

Key Vocabulary:

Reflect – To throw back light without absorbing it

Light Source – A source of light makes light. The sun and other stars, fires and torches all make their own light and are sources of light

Shadow – A dark area or shape produced by an item coming between the rays of light and a surface

Transparent – This is the name given to objects which light **can** travel through

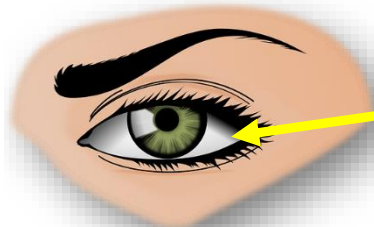
Translucent – This is the name given to objects which **some light can** travel through

Opaque – This is the name given to objects which light **cannot** travel through. They block light and create shadows

Because light travels in straight lines, when it hits an object, it is blocked. It can't bend around the object so it casts a shadow.



Light travels in straight lines. It travels from the light source either directly into our eyes, or reflecting off objects at 670 million mph.



Holy Family Halewood Year 5 & 6 Science Light



Learning Objectives:

- To recognise that light appears to travel in straight lines
- To use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- To explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- To use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
- To investigate shadows using knowledge of transparent, translucent and opaque materials

Shadows:

As the earth spins, it makes the sun appear to rise in the east in the morning. Because the sun hits an object at an angle, the shadow is long.



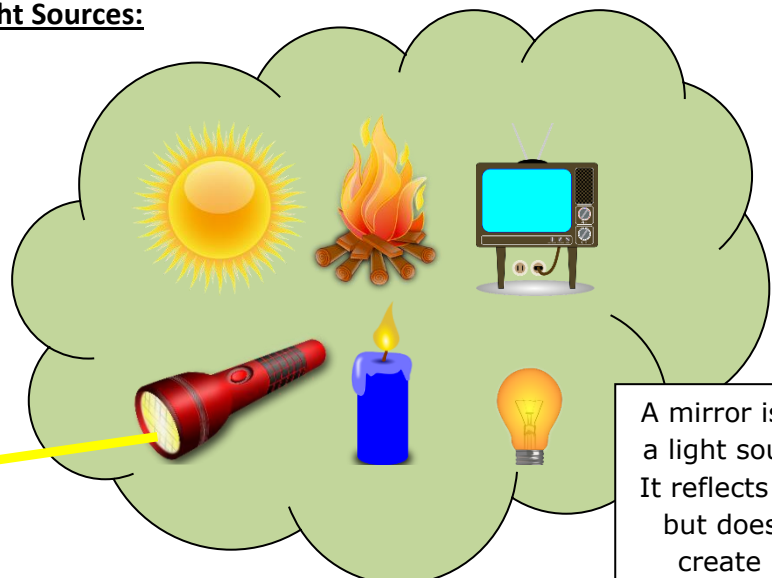
As the earth continues to spin the sun is overhead by midday. Because the sun hits the object from above, the shadow is short.



As the earth spins and the sun sets in the west in the evening, the shadow is long.



Light Sources:



A mirror is not a light source. It reflects light but doesn't create it.