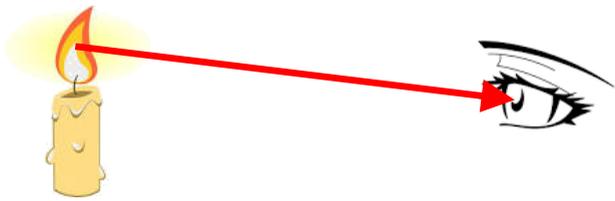
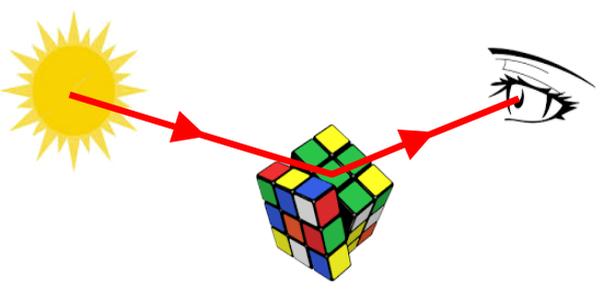


# Uplands Manor Primary School - Science Unit Organiser

<b>Science Topic:</b>	Light		<b>Year 3</b>	
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What? (Key Vocabulary)	
Spelling	Definition/Sentence
<b>Opaque</b>	An object you are not able to see through
<b>Warning</b>	Something that is said or written to tell people of danger
<b>Source</b>	A thing from which something starts
<b>Electric</b>	A form of energy that provides power to devices
<b>Reflection</b>	When light bounces off a surface

Diagrams and Symbols
<p>We see things when light from a source enters our eyes.</p>  <p>Above: Light travels directly from the light source (candle flame) to the eye.</p>  <p>Here the light goes from the light source, bounces off the object and into your eyes, so that you see the object.</p>

Recommended Experiments	
<p style="color: #5cb85c;">A minimum of two experiments should take place during this unit of work with one final written outcome linked to the scientific enquiry skills and approaches used.</p>	
	Finding patterns in the way that the size of shadows can change
	Experiment to find out how the length of shadows can change with the seasons (caused by the earth's tilt)
	Recognising that light is needed in order to see things and notice that light is reflected from surfaces

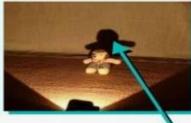
What? (Key Knowledge)	
Light Sources	
We need light in order to see things. When there is no light we say it is dark.	
What is a light source?	<ul style="list-style-type: none"> <li>A light source is something that makes its own light</li> </ul>
Common sources of light	<ul style="list-style-type: none"> <li>The Sun</li> <li>The stars</li> <li>Flames</li> <li>Electric lights</li> <li>Some animals (fireflies and glow worms make their own light)</li> </ul>
Things you may think are light sources but aren't.	<ul style="list-style-type: none"> <li>The Moon</li> <li>A mirror</li> <li>Shiny objects</li> </ul> <p>These basically reflect light from a light source but aren't light sources themselves.</p>
Reflection	<ul style="list-style-type: none"> <li>Light bounces off some materials better than others</li> <li>Shiny objects reflect light well</li> </ul>

The Sun	
<b>WARNING</b>	<b>IT IS NOT SAFE TO EVER LOOK DIRECTLY AT THE SUN, EVEN WHEN WEARING SUN GLASSES.</b>

More about light	
Things you need to know about light	<ul style="list-style-type: none"> <li>Light travels in straight lines</li> <li>Light travels very, very fast - 186,282 miles per second (that's like travelling around the world over 7 times in a second)</li> <li>If something gets in the way of light, a shadow is formed</li> </ul>

Shadows	
How is a shadow formed?	<ul style="list-style-type: none"> <li>When light from a source is blocked by an opaque object, you get a shadow</li> </ul>
 	

How does the size of the shadow change?	<ul style="list-style-type: none"> <li>If an object is moved <b>closer</b> to the light sources, the <b>shadow gets bigger</b></li> <li>If an object is moved <b>further away</b> from the light source, the <b>shadow gets smaller</b></li> </ul>
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<p><b>LARGE SHADOW</b> when the toy is close to the light</p>	<p><b>SMALLER SHADOW</b> when the toy is further from the light</p>	<p><b>TINY SHADOW</b> when the toy is a long way from the light</p>

<b>Builds on:</b> learning in Year 2 - Spring - Unit: Uses of Everyday Materials	<b>Learning links</b>	<b>Leads to:</b> learning in Year 4 - Spring - Unit: States of Matter
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