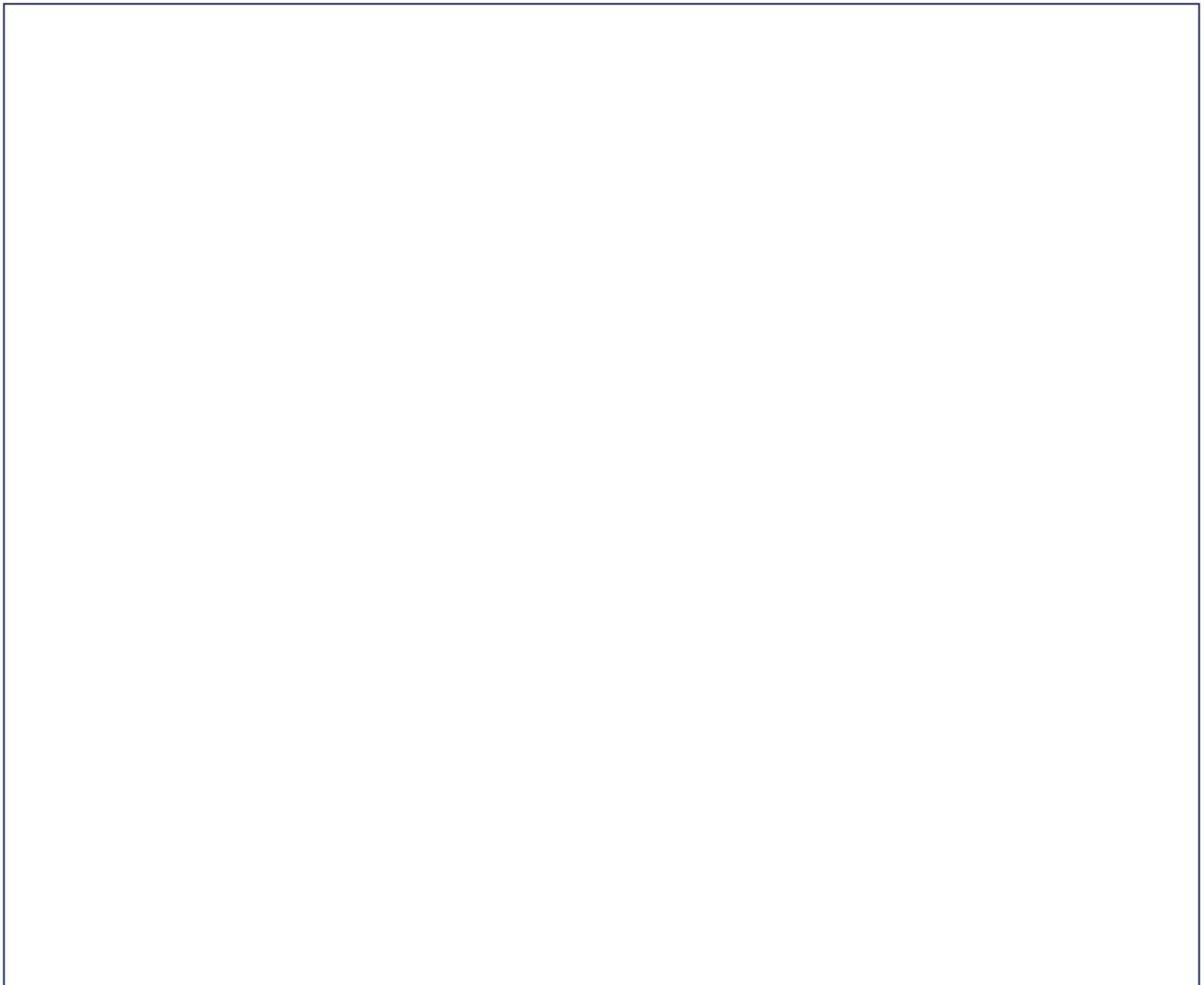


Nova's Light Investigation

Learning objective: To understand how light travels in straight lines and how shadows are formed.

Follow the drawing prompt below to complete your diagram. Use the word bank to label your finished work accurately.

Draw: Draw a scene featuring Nova the owl standing in a dark room. Nova is holding a battery-operated torch. Draw a beam of light coming from the torch hitting a solid wooden block (an opaque object). On the other side of the block, draw the shadow that appears on the wall. Use arrows to show the light travelling in a straight line from the torch to the object.



Label words: Light source · Light ray · Opaque object · Shadow · Straight line · Surface

Steps:

1. Explain why light travels in a straight line until it hits an object.
2. What happens to the shadow if you move the light source closer to the object? Label this as 'Effect on shadow size'.
3. Draw a dashed line to show the path of a light ray being reflected off a mirror.
4. Why does an opaque object create a shadow? Use the term 'blocked' in your answer.
5. List one object that is transparent and one that is opaque.