







# Light and Sight

## Year 6 - Autumn

 <p>Light</p>	<p>A form of energy that travels in a wave from a source</p>
 <p>Light source</p>	<p>An object that makes its own light</p>
 <p>Reflection</p>	<p>When light bounces off a surface, changing the direction of a ray of light.</p>
<p>Incident ray</p>	<p>A ray of light that hits a surface</p>
<p>Reflected ray</p>	<p>A ray of light that has bounced back after hitting a surface.</p>
 <p>Refraction</p>	<p>This is when light bends as it passes from one medium to another. E.g. light bends when it moves from air into water.</p>
<p>Visible spectrum</p>	<p>Light that is visible to the human eye. It is made up of a colour spectrum.</p>
 <p>Shadow</p>	<p>An area of darkness where light has been blocked</p>
 <p>Prism</p>	<p>A prism is a solid 3D shape with flat sides. The two ends are an equal shape and size. A transparent prism separates out visible light into all the colours of the spectrum.</p>

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

Light travels as a wave. But unlike waves of water or sound waves, it does not need a medium to travel through. This means 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.

Isaac Newton shone a light through a transparent prism, separating out light into colours of the rainbow—the colours of the spectrum. All the col-



People who work around traffic wear special clothes so that drivers can see them more easily. This is often bright yellow with reflective strips.



About 1000 years ago, Persian scientist, Al Hazan, knew we saw objects because of reflected light travelling to our eyes.

