
SCIENCE

Paper 1

SPECIMEN MARK SCHEME

0846/01

For Examination from 2014

45 minutes

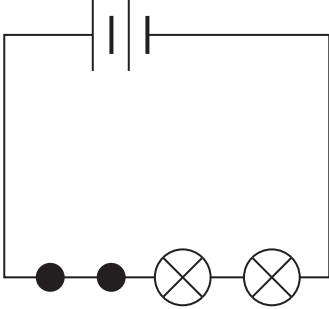
MAXIMUM MARK: 50

This document consists of **9** printed pages and **1** blank page.

Question	1										
Part	Mark	Answer	Further Information								
	2	<table border="1"> <thead> <tr> <th>definition</th> <th>life process</th> </tr> </thead> <tbody> <tr> <td>(responding and reacting)</td> <td>(sensitivity)</td> </tr> <tr> <td>(producing young / offspring)</td> <td>reproduction</td> </tr> <tr> <td>(turning food into energy)</td> <td>respiration</td> </tr> </tbody> </table>	definition	life process	(responding and reacting)	(sensitivity)	(producing young / offspring)	reproduction	(turning food into energy)	respiration	Each correct answer = 1 mark
definition	life process										
(responding and reacting)	(sensitivity)										
(producing young / offspring)	reproduction										
(turning food into energy)	respiration										
Total	2										

Question	2		
Part	Mark	Answer	Further Information
(a)	2	feature: mottled skin explanation: for camouflage / hide from predators or feature: eyes above Explanation: see better or feature: flat explanation: hide from predators	Accept blends in / looks like sand / camouflaged. feature = 1 mark explanation = 1 mark
(b)	1	method: rod and line explanation: less of this fish removed/caught.	Both correct = 1 mark.
Total	3		

Question	3		
Part	Mark	Answer	Further Information
(a)	1	1 day or 24 hours or 23 hours 56 minutes	
(b)	1	<p>The Sun does not move. <input checked="" type="checkbox"/></p> <p>The Sun goes round the Moon. <input type="checkbox"/></p> <p>The Sun orbits the Earth <input type="checkbox"/></p> <p>The Sun travels round the Earth. <input type="checkbox"/></p>	If more than one box ticked = 0 marks
Total	2		

Question	4		
Part	Mark	Answer	Further Information
(a)	1	(idea of) close / operate / press the switch	
(b)	2		<p>2 cells and 2 lamps and 1 switch = 2 marks</p> <p>1 cell and 2 lamps and 1 switch = 1 mark</p> <p>2 cells and 1 lamp and 1 switch = 1 mark</p> <p>2 cells and 2 lamps and no switch = 1 marks</p> <p>Accept switch open or closed</p>
Total	3		

Question	5		
Part	Mark	Answer	Further Information
	3	They are made of metal . The wires are covered in plastic . Any material that is a non-conductor is an insulator .	Accept named materials e.g. copper Accept rubber / insulator Each correct sentence = 1 mark
Total	3		

Question	6																				
Part	Mark	Answer	Further Information																		
(a)	1	tighten the drum skin <input checked="" type="checkbox"/> slacken the drum skin <input type="checkbox"/> strike the drum harder <input type="checkbox"/> strike the drum softer <input type="checkbox"/>	If more than one box ticked = 0 marks																		
(b)	3	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">true</th> <th style="text-align: center;">false</th> </tr> </thead> <tbody> <tr> <td>Sound can travel around corners.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound can spread out in all directions.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound cannot travel through solids.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Sound can travel through liquids.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound can travel in a vacuum.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </tbody> </table>		true	false	Sound can travel around corners.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound can spread out in all directions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound cannot travel through solids.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sound can travel through liquids.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound can travel in a vacuum.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5 correct = 3 marks 3 or 4 correct = 2 marks 2 correct = 1 mark If 2 boxes ticked for a statement = 0 marks for that statement
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Total	4																				

Question	7		
Part	Mark	Answer	Further Information
(a)	1	turns into a liquid	Accept turns into salt solution / salt water
(b)	1	0 (°C)	
(c)	1	The greater/higher the mass of salt in the solution the lower the melting point.	Accept the smaller/lower the mass of salt in the solution the higher the melting point
(d)	1	-5 (°C)	Accept 4 g / grams
(e)	1	make results more reliable / to check results	Accept to make sure the results are reliable Do not accept to make the results more accurate
Total	5		

