item are you using to block the light? Is it opaque, transparent, or translucent? Explain how you know. (3 marks)

3. The Shadow Formation: Describe what happens to the light when the object is placed in its path. Where does the shadow appear? (2 marks)

4. Changing the Shadow: What happens to the size or shape of the shadow if you move the object closer to or further away from the light source? (3 marks)

5. Scientific Conclusion: Based on your experiment, write a sentence explaining how a shadow is created. (2 marks)

Extension challenge: Challenge: If you used a mirror to bounce the light beam onto a wall, what would happen to the shadow? Write your prediction below.