



Cambridge Assessment
International Education

Cambridge Primary Progression Test

Science mark scheme

Stage 6

General guidelines on marking

Many descriptive answers can be expressed in a variety of ways. Professional judgement can be used in these cases, providing it matches the marking points and further information in the mark scheme.

Answers may have words spelt incorrectly. Credit is normally given for a phonetically correct answer, unless the word has a scientifically different meaning. For example, where the answer should be antennae, credit will be given for antenna but not for anthen (too close to anther).

Only the science is being assessed so answers do not need to be grammatically correct.

Significant figures will be indicated in the question or in the mark scheme.

Unless specified all marking points are independent.

Annotations and abbreviations

| | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| / OR | alternate responses for the same marking point |
| () brackets | the words or units in brackets do not need to be stated, for example, (recycles or releases or provides) minerals = minerals scores the mark |
| Accept | an acceptable response |
| Do not accept | indicates an incorrect response that would contradict another otherwise correct alternative |
| Ignore | indicates an irrelevant answer that is not creditworthy. Full marks can still be achieved even with answers that are ignored |
| ecf | error carried forward; marks are awarded if an incorrect response has been carried forward from earlier working, provided the subsequent working is correct |
| ora | or reverse argument; for example, as mass increases, volume increases could be written as mass decreases, volume decreases |

Stage 6 Paper 1 Mark scheme

| Question | 1 | | | | | | | | | | | | | | | | | | | | | | |
|--------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------|----------------------|--------|---|--|----------|---|--|---------|--|---|--------|--|---|------|--|---|-------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Part | Mark | Answer | | | Further Information | | | | | | | | | | | | | | | | | | |
| | 3 | <table border="1"> <thead> <tr> <th>material</th> <th>electrical conductor</th> <th>electrical insulator</th> </tr> </thead> <tbody> <tr> <td>copper</td> <td>✓</td> <td></td> </tr> <tr> <td>graphite</td> <td>✓</td> <td></td> </tr> <tr> <td>plastic</td> <td></td> <td>✓</td> </tr> <tr> <td>rubber</td> <td></td> <td>✓</td> </tr> <tr> <td>wood</td> <td></td> <td>✓</td> </tr> </tbody> </table> | material | electrical conductor | electrical insulator | copper | ✓ | | graphite | ✓ | | plastic | | ✓ | rubber | | ✓ | wood | | ✓ | five correct = 3 marks three or four correct = 2 marks one or two correct = 1 mark | | |
| material | electrical conductor | electrical insulator | | | | | | | | | | | | | | | | | | | | | |
| copper | ✓ | | | | | | | | | | | | | | | | | | | | | | |
| graphite | ✓ | | | | | | | | | | | | | | | | | | | | | | |
| plastic | | ✓ | | | | | | | | | | | | | | | | | | | | | |
| rubber | | ✓ | | | | | | | | | | | | | | | | | | | | | |
| wood | | ✓ | | | | | | | | | | | | | | | | | | | | | |
| Total | 3 | | | | | | | | | | | | | | | | | | | | | | |


| Question | 2 | | | | |
|--------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|
| Part | Mark | Answer | | | Further Information |
| | 3 | | six correct = 3 marks four or five correct = 2 marks two or three correct = 1 mark one correct = 0 marks Do not accept large intestine | | |
| Total | 3 | | | | |

| Question | 3 | | |
|--------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| | 1 | add another cell <input checked="" type="checkbox"/> add another lamp <input type="checkbox"/> add a switch <input type="checkbox"/> make the wire longer <input type="checkbox"/> | more than one box ticked = 0 marks Accept any indication of the correct answer, e.g. circling or underlining but ticks take precedence |
| Total | 1 | | |

| Question | 4 | | |
|--------------|----------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | fair test / you could dissolve different amounts if the water was hotter or colder | |
| (b) | 1 | so results can be checked / to get more reliable results | Accept in case a result is wrong |
| (c) | 3 | <p>(total) mass of solid (added) in g</p> <p>(sugar) fertiliser salt baking powder</p> | correct scale = 1 mark y-axis labelled = 1 mark all three bars correct and labelled = 1 mark |
| (d) | 1 | fertiliser | |
| Total | 6 | | |

