

Nova's Starlight Expedition: How Light Travels

Learning objective: To understand that light travels in straight lines and how we see objects.

Nova the owl is studying the night sky. To help her understand how light reaches her eyes, complete the 'True or False' activity below. For each statement, decide if it is True or False. If you choose False, you must provide the correct scientific explanation in the space provided.

Word bank: straight lines · light source · reflection · eye · opaque · shadows

1. Light travels in curvy, zig-zagging paths from the Sun to the Earth. (2 marks)

2. We are able to see an object because light reflects off the object and enters our eyes. (2 marks)

3. Shadows are created when a light source is blocked by an opaque object. (2 marks)

4. The moon is a natural light source that produces its own light. (2 marks)

5. If you hold a torch at an angle towards a mirror, the light will bounce off at the same angle. (2 marks)

Draw: Draw a diagram showing a torch shining on a ball, creating a shadow on a wall. Use arrows to show the path of the light travelling in straight lines.



Extension challenge: Nova wants to build a periscope to see over the tall grass in the meadow. Research how mirrors are used in a periscope and explain to a partner why the light needs to bounce twice for the image to reach your eye.