

Night and day

Approach: One to one interview

Level: Year 8 & year 4

Resources: Torch; world globe, polystyrene ball on stand.

<i>Questions/instructions</i>	% responses	
	<i>year 8</i>	<i>year 4</i>
<p>This activity is about day time and night time. We will imagine this light is the sun, this globe is the earth, and this ball is the moon. I want you to use this equipment to help answer my questions.</p>		
<p>1. First of all, I want you to use the light for the sun and the globe for the earth to show me how we have day and night. When you show me, try to explain how it works — why day and night happen.</p>		
Torch held stable, globe rotated	68	48
Explanation rated reasonably clear and correct	57	39
<p>Point to the equator and to New Zealand as you talk.</p> <p>2. Now show me and try to explain why it is hotter in these countries around the equator than it is down here in New Zealand.</p>		
Demonstrate and explains sun shining more directly on equator	44	20
Explanation rated clear and correct	28	14
<p>YEAR 8 ONLY</p>		
<p>3. This time we will imagine that this ball on the stand is the moon. Can you show me, and explain to me, what happens when there is an eclipse of the moon? Use the equipment as you explain to me.</p>		
Clear and correct demonstration and explanation	32	
Partial success	26	
<p>If they don't know what an eclipse is, explain: <i>It means you can see the moon go dark for a little while then come light again.</i></p>		
<p>4. Do you know about any other type of eclipse that you could tell me about?</p>		
Clear and correct demonstration and explanation	7	
Partial success	8	