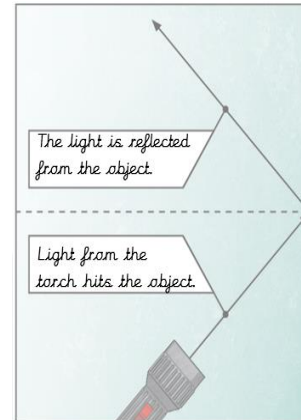# Key Vocabulary

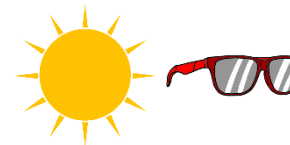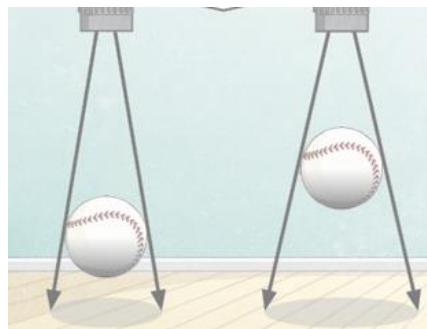| | |
|---|---|
| light | A form of energy that travels in a wave from a source. |
| light source | An object that makes its own light. |
| dark | Dark is the absence of light. |
| reflection | The process where light hits the surface of an object and bounces back into our eyes. |
| reflect | To bounce 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. |
| 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 though them properly. |
| transparent | Describes objects that let light travel through them easily, meaning that you can see through the object. |

## Science Knowledge Organiser

## 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. Some surfaces and materials reflect light well. Other materials do not reflect light well. Reflective surfaces and materials can be very useful...

The light is reflected from the object.

Light from the torch hits the object.

hi-vis jacket    cat's eyes

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.

opaque    translucent    transparent

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 smooth, shiny, flat surface.

A rough and uneven surface.

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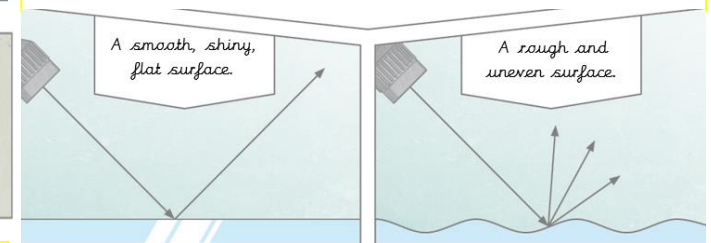
When the light source is directly above the object the shadow will be directly underneath. When a light source is to one side of an object, the shadow will appear on the opposite side. The shadow will also be longer.