

## Prime Learning Challenge: How far can you throw your shadow?

Breadth of Study	
<p><b>Science</b></p> <p>Can they make and record a prediction before testing?</p> <ul style="list-style-type: none"> <li>•Can they measure using different equipment and units of measure?</li> <li>•Can they record their observations in different ways? (Labelled diagrams, charts etc.)</li> <li>•Can they describe what they have found using scientific words?</li> <li>•Can they make accurate measurements using standard units?</li> <li>•Can they explain what they have found out and use their measurements to say whether it helps to answer their question?</li> <li>•Can they explain what dark is using words like shadow?</li> </ul> <p>Can they record and present what they have found using scientific language, drawings, labelled diagrams, bar charts, keys and tables?</p> <ul style="list-style-type: none"> <li>•Can they explain their findings in different ways (display, presentation, and writing)?</li> <li>•Can they use their findings to draw a simple conclusion?</li> <li>•Can they explain why lights need to be bright or dimmer according to need?</li> <li>•Can they explain why their shadow changes when the light source is moved closer or further from the object?</li> </ul> <p><b>Art</b></p> <p>Can they predict with accuracy the colours that they mix?</p> <ul style="list-style-type: none"> <li>•Do they know where each of the primary and secondary colours sits on the colour wheel?</li> <li>•Can they create a background using a wash?</li> <li>•Can they use a range of brushes to create different effects?</li> <li>•Can they use their sketch books to express feelings about a subject and to describe likes and dislikes?</li> <li>•Can they make notes in their sketch book about techniques used by artists?</li> <li>•Can they suggest improvements to their work by keeping notes in their sketch books?</li> <li>•Can they explore work from other periods of time?</li> <li>•Are they beginning to understand the viewpoints of others by looking at images, people and understand how they are feeling and what the artist is trying to express in their work?</li> </ul> <p><b>D&amp;T</b></p> <p>Can they show that their design meets a range of requirements?</p> <ul style="list-style-type: none"> <li>•Can they put together a step-by-step plan which shows the order and also what equipment and tools they need?</li> <li>•Can they describe their design using an accurately labelled sketch and words?</li> <li>•How realistic is their plan?</li> <li>•Can they use equipment and tools accurately?</li> <li>•What did they change which made their design even better?</li> </ul>	<p>1. How can you show that your shadow changes according to the position of the Sun?</p>
	<p>2. Why do footballers in a night match often have four shadows?</p>
	<p>3. How can you explain the relationship between the Sun and the Moon (in terms of lighting up the moon)?</p>
	<p>4. How can you make a periscope to show how light reflects?</p>
	<p>5. How can you set up an experiment to show how shiny things respond in the dark?</p>
<b>Pre Learning Challenge:</b>	<p>6. How can you set up an experiment to show how shiny things respond in the dark?</p>
<b>Planning conference held</b>	
<b>WOW/Reflection</b>	<p>7. How can you design and make shadow puppets?</p>
<p>Children to design and make periscopes, taking into account light source</p> <p>Children to look at the work of Turner and use water colour or acrylic paint to create the reflection on water</p>	