



Pearson
Edexcel

Mark Scheme (Final)

October 2020

Pearson Edexcel International
Award in Primary
In Science (JSC11/01)
Paper 1: Achievement Test

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question number	Answer	Mark
1	<p>The only correct answer is C an ibis</p> <p>A is not correct because the beak of the avocet has a beak that curves upwards</p> <p>B is not correct because the curlew does not have a black head</p> <p>D is not correct because the stork has a straight beak</p>	(1)

Question number	Answer	Mark
2	<p>The only correct answer is D melting</p> <p>A is not correct because condensing describes changing from gas to liquid rather than solid to liquid</p> <p>B is not correct because boiling describes changing from liquid to gas rather than solid to liquid</p> <p>C is not correct because evaporating describes changing from liquid to gas rather than solid to liquid</p>	(1)

Question number	Answer	Mark
3	<p>The only correct answer is D by wind</p> <p>A is not correct because sycamore seeds are mainly dispersed by wind rather than by animals</p> <p>B is not correct because sycamore seeds are mainly dispersed by wind rather than by explosion</p> <p>C is not correct because sycamore seeds are mainly dispersed by wind rather than by water</p>	(1)

Question number	Answer	Mark
4	<p>The only correct answer is D water resistance</p> <p>A is not correct because heat will not reduce the speed of a boat</p> <p>B is not correct because light will not reduce the speed of a boat</p> <p>D is not correct because magnetism is not used to reduce the speed of a boat</p>	(1)

Question number	Answer	Mark
5	<p>The only correct answer is A they both have backbones</p> <p>B is not correct because not all vertebrates have four limbs</p> <p>C is not correct because some invertebrates also have hearts</p> <p>D is not correct because all organisms reproduce not just vertebrates.</p>	(1)

Question number	Answer	Mark
6	<p>The only correct answer is C the Earth is spinning on its axis</p> <p>A is not correct because the Earth being in orbit around the Sun does not explain night and day</p> <p>B is not correct because the Sun is not in orbit around the Earth</p> <p>D is not correct because the Sun spinning on its axis does not cause night and day</p>	(1)

Question number	Answer	Mark
7	<p>The only correct answer is B because plants make their own food</p> <p>A is not correct because plants need nutrients and usually make their own food (through photosynthesis)</p> <p>C is not correct because plants are not herbivores</p> <p>D is not correct because most plants are not predators</p>	(1)

Question number	Answer	Mark
8	<p>The only correct answer is D because only mammals feed their young on milk</p> <p>A is not correct because amphibians are not warm blooded, do not feed their young on milk or have hair</p> <p>B is not correct because birds do not feed their young on milk or have hair</p> <p>C is not correct because insects are not warm blooded, do not feed their young on milk or have hair</p>	(1)

Question number	Answer	Mark
9	<p>The only correct answer is B because 2 cells are in series with 2 bulbs</p> <p>A is not correct because one cell is in series with two bulbs</p> <p>C is not correct because one cell is in series with three bulbs</p> <p>D is not correct because two cells 'cancel' so there is effectively only one cell in series with two bulbs</p>	(1)

Question number	Answer	Mark
10	<p>The only correct answer is A sand is a solid but can behave like a liquid in some ways</p> <p>B is not correct because sand particles will not fill the available space like a gas</p> <p>C is not correct because sand particles will not fill the available space like a gas</p> <p>D is not correct because sand particles will not fill the available space like a gas</p>	(1)

Question number	Answer	Mark
11 (a)	(a substance that) cannot be dissolved (1)	(1)

Question number	Answer	Mark
11 (b)	<p>filter the mixture / filtration / use filter paper (1)</p> <p>chalk will stay on the paper/water will pass through the paper (1)</p>	(2)

Question number	Answer	Additional Guidance	Mark
12	<p style="text-align: center;">plant part</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">leaves</div> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">roots</div> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">stem</div> </div> <p style="text-align: center;">function</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">to transport water and nutrients</div> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">to manufacture food</div> <div style="border: 1px solid black; padding: 5px; width: 150px; text-align: center;">to anchor the plant and to take in water and nutrients</div> </div>	<p>Three correct scores two marks</p> <p>One or two correct scores one mark.</p> <p>Do not award answers with more than one line to or from any of the boxes.</p>	(2)