| Question | 5 | | |
|--------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 2 | <pre> graph BT owl[owl] snake[snake] bird[bird] caterpillar[caterpillar] leaf[leaf] leaf --> caterpillar caterpillar --> bird bird --> snake snake --> owl </pre> | <p>food chain in correct order = 1 mark this mark is independent of the arrows</p> <p>all arrows in correct direction (from leaf to owl) = 1 mark</p> |
| (b) | 1 | leaf | Accept plant / tree / any named plant or tree |
| Total | 3 | | |

| Question | 6 | | |
|--------------|----------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | <p><u>salt</u> sand salt and sand water</p> | <p>more than one answer circled = 0 marks</p> <p>Accept any indication of the correct answer, e.g. ticking or underlining but circling takes precedence</p> |
| (b) | 1 | salt | Accept wet salt |
| Total | 2 | | |

| Question | 7 | | |
|--------------|----------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 3 | <p>Mass is measured in kilograms.</p> <p>Weight is measured in newtons.</p> <p>Force is measured in newtons.</p> | <p>each correct sentence = 1 mark</p> <p>Accept kg</p> <p>Accept N Do not accept n</p> <p>Accept N Do not accept n</p> |
| (b) | 1 |  | |
| Total | 4 | | |

| Question | 8 | | |
|--------------|----------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | C | |
| (b) | 1 | heat it | Accept evaporate / leave in the Sun |
| (c) | 2 | <p>D</p> <p>because it fizzes</p> <p>or</p> <p>E</p> <p>because it gets colder</p> | <p>correct solid = 1 mark</p> <p>correct reason linked to correct solid = 1 mark</p> |
| Total | 4 | | |

| Question | 9 | | |
|--------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 2 | <p>any two from</p> <p>does the work his own heart normally does / takes the place of Mike's heart</p> <p>pumps blood</p> <p>supplies oxygen</p> <p>supplies food</p> <p>to organs / around the body</p> | Ignore just to keep Mike alive |
| (b) | 1 | (idea that) (batteries on the) machine he is using may stop working / the machine he is using may go wrong | Ignore just to keep Mike alive |
| Total | 3 | | |

| Question | 10 | | |
|--------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Part | Mark | Answer | Further Information |
| | 1 | <p>statement</p> <p>A rollercoaster is able to climb up the hill because...</p> <p>explanation</p> <p>... friction in the dip increases its movement.</p> <p>... its movement gives it the energy to get to the top of the hill.</p> <p>... there is no friction.</p> <p>... there is no air resistance in the dip.</p> | more than one line to an explanation = 0 marks |
| Total | 1 | | |

| Question | 11 | | |
|--------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | paper / card / cardboard / cloth | <p>Accept named items that can be recycled, e.g. books / magazines / clothes / batteries / ink cartridges</p> <p>Ignore glass / plastic or named plastic / metal or named metal</p> |
| (b) | 2 | <p>This diaper (nappy) cannot be recycled because (idea of) it is dirty / it is toxic / (may) contain microbes / made of material that cannot be recycled.</p> <p>To reduce waste in the environment this diaper (nappy) can be composted / biodegradable / made of material that can be washed.</p> | <p>each correct sentence = 1 mark</p> <p>Ignore burnt</p> |
| Total | 3 | | |

| Question | 12 | | |
|--------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 2 | <p>The solvent in sugar water is water.</p> <p>The solute in sugar water is sugar / soluble.</p> <p>Sugar dissolves in water because it is soluble.</p> | <p>three correct = 2 marks</p> <p>one or two correct = 1 mark</p> |
| (b) | 1 | no sometimes yes | <p>more than one answer circled = 0 marks</p> <p>Accept any indication of the correct answer, e.g. ticking or underlining but circling takes precedence</p> |
| Total | 3 | | |

| Question | 13 | | |
|--------------|----------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 2 | D A C B | four correct = 2 marks two or three correct = 1 mark one correct = 0 marks |
| (b) | 1 | steel | |
| (c) | 1 | metals conduct electricity | ora |
| Total | 4 | | |













