

## Year 3

### Summer

# Science - Light

In this unit, children will learn that a light source is anything that makes its own light, whether it is natural or artificial. They will that without light sources, we could not see the world around us, but that doesn't mean that every object we see is a light source.

### Light sources

A light source makes light. The Sun and other stars, fires, torches and lamps all make their own light, so they are examples of sources of light.



### Key Knowledge

- We can see things because light is reflected. Some materials reflect light better than others.
- Light travels in straight lines. When light from an object is reflected by a surface, it changes direction.
- Smooth, shiny surfaces such as mirrors and polished metals reflect light well. Dull and dark surfaces such as dark fabrics do not reflect light well.
- A shadow is made when an object blocks light. A shadow is a dark area or shape caused by a solid object blocking the rays of light from a light source.
- Objects are either opaque, translucent, or transparent.



When the light hits the dog, it is reflected and enters our eyes.



The Sun is a light source so it creates light.

Light travels from the Sun in a straight line.

### Did you know?

The Sun is the biggest light source we use. It is a giant ball of hot, burning gas. It can damage our eyes if we look directly at it. We should protect our eyes from the Sun by wearing sunglasses and a hat.

## Dark

Darkness is what happens when there is an absence of light. When there is no light, it is dark.

### Key Vocabulary

**Dark** - the absence of light.

**Direction** - the way that something is moving.

**Light** - a source of energy that allows you to see.

**Light ray** - an imaginary line that represents the line of light.

**Light beam** - a group of light rays.

**Light source** - something that makes light.

**Opaque** - cannot be seen through.

**Reflect** - bounces off or changes direction.

**Reflective** - something that reflects well.

**Refraction** - when light changes direction when going through the boundary of a state of matter.

**See** - to perceive with the eyes.

**Shadow** - a dark area or shape produced by an object coming between rays of light and a surface.

**Transparent** - can be seen through.

**Translucent** - can be seen through, but not clearly.