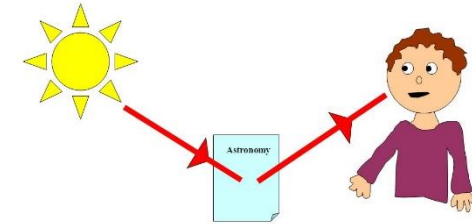


Year 6 Light

Key Vocabulary

Light	A form of energy that travels in a wave from a source.
Light source	An object that makes its own light.
Reflection	Reflection is when light bounces off a surface, changing the direction of a ray of light.
Refraction	This is when light bends as it passes from one medium to another. E.g. light bends when it moves from air into water.
Visible spectrum	Light that is visible to the human eye. It is made up of a colour spectrum.
Prism	A prism is a solid 3D shape with flat sides. The 2 ends are an equal shape and size. A transparent prism separates out visible light into the colours of the spectrum.
Shadow	An area of darkness where the light has been blocked.
Transparent	Describes objects that let light travel through them easily, meaning you can see through the object.
Translucent	Describes objects that let some light through, but scatters the light so we can't see through them properly.
Opaque	Describes objects that do not let any light pass through them.

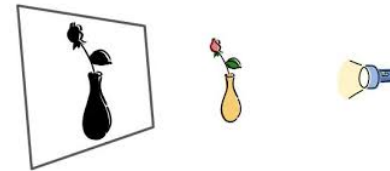
We need light to be able to see things. Light waves travel out from sources of light in straight lines. These lines are often called rays or beams of light. We see objects when light from them goes into our eyes. The light can come direct from the source or is reflected from the object into our eyes. In the example, light from the sun travels in a straight line and hits the book. The light is then reflected off the book and travels in a straight line to the boy's eye, enabling him to see the book.



The pencil in the water looks as if 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.



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. Recap from Year 3 about shadow is also larger when the object is closer to the light source. Why? This is because it blocks more of the light.