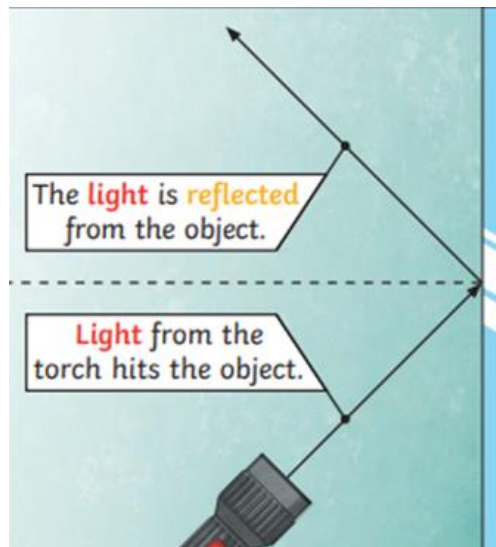




What is light?

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.



hi-vis jacket



cat's eyes

Some surfaces and materials reflect light well. Other materials do not reflect light well.

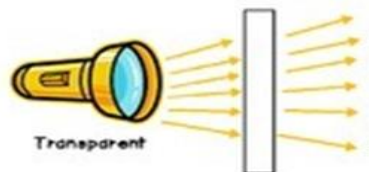
Reflective surfaces and materials can be very useful such as hi-vis jackets and cat's eyes on the road.

Vocabulary

Light source	An object that produces its own light (e.g. sun, fire).
Reflection	When a light hits a surface and 'bounces' off.
Refraction	When light passes through a different object and its direction changes.
Opaque	An object which does not allow light to pass through it (e.g. wood).
Translucent	An object which allows some light to pass through it. It may be possible to see some unclear images through the object (e.g. tissue paper).
Transparent	An object which allows light to pass through it so that objects behind it can be easily seen (e.g. glass).
Spectrum	A range of colours caused when white light is refracted. A rainbow shows a spectrum of light.
Rainbow	An arch of colour caused by the refraction of light on water droplets in the air, usually rain (R ed, O range, Y ellow, G reen, B lue, I ndigo, V iolet).
Prism	A solid 3D shape where two end faces are similar and parallel.
Shadow	A dark area or shape caused by the blockage of light.



Transparent, translucent and opaque



Transparent:
ALL light passes through.



Translucent:
SOME light passes through.



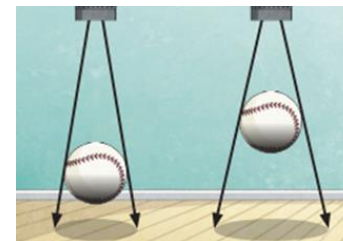
Opaque:
NO light passes through.

Key facts

- Light travels faster than sound.
- Darkness is caused by the absence of light.
- The moon does not emit its own light- it reflects light from the sun.
- Ultraviolet light is a type of radiation that can be dangerous. The sun emits UV rays.

What is a shadow?

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.



What is a rainbow?



A rainbow is an arch of colour caused by the refraction of light on water droplets in the air, usually rain (**R**ed, **O**range, **Y**ellow, **G**reen, **B**lue, **I**ndigo, **V**iolet).

Extending your learning:

1. Create a shadow puppet theatre out of a cardboard box. Follow the link to watch how it is made. Film your puppet show and send it in on Teams.
2. Using a torch, shine the light into a mirror. What do you notice? Use the vocabulary from the knowledge organiser to explain your findings.
3. After it has rained, look out of the window, can you see a rainbow? Using scientific vocabulary can you explain how it is formed?



Knowledge Organiser Revision Schedule

Here is the revision schedule for this half term's knowledge organiser. Please help your child to learn the specified section each week.

Week	Knowledge Organiser Section to Learn
Week 1 – 12 th June	What do you know about light? Introduce knowledge organiser.
Week 2 – 19 th June	Sources of light.
Week 3 – 26 th June	Definition of 6 vocabulary.
Week 4 – 3 rd July	Reflective materials.
Week 5 – 10 th July	Definition of opaque, translucent and transparent.
Week 6 – 17 th July	True or false statements about light.