

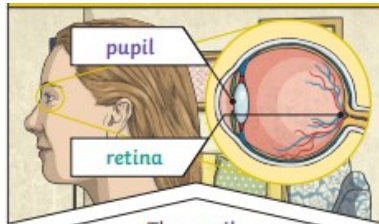
Key Vocabulary

Year 3

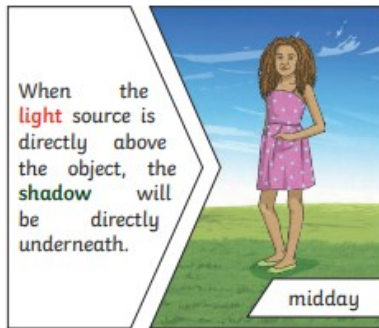
Physics—Light

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,
Ray	Waves of light are called light rays. They can also be called beams.
Pupil	The black part of the eye that 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.

Key knowledge



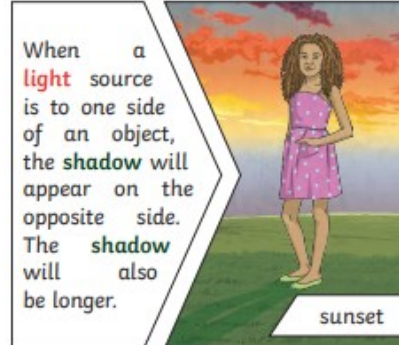
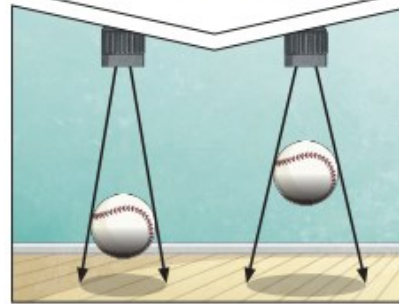
The pupils control the amount of light entering the eyes. If too much light enters, then it can damage the retina. To help protect the eyes, you can wear a hat with a wide brim and sunglasses with a UV rating.



When the light source is directly above the object, the shadow will be directly underneath.

midday

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.

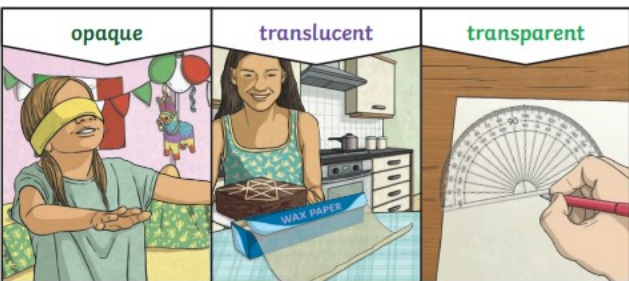


When a light source is to one side of an object, the shadow will appear on the opposite side. The shadow will also be longer.

sunset

I will be able to

- Recognise that they need light to see things and dark is the absence of light.
- Notice that light is reflected from surfaces.
- Recognise that light from the sun can be dangerous and there are ways to protect their eyes.
- Recognise that shadows are formed when light is blocked.
- Find patterns in the way that the size of the shadow changes.

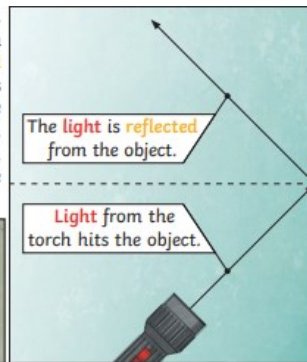


We need light to be able to see things. Light travels in a straight line. When light hits an object, it is reflected (bounces off). If the reflected light hits our eyes, we can see the object. Some surfaces and materials reflect light well. Other materials do not reflect light well. Reflective surfaces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



hi-vis jacket

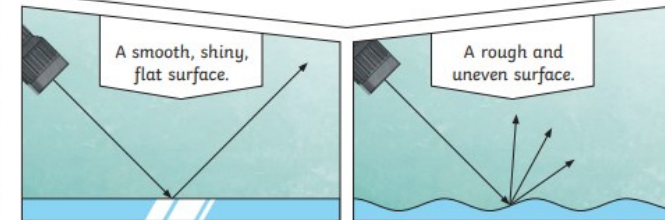
cat's eyes



The light is reflected from the object.

Light from the torch hits the object.

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



A smooth, shiny, flat surface.

A rough and uneven surface.

Famous Scientists



Thomas Edison invented the light bulb

Born: 1837

Died: 1931

Investigation

To recognise that shadows are formed when the light from light source is blocked by an opaque subject:

- Can I gather and record data to answer questions?
- Can I make a series of careful observations over a period of time?
- Can I record my observations in a systematic way that relates to the question?