



Unit Title: Light

Year Group: 3

Academic Year: 2024/25

Science Intent:

Prior Scientific Learning:	Literacy Links (including texts/media used):	Maths Links:
<ul style="list-style-type: none"> • Explore how things work. (Nursery - Light) • Talk about the differences in materials and changes they notice. (Nursery - Light) • Describe what they see, hear and feel whilst outside. (Reception - Light) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans) • Describe the simple physical properties of a variety of everyday materials. (Y1 - Materials) 	<ul style="list-style-type: none"> • VIPERS 	<ul style="list-style-type: none"> • Graphs and tables
Scientific Knowledge	Scientific Enquiry Approaches :	Working Scientifically:
<ul style="list-style-type: none"> • 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 an opaque object. • Find patterns in the way that the size of 	<ul style="list-style-type: none"> • Pattern seeking • Identifying, grouping and classifying • (Comparative/Fair Testing) • (Research for some children statement) 	<ul style="list-style-type: none"> • The children sometimes decide how to record and present evidence. They record their observation e.g. using photographs, videos, pictures, labelled diagrams or writing. They record their measurements e.g. using tables, tally charts and bar charts (given templates, if required, to which they can add headings). They record classifications e.g. using tables, Venn diagrams, Carroll diagrams. • Children are supported to present the same data in different ways in order to help with answering the question.



<p>shadows change.</p>		<ul style="list-style-type: none"> • Children answer their own and others' questions based on observations they have made, measurements they have taken or information they have gained from secondary sources. The answers are consistent with the evidence. • The children make systematic and careful observations
<p>Week 1: To recognise that they need light in order to see things, and that dark is the absence of light.</p>		<p>Key Vocabulary:</p>
<p>KWL – prior knowledge and what would the children like to learn.</p> <p>Ask chn to make predictions about how easy it would be to see different objects if there were different amounts of light. Working in pairs, the children choose from a selection of closed boxes that each contain a different object and try to identify the object by looking through a small eye hole. Include second small hole in each box so the children can control the amount of light that is entering by covering it with their hand or tracing paper or leaving it uncovered.</p> <p>All: able to realise the relationship between light and seeing things Most: able to make predictions of which materials can be seen easier or harder in less light Some: able to determine the characteristics of materials that make them easier to see</p>		<p>Light, light source, dark, absence of light,</p>
<p>Week 2: to notice that light is reflected from surfaces</p>		<p>Key Vocabulary:</p>
<p>The children were given some different materials and a torch and allowed time to explore their reflectiveness.</p> <p>All: able to notice light is reflected off different objects Most: able to identify the qualities of materials that are reflective. Some: able to understand that we cannot see objects without light bouncing off them.</p>		<p>Light, transparent, translucent, opaque, shiny,</p>



	<p> matt, surface, reflect, mirror, </p>
<p>Week 3: to recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p>	<p>Key Vocabulary:</p>
<p>Show a film of people watching the eclipse. The children are asked to consider why people were wearing glasses or looking through colanders. Link to preventing people from damaging their eyes.</p> <p>Provide a range of materials that the children test to consider which would be most suitable for making a pair of sunglasses. Test materials using a torch and observing how much light comes through.</p> <p>LA - poster to explain why you should protect your eyes</p> <p>MA - explain why materials were chosen</p> <p>HA - write a persuasive piece about their sunglasses.</p> <p>All: able to understand that looking directly at the sun is dangerous.</p> <p>Most: able to recognise how to protect their eyes from the sunlight.</p> <p>Some: able to explain which material is best for protecting eyes from sunlight.</p>	<p> sunlight, dangerous, Light, light source, protect </p>
<p>Week 4: to recognise that shadows are formed when the light from a light source is blocked by an opaque object.</p>	<p>Key Vocabulary:</p>
<p>Define the key vocabulary - opaque, transparent and translucent. The children were then asked to find objects around the room and record whether they were opaque, transparent or translucent.</p> <p>The children were given a word bank and sentence starters to help them write definitions for the key vocabulary.</p> <p>The children went outside into the playground and explored making different shaped shadows with their bodies</p> <p>The children were asked to explore the difference in the shadow when using a transparent, translucent and opaque object.</p>	<p> shadow, light source, opaque, light, absence of light </p>



<p>All: able to recognise objects create shadows when they block light Most: able to use the key vocabulary when describing objects and shadows Some: able to see a pattern between how see through an object is and its shadow.</p>	
<p>Week 5: to find patterns in the way that the size of shadows change.</p>	<p>Key Vocabulary:</p>
<p>The children were given a circular object and asked to move the torch in various ways to see the effect on the shadow. The children are asked to write about what they found out about how the size of the shadow changes when the light source is moved.</p> <p>All: able to identify a light source that creates a shadow Most: able to notice the pattern of how shadows change depending on how close the light source is the object. Some: able to notice the pattern of how shadows change depending on the angle of light - using the sun for reference.</p>	<p>Shadow, Light source, Pattern opaque</p>
<p>Stunning Start/Marvellous Middle/Fabulous Finish:</p> <p>Stunning start: Light boxes to view different objects Fabulous finish: A puppet show created by children using opaque, translucent and transparent materials</p>	<p>OAA/Trips/Visits/Visitors:</p>