



**Cambridge International Examinations**  
Cambridge Primary Checkpoint

---

**SCIENCE**

**0846/01**

Paper 1

**April 2016**

MARK SCHEME

Maximum Mark: 50

---

**IMPORTANT NOTICE**

Mark Schemes have been issued on the basis of **one** copy per Assistant Examiner and two copies per Team Leader.

---

This document consists of **12** printed pages.



Question number			1	CPS00395																																				
Part	CF	Skill	Mark	Answer				Further Information																																
	4Cs1	K	3	<table border="1"> <thead> <tr> <th>material</th> <th>solid</th> <th>liquid</th> <th>gas</th> </tr> </thead> <tbody> <tr> <td>water</td> <td></td> <td>(✓)</td> <td></td> </tr> <tr> <td>iron</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>mercury</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>oxygen</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>carbon dioxide</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>copper</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>salt</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table>				material	solid	liquid	gas	water		(✓)		iron	✓			mercury		✓		oxygen			✓	carbon dioxide			✓	copper	✓			salt	✓			all <b>six</b> correct = 3 marks  <b>four</b> or <b>five</b> correct = 2 marks  <b>three</b> correct = 1 mark  <b>one</b> or <b>two</b> correct = 0 marks  if more than one box is ticked in a row = 0 marks for that material
material	solid	liquid	gas																																					
water		(✓)																																						
iron	✓																																							
mercury		✓																																						
oxygen			✓																																					
carbon dioxide			✓																																					
copper	✓																																							
salt	✓																																							
<b>Total</b>			<b>3</b>																																					

Question number			2	CPS00339				
Part	CF	Skill	Mark	Answer				Further Information
(a)	6Be1	K	1	littering the forest  making paths through the forest  <b>protecting the species in the forest</b>  removing the fruits from the forest				more than one circled = 0 marks
(b)	6Be1	K	2	<pre>                     graph LR                         A[educating people] --&gt; B[number of trees increases]                         A --&gt; C[know how to care for the environment]                         D[planting new trees] --&gt; B                         D --&gt; E[more space for new trees to grow]                         F[removing old dead trees] --&gt; E                     </pre>				<b>three</b> correct = 2 marks  <b>one</b> or <b>two</b> correct = 1 mark  if more than one line from a box = 0 marks for that box
<b>Total</b>			<b>3</b>					

## 3

Question number		3		CPS00497	
Part	CF	Skill	Mark	Answer	Further Information
(a)	5PI2	A	1	move his hands closer to the screen / move his hands further from the screen / move his hands closer to the light source / move his hands further from the light source	
(b)	5PI5	A	1	Hassan makes a shadow puppet because his hands are <b>opaque</b> .	more than one word = 0 marks
<b>Total</b>			<b>2</b>		

Question number		4		CPS00531	
Part	CF	Skill	Mark	Answer	Further Information
	6Bh2	A	1	kidney	
<b>Total</b>			<b>1</b>		

Question number			5	CPS00294	
Part	CF	Skill	Mark	Answer	Further Information
(a)	6Ep7 6Cc3	E	2	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">balance</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">10cm<sup>3</sup> of water</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">measuring cylinder</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">temperature of water</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">stop watch</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">1.0g of solid</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">thermometer</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">1 minute</div> </div>	<p><b>four</b> correct = 2 marks</p> <p><b>two</b> or <b>three</b> correct = 1 mark</p> <p><b>one</b> correct = 0 marks</p> <p>if more than one line from a box = 0 marks for that box</p>
(b)	6Cc3	A	2	<p><b>A / A</b> is the colourless solution</p> <p><b>B / blue</b> solution</p>	<p><b>do not accept</b> colourless solution for A</p> <p>each correct solid = 1 mark</p> <p>if <b>three</b> given with <b>A</b> and <b>B</b> = 1 mark</p> <p>if <b>three</b> given with either <b>A</b> or <b>B</b> given = 0 marks e.g. <b>A C</b> and <b>D</b></p> <p>if all <b>four</b> given = 0 marks</p>
(c)	6Cc3	A	1	<b>D / cloudy</b> mixture	more than one letter = 0 marks
<b>Total</b>			<b>5</b>		