| Question | 14 | | | | | | | | | | | | | | | |
|--------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---|------------|----------|-----|---|------------|----------|------------|---|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | | Further Information | | | | | | | | | | | | |
| (a) | 1 | measuring cylinder | | Do not accept beaker / jug / bottle / cup | | | | | | | | | | | | |
| (b) | 2 | <table border="1"> <thead> <tr> <th>tap number</th> <th>volume in cm³</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.0</td> </tr> <tr> <td>2</td> <td>1.8</td> </tr> <tr> <td>3</td> <td>2.9</td> </tr> <tr> <td>4</td> <td>3.8</td> </tr> <tr> <td>5</td> <td>3.3</td> </tr> </tbody> </table> | | tap number | volume in cm ³ | 1 | 0.0 | 2 | 1.8 | 3 | 2.9 | 4 | 3.8 | 5 | 3.3 | seven correct = 2 marks four, five or six correct = 1 mark one, two or three correct = 0 marks Accept volume or cm ³ in the heading of the table Accept 0 for 0.0 |
| tap number | volume in cm ³ | | | | | | | | | | | | | | | |
| 1 | 0.0 | | | | | | | | | | | | | | | |
| 2 | 1.8 | | | | | | | | | | | | | | | |
| 3 | 2.9 | | | | | | | | | | | | | | | |
| 4 | 3.8 | | | | | | | | | | | | | | | |
| 5 | 3.3 | | | | | | | | | | | | | | | |
| (c) | 1 | <p>tap 1 tap 2 tap 3 tap 4 tap 5</p> <p>and</p> <p>0.0 is not a volume / there is no volume / tap (faucet) does not have drips / all the others have a volume</p> | | Accept any indication of the correct answer, e.g. ticking or underlining but circling takes precedence Correct answer and explanation for one mark | | | | | | | | | | | | |
| Total | 4 | | | | | | | | | | | | | | | |

| Question | 15 | | |
|--------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | When the toy bounces up the upward force is bigger / larger / greater / stronger than the downward force. | |
| (b) | 1 | <p>increase the weight of the toy</p> <p>push on the spring all of the time</p> <p>push on the spring less often</p> <p>push on the spring more often</p> <p>use a longer spring</p> | <p>more than one answer circled = 0 marks</p> <p>Accept any indication of the correct answer, e.g. ticking or underlining but circling takes precedence</p> |
| Total | 2 | | |

| Question | 16 | | |
|--------------|----------|------------------------------------------------------|-----------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | particles of sand (and copper sulfate) are too small | Accept if the particles of sand and copper sulfate are the same size |
| (b) | 1 | sand | Ignore water |
| (c) | 1 | copper sulfate (solution) | |
| (d) | 1 | blue | |
| Total | 4 | | |

Stage 6 Paper 2 Mark scheme

| Question | 1 | | | | | | | | | | | | | | | |
|--------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------|-----------|-----------|-------------|--------------|-------------|----------------|---------|--------------|-----------|------------------------------------|--|------------------------------------------------------------|
| Part | Mark | Answer | | Further Information | | | | | | | | | | | | |
| | 4 | <table border="1"> <thead> <tr> <th>body system</th> <th>major organ</th> </tr> </thead> <tbody> <tr> <td>excretory</td> <td>(kidneys)</td> </tr> <tr> <td>circulatory</td> <td>heart</td> </tr> <tr> <td>respiratory</td> <td>lung(s)</td> </tr> <tr> <td>nervous</td> <td>brain</td> </tr> <tr> <td>digestive</td> <td>stomach / (small) intestine</td> </tr> </tbody> </table> | body system | major organ | excretory | (kidneys) | circulatory | heart | respiratory | lung(s) | nervous | brain | digestive | stomach / (small) intestine | | each correct = 1 mark Do not accept large intestine |
| body system | major organ | | | | | | | | | | | | | | | |
| excretory | (kidneys) | | | | | | | | | | | | | | | |
| circulatory | heart | | | | | | | | | | | | | | | |
| respiratory | lung(s) | | | | | | | | | | | | | | | |
| nervous | brain | | | | | | | | | | | | | | | |
| digestive | stomach / (small) intestine | | | | | | | | | | | | | | | |
| Total | 4 | | | | | | | | | | | | | | | |