Question number	Answer	Mark
13	<p>The only correct answer is B evaporation, condensation, precipitation</p> <p>A is not correct because W is not condensation and X is not evaporation</p> <p>C is not correct because W is not precipitation. and Y is not evaporation</p> <p>D is not correct because X is not precipitation and Y is not condensation</p>	(1)

Question number	Answer	Mark
14	<p>The only correct answer is A</p> <p>B is not correct because it is not pointing downwards</p> <p>C is not correct because it is not pointing downwards</p> <p>D is not correct because it is not pointing downwards</p>	(1)

Question number	Answer	Mark
15	<p>The only correct answer is C 25N</p> <p>A is not correct because a 0 N resistance force will not balance the 25N resistance</p> <p>B is not correct because 20 N resistance force will not balance the 25N resistance</p> <p>D is not correct because 45 N resistance force is too big to balance the 25N resistance</p>	(1)

Question number	Answer	Mark
16	<p>The only correct answer is D sieving</p> <p>A is not correct because neither pasta nor salt will evaporate</p> <p>B is not correct because neither pasta nor salt would pass through filter paper</p> <p>C is not correct because neither pasta nor salt are magnetic.</p>	(1)

Question number	Answer	Mark
17	<p>The only correct answer is A candle</p> <p>B is not correct because a mirror is not a source of light</p> <p>C is not correct because the Moon is not a source of light</p> <p>D is not correct because a tree is not a source of light</p>	(1)

Question number	Answer	Mark
18	<p>The only correct answer is D the use of oxygen by the organs of the body</p> <p>A is not correct because breathing out used air describes ventilation rather than respiration</p> <p>B is not correct because breathing oxygen into the lungs describes ventilation rather than respiration</p> <p>C is not correct because pumping blood around the body describes circulation rather than respiration</p>	(1)

Question number	Answer	Mark
19	<p>Award one mark for any of the following up to a maximum of 2 marks:</p> <p>wash hands (with soap/detergent to remove micro-organisms/bacteria) (1)</p> <p>clean/disinfect work surfaces (to remove micro-organisms/bacteria) (1)</p> <p>keep food in fridge (to prevent micro-organisms/bacteria reproducing) (1)</p> <p>Accept any other appropriate response</p>	(2)

Question number	Answer	Mark																		
20	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Change</th> <th>Reversible</th> <th>Irreversible</th> </tr> </thead> <tbody> <tr> <td>evaporating water</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td>dissolving sugar in tea</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td>frying an egg</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td>iron rusting</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td>melting chocolate</td> <td style="text-align: center;">✓</td> <td></td> </tr> </tbody> </table> <p>4 correct ticks scores (2) 2 or 3 correct ticks scores (1)</p>	Change	Reversible	Irreversible	evaporating water	✓		dissolving sugar in tea	✓		frying an egg		✓	iron rusting		✓	melting chocolate	✓		(2)
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Question number	Answer	Mark								
21	<p>All 3 correct scores 2 marks, 1 or 2 correct scores 1 mark:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">time</th> <th style="text-align: center;">shadow length</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">11 AM</td> <td style="text-align: center;">125 cm</td> </tr> <tr> <td style="text-align: center;">Midday</td> <td style="text-align: center;">222 cm</td> </tr> <tr> <td style="text-align: center;">7 PM</td> <td style="text-align: center;">85 cm</td> </tr> </tbody> </table> <p>Do not award answers with more than one line to or from any of the boxes.</p>	time	shadow length	11 AM	125 cm	Midday	222 cm	7 PM	85 cm	(2)
time	shadow length									
11 AM	125 cm									
Midday	222 cm									
7 PM	85 cm									

