

Science: What is light and what does it do?

Key vocabulary

light, dark, shadow, mirror, bright, dim, reflect, eye, opaque, transparent, translucent, ray, beam, refraction, periscope, spectrum, dispersion, inverted, medium, investigation, fair test, measure

Working Scientifically

Identifying scientific evidence that has been used to support or refute ideas or arguments.

-Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations

-Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Isaac Newton shone a **light** through a transparent **prism**, separating out **light** into the colours of the rainbow (red, orange, yellow, green, blue, indigo and violet) - the colours of the **spectrum**. All the colours together merge and make visible **light**.

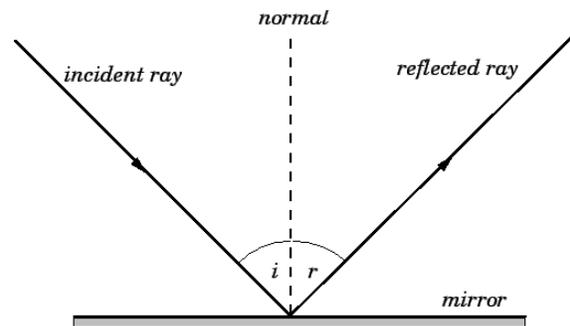


Must know knowledge

- recognise that light appears to travel in straight lines.
- use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
- explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
- use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Diagram

How is light reflected from a mirror according to the angle of incidence?



Parts of the Eye

Cornea (is convex, transparent and allows light to enter the eye)

Retina (the lining of the back of eye which contains light receptors)

Lens (is transparent and biconvex. The lens focuses light onto the retina)

Optic nerve (bundles of neurones which carry impulses from the eye to the brain)

Pupil (a hole through which light passes to enter the eye)

Iris (contracts and relaxes to control the amount of light entering the eye)

Ciliary muscle (can change the shape of the lens to help focus light on the retina)

Eyelid

Pupil

Sclera

Iris