5

Question number		6	CPS00415																	
Part	CF	Skill	Mark	Answer	Further Information															
	4Ps2	K	2	<table border="0"> <tr> <td></td> <td style="text-align: center;">true</td> <td style="text-align: center;">false</td> </tr> <tr> <td>Sound can travel through air.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound travels as vibrations.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound travels at the same speed in all materials.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>We hear sounds when vibrating air hits our eardrums.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		true	false	Sound can travel through air.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound travels as vibrations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound travels at the same speed in all materials.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	We hear sounds when vibrating air hits our eardrums.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p><b>four</b> correct = 2 marks</p> <p><b>two</b> or <b>three</b> correct = 1 mark</p> <p><b>one</b> correct = 0 marks</p> <p>if both boxes ticked in a statement = 0 marks for that statement</p>
	true	false																		
Sound can travel through air.	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Sound travels as vibrations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Sound travels at the same speed in all materials.	<input type="checkbox"/>	<input checked="" type="checkbox"/>																		
We hear sounds when vibrating air hits our eardrums.	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
<b>Total</b>			<b>2</b>																	

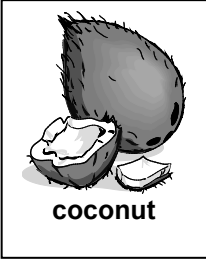
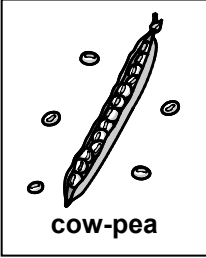
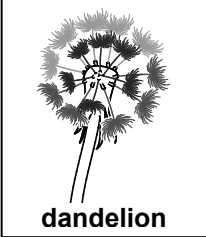
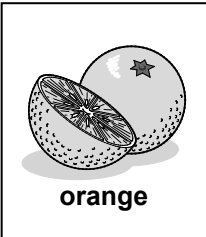
Question number		7	CPS00135		
Part	CF	Skill	Mark	Answer	Further Information
	6Bh3	K	3	<p>Clue 1: heart</p> <p>Clue 2: brain</p> <p>Clue 3: lung / lungs</p> <p>Clue 4: kidney / kidneys</p> <p>Clue 5: stomach</p>	<p><b>five</b> correct = 3 marks</p> <p><b>three</b> or <b>four</b> correct = 2 marks</p> <p><b>two</b> correct = 1 mark</p> <p><b>one</b> correct = 0 marks</p>
<b>Total</b>			<b>3</b>		

Question number			8	CPS00532		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	4Bh2	A	1	All the skeletons protect the organs inside the body. <b>true</b>  All the skeletons grow as the animals grow. <b>true</b>	<b>both</b> answers true = 1 mark	
(b)	4Bh3	A	1	Two of the skeletons are human. <b>false</b>  Only humans have muscles attached to the bones. <b>false</b>	<b>both</b> answers false = 1 mark	
<b>Total</b>			<b>2</b>			

Question number			9	CPS00032		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	4Pm4	K	2	Like poles of two magnets attract. <input type="checkbox"/>  Magnetism is a force. <input checked="" type="checkbox"/>  Most magnets are made of iron. <input checked="" type="checkbox"/>  Most metals are attracted towards a magnet. <input type="checkbox"/>	<b>one</b> mark for each correct tick  <b>three</b> ticks, <b>two</b> correct = 1 mark  <b>three</b> ticks, <b>one</b> correct = 0 marks  <b>four</b> ticks = 0 marks	
(b)	4Eo5 4Pm4	E	2	<b>A</b>  (idea of) held the most pins / held more pins	<b>one</b> mark for each correct answer  more than one letter = 0 marks	
(c)	4Ep4 4Pm4	E	1	(idea of) same (type of) pins		
<b>Total</b>			<b>5</b>			

Question number		10		CPS00485		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	5PI5	A	1	1 2 3 <b>4</b> 5 6	more than one answer circled = 0 marks	
(b)	5PI5	A	1	(idea that the word Pierre) is darker / is brighter / can be seen easily (for one material) / can be seen clearly (using one material) / one of them is clear / there is a light and dark Pierre	answer must be a comparison so Pierre is dark (on its own) = 0 marks	
<b>Total</b>			<b>2</b>			

Question number		11		CPS00467		
Part	CF	Skill	Mark		Further Information	
	4Cs3	K	2	At sea level water boils at 90 °C. <input type="checkbox"/> Steam condenses to make water vapour. <input type="checkbox"/> The boiling of water is an irreversible process. <input type="checkbox"/> The freezing point of water is the same as the melting point of ice. <input checked="" type="checkbox"/> The melting point of ice is 0 °C <input checked="" type="checkbox"/> Water evaporates to make ice. <input type="checkbox"/>	<b>one</b> mark for each correct tick <b>three</b> ticks, <b>two</b> correct = 1 mark <b>three</b> ticks, <b>one</b> correct = 0 marks <b>four</b> ticks = 0 marks	
<b>Total</b>			<b>2</b>			

