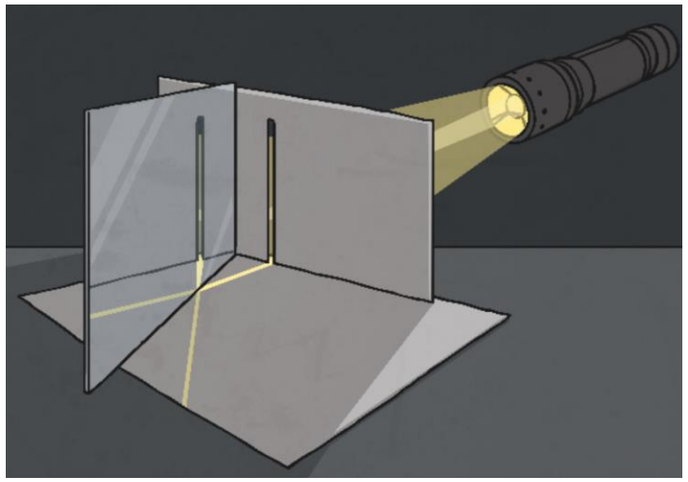
Science

Year 6 Autumn 2

How does light travel?

ESSENTIAL VOCABULARY	
Light source	Anything that gives off light, such as the sun, a lamp, or a torch.
Reflection	When light bounces off a surface, like when light hits a mirror or a shiny object.
Opaque	An opaque object does not allow light to pass through it, causing a shadow to form.
Transparent	A transparent object allows light to pass through it, like clear glass or water, so you can see through it.
Shadow	A shadow is formed when light is blocked by an opaque object, creating a dark area behind the object.
Ray of light	A straight line that represents the direction in which light is travelling. Light travels in straight lines.



Key Concepts

Light travels in straight lines from a source until it hits an object.
We can see objects because light reflects off them and into our eyes.
Shadows are formed when light is blocked by an opaque object.
Mirrors reflect light, and the angle it hits the mirror is the same as the angle it reflects off.
Light cannot pass through opaque materials, but it can pass through transparent ones like glass.
Some materials let only some light through — these are called translucent, like frosted glass or thin fabric.
We see light sources directly, like the Sun or a torch, because they give off their own light.

Scientist

Alhazen was a scientist from over 1,000 years ago who lived in the Middle East.
He studied how light travels and was one of the first people to explain that we see things because light reflects off objects and into our eyes.
He also experimented with lenses and curved mirrors, helping to start the science of optics (how we see and how light behaves).

What I will know at the end of the unit.

Light travels in straight lines from a light source.	
We see objects because light reflects off them and into our eyes.	
Light can travel directly from a light source or bounce off an object before reaching our eyes.	
Shadows are made when an opaque object blocks light.	
Shadows have the same shape as the object because light travels in straight lines.	