



Cambridge International Examinations
Cambridge Primary Checkpoint

SCIENCE

Paper 2

MARK SCHEME

Maximum Mark: 50

0846/02

October 2016

This document consists of **11** printed pages and **1** blank page.

Question number	1		
Part	Mark	Answer	Further Information
	2	a beam of light from a torch <input type="checkbox"/> a girl unscrewing a jar <input checked="" type="checkbox"/> a horse pulling a cart <input checked="" type="checkbox"/> a man pushing a trolley <input checked="" type="checkbox"/> the sound of a drum <input type="checkbox"/>	three correct = 2 marks one or two correct = 1 mark four or five ticked = 0 marks
Total	2		

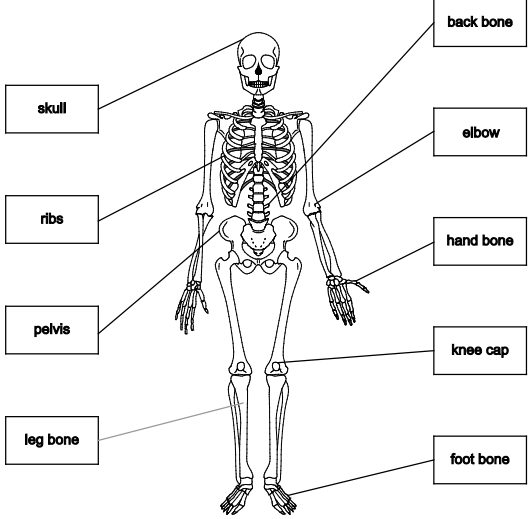
Question number	2		
Part	Mark	Answer	Further Information
	3	plant / producer plankton Sun	each correct sentence = 1 mark Accept sunlight / light
Total	3		

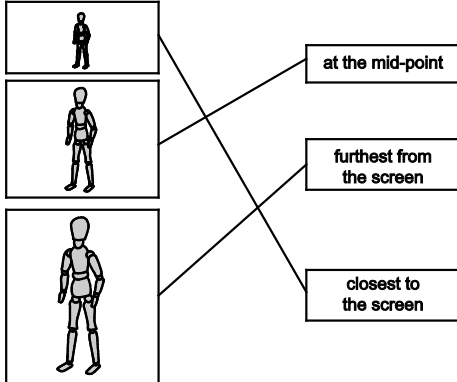
Question number	3		
Part	Mark	Answer	Further Information
(a)	1	(idea that) lamp will light	Accept that the lamp will work / the lamp is bright / lamp turns on
(b)	1	<p>copper</p> <p>glass</p> <p>plastic</p> <p>wood</p>	<p>Accept any indication of the correct answer</p> <p>more than one answer circled = 0 marks</p>
(c)	1	<p>brass</p> <p>gold</p> <p>rubber</p> <p>silver</p>	<p>Accept any indication of the correct answer</p> <p>more than one answer circled = 0 marks</p>
Total	3		

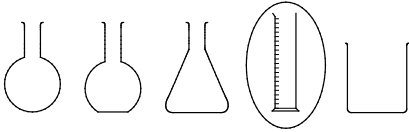
Question number	4		
Part	Mark	Answer	Further Information
(a)	1	<p>flowers can be bright colours</p> <p>flowers close at night</p> <p>leaves are large</p> <p>petals are always small</p> <p>stems bend easily</p>	<p>Accept any indication of the correct answer</p> <p>more than one answer circled = 0 marks</p>
(b)	1	to attract insects	
Total	2		

Question number	5				
Part	Mark	Answer			Further Information
(a)	1	<p>When a string of a guitar vibrates a sound is produced.</p> <p>A unit of loudness of sound is the decibel.</p>	<p>true</p> <input checked="" type="checkbox"/>	<p>false</p> <input type="checkbox"/>	<p>both needed for mark</p> <p>three or four ticked = 0 marks</p> <p>Accept any indication of the correct answer</p>
(b)	1	<p>Sound travels at the same speed in all solid materials.</p> <p>The speed of sound in space is the same as the speed of sound in air.</p>	<p>true</p> <input type="checkbox"/>	<p>false</p> <input checked="" type="checkbox"/>	<p>both needed for mark</p> <p>three or four ticked = 0 marks</p> <p>Accept any indication of the correct answer</p>
Total	2				

