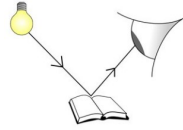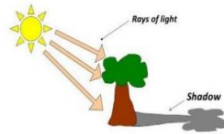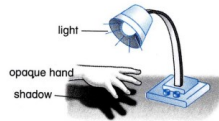# Key facts

How we see

- Light travels in a straight line.
- We see things when light enters our eyes.
- When light hits an object it is reflected (bounces off) and enters our eyes. This is how we see objects.
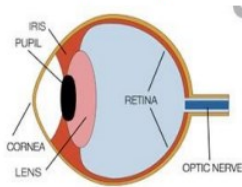
Shadows

- An opaque object blocks the light from getting through. A dark shape or outline is formed. This is a shadow .
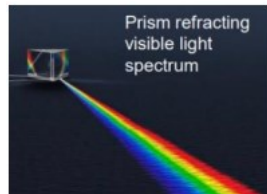
Parts of the eye:

- Light enters the eye through the pupil.
- The iris helps the pupil change size depending on how bright the light is.
- The retina turns the light into signals the brain understands.
- The optic nerve carries this information to the brain

White light

White light that comes from the sun and other sources, such as a torch, is made up of a number of colours (red, orange, yellow, green, blue, indigo, violet) but we cannot see these because they are mixed together. The light can be split into the separate colours with a prism.

Prism refracting visible light spectrum

Light sources

Year 6 Science
Spring 1
Light
Science strand:
Physics
Sustainability Links_ Light Pollution

Light Pollution

Light pollution, or artificial light at night, is **the excessive or poor use of artificial outdoor light**, and it disrupts the natural patterns of wildlife, contributes to the increase in carbon dioxide (CO_2) in the atmosphere, disrupts human sleep, and obscures the stars in the night sky.

Vocabulary

Word	Definition
Transparent	Materials which light passes through clearly.
Opaque	A material that doesn't allow light through.
Light source	something that provides light, whether it be a natural or artificial source of light (e.g. the sun, a torch)
Refraction	The bending of light as it passes from one substance to another.
Ray	a thin beam of light or some other radiation
Reflect	To throw back heat, light, or sound without absorbing it.
Spectrum	a band of colors that is formed when light is passed through a prism, or in some other way. The six colors of a spectrum are red, orange, yellow, green, blue, and purple.
Translucent	allows light to pass through, but not detailed shapes, to pass through.
Shadow	A dark figure cast somewhere from something blocking light.
Prism	A solid 3D shape with flat sides