

# Light

This term, we will learn to:

- recognise that they need light in order to see things and that dark is the absence of light
- notice that light is reflected from surfaces
- recognise that light from the sun can be dangerous and that there are ways to protect their eyes
- recognise that shadows are formed when the light from a light source is blocked by a solid object
- find patterns in the way that the size of shadows change.

## Key facts

Light is a type of energy that makes it possible for us to see the world around us.

Light comes from different sources called light sources; our main natural light source is the sun. Other sources include fire, stars and man-made light sources such as light-bulbs and torches.

Shadows are created when an opaque object blocks the light source. Shadows change depending on the distance the object is from the light source and the position of the light source.

Reflection is when light hits the surface of an object and then that light travels to our eyes so we can see. Objects such as tables and chair reflect an image of the object itself so we can see it.

Too much unprotected exposure to the sun's ultraviolet (UV) rays can cause skin damage and eye damage.

Darkness is the absence of light.

## Key Vocabulary

### *Light source*

A light source is an object that can emit its own light.

### *Opaque*

An object is opaque if light cannot pass through it.

### *Transparent*

An object is transparent if you can see through it.

### *Translucent*

If an object is translucent, some light can pass through it.

### *Reflection*

When light bounces off a surface or object.

### *Shadow*

A dark shape that appears when something stands between a light and a surface.

### Prior Learning:

#### Materials in Year 1:

> Describing materials- shiny/ dull, opaque/ transparent

#### Seasonal changes in Year 1:

> Observe and describe how day length varies

#### Plants in Year 2:

> Find out how plants need water, light and suitable temperatures to grow

### Following on:

#### Earth and Space in Year 5:

> Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

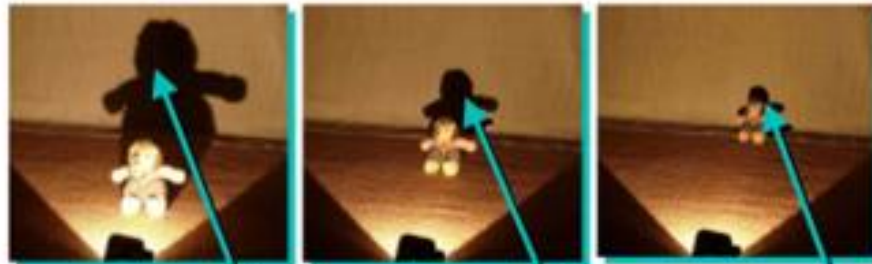
#### Light in Year 6:

> Recognise that light appears to travel in straight lines

> Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye

> Use the idea that light travels in straight lines to explain why shadows have the same shape as objects that cast them

### Shadows



**LARGE SHADOW**  
when the toy is  
close to the light

**SMALLER  
SHADOW** when the  
toy is further from  
the light

**TINY SHADOW**  
when the toy is a  
long way from the  
light

### Light reflecting from a surface

