

Name:

Date:

## Science Assessment Year 6: Light

### How We See Things

1. Name 3 light sources:

a) .....

b) .....

c) .....

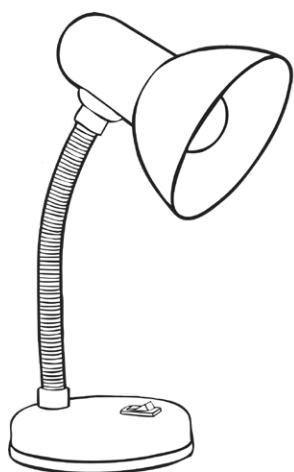
2. How can we see the moon at night?

.....

3. Fill in the gap in this sentence:

Light travels in a ..... line.

4. Draw **two** lines and arrows to show how the eye sees the apple.



3 marks



1 mark



1 mark



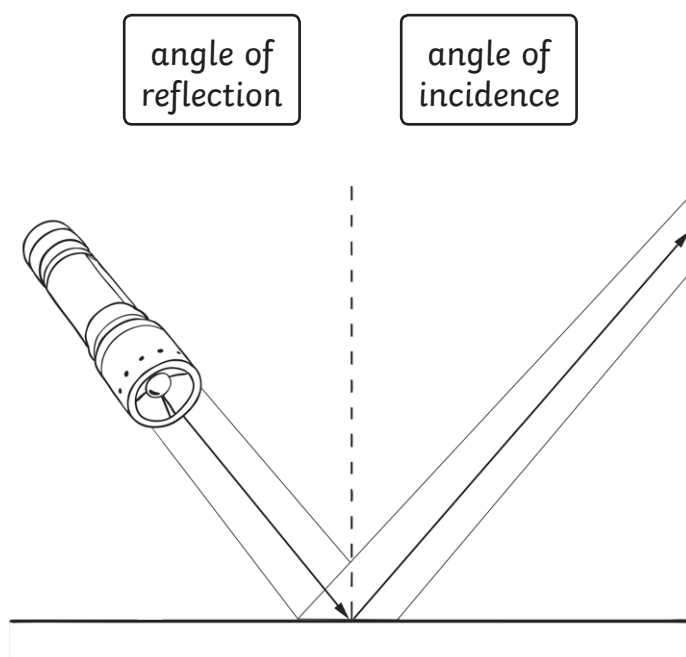
2 mark



Total for  
this page

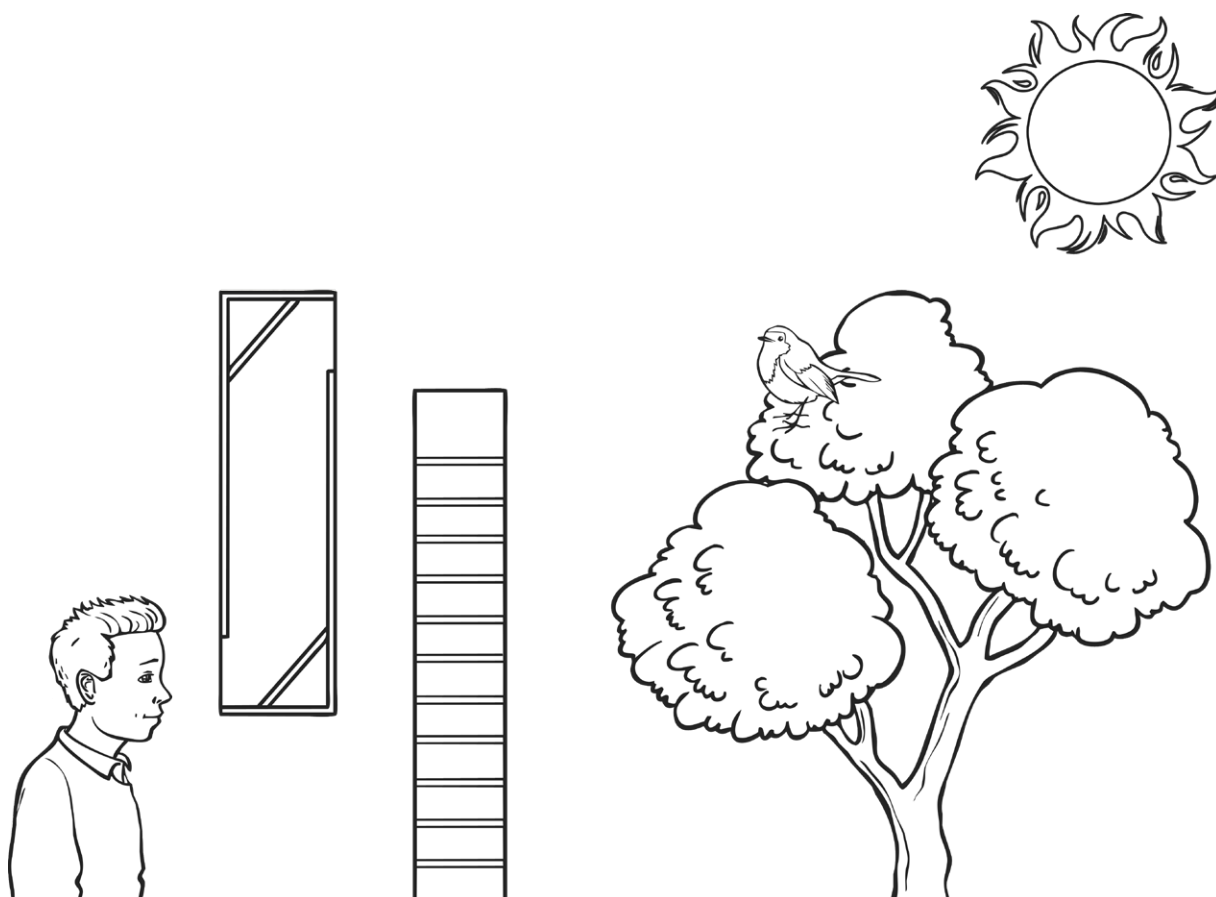
## Reflections

5. Draw a line from the two labels to the right place on the diagram:



2 marks

6. Draw 4 lines on this diagram to show how the person sees the bird through the periscope:



2 marks

Total for this page

## Travelling Light

7. Name two precautions that people take to protect themselves from the harmful rays of the sun.

.....

.....

2 marks

8. Write true or false for these statements:

