

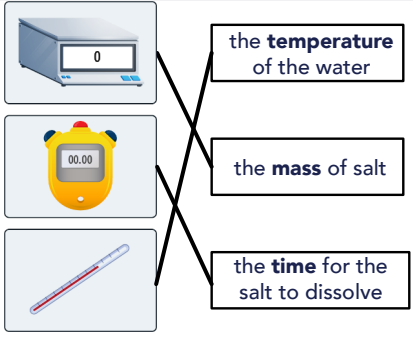
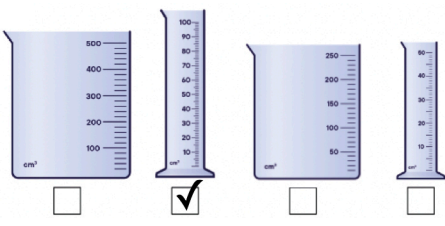
## Year 7 Baseline Assessment

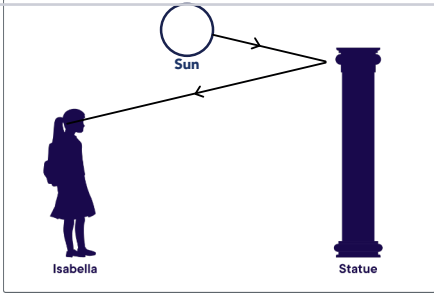
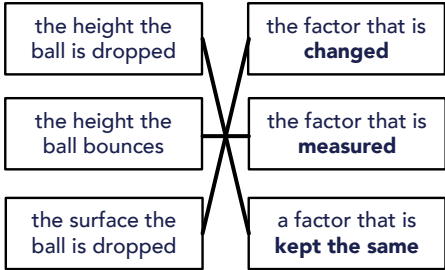
### Mark Scheme

#### Introductory guidance

What if...?	Marking
<b>The student gives two or more responses to a particular question part.</b>	<ul style="list-style-type: none"><li>• Ignore any incorrect statements that are not relevant to the question.</li><li>• Deduct one mark for each relevant statement that is scientifically incorrect.</li><li>• Do not award negative marks.</li></ul>
<b>The student ticks more than the required number of boxes.</b>	<ul style="list-style-type: none"><li>• Deduct one mark for each incorrect answer.</li><li>• Do not award negative marks.</li></ul>
<b>The student misspells a word.</b>	<ul style="list-style-type: none"><li>• Accept any unambiguous misspellings.</li><li>• Misspellings of required scientific vocabulary must be phonetically equivalent.</li></ul>
<b>The student has written their answer somewhere other than the answer box or line.</b>	<ul style="list-style-type: none"><li>• Accept any unambiguous indication of the correct answer.</li></ul>

Question	Answer	Marks	Notes																
1a	Oak tree Sparrow Bee Cat Dandelion	2	Award <b>TWO</b> marks for <b>all five</b> living things correctly identified. If you are unable to award two marks, award <b>ONE</b> mark for <b>any four</b> living things identified correctly .																
1b	65	1																	
1c	8	1																	
1d	The bean plant gets less light	1																	
1e	bean → rabbit → fox	2	Award <b>TWO</b> marks for a correct and complete food chain. If you are unable to award two marks, award <b>ONE</b> mark for the organisms written in the correct order <b>OR</b> the arrows drawn from left to right.																
2a	<table border="1"> <thead> <tr> <th>Substance</th> <th>Solid</th> <th>Liquid</th> <th>Gas</th> </tr> </thead> <tbody> <tr> <td>Inside bubbles</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>Water</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>Sand</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table>	Substance	Solid	Liquid	Gas	Inside bubbles			✓	Water		✓		Sand	✓			1	Award <b>ONE</b> mark for <b>all three</b> rows of the table completed correctly .
Substance	Solid	Liquid	Gas																
Inside bubbles			✓																
Water		✓																	
Sand	✓																		
2b	7	1																	
2c	<ul style="list-style-type: none"> <li>To absorb water.</li> <li>To absorb nutrients.</li> </ul>	1	Award <b>ONE</b> mark for <b>any one</b> function of the root, not related to anchoring or stabilising the plant.																
3a	<table border="1"> <thead> <tr> <th>Activity</th> <th>Reversible</th> <th>Not reversible</th> </tr> </thead> <tbody> <tr> <td>Baking a cake</td> <td></td> <td>✓</td> </tr> <tr> <td>Dissolving sugar in water</td> <td>✓</td> <td></td> </tr> <tr> <td>Freezing ice cream</td> <td>✓</td> <td></td> </tr> <tr> <td>Frying eggs</td> <td></td> <td>✓</td> </tr> </tbody> </table>	Activity	Reversible	Not reversible	Baking a cake		✓	Dissolving sugar in water	✓		Freezing ice cream	✓		Frying eggs		✓	2	Award <b>TWO</b> marks for <b>all four</b> rows of the table completed correctly. If you are unable to award two marks, award <b>ONE</b> mark for <b>any three</b> rows completed correctly.	
Activity	Reversible	Not reversible																	
Baking a cake		✓																	
Dissolving sugar in water	✓																		
Freezing ice cream	✓																		
Frying eggs		✓																	
3b	g	1																	
3c	The chocolate and pan get hot	1																	
3d	It changes from a solid to a liquid	1																	
3e	Smoke comes off the chocolate	1																	

