

# Year 6 - Light - Half Term 4

## Bending Light

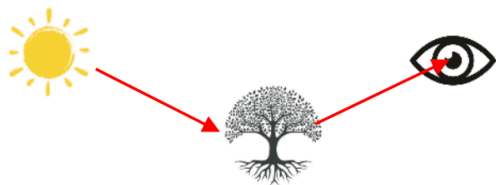


**Reflection**  
 Light reflects off shiny, bright or light surfaces. That is why you can see your reflection when you look in a mirror.



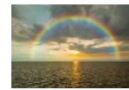
**Refraction**  
 Water and bent shiny surfaces cause light rays to be refracted at different angles, meaning the reflection of the image is distorted.

## How We See



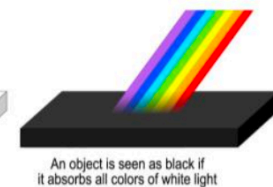
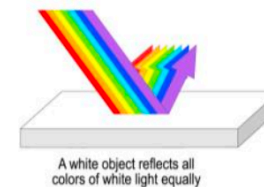
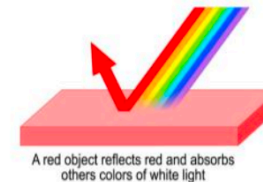
Light travels in **straight lines**. The light **rays** from a light source **reflect** off the object we are looking at. The light travels in a **straight line** and enters the eye through our **pupil**.

## Colours

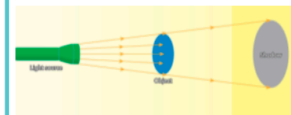


White light is made up of the colours of the rainbow. When light is refracted through a transparent object, a rainbow is formed.

Absorption and reflection of light



## Shadows



**Opaque** objects block the light rays so they can only travel around the edges of the object in straight lines. That is why a shadow is the same shape as the object.

The **closer** an object is to the light source, the **bigger** the shadow.

The **further away** the object is from the shadow, the **smaller** the shadow.

### Key Vocabulary

light	a form of energy
light source	an object that provides its own light
reflected	when light shines on a surface and bounces back
variable	any one of the elements of an experiment which could be changed
angle	the space between 2 intersecting lines
mirror	a surface that reflects a clear image
opaque	it describes materials which do not allow light to travel through
transparent	it describes materials which allow all light to travel through
sunshade	a device giving protection from the sun
rotate	to turn an object around a centre point
optical	relating to the science of optics
spectrum	a band of several colours

### To know statements



I know how light travels.	
I know about reflection and can explain how it can be used to help us see.	
I know about how shadows can change.	
I know how we can show why shadows have the same shape as the object that casts them.	
I know how to investigate how we can see objects.	

What can you remember from previous units?

Can you explain the difference between light sources and non-light sources?

Can you remember how shadows are formed?

Can you remember how and why shadows change throughout a day?

Anything else you have learnt? What have you enjoyed?