Question number	6												
Part	Mark	Answer	Further Information										
(a)	3	<table border="1"> <tr> <td>mixture</td> <td>method of separation</td> </tr> <tr> <td>salt and water</td> <td>evaporation</td> </tr> <tr> <td>steel powder and lumps of steel</td> <td>sieving</td> </tr> <tr> <td>sand and water</td> <td>filtration</td> </tr> <tr> <td>steel powder and copper powder</td> <td>magnetic attraction</td> </tr> </table>	mixture	method of separation	salt and water	evaporation	steel powder and lumps of steel	sieving	sand and water	filtration	steel powder and copper powder	magnetic attraction	<p>four correct = 3 marks</p> <p>two or three correct = 2 marks</p> <p>one correct = 1 mark</p>
mixture	method of separation												
salt and water	evaporation												
steel powder and lumps of steel	sieving												
sand and water	filtration												
steel powder and copper powder	magnetic attraction												
(b)	1	<p>add water (and stir)</p> <p>filter</p> <p>evaporate</p>	<p>all in the correct order = 1 mark</p>										
(c)	1	<p>(idea of) holes in sieve are small enough to let sand through but not peas</p>	<p>Answer needs to be clear that separation has happened with the sieve e.g.</p> <p>Accept the sand goes through the sieve and the peas stay on top / only the sand goes through the sieve</p> <p>If answer is in terms of filter paper it needs to be clear that no separation is possible</p> <p>Accept neither will go through filter paper / the sand and peas are too big to go through the filter paper</p>										
Total	5												

Question number	7		
Part	Mark	Answer	Further Information
	3	 <p>Diagram of a human skeleton with labels: skull, ribs, pelvis, leg bone, back bone, elbow, hand bone, knee cap, foot bone.</p>	<p>eight correct = 3 marks</p> <p>five, six or seven correct = 2 marks</p> <p>one, two, three or four correct = 1 mark</p>
Total	3		

Question number	8		
Part	Mark	Answer	Further Information
(a)	1	shadow	Ignore puppet
(b)	2	<p>size of image distance of puppet from screen</p>  <p>Diagram showing three images of a puppet on a screen and their corresponding distances from the screen. The smallest image is at the mid-point, the medium image is furthest from the screen, and the largest image is closest to the screen.</p>	<p>three correct = 2 marks</p> <p>one or two correct = 1 mark</p> <p>more than one line drawn from an image = 0 marks for that image</p>
Total	3		

Question number	9														
Part	Mark	Answer	Further Information												
(a)	1		<p>Accept any indication of the correct answer</p> <p>more than one answer circled = 0 marks</p>												
(b)	2	<table border="1" data-bbox="603 555 908 898"> <thead> <tr> <th>volume of water</th> <th>time taken</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>10</td> </tr> <tr> <td>10</td> <td>20</td> </tr> <tr> <td>15</td> <td>30</td> </tr> <tr> <td>20</td> <td>35</td> </tr> <tr> <td>25</td> <td>40</td> </tr> </tbody> </table>	volume of water	time taken	5	10	10	20	15	30	20	35	25	40	<p>all volumes and times in the correct order = 2 marks</p> <p>Accept either ascending or descending order</p> <p>volumes and times in the correct columns but not in the correct order = 1 mark but volume must match correct time</p>
volume of water	time taken														
5	10														
10	20														
15	30														
20	35														
25	40														
(c)	1	unit(s)	any indication of units of volume or time e.g. $\text{cm}^3 / \text{s} / \text{seconds}$												
Total	4														

Question number	10		
Part	Mark	Answer	Further Information
(a)	1	animal dispersal insect dispersal self-dispersal water dispersal wind dispersal	Accept any indication of the correct answer more than one answer circled = 0 marks
(b)	1	animal dispersal insect dispersal self-dispersal water dispersal wind dispersal	Accept any indication of the correct answer more than one answer circled = 0 marks
Total	2		