a) Light travels faster than sound. ....

b) Light can travel through space. ....

c) The moon is a light source. ....

d) Stars shine because they reflect the sun's light. ....

4 marks

.....

## Shadows

9. Describe what happens and what is created when you put an opaque object in front of a light source.

.....

.....

2 marks

10. Describe how the size of a shadow changes as an opaque object is moved further away from the light source. of a ray of light. What did he discover?

.....

.....

2 marks

Total for this page

11. Describe how the size of a shadow changes as an opaque object is moved closer to the light source.

.....

.....

2 marks

12. Join up the words below to their meanings:

Opaque

Lets almost all the light through  
so things can be seen clearly

Translucent

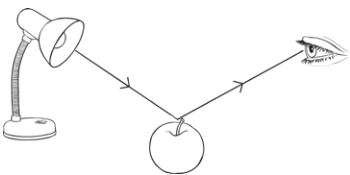
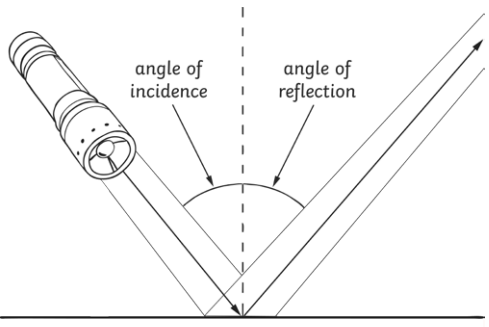
Lets no light through

