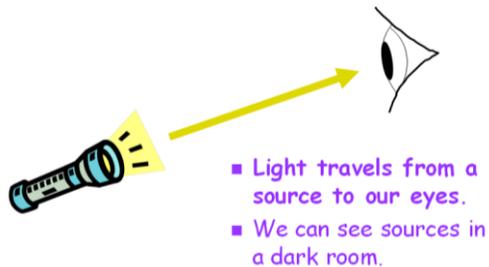


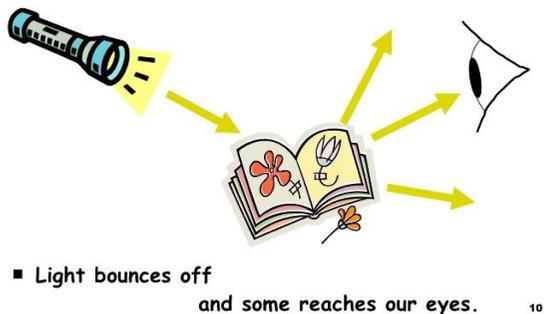


Knowledge Organiser: Light

- Light comes from a **light source**.
- Light travels in straight lines.
- We see because light **from** a light source travels **into** our eyes.

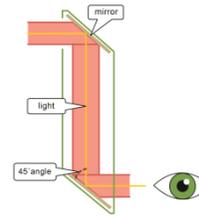


- We can see objects that are not a light source because they reflect light from a light source into our eyes.



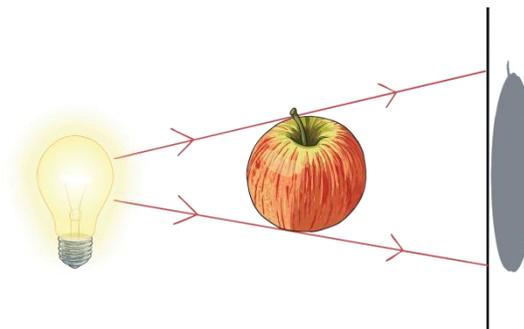
- The **sun** is a light source. It is a very powerful light source and it can damage our eyes. **Never look directly at the sun.**
- The **moon** is not a light source. We can see the moon because it reflects light from the sun.
- Mirrors can be used to reflect light.

A Periscope can be used to look over or around an obstacle.



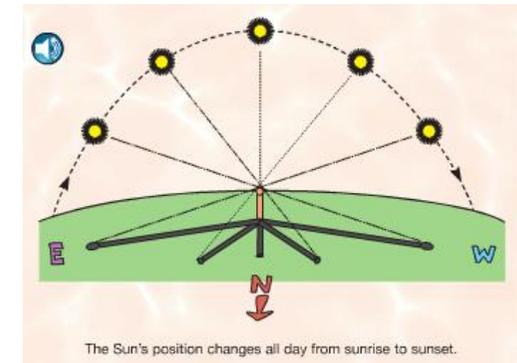
Shadows

- Shadows occur where an object blocks light from a light source.
- The **shape** of a shadow depends on the shape of the object that is blocking the light and the angle of the light source.



- **Opaque** objects make the darkest shadows.
- **Translucent** objects make pale shadows.
- **Transparent** objects allow light to pass through and do not cast shadows.
- Objects **close to the light source** cast a **bigger shadow** because the object blocks more of the light.
- Objects **far away from the light source** cast a **smaller shadow** because the object blocks less of the light.

- When the light source moves, the shadow will change.



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

Key Vocabulary

Light Source	Something that emits (gives out) light e.g. the sun
Transparent	When light can pass through e.g. a window.
Translucent	When some light can pass through e.g. tracing paper
Opaque	When light cannot pass through e.g. a book
Reflect	When light hits a surface and is thrown back rather than passing through
Shadow	An dark area where light does not reach because the light is blocked by an object.
Periscope	An instrument containing two mirrors which allows us to see over or around an obstacle

