



**Cambridge Assessment**  
International Education

**Cambridge Primary Sample Test**  
**For use with curriculum published in**  
**September 2020**

**Science Paper 1**  
**Mark Scheme**  
Stage 4

### General guidelines on marking

Many descriptive answers can be expressed in a variety of ways. Professional judgement can be used in these cases, providing it matches the marking points and further information in the mark scheme.

Answers may have words spelt incorrectly. Credit is normally given for phonetically correct answers, unless the word has a scientifically different meaning. For example, where the answer should be antennae, credit will be given for antenna but not for anthen (too close to anther).

Only the science is being assessed so answers do not need to be grammatically correct. Significant figures will be indicated in the question or in the mark scheme.

Unless specified all marking points are independent.

### Annotations and abbreviations

/ OR                    alternate responses for the same marking point

( ) brackets            the words or units in brackets do not need to be stated, for example, (recycles or releases or provides) minerals = minerals scores the mark

Underline            exact word is required

**Accept**                an acceptable response

**Do not accept**        indicates an incorrect response that would contradict another otherwise correct alternative

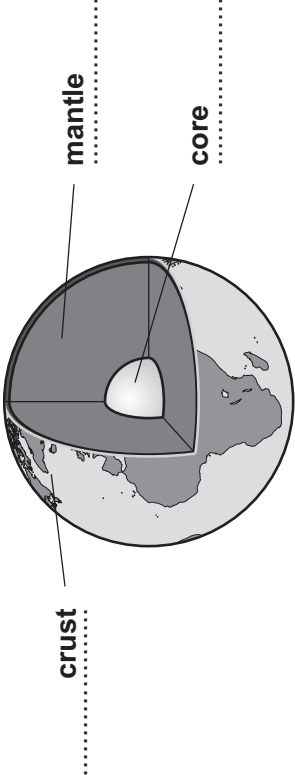
**Ignore**                indicates an irrelevant answer that is not creditworthy. Full marks can still be achieved even with answers that are ignored.

**Note**                    provides extra information when necessary

ecf                      error carried forward; marks are awarded if an incorrect response has been carried forward from earlier working, provided the subsequent working is correct





ora                      or reverse argument; for example, as mass increases, volume increases could be written as mass decreases, volume decreases

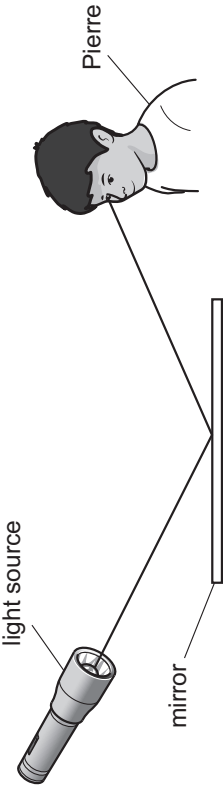
Question	Answer	Marks	Further Information
1	<p><b>part of the skeleton</b></p> <p>leg bones</p> <p>rib cage</p> <p>jaw</p> <p>skull</p> <p><b>function</b></p> <p>protects the heart</p> <p>enables movement</p> <p>gives shape to the head</p> <p>supports the mouth</p>	2	<p>four lines correct = 2 marks</p> <p>two or three lines correct = 1 mark</p> <p>one line correct = 0 marks</p> <p>if two lines from one part of the skeleton and one is incorrect = 0 marks for this part of the skeleton</p>
2(a)	<p><b>add more cells</b></p> <p>add more wire</p> <p>add one more lamp</p> <p>add two more lamps</p>	1	<p>more than one answer circled = 0 marks</p> <p><b>Accept</b> any indication of the correct answer, e.g. ticking or underlining but circling takes precedence</p>
2(b)	switch	1	

Question	Answer	Marks	Further Information
3	<p>any two from</p> <ul style="list-style-type: none"> <li>so he knows what the medicine is for</li> <li>he knows how much he needs/he knows the dose</li> <li>he knows how often to have the medicine / he knows how many doses a day he needs</li> <li>he knows how to store the medicine / he knows to keep it out of reach of children</li> <li>he knows when it expires / he knows how long the medicine lasts</li> <li>he knows the side effects of the medicine</li> </ul>	2	<p>each correct answer = 1 mark</p> <p>if no other marks awarded <b>accept</b> 'to be safe' for 1 mark</p>
4	<p>Answer</p> 	1	<p>Further Information</p> <p>all correct = 1 mark</p>

Question	Answer	Marks	Further Information
5(a)	<b>B and F</b>	<b>1</b>	both correct, either order
5(b)	<b>A and E</b>	<b>1</b>	both correct, either order
Question	Answer	Marks	Further Information
6	Living organism <b>Z</b> is <b>Anura</b>	<b>1</b>	more than one living organism given = 0 marks
Question	Answer	Marks	Further Information
7(a)	idea that he <b>cannot</b> see the light source	<b>1</b>	
7(b)	to make it reliable	<b>1</b>	<b>Accept</b> to check the result
Question	Answer	Marks	Further Information
8	Vertebrates are animals <b>with a backbone</b> . Invertebrates are animals <b>without a backbone</b> .	<b>1</b>	both correct = 1 mark <b>Accept</b> alternative wording, e.g. Vertebrates are animals that have a backbone inside their bodies.