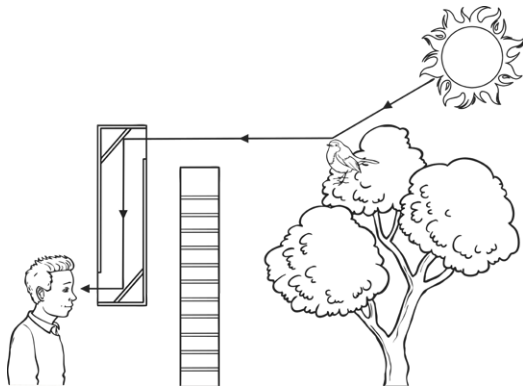
Transparent

Lets some light through but  
not very detailed shapes

2 marks

Total for  
this page

question	answer	marks	notes
<b>1. Name 3 light sources.</b>			
	<p>1 mark each up to a maximum of 3 for any of these:</p> <ul style="list-style-type: none"> <li>the sun</li> <li>fire</li> <li>stars</li> <li>candles</li> <li>light bulbs</li> <li>gas lamps</li> <li>fire work</li> </ul>	3	<p>No marks for moon – it is not a light source.</p> <p>1 mark for any others which are sources, not mentioned on this list.</p>
<b>2. How can we see the moon at night?</b>			
	<p>1 mark for:</p> <ul style="list-style-type: none"> <li>It reflects the sun's light</li> <li>It reflects light to Earth</li> </ul>	1	The word 'reflection' <b>must</b> be used to gain the mark.
<b>3. Fill in the gap in this sentence.</b>			
	<p>1 mark for:</p> <ul style="list-style-type: none"> <li>Light travels in a <b>straight</b> line.</li> </ul>	1	Accept spelling mistakes where the correct word is obvious.
<b>4. Draw two lines and arrows to show how the eye sees the apple.</b>			
	<p>1 mark each for:</p> <ul style="list-style-type: none"> <li>a straight line with an arrow in the correct direction going from the lamp to the apple</li> <li>a straight line with an arrow in the correct direction going from the apple to the eye.</li> </ul> 	2	<p>No marks for lines with no arrows.</p> <p>No marks for arrows in wrong direction.</p>
<b>5. Draw a line from the two labels to the right place on the diagram.</b>			
		2	<p>1 mark for each label placed correctly as shown in this diagram.</p> <p>No marks for labels on any other angles.</p> <p>Accept slight errors in exact positioning of labels so long as it is obvious as to which angle the label refers.</p>

question	answer	marks	notes
6. Draw 4 lines on this diagram to show how the person sees the bird through the periscope.			
<p>2 marks for 4 lines with at least one arrow showing correct direction of light travel.</p>  <p>1 mark for 3 lines from bird to eye not including the one from sun to bird. All lines must include at least one arrow.</p>	2	<p><b>No</b> marks for straight lines with no arrows.</p> <p><b>No</b> marks for straight lines with arrows pointing the wrong direction.</p> <p>No marks for lines that are not straight.</p>	
7. Name two precautions that people take to protect themselves from the harmful rays of the sun.			
<p>Answer: 1 mark for each up to a total of 2 from:</p> <ul style="list-style-type: none"><li>• sunglasses</li><li>• suncream/block</li><li>• clothes that cover your body</li><li>• staying in the shade/indoors/under a sunshade</li></ul>	2		
8. Write true or false for these statements.			
<p>a. Light travels faster than sound. <b>True</b> b. Light can travel through space. <b>True</b> c. The moon is a light source. <b>False</b> d. Stars shine because they reflect the sun's light. <b>False</b></p>	4	<p>One for each correct answer.</p>	
9. Describe what happens and what is created when you put an opaque object in front of a light source.			
<p>1 mark each for:</p> <ul style="list-style-type: none"><li>• A shadow is formed/created.</li><li>• The opaque object blocks the light from the source (to form the shadow).</li></ul>	2		

question	answer	marks	notes
<b>10. Describe how the size of a shadow changes as an opaque object is moved further away from the light source.</b>			
	1 mark each for: <ul style="list-style-type: none"> <li>The further away the object is...</li> <li>...the smaller the shadow.</li> </ul>	2	
<b>11. Describe how the size of a shadow changes as an opaque object is moved closer to the light source.</b>			
	1 mark each for: <ul style="list-style-type: none"> <li>The closer the object is...</li> <li>...the larger/bigger the shadow.</li> </ul>	2	
<b>12. Join up the words below to their meanings:</b>			
	<div> <div>Opaque</div> <div>Translucent</div> <div>Transparent</div> </div> <div> <div>Lets almost all the light through so things can be seen clearly</div> <div>Lets no light through</div> <div>Lets some light through but not very detailed shapes</div> </div>	2	1 mark for two correct, 2 marks for all three correct.
		total 25	