

What do I already know?

What do I know now?

1

2

3

1. Our eyes see things by...

2. Shadows are formed and change when...

3. Light is reflected from surfaces differently because...

KNOWLEDGE ORGANISER

THEME: Light

YEAR GROUP / CLASS: 3

TERM: Autumn 1

What I have learnt before:

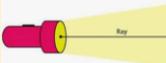
To make observations and record data

To compare and group materials based on their properties

To observe seasonal changes and length of the day changes



Key Vocabulary:

Words		Definitions
light source		an object or thing that makes its own light
reflection		the process where light hit the surface of an object and bounces back into our eyes
shadow		an area of darkness where light has been blocked
ray		waves of light are called rays or beams
pupil		the part of the eye that lets light in
opaque		describes any objects that don't let any light pass through them
translucent		describes objects that let some light through but scatters the light so we can't see through them clearly
transparent		describes objects that let light travel through them easily, meaning that we can see through the object



What skills will I be using?



Questioning



Predicting



Testing & Investigating



Observing & Measuring



Recording



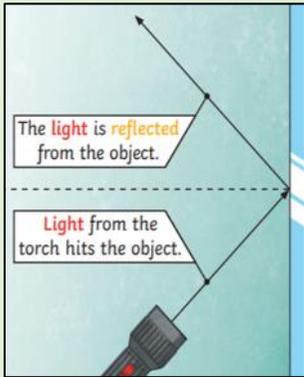
Analysing



Evaluating



1) Our eyes use light to see

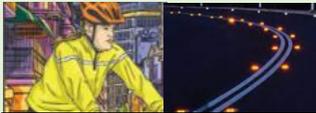


We need light to be able to see things.

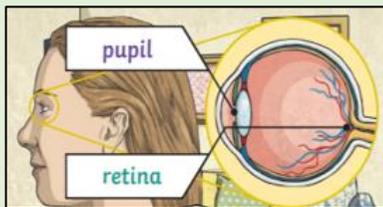
Light travels in a straight line.

When light hits something, it is reflected (bounces off).

If the reflected light hits our eyes, we can see the object.



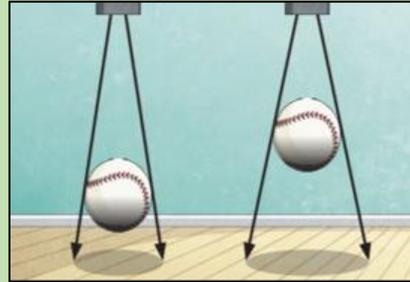
Hi-vis jackets and cats' eyes reflect light really well.



The pupils control the amount of light entering the eye. Too much light can damage the retina. Sunglasses and hats can protect your eyes.

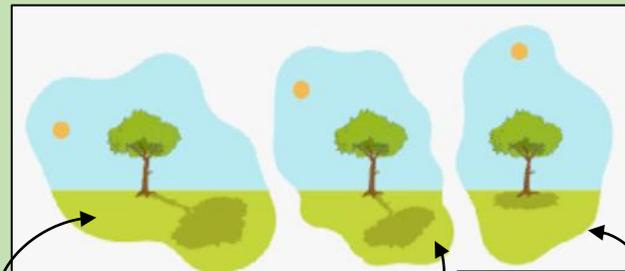
2) Changing Shadows

A shadow is formed when a light source is blocked by an **opaque** object.



A shadow is larger when the object is closer to the light source.

Shadow move and change size during the day depending on where the light source is coming from.



If the light source is to one side, the shadow will be on the opposite side.

The lower the light source to the object, the longer the shadow.

If the light source is directly above, the shadow will be directly beneath.

3) Light and surfaces