Question number	11		
Part	Mark	Answer	Further Information
(a)	1	A liquid that dissolves a solid is called a solvent .	
(b)	1	A substance that does not dissolve in water is insoluble .	
(c)	1	A substance that dissolves in water is soluble .	
(d)	1	A substance is dissolved in water. This substance is called the solute .	
(e)	1	The mixture of a substance dissolved in water is called a solution .	
Total	5		

Question number	12		
Part	Mark	Answer	Further Information
(a)	1	Earth Jupiter Mars Mercury Venus	Accept any indication of the correct answer more than one answer circled = 0 marks
(b)	1	Earth Jupiter Mars Mercury Venus	Accept any indication of the correct answer more than one answer circled = 0 marks
(c)	1	Earth Jupiter Mars Mercury Venus	Accept any indication of the correct answer both correct = 1 mark more than two circled = 0 marks
Total	3		

Question number	13		
Part	Mark	Answer	Further Information
(a)	2	sight to see the rain touch or feel to feel the rain	one mark for each correct answer each correct answer must have the sense and what is sensed
(b)	1	so he can move out of the rain / so he knows he is getting wet	Accept any suitable reaction to rain e.g. use an umbrella / put a coat on / to protect himself
Total	3		

Question number	14		
Part	Mark	Answer	Further Information
	2	<p>statement</p> <p>"I think the reading on the light meter will be higher when the light source is closer"</p> <p>"The reading for 50 cm is 25 units"</p> <p>"I should repeat each measurement three times"</p> <p>"I should use the same light source each time"</p> <p>activity</p> <p>collecting results</p> <p>increasing reliability</p> <p>making a prediction</p> <p>fair testing</p>	<p>four correct = 2 marks</p> <p>two or three correct = 1 mark</p> <p>one correct = 0 marks</p> <p>If more than one line drawn from a statement = 0 marks for that statement</p>
Total	2		

Question number	15		
Part	Mark	Answer	Further Information
(a)	1	34 (mm)	Accept any answer in the range 33 – 35 (mm)
(b)	2	<p>roots have branched / roots are divided / roots are bigger / roots are longer</p> <p>there is a stem</p> <p>there are leaves</p>	<p>Accept root growth</p> <p>Accept there is a shoot</p> <p>Do not accept there is a stalk / the seed has sprouted</p> <p>Do not accept there are petals</p>
Total	3		

Question number	16																		
Part	Mark	Answer	Further Information																
(a)	1	melting / melt(s) / solid to liquid	<p>Accept turns to liquid</p> <p>Do not accept it boils / solid to liquid to gas</p> <p>Do not accept references to ice / water / steam / water vapour</p>																
(b)	1	boiling / boil(s) / liquid to gas	<p>Accept evaporation or turns to gas</p> <p>Do not accept it melts / solid to gas / solid to liquid to gas</p> <p>Do not accept references to ice / water / steam / water vapour</p>																
(c)	3	<table border="1"> <thead> <tr> <th>solid at room temperature</th> <th>liquid at room temperature</th> <th>gas at room temperature</th> </tr> </thead> <tbody> <tr> <td>(B)</td> <td>(E)</td> <td>(D)</td> </tr> <tr> <td>G</td> <td>C</td> <td>H</td> </tr> <tr> <td></td> <td>A</td> <td></td> </tr> <tr> <td></td> <td>F</td> <td></td> </tr> </tbody> </table>	solid at room temperature	liquid at room temperature	gas at room temperature	(B)	(E)	(D)	G	C	H		A			F		<p>five correct = 3 marks</p> <p>three or four correct = 2 marks</p> <p>one or two correct = 1 mark</p> <p>Ignore extra letters e.g. E in column one</p> <p>If more than one of a particular letter in table then = 0 marks for that letter e.g. letter G in column one and letter G in column two</p>	
solid at room temperature	liquid at room temperature	gas at room temperature																	
(B)	(E)	(D)																	
G	C	H																	
	A																		
	F																		
Total	5																		

