

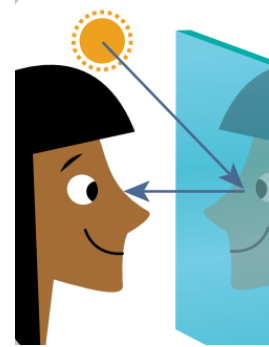
Year 6 Science - Light

Key Vocabulary

light	A form of energy that travels in a wave from a source
light source	An object that makes its own light
reflection	Reflection is when light bounces off a surface, changing the direction of a ray of light
translucent	Describes objects that things let some light through but scatters the light so that we cannot see through them properly
opaque	Describes objects that do not let any light pass through

Key knowledge

We need light to be able to see things. Light waves travel out from sources of **light** in straight lines. Light travels from the sun and hits the surface of the mirror. The light ray is reflected off the mirror and travels in a straight line to the girl's eye, enabling her to see her reflection.



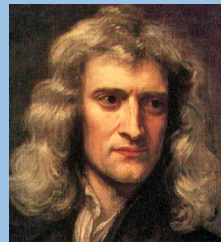
Key concepts



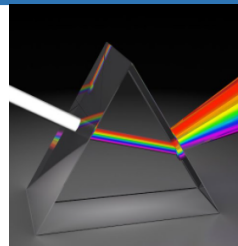
Shadow – A shadow is always the same shape as the object that casts it. This is because when an opaque object is in the path of **light** travelling from a light source, it will block the **light** rays that hit it, while the rest of the light can continue travelling.

Key events / people

Issac Newton



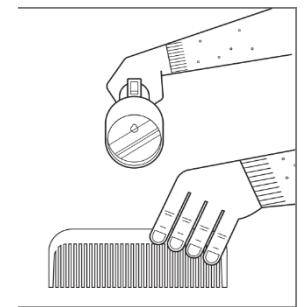
He shone a light through a transparent prism, separating out light into the colours of the rainbow



The colours of the spectrum. All the colours merge together and make visible light.

Key concepts

Carry out this experiment to see how light travels.



Key themes

Road safety **Reflective materials** – exploring a manufacturer's aim: to select the best fabric to be seen on dark winter nights for a new range of children's clothing. Children will need to test the reflective properties of

Smooth and shiny surfaces make good reflectors of light because the light is not scattered. Light is reflected off all objects back to our eyes –

different materials to do this. Look at the materials provided by the manufacturer. Discuss the children's first thoughts and predictions. Which material do you think would reflect the most/least light? Why?

but, if it is scattered, we do not see a reflection, just the object.

Expectations

Children who are working at the expected standard will have explained that light travels in straight lines from a source where it enters the eye causing images to be seen. They will have described and explained how objects and shiny surfaces reflect light. They will have planned and carried out an investigation into which material reflects most light and will have reported on their findings. They will have used the idea that light travels in straight lines to explain the shapes of shadows.

