

# Year 6 Science - Light Knowledge Organiser

## What should I already know?

- Certain things produce light and are known as **light sources**.
- Shiny materials do not make light but do **reflect** it.
- **Shadows** are caused when certain materials block light.
- The further away the light source is, the smaller the shadow is. The closer the source of the light, the bigger the shadow.
- **Darkness** is the absence of light.

## Key Vocabulary

**Light source:** An object that produces its own light (e.g. sun, fire).

**Reflection:** When a light hits a surface and 'bounces' off.

**Opaque:** An object which **does not allow** light to pass through it (e.g. wood).

**Translucent:** An object which **allows some** light to pass through it. (e.g. tissue paper).

**Transparent:** An object which **allows** light to pass through it so that objects behind it can be easily seen (e.g. glass).

**Shadow:** A dark area or shape caused by the blockage of light.

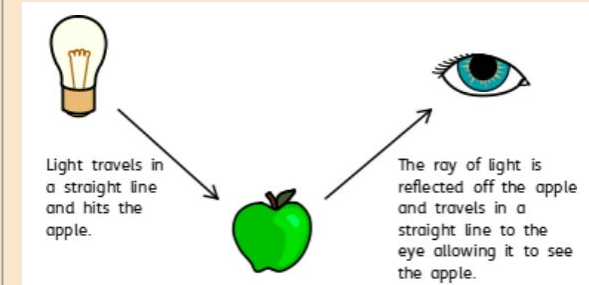
**Emit:** to emit a sound or light means to produce it.

## What will I know by the end of the unit?

How does light travel?

- **Light** travels in a straight line.
- When you place a torch on a table in a dark room, the beam travels in a straight line.
- **Reflection** is when light bounces off a surface - this changes the direction in which the light travels.

How do we see?



What is the relationship between light sources and shadows?

- **Shadows** are formed when light cannot pass through an object.
- **Shadows** have the same shape as the objects that cast them.
- The size of a **shadow** changes as the **light source** moves.