



<p><b>Unit Overview</b></p>	<p>This unit explores the different sources of light, how we see and how shadows are formed. Children will be able to describe common sources of light, knowing the difference between natural and man-made light sources, and describe what darkness is. The children will be able to explain how light travels and is reflected so that we can see. They will also be able to explain how shadows are formed and investigate how shadows change with distance from a light source.</p>	
<p><b>Prior Learning/ Links</b></p>	<p>Links- Year 6 Light and sight, biology parts of the eye, Year 2 and 3, plants need light to survive.</p>	
<p><b>Unit Title:</b></p>	<p><b>Substantive Knowledge</b></p>	<p><b>Disciplinary Knowledge</b></p>
<p><b>Key Questions:</b></p> <p>What happens to your shadow when you move away from a light source?</p> <p>What material would you use to make a bathroom door and window if there was no light source inside?</p>	<ul style="list-style-type: none"> <li>• Know a light source is something which makes its own light. Common sources of light are: the sun, stars, flames, electric lights, some animal (fireflies), fireworks, TV screens.</li> <li>• Children can explain that reflection is when a light bounces off an object. *</li> <li>• Light bounces off some materials better than others as shiny objects reflect light well.</li> <li>• We see when light from a light source enters the eye. Light travels directly (in a straight line) from the light source to the eye. If an object is in front of the light source, the light bounces off the object and into the eyes so that we can see the object.</li> <li>• That some objects let light through, some block some of the light and others block light completely.</li> <li>• Children know shadows are formed when light is blocked by an opaque object or gets in the way of light.</li> <li>• If an object is moved closer to the light sources, the shadow gets bigger. If an object is moved away from the light source it gets smaller. The shape of the shadow can also change dependent on the position of the light.</li> <li>• Children can talk through experiments they have taken part in using light, how they recorded it and what they discovered.</li> </ul>	<p><b>Questioning and Planning</b> Ask questions and set up an enquiry to answer them</p> <p><b>Observation and Measurement</b> Make detailed observations over time Measure accurately using correct tools Describe clearly changes observed</p> <p><b>Recording and Presenting</b> How things change over time How a pattern can occur and noticing change through evidence Present findings on a graph or chart</p> <p><b>Analysing and Evaluating</b> Use written explanation to describe results of a test. Use evidence to explain findings.</p>
<p><b>Vocabulary</b></p>	<p><b>Trips/ Visits/Useful Websites/ Resources</b></p>	<p><b>Key Misconceptions:</b></p>
<p><b>Substantive:</b> Opaque Transparent translucent Warning Source</p>	<p><u>Useful websites:</u></p> <p><a href="#">What is light? - BBC Bitesize</a>  <a href="#">What is reflection? - BBC Bitesize</a>  <a href="#">Shadow Experiments and Activities for Kids (science-sparks.com)</a></p>	<ul style="list-style-type: none"> <li>• The moon is a light source</li> <li>• Only shiny objects/surfaces reflect light</li> <li>• Sight is a human process, nothing to do with light</li> <li>• Misconceptions around what is natural and man-made (light sources)</li> <li>• That when it goes dark, everything loses its colour.</li> </ul>



Science Unit Planner Year: 3

Title: Light

<p>Electric Reflection Surface Shadow Blocked</p> <p><b>Disciplinary:</b> Pattern Observation presentation change results graph chart</p>	<p><a href="#">Year 3 Light - Light And Shadows KS2   Outstanding Science</a></p>	
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