

| Key Vocabulary      |  |
|---------------------|--|
| <b>light</b>        | A form of energy that travels in a wave from a source.                                       |
| <b>light source</b> | An object that makes its own <b>light</b> .  |
| <b>dark</b>         | <b>Dark</b> is the absence of <b>light</b> .   |
| <b>reflection</b>   | The process where <b>light</b> hits the surface of an object and bounces back into our eyes. |
| <b>reflect</b>      | To bounce off.   |
| <b>reflective</b>   | A word to describe something which <b>reflects light</b> well.                               |
| <b>ray</b>          | Waves of <b>light</b> are called <b>light rays</b> . They can also be called beams.          |

**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...

hi-vis jacket

cat's eyes

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.

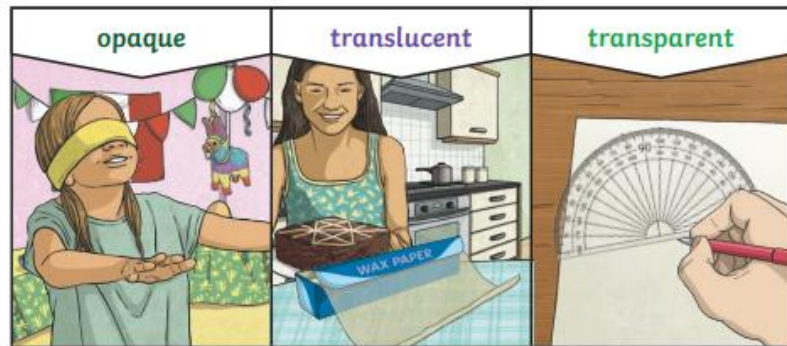
The surfaces that reflect **light** best are smooth, shiny and flat.

A smooth, shiny, flat surface.

A rough and uneven surface.

To look at all the planning resources linked to the Light unit, [click here](#)

| Key Vocabulary     |   |
|--------------------|---|
| <b>pupil</b>       | The black part of the eye which lets <b>light</b> in.   |
| <b>retina</b>      | A layer at the very back of the eye. The <b>retina</b> takes the <b>light</b> the eye receives. It then changes it into nerve signals to send to the brain. |
| <b>shadow</b>      | An area of darkness where <b>light</b> has been blocked.  |
| <b>opaque</b>      | Describes objects that do not let any <b>light</b> pass through them.   |
| <b>translucent</b> | Describes objects that let some <b>light</b> through, but scatter the <b>light</b> so we can't see through them properly.                                   |
| <b>transparent</b> | Describes objects that let <b>light</b> travel through them easily, meaning that you can see through the object.  |



**Key Knowledge**

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.

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**.

When the **light** source is directly above the object, the **shadow** will be directly underneath.

middy

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.

sunset