Question number	Answer	Mark
22(a)	<p>(This makes the cyclist) more streamlined / aerodynamic (1)</p> <p>so there is less air resistance / friction / drag (1)</p>	(2)

Question number	Answer	Mark												
22(b)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%; text-align: center;">Statement</th> <th style="width: 30%; text-align: center;">Correct</th> </tr> </thead> <tbody> <tr> <td>their pulse rate will decrease because they are crouching</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>their pulse rate will decrease because they are breathing quickly</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>their pulse rate will increase because their muscles need more oxygen</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>their pulse rate will increase because they are very fit</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>their pulse rate will stay the same because they are crouching</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>	Statement	Correct	their pulse rate will decrease because they are crouching	<input type="checkbox"/>	their pulse rate will decrease because they are breathing quickly	<input type="checkbox"/>	their pulse rate will increase because their muscles need more oxygen	<input checked="" type="checkbox"/>	their pulse rate will increase because they are very fit	<input type="checkbox"/>	their pulse rate will stay the same because they are crouching	<input type="checkbox"/>	(1)
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Question number	Answer	Mark
23	<p>The only correct answer is B organ B</p> <p>A is not correct because label A is labelling the heart</p> <p>C is not correct because label C is labelling the stomach</p> <p>D is not correct because label D is labelling the liver</p>	(1)

Question number	Answer	Mark
24	<p>The only correct answer is B yeast, bacteria, virus</p> <p>A is not correct because an ant is not a micro-organism</p> <p>C is not correct because a moss is not a micro-organism</p> <p>D is not correct because an ant and moss are not micro-organisms</p>	(1)

Question number	Answer	Mark
25	<p>The only correct answer is C the water</p> <p>A is not correct because coffee powder is a solute</p> <p>B is not correct because sugar is a solute</p> <p>D is not correct because the spoon does not dissolve</p>	(1)

Question number	Answer	Mark
26	<p>The only correct answer is A</p> <p>B is not correct because a buzzer and bulb are shown</p> <p>C is not correct because a switch and cell are shown</p> <p>D is not correct because a buzzer and switch are shown</p>	(1)

Question number	Answer		Mark
27	<p>Award one mark for where friction is useful and one mark for where friction is not useful.</p> <p>Useful (between): hand and rope / foot and ice or person pulling and the ground / bottom and seat on sledge (1)</p> <p>Not useful (between): sledge rails and ice (1)</p> <p>Accept any other appropriate response.</p>	Must be a place not just a description of how friction is useful or not useful.	(2)

Question number	Answer	Mark
28(a)	ovary	(1)

Question number	Answer	Additional guidance	Mark
28(b)	<p>Award one mark for any of the following up to a maximum of 2 marks:</p> <p>(contains) ovules (1) (which are) fertilised / fertilisation occurs (1) ovary becomes a fruit (1) seeds are produced (1)</p>	Ignore ref. to seed dispersal	(2)

Question number	Answer	Additional guidance	Mark
29 (a)	<p>Award one mark for any of the following</p> <p>move the puppet nearer the light source or torch (1) move the screen further away (1) move the light source or torch closer to the puppet (1)</p> <p>Accept any other appropriate response.</p>	must name what is moved and include the direction	(1)

Question number	Answer	Additional guidance	Mark
31	<p>the anthers hang outside the flower (1) so that the pollen can be blown by the wind (1)</p> <p>OR</p> <p>the stigma hangs outside the flower/ the stigma is large or long (1) so that it can catch pollen (blown by the wind) (1)</p> <p>OR</p> <p>anthers make lots of pollen (1) so some can reach the stigma (1)</p> <p>OR</p> <p>pollen is lightweight (1) so it can travel a long way (1)</p>	<p>Accept any one of these linked pairs. Mark points cannot come from different pairs</p> <p>Ignore ref. to petals</p> <p>Do not accept ref. to seeds</p>	(2)

