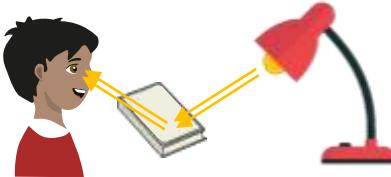


# Light

## 1 How do we see?

- We need light to see.
- Light travels in **straight lines**.
- We see an object when light is **reflected** (bounced) off an object and enters our eye.



- **Darkness** is the absence of light. We cannot see in complete darkness.

## 3 Light and materials

Light can travel through some materials.



**Transparent** materials let nearly all light through.



**Translucent** materials let some light through.



**Opaque** materials let no light pass through – we cannot see through opaque materials.

## 2 Light sources

- A **source of light** is something that **emits** (produces) its own light. We can describe light sources as **luminous** objects.
- Natural light sources include the Sun, fire and fireflies.
- Artificial (man-made) light sources include torches, lamps and televisions.
- **Shiny** objects are not light sources. They appear shiny because they reflect lots of light from light sources.

## 4 Shadows

- A **shadow** is formed on a surface behind an object, when the object does not allow light to pass through it.
- The closer the object is to the light source, the larger the shadow will be (see diagrams, right).
- We can also change the position and length of shadows by changing the position of the light source.

