

Science Year 6 Autumn 2: Light

Key vocabulary to learn and use in my learning.

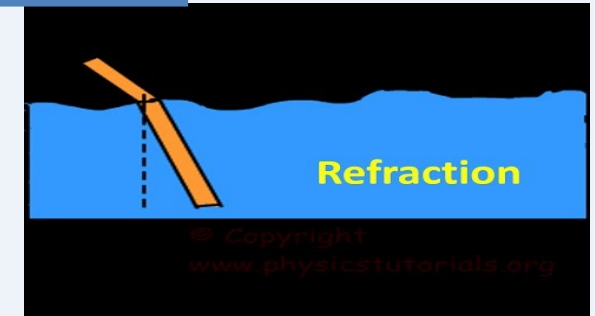
Word	Definition
light rays	Light waves are forms of moving energy made of tiny microscopic particles called
lens	Transparent material with curved sides for concentrating or dispersing light rays.
luminous	Light as it is perceived by the eye.
reflection	Occurs when a light ray hits a surface and bounces off.
light refraction	When a light wave travels through air and then passes through water, the wave will slow and change direction.
light source	Where light comes from e.g. the sun.
optics	The study of light. Describes how light is created and how it travels.
periscope	Apparatus which includes angled mirrors that helps to see things out of sight.
prism	A prism is a solid 3d shape with flat ends. A transparent prism separates visible light into



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

Light Refraction

A demonstration of what happens when light travels through water or glass. Light travels and bounces off surfaces into our eyes. When light travels from air through water, glass or anything that lets light through, it gets bent. This bending is called refraction.



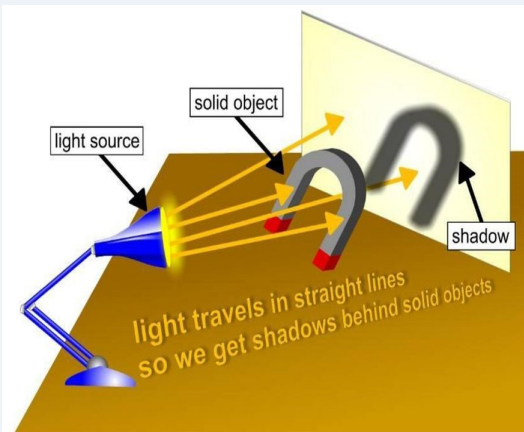
Key knowledge to know and use.

We need light to be able to see things. Light waves travel out from sources in straight lines. The lines are often called rays or beams of light. Light travels as a wave. But unlike waves of water or sound it does not need a medium to travel through. This means that light can travel through a vacuum, a completely airless space.

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.

Shadows can also be elongated or shortened depending on the angle of the light source. A shadow is also larger when the object is closer to the light source. This is because it blocks more light.

How shadows are formed.



How light travels to the eye.