Question	Answer	Marks	Further Information
9	<p><b>word</b></p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 40%;">material</div> <div style="border: 1px solid black; padding: 5px; width: 40%;">description</div> </div> <p style="text-align: center;">—</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 40%;">particle</div> <div style="border: 1px solid black; padding: 5px; width: 40%;">water exists as a solid, liquid and gas</div> </div> <p style="text-align: center;">—</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 40%;">substance</div> <div style="border: 1px solid black; padding: 5px; width: 40%;">in a solid these are close together</div> </div>	1	<p><b>All three</b> lines correct = 1 mark</p> <p>if two lines from a word and one is incorrect = 0 marks for this word</p>

Question	Answer	Marks	Further Information
10	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 10px;">   <input checked="" type="checkbox"/> </div> <div style="text-align: center; margin: 10px;">   <input checked="" type="checkbox"/> </div> <div style="text-align: center; margin: 10px;">   <input checked="" type="checkbox"/> </div> <div style="text-align: center; margin: 10px;">   <input type="checkbox"/> </div> </div>	1	<p><b>all three</b> ticks correct = 1 mark</p> <p><b>four</b> ticks = 0 marks</p>

Question	Answer	Marks	Further Information
11(a)	Sun	1	
11(b)	<b>any two from</b> Sun or light source smaller than the Earth the Earth and Sun or light source are too close there is <b>no</b> Moon there are no other planets / no Mercury / no Venus Earth <b>not</b> tilted	2	each correct answer = 1 mark <b>Accept</b> reverse arguments, e.g. the Sun is much bigger than the Earth
11(c)	spin the Earth / turn the Earth <b>and</b> (idea that) when light is on that part of the Earth it is day / (idea that) when light is not on that part of the Earth it is night	1	both ideas required for 1 mark <b>Ignore</b> spin the Sun / spin the lamp
Question	Answer	Marks	Further Information
12	 <p>The diagram shows a flashlight labeled 'light source' on the left. A beam of light reflects off a horizontal mirror on the right. The reflected beam then travels to the eye of a person labeled 'Pierre'.</p>	1	correct continuous ray = 1 mark <b>Ignore</b> arrows

Question	Answer	Marks	Further Information
13(a)	<p>Light energy is <u>destroyed</u>.</p> <p><b>Energy is transferred to light energy.</b></p> <p>Light energy is <u>lost</u>.</p> <p>Light energy is <u>made</u> by the candle.</p>	1	<p>more than one answer circled = 0 marks</p> <p><b>Accept</b> any indication of the correct answer, e.g. ticking or underlining but circling takes precedence</p>
13(b)	<p>sound</p> <p>temperature change / heat / cold</p>	2	<p>each correct answer = 1 mark</p> <p><b>Accept</b> movement</p>
Question	Answer	Marks	Further Information
14	<p>change from a mixture to one substance</p> <p>change from liquid to solid</p> <p>change from one substance to a mixture</p> <p><b>change from solid to liquid</b></p>	1	<p>more than one answer circled = 0 marks</p> <p><b>Accept</b> any indication of the correct answer, e.g. ticking or underlining but circling takes precedence</p>
Question	Answer	Marks	Further Information
15	<p>(idea of) movement of the Earth's crust</p> <p>causing an earthquake / tsunami</p>	2	<p>each correct idea = 1 mark</p>



Question	Answer	Marks	Further Information								
16(a)	(idea that) temperature goes up	1									
16(b)	25 (°C)	1									
Question	Answer	Marks	Further Information								
17	<table border="1"> <tr> <td>get energy from light</td> <td>get energy from eating</td> </tr> <tr> <td>tree</td> <td>firefly</td> </tr> <tr> <td>cactus</td> <td>elephant</td> </tr> <tr> <td>waterlily</td> <td>fish</td> </tr> </table>	get energy from light	get energy from eating	tree	firefly	cactus	elephant	waterlily	fish	2	<p><b>six</b> correct = 2 marks</p> <p><b>four</b> or <b>five</b> correct = 1 mark</p> <p>answer can be in any order within each group</p>
get energy from light	get energy from eating										
tree	firefly										
cactus	elephant										
waterlily	fish										

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