

OBJECTIVE	MILESTONE INDICATORS	BASIC ACTIVITIES	ADVANCED ACTIVITIES	DEEP ACTIVITIES	RESOURCES
<p>Session 1</p> <p>To recognise that we need light in order to see.</p>	<p>To recognise that they need light in order to see things and that dark is the absence of light.</p>	<p>To illustrate a cover page for our new topic with lots of different examples of light sources.</p>	<p>To explain the difference between light and darkness as well as the difference between a man-made light and natural light.</p>	<p>To prioritise from a set of light sources which would light up a room the most in decreasing order and determine how to make it a fair test.</p>	<p>Slides PDF Deep sheet Deep picture cards Video</p>
<p>Session 2</p> <p>To explore the Sun as a light source and identify the difference between night and day.</p>	<p>To recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p>	<p>To illustrate a picture of a familiar location during the day and again at night and then describe the differences. Why is one light and one dark?</p>	<p>As basic but to also EXPLAIN what day/night time is and when each starts and ends.</p>	<p>To construct a diagram that shows the astronomical position of interstellar bodies in terms of night and day with clear explanations.</p>	<p>PDF slides DWBs B/A/D templates Video</p>
<p>Session 3</p> <p>To investigate what shadows are and how they are formed.</p>	<p>To recognise that shadows are formed when the light from a light source is blocked by a solid object.</p>	<p>To illustrate and label a diagram saying how shadows are formed and the difference between transparent, opaque and translucent.</p>	<p>To classify a range of transparent, translucent and opaque objects using prediction and to find further examples.</p>	<p>To discuss what happens when a light source moves closer to or further away from an object with examples.</p>	<p>PDF slides Torches Objects Smart notebook Video</p>
<p>Session 4</p> <p>To investigate how shadows behave.</p>	<p>To find patterns in the way that the size of shadows change.</p>	<p>Children to use torches on a variety of small objects and describe how they can</p>	<p>As basic but to EXPLAIN how to create the longest and shortest shadows.</p>	<p>To plan where a shadow will be on large paper using challenge cards,</p>	<p>PDF slides Torches Variety of small objects</p>

		make shadows move; grow longer and shorter.		testing and then recording in books. (complete in ICT room)	Large white paper B/A worksheet Challenge cards
Session 5 To investigate how the size of shadows change throughout the day.	Find patterns in the way that the size of shadows change.	To complete a table of results; illustrate a diagram showing results and write a conclusion.	To organise results onto a bar chart and explain why the shadows changed as much as they did.	As advanced but also to JUSTIFY why it was a fair test and discuss answers to additional questions based on the results.	PDF slides Metre stick, pot/bricks B/A/D worksheets Tape measurer
Session 6 To explore how light is reflected off surfaces.	To notice that light is reflected from surfaces.	To illustrate and label objects that reflect a lot of light and to complete a mirror diagram.	To classify objects that reflect a lot, some and little light in a table and complete a mirror diagram.	To determine the answers to a number of challenge cards using mirrors and reflection to help them arrive at a solution.	PDF slides B/A worksheets Deep: Cubes, mirrors, post-it notes, ICT room Video

Prompts for when planning activities

Basic- Name, describe, follow instructions or methods, complete tasks, recall information, ask basic questions, use, match, report, measure, list, illustrate, label, recognise, tell, repeat, arrange, define, memorise.

Advanced- Apply skills to solve problems, explain methods, classify, infer, categorise, identify patterns, organise, modify, predict, interpret, summarise, make observations, estimate, compare.

Deep- Solve non-routine problems, appraise, explain concepts, hypothesise, investigate, cite evidence, design, create, prove.