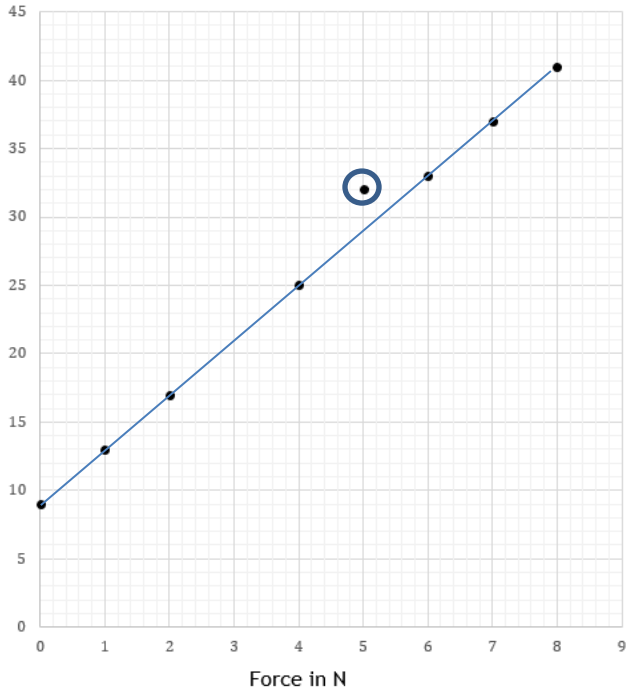
Question number	Answer	Mark
32(a)	measuring cylinder	(1)

Question number	Answer	Mark
32(b)	<p>Award one mark for any of the following up to a maximum of 2 marks:</p> <p>used same volume of water in each container (1)</p> <p>placed all containers on same windowsill / same temperature (1)</p> <p>all containers left for same time/4 days (1)</p> <p>accept any other appropriate response</p>	(2)

Question number	Answer	Mark
32(c)	<p>7.6 (accept any answer in range 7.5-7.7)</p> <p>Do not accept 76 mm</p>	(1)

Question number	Answer	Additional guidance	Mark								
32(d)(i)	<p>Volume of evaporated water (cm³)</p> <table border="1"> <caption>Data from Bar Chart</caption> <thead> <tr> <th>Container</th> <th>Volume of evaporated water (cm³)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>38</td> </tr> <tr> <td>B</td> <td>70</td> </tr> <tr> <td>C</td> <td>23</td> </tr> </tbody> </table> <p>Container</p>	Container	Volume of evaporated water (cm ³)	A	38	B	70	C	23	+/- ½ small square	(1)
Container	Volume of evaporated water (cm ³)										
A	38										
B	70										
C	23										

Question number	Answer	Additional guidance	Mark
33(a)	length (of spring) in cm or mm OR how long the spring gets in cm or mm	Do not accept m	(1)

Question number	Answer	Additional guidance	Mark
33(b)(i) & (ii)	(i) Point at 5N is circled	Do not accept more than one circled	(1)
	(ii) Straight line using a ruler passing through all points except that at 5N 	Do not accept lines drawn without a ruler Ignore extrapolation	(1)

Question number	Answer	Mark
33(c)(i)	Award one mark for recognising weight is causal factor and one mark for linked expansion on the effect on the length of the spring. as the weight increases (1) the length of the spring increases (1)	(2)

Question number	Answer	Mark
33(c)(ii)	21(.0) Accept any answer in range 20.5- 21.5	(1)

Question number	Answer	Mark
34(a)	stopwatch /watch / clock / timer / ruler /measuring tape	(1)

Question number	Answer	Mark
34(b)	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 40%;">colour of parachute</div> <div style="width: 20%; border: 1px solid black; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 40%;">height dropped from</div> <div style="width: 20%; border: 1px solid black; height: 20px; text-align: center;">✓</div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 40%;">size of parachute</div> <div style="width: 20%; border: 1px solid black; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 40%;">time taken to fall</div> <div style="width: 20%; border: 1px solid black; height: 20px;"></div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 40%;">weight of plasticine</div> <div style="width: 20%; border: 1px solid black; height: 20px; text-align: center;">✓</div> </div>	(2)

Question number	Answer	Mark
34(c)	take repeat readings / do it again	(1)