

Light – Year 6

Light is a form of energy that enables us to see all the things around us. The main source of light on the earth is the sun. Light also comes from other sources such as fire, stars and man-made light sources such as light bulbs and torches.

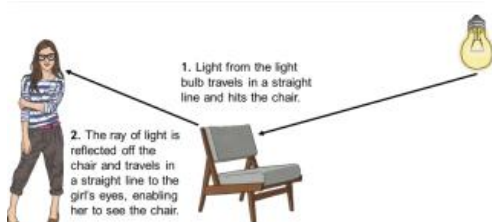
Some animals, such as fireflies and glow worms, are light sources. They make their own light to attract mates.

Thanks to light, we see life in glorious colour: our eyes see different wavelengths of light as different colours. These colours are called the visible spectrum. Although light looks white, it is actually made up of all the colours of the rainbow!

Light also powers the technology around us: laser beams make CD and DVD players and printers possible, microscopes and telescopes use lenses to bend light (refraction), cameras record light as it reflects off objects and fibre-optic cables and lasers allow us to communicate at incredible speed.

How do we see?

How do we see? Light travels in straight lines. When light hits an object, it is reflected (bounces off) and enters our eyes. This is how we see the object. Rays of light travel from a light source and hit objects around us. The rays of light reflect, or bounce, off an object, and then travel into our eyes. This reflection of light allows us to see the object.



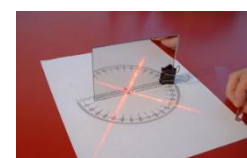
What is refraction?

What is refraction? Light waves travel at a different speed when they go through other transparent materials, such as water or glass. This causes the rays of light to change direction and bend. This is known as refraction. Refraction creates illusions. Because light bends when it travels between air and water or glass, objects seen through these materials look bent or distorted.



What are shadows?

When an object passes in front of a beam of light, the light can be blocked, making a shadow. Opaque objects let no light through. Translucent objects let some light through. Transparent objects let all light through. The closer an object is to the source of light the bigger the shadow. Shadows from the sun can be used to tell the time in a sundial.



Key Vocabulary

Light - Light is a type of energy that makes it possible for us to see the world around us

Source of light - The Sun and other stars, fires, torches and lamps all make their own light and so are examples of sources of light.

Reflection - Reflection occurs when a light ray hits a surface and bounces off.

Refraction - Refraction is the bending of light as it passes from one substance to another

Visible spectrum - The range of colours we can see with our eyes

Prism - A prism is a three-dimensional shape with identical ends, called bases, and flat sides called faces. A prism allows us to see the visible spectrum

Shadow - A dark area or a shape produced by an object coming between rays of light and a surface

Translucent - A translucent material lets light pass through, but objects on the other side can't be seen clearly

Transparent - Transparent materials allow you to see clearly through them

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[What is evolution? - BBC Bitesize](#)