Question	8		
Part	Mark	Answer	Further Information
(a)	2	C, D, B in that order	3 correct = 2 marks 2 correct = 1 mark 1 correct = 0 marks
(b)	1	A and C	More than 1 answer circled = 0 marks
(c)	1	(pulling force) increases	
Total	4		

Question	9		
Part	Mark	Answer	Further Information
(a)	1	plankton / plant → fish → penguin	All correct = 1 mark
(b)	2	(leaves) → insect → (small) bird → owl	Correct order = 1 mark All three arrows in correct direction = 1 mark
Total	3		

Question	10		
Part	Mark	Answer	Further Information
(a)	1	16(mm)	Accept 250 g
(b)	2	Any two from: - repeat the investigation - use different size tubes - use different size masses - use longer / shorter pieces of paper - use longer / shorter tubes	
(c)	1	(idea of) less mass / lighter in mass	
Total	4		

Question	11		
Part	Mark	Answer	Further Information
(a)	1	(some) coffee dissolves / a solution is made	
(b)	1	<p>all of the coffee powder is soluble</p> <p>some of the coffee powder is insoluble</p> <p>all of the coffee powder is insoluble</p> <p>some of the coffee powder is frozen</p>	More than one answer circled = 0 marks
(c)	2	<p>The brown solid on the filter paper is the residue.</p> <p>The brown solution in the beaker is the filtrate.</p>	<p>Each answer = 1 mark</p> <p>Accept mixture instead of filtrate</p>
(d)	1	<p>goes colourless <input type="checkbox"/></p> <p>becomes a lighter brown <input type="checkbox"/></p> <p>stays the same <input type="checkbox"/></p> <p>becomes a darker brown <input checked="" type="checkbox"/></p>	More than one answer ticked = 0 marks
Total	5		

Question	12																
Part	Mark	Answer	Further Information														
(a)	2	Any two from: - same type of seed - height dropped - mass / weight of seed - speed of fan - distance from fan	Each correct answer = 1 mark														
(b)	3	<table border="1"> <caption>Data from Bar Chart</caption> <thead> <tr> <th>Seed Number</th> <th>Distance (cm)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>8</td> </tr> <tr> <td>2</td> <td>7</td> </tr> <tr> <td>3</td> <td>8.5</td> </tr> <tr> <td>4</td> <td>8</td> </tr> <tr> <td>5</td> <td>4.5</td> </tr> <tr> <td>6</td> <td>9</td> </tr> </tbody> </table>	Seed Number	Distance (cm)	1	8	2	7	3	8.5	4	8	5	4.5	6	9	All correct = 3 marks Any 3 correct = 2 marks Any 2 correct = 1 mark
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6	9																
(c)	1	5															
(d)	1	animal dispersal explosive dispersal self dispersal water dispersal wind dispersal	More than one answer circled = 0 marks														
Total	7																

Question	13																						
Part	Mark	Answer	Further Information																				
(a)	2	<table border="1"> <thead> <tr> <th>Mixture</th> <th>chemical reaction</th> <th>makes a solution</th> <th>does not react or make a solution</th> </tr> </thead> <tbody> <tr> <td>A</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>B</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>C</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>D</td> <td></td> <td>✓</td> <td></td> </tr> </tbody> </table>	Mixture	chemical reaction	makes a solution	does not react or make a solution	A			✓	B		✓		C	✓			D		✓		4 correct = 2 marks 2 or 3 correct = 1 mark 1 correct = 0 marks
Mixture	chemical reaction	makes a solution	does not react or make a solution																				
A			✓																				
B		✓																					
C	✓																						
D		✓																					
(b)	1	C																					
(c)	1	(idea of) the ingredients chemically reacting to form something else	Accept that it is a chemical reaction/gas given off/bubbles given off Do not accept 'it cannot be reversed'																				
(d)	1	(idea of) evaporating the water to leave the salt behind	Accept heat / boil.																				
Total	5																						

