

Vocabulary

transparent: light can pass through and objects beyond can be seen clearly

translucent: light can pass through but objects beyond cannot be seen clearly

opaque: light cannot pass through

reflection: when light bounces off an object

refraction: the bending of light as it passes from one material to another

dispersion: when white light is split into seven colours

inverted: put upside down or in the opposite order

spectrum: the range of colours as seen in a rainbow

ultra violet: a type of light invisible to the eye

ray: a narrow beam of light travelling in a straight line

shadow: a dark area caused by an object blocking the light rays from a source

light source: an object which creates its own light. They can be natural, such as the sun, or artificial, such as an electric torch.

Physics

Science Y6: Light

Key diagrams and knowledge

Direction of light: light travels in a straight line.

Reflection: when light hits an object with a smooth surface, it reflects at the same angle as it hit the object (angle of reflection).

Refraction: When light travels from one material (e.g. air) into another material (e.g. water) it bends. This is called refraction.

How we see things: objects can be seen when light from a light source reflects off them and travels into our eye.

Shadows: Shadows are formed because light travels in a straight line. When an object blocks the light travelling from a light source, it causes a shadow behind it.

The colour spectrum: 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 (dispersion).



Isaac Newton (1643 – 1727)
Discovered the spectrum of light

Links to prior learning:
Light in Y1 and Y3

Links to other subjects:
Maths: angles

