

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 objects and bounces back into the eyes.
reflect	To bounce off.
pupil	The black part of the eye which lets light in.
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 cannot see through them properly.
transparent	Describes objects that let light travel through them easily, meaning we can see through them.

In the future:

I will recognise that light seems to travel in straight lines.

I will learn:

- That light is reflected from different surfaces.
- Recognise that shadows are formed when the light from a light source is blocked by a solid object.

I should already know:

That we need light to see things and that dark is the absence of light.

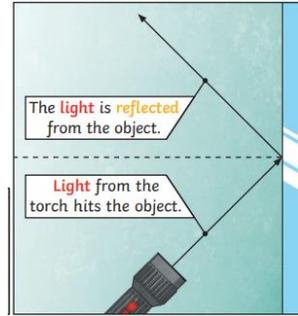
Thinking deeper challenge:

Create a range of different size and shape shadow puppets and perform a puppet show. What do you notice about the shadows?

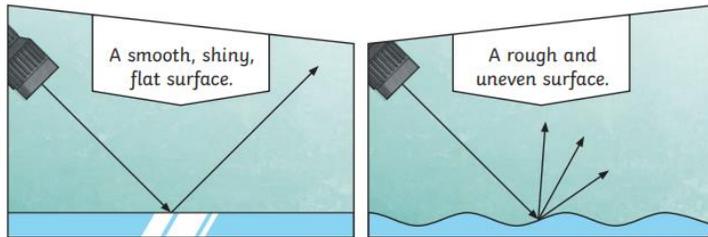
Light and reflection

We need **light** to be able to see things.
Dark is the absence of **light**.

When **light** hits an object, it is **reflected**.
If the **reflected light** hits our eyes, we can see the object.



Some surfaces and materials **reflect** the **light** well.
Other materials do not **reflect light** well.
The surfaces that **reflect light** best are smooth, shiny and flat.



The sun is a powerful **light source**. **Light** from the sun can be dangerous and may damage our eyes if we look directly at it.

There are different ways to protect our eyes, such as wearing sunglasses.

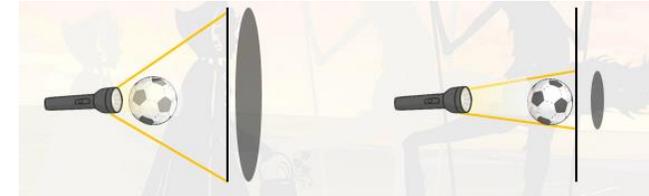


Shadow

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**. This is because it blocks more of the **light**.

The further away an object is from the **light source** the smaller the **shadow**.



TRANSPARENT	TRANSLUCENT	OPAQUE
Transparent objects allow all of the light to pass through them. This means that we can clearly see through them.	Translucent objects only allow some light to pass through them. This means that we can partially see through them.	Opaque objects do not allow any light to pass through them. This means that we cannot see through them at all.

Which of these objects are **opaque**, **translucent** or **transparent**?

