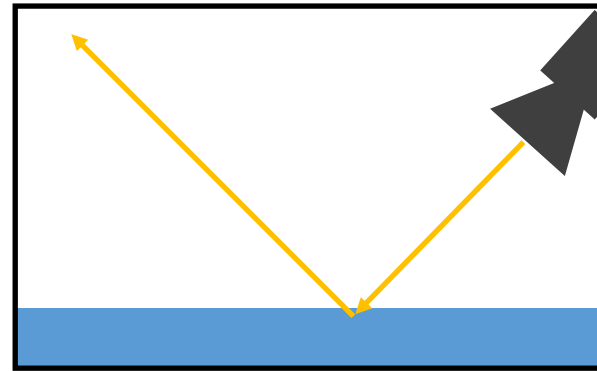


Year 3 Knowledge Organiser - Spring 1 2023 Science — Light

<u>Word</u>	<u>Definition</u>
Light	Radiation that is visible to the human eye
Dark	The absence of light
Reflection	When light hits a surface and then travels to our eyes so we can see the object
Shadow	An area of darkness caused by an object blocking light
Light source	Something that makes light e.g. torch, the sun.
Illuminate	To light up

We need light to be able to see things. Light travels in straight lines and is reflected off of surfaces. This reflected light hits our eyes which allows us to see that object.

Some objects are better at reflecting than others and we use reflective materials for items that we want to be seen—such as high visibility clothing!



The light from the torch hits the object which is then reflected. This light would travel to our eyes which lets us see the object!

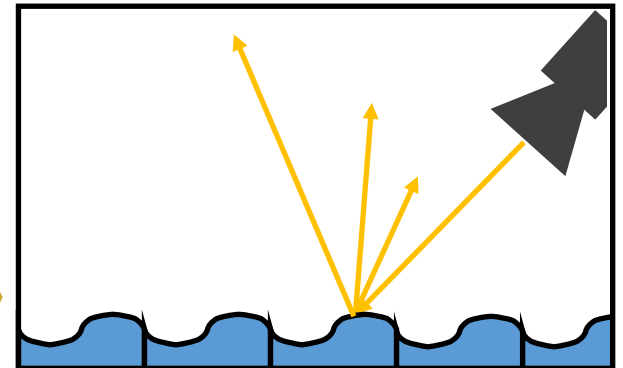


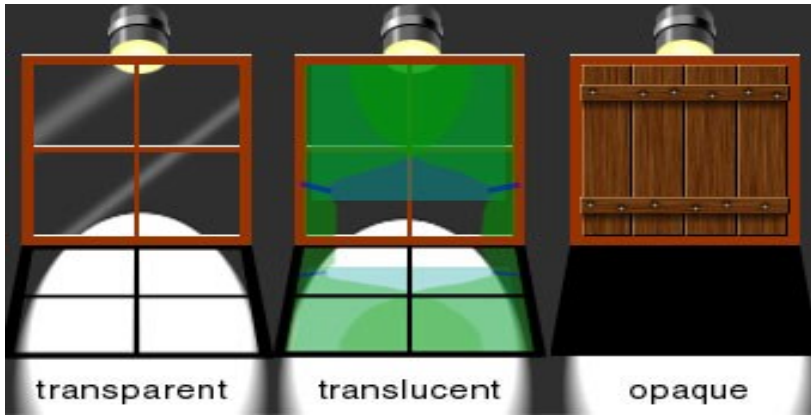
Smooth, shiny surfaces reflect the light best.

The most reflective colours are light and bright ones!

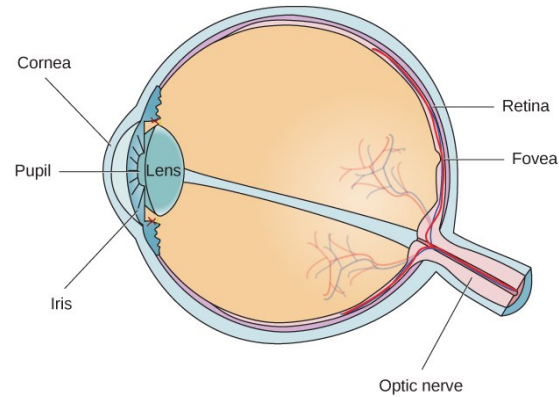
- White
- Yellow
- Orange

Rough and uneven surfaces reflect the light into many directions—not the best!



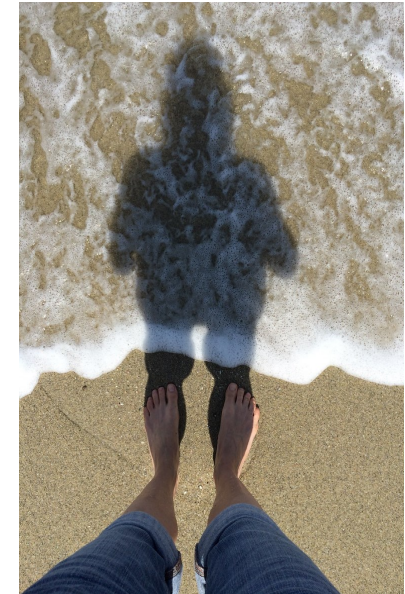


<u>Word</u>	<u>Definition</u>
Opaque	Something you cannot see through
Translucent	Something you can see through a little
Transparent	Something you can see through completely
Pupil	The black part of the eye that lets light in
Retina	The layer at the back of our eye that sends images to our brain
Iris	The coloured part of the eye



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 sunglasses with a UV rating and a hat with a wide brim .

A shadow is caused when light is blocked by an opaque objects. When an object is close to the light source, a shadow is larger. This is because it blocks more of the light.



At midday, the shadow will be directly underneath if the light source is directly above the object.

At sunset, the shadow will appear on the opposite side of the light source when an object is to one side. The shadow will appear longer.