

Science Subject Knowledge Bank

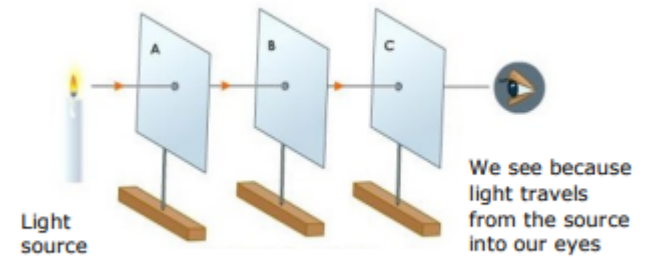
Year 6: Light

<u>Vocabulary</u>	<u>Definition</u>
Reflection	The throwing back of light from an object or surface without absorbing it
Refraction	The redirection of light as it travels through something
Shadow	A dark area or shape produced by an object that comes between a ray of light and a surface.

How does light travel?

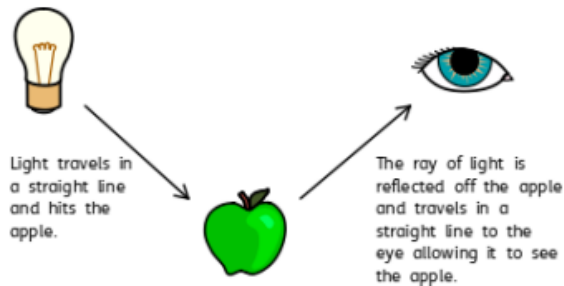
- Light travels in a straight line.
- When you place a torch on a table in a dark room, the beam travels in a straight line.
- Reflection is when light bounces off a surface - this changes the direction in which the light travels.

Light travels in straight lines



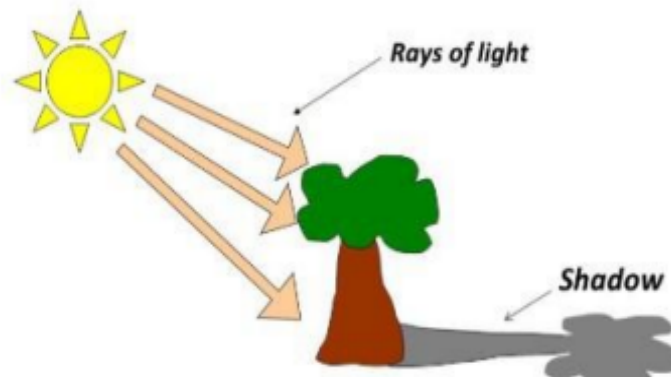
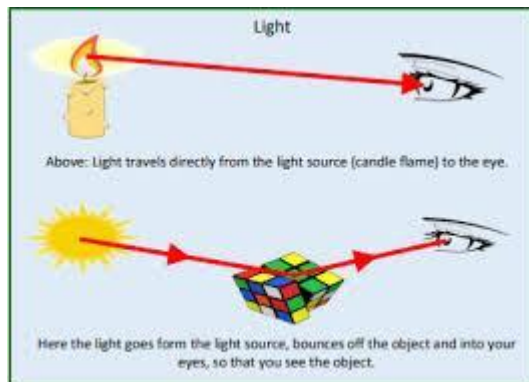
How are shadows formed?

- Because light travels in straight lines, when there is an opaque object blocking the light, a shadow is formed.
- These shadows have the same shape as the objects that cast them.



How does light reflect off objects?

- When light from an object is reflected by a surface, it changes direction. It bounces off at the same angle it hits it.
- Smooth, shiny surfaces such as mirrors and polished metals reflect light well.
- Dull and dark surfaces such as dark fabrics do not reflect light well.



Example: light travelling and reflecting from a smooth surface.



Example: light travelling and reflecting from a rough surface.

