Science Knowledge Organiser-Light — Autumn I - 2021

Key Vocabulary	
light	A form of energy that travels in a wave from a source.
light source	An object that makes its own light.
dark	Dark is the absence of light.
reflection	The process where light hits the surface of an object and bounces back into our eyes.
reflect	To bounce off.
reflective	A word to describe something which reflects light well.
ray	Waves of light are called light rays. They can also be called beams.

Key Knowledge We need light t

We need light to be able to see things. Light travels in a straight line. When light hits an object, it is reflected (bounces off). If the reflected light hits our eyes, we can see the object. Some surfaces and materials reflect light well. Other materials do not reflect light well. Reflective surfaces and materials can be very useful...



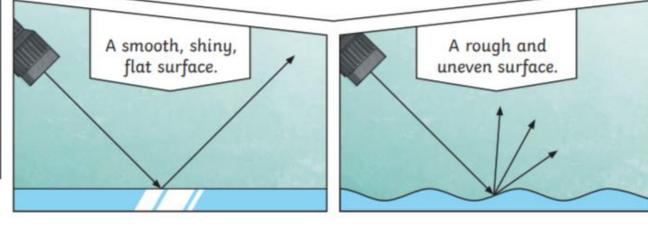
The light is reflected from the object.

Light from the torch hits the object.

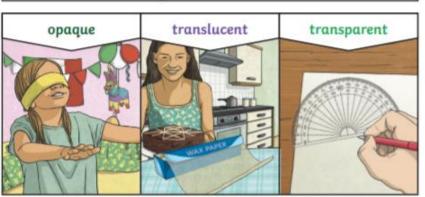
Mirrors reflect light
very well, so they
create a clear image.
An image in a mirror
appears to be reversed.
For example, if you look in
a mirror and raise your
right hand, the mirror
image appears to raise
its left hand.

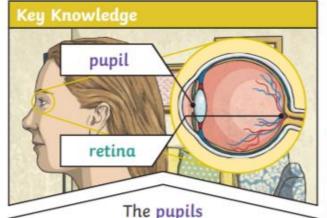


The surfaces that reflect light best are smooth, shiny and flat.

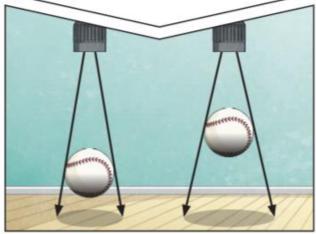


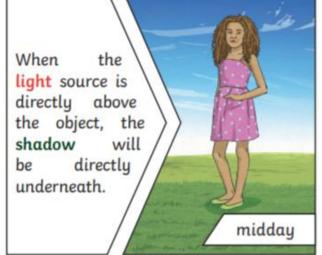
pupil	The black part of the eye which lets light in.
retina	A layer at the very back of the eye. The retina takes the light the eye receives. It then changes it into nerve signals to send to the brain.
shadow	An area of darkness where light has been blocked.
opaque	Describes objects that do not let any light pass through them.
translucent	Describes objects that let some light through, but scatter the light so we can't see through them properly.
transparent	Describes objects that let light trave through them easily, meaning that you can see through the object.





control the amount of light entering the eyes. If too much light enters, then it can damage the retina. To help protect the eyes, you can wear a hat with a wide brim and sunglasses with a UV rating. A shadow is caused when light is blocked by an opaque object. A shadow is larger when an object is closer to the light source. This is because it blocks more of the light.





When a light source is to one side of an object, the shadow will appear on the opposite side. The shadow will also be longer.