



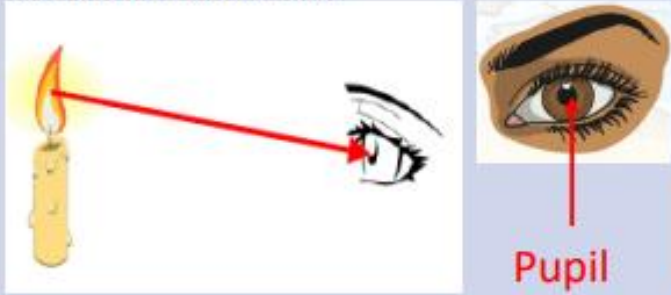




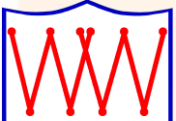


Things you need to know about light		Light		Key Vocab	
What is a light source ?	<i>Something that makes its own light</i>	We need light to be able to see things		Opaque	Opaque materials do not let any light through. They block the light. E.g. wood
Common sources of light		Darkness is the absence of a source of light.		Source	A thing from which something starts
<i>The sun</i>	<i>The stars</i>	Light travels in a straight line		Shadow	A dark are which is formed when light from a light source is blocked by an opaque object
		How we see things		Transparent	Transparent materials let light through them in straight lines, so that you can see clearly through them (e.g. glass)
<i>Flames</i>	<i>Electric lights</i>	We see things when light from a light source enters our eyes through the pupil		Translucent	Translucent materials let some light through, but they scatter the light in all directions so you cannot see clearly through them (e.g. tissue paper)
		 <p>Pupil</p>		The Sun 	
<i>Some animals (fireflies and glow worms make their own light)</i>		Light travels from the light source and into the eye		If too much light comes through the pupil, it can damage the eye.	
				It causes pain, so that you instantly close your eyes, or turn away from a bright light.	
Things you may think are light sources but aren't		The light travels from the light source, bounces off the object and into the eye		It is very important that you never look directly at the sun, as the light can damage your eyes very quickly.	
How does light travel?	<i>In straight lines It travels very, very fast – 300,000km per second. That's like travelling around the world over 7 times in a second!</i>			<i>It's never safe to look directly at the sun, even when wearing sun glasses</i>	
				Bright lights indoors can also damage your eyes, so you should never look at them, or shine lights into anyone's eyes.	

Shadows

A **shadow** is formed when an object does not allow the light to pass through it.



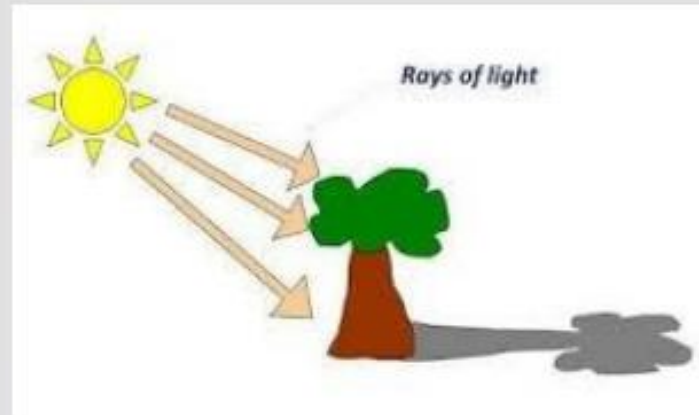
LARGE SHADOW
when the toy is
close to the light

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

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

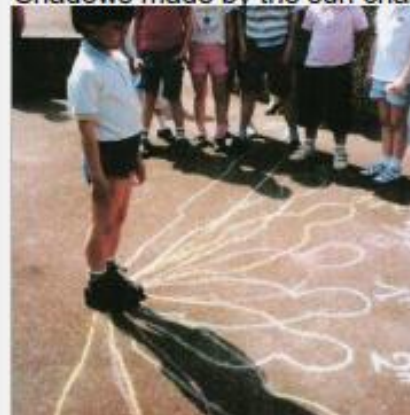
How a shadow is made

Shadows are made when there is an object blocking the light from hitting the surface. This means that the shadow will always be on the opposite side of an object to the sun or light.



The object needs to be an **opaque** object. If it is **transparent** then the light will pass through it, whereas a solid object will block it. Some light passes through **translucent** objects. Although some light is blocked, some gets through and so a shadow is formed. These shadows are not as dark.

Shadows made by the sun change as the earth moves



The position of the Sun affects the position and length of the shadows created.