Question number			12	CPS00506		
Part	CF	Skill	Mark	Answer	Further Information	
	5Bp3	A	2	 <p>coconut</p> <p><u>water</u></p>  <p>cow-pea</p> <p><u>explosion</u></p>  <p>dandelion</p> <p><u>wind</u></p>  <p>orange</p> <p><u>animal</u></p>	<p><b>four</b> correct = 2 marks</p> <p><b>two</b> or <b>three</b> correct = 1 mark</p> <p><b>one</b> correct = 0 marks</p>	
<b>Total</b>			<b>2</b>			

Question number			13	CPS00444		
Part	CF	Skill	Mark	Answer	Further Information	
	5Pb3	K	1	Chen <u>Mike</u> Oliver	more than one circle = 0 marks	
<b>Total</b>			<b>1</b>			

Question number		14	CPS00262		
Part	CF	Skill	Mark	Answer	Further Information
(a)	3Cp4	A	2	<p>This is because plastic <b>does not dissolve (in water) / is insoluble.</b></p> <p>This is because pottery <b>does not dissolve (in water) / is insoluble / (has a melting point above) 700 °C</b></p>	each correct answer = 1 mark
(b)	6Cc2	A	1	<p>add water, filter and evaporate the filtrate <input checked="" type="checkbox"/></p> <p>evaporate the mixture and then condense the vapour <input type="checkbox"/></p> <p>filter the mixture <input type="checkbox"/></p> <p>use a magnet <input type="checkbox"/></p>	more than one tick = 0 marks
(c)	6Cc2	A	1	<p>add water, filter and evaporate the filtrate <input type="checkbox"/></p> <p>evaporate the mixture and then condense the vapour <input type="checkbox"/></p> <p>filter the mixture <input type="checkbox"/></p> <p>use a magnet <input checked="" type="checkbox"/></p>	more than one tick = 0 marks
			<b>4</b>		

Question number			15	CPS00268		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	3Bh5 3Eo4	E	1	(area) <b>D</b> / tip of tongue	more than one letter = 0 marks	
(b)	3Bh5 5Eo5	E	1	(idea that) she did not taste any / cannot taste (in the middle part)		
(c)	3Bh5 5Eo7	E	1	yes  (idea that) area <b>D</b> can taste sweet / the tip of the tongue can taste sweet	both parts correct = 1 mark	
<b>Total</b>			<b>3</b>			

Question number			16	CPS00411		
Part	CF	Skill	Mark	Answer	Further Information	
	5Pb4	K	1	Albert Einstein <input type="checkbox"/> Galileo Galilei <input type="checkbox"/> Isaac Newton <input checked="" type="checkbox"/> Robert Hooke <input type="checkbox"/>	more than one tick = 0 marks	
<b>Total</b>			<b>1</b>			

Question number			17	CPS00477		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	6Pf2	K	1	X Y <b>Z</b> W	more than one letter circled = 0 marks	
(b)	6Pf4	A	1	X Y Z <b>W</b>	more than one letter circled = 0 marks	
<b>Total</b>			<b>2</b>			

Question number			18	CPS00461		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	6Cc3	K	1	Salt <b>dissolves</b> in water to make a solution.	more than one word = 0 marks	
(b)	6Cc3	K	1	Water is the <b>solvent</b> in this process.	more than one word = 0 marks	
(c)	6Cc3	K	1	Salt is the <b>solute</b> in the solution.	more than one word = 0 marks	
(d)	6Cc3	K	1	When water <b>evaporates</b> from the salt solution a white solid is left behind.	more than one word = 0 marks	
(e)	6Cc3	K	1	Sand does not make a solution when mixed with water because it is <b>insoluble</b> .	more than one word = 0 marks	
<b>Total</b>			<b>5</b>			

Question number			19	CPS00522		
Part	CF	Skill	Mark	Answer	Further Information	
(a)	5Ep4 5Bp3	E	1	(idea of) a fair test / to make it fair		
(b)	5Ep4 5Bp3	E	1	(idea of same) speed / time / shoe(s)		
<b>Total</b>			<b>2</b>			

**12**

**BLANK PAGE**