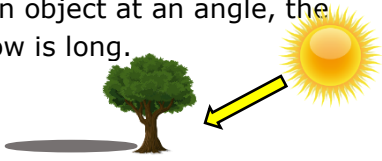
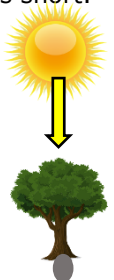


# Light

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.



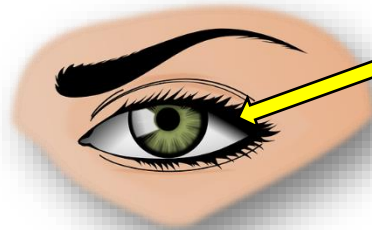
As the earth continues to spin the sun is overhead by midday. Because the sun hits the object from above, the shadow is short.



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



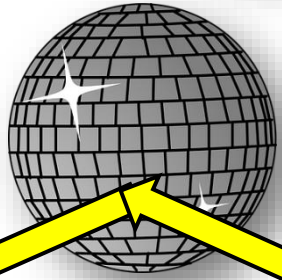
Light travels in straight lines. It travels from the light source either directly into our eyes, or reflecting off objects at 670 million mph.



### LIGHT SOURCES

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

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.



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

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

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

When light hits a smooth object, it bounces off (reflects) making it appear shiny.



- 1.) We can see objects because light reflects off them and into our eyes.
- 2.) Light reflects off most objects, especially colours like white and yellow.
- 3.) If there is no light at all (pitch-black), then there is no light to reflect and we can't see anything at all.
- 4.) At night you can still see a bit in the dark because the moon is reflecting light.

Rainbows are formed when the sun shines through water particles (transparent) and when white light passes through, it 'bends' and splits into the range of colours which make white light

