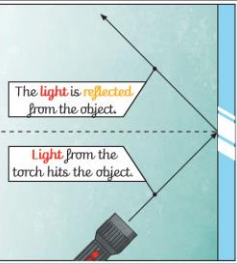


Key Knowledge

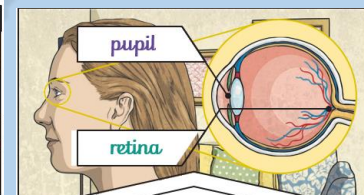
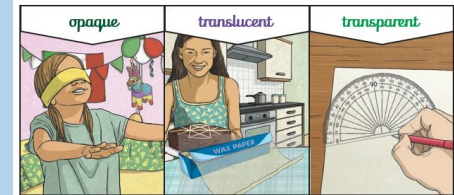
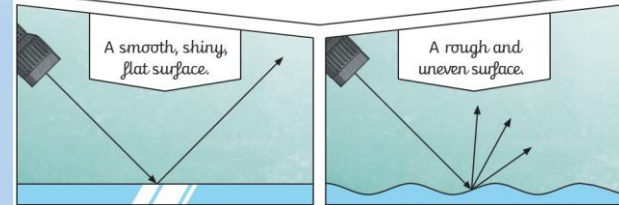
We need **light** to be able to see things. **Light** travels in a straight line. When **light** hits an object, it is **reflected** (bounces off). If the **reflected light** hits our eyes, we can see the object. Some surfaces and materials **reflect light** well. Other materials do not **reflect light**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



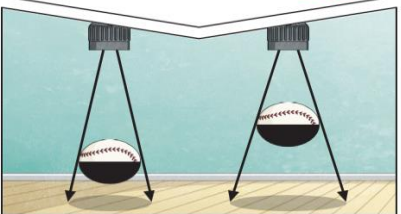
Mirrors **reflect light** very well, so they create a clear image. An image in a mirror appears to be reversed. For example, if you look in a mirror and raise your right hand, the mirror image appears to raise its left hand.



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



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 **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.

Key Skills

- To identify a range of light sources
- To know that dark is caused by the absence of light
- To know that we need light to see
- To identify reflective materials
- To use mirrors to reflect light onto different objects
- To know the dangers of UV light
- To know that materials can be opaque, transparent or translucent
- To observe patterns in the way shadows change size.

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.
- Reflective** – Bounces light back from the surface
- 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 travel through them easily, meaning that you can see through the object.