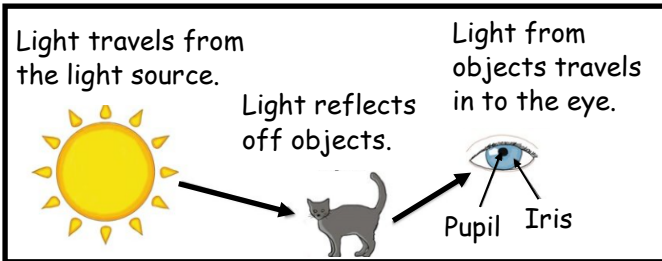


Year 6:

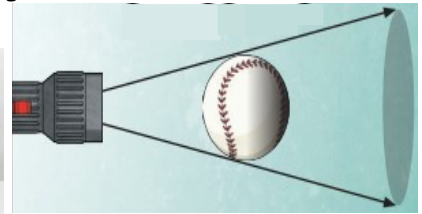
Light

Key Learning

We need light to see things. Light travels out from sources of light in straight lines. These lines are often called rays or beams of light.



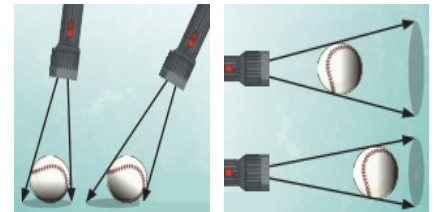
Isaac Newton was the famous scientist who discovered theories around light. One of his biggest achievements was his creation of a reflecting telescope.



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 from a light source, it will



The spoon in the water looks like it is bent. This is because light bends when it moves from air to water. When light bends in this way it is called refraction.



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 of the light.

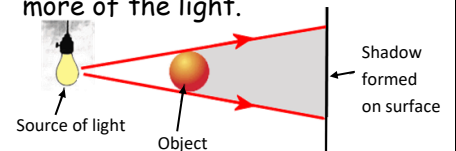
The white light from the Sun is made up of the seven colours (spectrum) of the rainbow.

The seven colours that make up white light are : red, orange, yellow, green, blue, indigo and violet.



White light can be dispersed by a prism to show that white light is a mixture of the 7 colours (spectrum).

This is how we see rainbows as the white light from the sun is dispersed through rain water particles.



Key Vocabulary

opaque	An object that does not allow light to pass through it so you cannot see through it.
transparent	An object that allows light to pass through so that objects behind can be distinctly seen.
translucent	An object that allows light, but not detailed shapes, to pass through. E.g. frosted glass.
reflect	When light bounces back off a surface, changing the direction of a ray of light.
refract	This is when light bends as it passes from one medium to another. E.g Light bends when it moves from air into water.
prism	A transparent block which is used to disperse or refract light.
spectrum	The range of colours found in a rainbow and produced when light passes through a prism.
absorption	When light stops at an object and does not reflect or refract.
dispersion	The splitting of white light into the seven colours of the spectrum (rainbow).