Question	Answer	Marks	Notes																				
4a		2	Award <b>TWO</b> marks for correctly matching <b>all three</b> pieces of equipment. If you are unable to award two marks, award <b>ONE</b> mark for correctly matching <b>any one</b> piece of equipment.																				
4b		1																					
4c	As the temperature of the water increases, the time taken for the salt to dissolve decreases.	1	Award <b>ONE</b> mark for an answer recognising that the time taken for the salt to dissolve decreases with temperature.																				
5a	Check the equipment before he uses it	1																					
5b	<ul style="list-style-type: none"> <li>Cell</li> <li>Wires</li> </ul>	1	Award <b>ONE</b> mark for <b>both</b> components identified correctly.																				
5c	It is an electrical insulator	1																					
5d	<ul style="list-style-type: none"> <li>The circuit is not complete.</li> <li>Only one end of the nail is connected.</li> <li>Both ends of the nail need to be connected for the circuit to function.</li> </ul>	1	Award <b>ONE</b> mark for an answer recognising that the circuit is not closed/complete.																				
6a	<table border="1"> <thead> <tr> <th>Factor</th> <th>Must be the same</th> <th>Must be different</th> <th>Makes no difference</th> </tr> </thead> <tbody> <tr> <td>Length of the ramp</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Height of the ramp</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>Material the ramp is made from</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Mass of the marble</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table>	Factor	Must be the same	Must be different	Makes no difference	Length of the ramp	✓			Height of the ramp		✓		Material the ramp is made from	✓			Mass of the marble	✓			2	Award <b>TWO</b> marks for <b>all four</b> rows of the table completed correctly. If you are unable to award two marks, award <b>ONE</b> mark for <b>any three</b> rows completed correctly.
Factor	Must be the same	Must be different	Makes no difference																				
Length of the ramp	✓																						
Height of the ramp		✓																					
Material the ramp is made from	✓																						
Mass of the marble	✓																						
6b	<ul style="list-style-type: none"> <li>millimetres</li> <li>metres</li> </ul>	1	Award <b>ONE</b> mark for <b>any one</b> sensible unit. Accept either full or abbreviated units.																				
6c	It causes the marble to slow down and come to a stop	1																					
6d	Carpet	1																					

Question	Answer	Marks	Notes											
7a	A torch	1												
7b		2	Award <b>TWO</b> marks for the correct ray diagram where a straight arrow is drawn from the Sun to the statue and from the statue to Isabella's eye. If you are unable to award two marks, award <b>ONE</b> mark if either arrow is correctly drawn.											
7c	reflects	1												
7d	The shadow gets shorter.	1	Award <b>ONE</b> mark for any answer recognising the length of the shadow decreases throughout the morning.											
8a	280	1												
8b	Heat the vinegar above a flame	1												
8c	The values are close together	1												
9a		2	Award <b>TWO</b> marks for correctly matching <b>all three</b> factors. If you are unable to award two marks, award <b>ONE</b> mark for correctly matching <b>any one</b> factor.											
9b	Force A is <b>air resistance</b> . Force B is <b>weight</b> .	2	Award <b>TWO</b> marks for correctly completing <b>both</b> sentences. If you are unable to award two marks, award <b>ONE</b> mark <b>any one</b> sentence correctly completed.											
9c	Surface: <b>Grass</b> Test number: <b>Test 3</b>	1	Accept the reading ( <b>21</b> ) as the test number.											
9d	42	1												
10a	<table border="1"> <thead> <tr> <th rowspan="2">Material</th> <th colspan="3">Property</th> </tr> <tr> <th>Flexible</th> <th>Shiny</th> <th>Trans-parent</th> </tr> </thead> <tbody> <tr> <td>Plastic wrap</td> <td>✓</td> <td></td> <td>✓</td> </tr> </tbody> </table>	Material	Property			Flexible	Shiny	Trans-parent	Plastic wrap	✓		✓	1	Award <b>ONE</b> mark for <b>both</b> boxes ticked.
Material	Property													
	Flexible	Shiny	Trans-parent											
Plastic wrap	✓		✓											
10b	Thermal insulator	1												

Question	Answer	Mark	Notes
10c	Time (minutes)	1	Award <b>ONE</b> mark for <b>both</b> the label and units. Accept any suitable label referencing time and accept abbreviated units.
11a	<ul style="list-style-type: none"> <li>To make his results more reliable.</li> <li>So he can check his results.</li> <li>So he can calculate an average.</li> <li>In case there is a problem/he made a mistake with one seed.</li> <li>So he can compare his results.</li> </ul>	1	Award <b>ONE</b> mark for identifying that planting multiple seeds improves the reliability of the results <b>OR</b> that the results can be compared <b>OR</b> that the accuracy of the test will be improved.
11b	Water the seeds	1	
11c	<p>Fewest radish seeds germinated by day 7 = <b>True</b></p> <p>No mustard seeds germinated on day 1 = <b>Cannot tell</b></p> <p>All the cress seeds germinated by day 7 = <b>False</b></p>	2	Award <b>TWO</b> marks for <b>all</b> the conclusions correctly categorised. If you are unable to award two marks, award <b>ONE</b> mark for <b>any two</b> conclusions correctly categorised.