| Question | 2 | | | | | | | | | | | | | | | | | | | |
|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------|------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------------------|-------|-------------------------------------------------------------------------------------|-------------|------|-------------------------------------------------------------------------------------|----------------|--------|-------------------------------------------------------------------------------------|------------------|--|--|-------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | | | Further Information | | | | | | | | | | | | | | | |
| (a) | 2 | <table border="1"> <thead> <tr> <th>name of solid</th> <th>results after one minute</th> <th>soluble or insoluble</th> </tr> </thead> <tbody> <tr> <td>clay</td> <td></td> <td>insoluble</td> </tr> <tr> <td>chalk</td> <td></td> <td>(insoluble)</td> </tr> <tr> <td>salt</td> <td></td> <td>soluble</td> </tr> <tr> <td>copper</td> <td></td> <td>insoluble</td> </tr> </tbody> </table> | name of solid | results after one minute | soluble or insoluble | clay |  | insoluble | chalk |  | (insoluble) | salt |  | soluble | copper |  | insoluble | | | three correct = 2 marks two correct = 1 mark one correct = 0 marks |
| name of solid | results after one minute | soluble or insoluble | | | | | | | | | | | | | | | | | | |
| clay |  | insoluble | | | | | | | | | | | | | | | | | | |
| chalk |  | (insoluble) | | | | | | | | | | | | | | | | | | |
| salt |  | soluble | | | | | | | | | | | | | | | | | | |
| copper |  | insoluble | | | | | | | | | | | | | | | | | | |
| (b) | 1 | it dissolves / forms a solution / forms a colourless liquid | | | Accept forms a clear liquid / no solid left in the beaker / solid has disappeared | | | | | | | | | | | | | | | |
| Total | 3 | | | | | | | | | | | | | | | | | | | |

| Question | 3 | | |
|--------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| | 3 | | <p>All friction forces opposing motion</p> <p>six correct = 3 marks</p> <p>four or five correct = 2 marks</p> <p>two or three correct = 1 mark</p> <p>one correct = 0 marks</p> |
| Total | 3 | | |

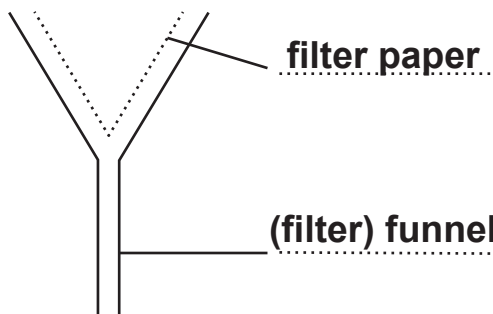
| Question | 4 | | |
|--------------|----------|------------------------------------------------------------------------------------|---------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | fair test / to compare | |
| (b) | 1 | ruler / rule / measuring tape | |
| (c) | 1 | If the wire is a good conductor the bulb will be bright (er) / lit up / on. | |
| Total | 3 | | |

| Question | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------|---------------------|--------------|--|---|-------------------------|---|--|---------------|---|--|--------------|--|---|----------------|--|---|-----------------|--|---|--------------------------|---|--|-----------------|---|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Part | Mark | Answer | | | Further Information | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | <table border="1"> <thead> <tr> <th>change</th> <th>reversible</th> <th>irreversible</th> </tr> </thead> <tbody> <tr> <td>baking bread</td> <td></td> <td>✓</td> </tr> <tr> <td>condensing water vapour</td> <td>✓</td> <td></td> </tr> <tr> <td>boiling water</td> <td>✓</td> <td></td> </tr> <tr> <td>burning wood</td> <td></td> <td>✓</td> </tr> <tr> <td>digesting food</td> <td></td> <td>✓</td> </tr> <tr> <td>rusting of iron</td> <td></td> <td>✓</td> </tr> <tr> <td>filtering sand and water</td> <td>✓</td> <td></td> </tr> <tr> <td>dissolving salt</td> <td>✓</td> <td></td> </tr> </tbody> </table> | change | reversible | irreversible | baking bread | | ✓ | condensing water vapour | ✓ | | boiling water | ✓ | | burning wood | | ✓ | digesting food | | ✓ | rusting of iron | | ✓ | filtering sand and water | ✓ | | dissolving salt | ✓ | | <p>eight correct ticks = 4 marks</p> <p>six or seven correct ticks = 3 marks</p> <p>four or five correct ticks = 2 marks</p> <p>three correct ticks = 1 mark</p> <p>one or two correct ticks = 0 marks</p> <p>If there are two ticks in one row it is incorrect</p> | | |
| change | reversible | irreversible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| baking bread | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| condensing water vapour | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| boiling water | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| burning wood | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| digesting food | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| rusting of iron | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| filtering sand and water | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| dissolving salt | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Question | 6 | | | | | | | | | | | | | | |
|--------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|---------------------|------------------------------------|----------|----------------------------|------|--------------------------------------|----------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Part | Mark | Answer | | | Further Information | | | | | | | | | | |
| | 2 | <table border="1"> <thead> <tr> <th>word</th> <th>meaning</th> </tr> </thead> <tbody> <tr> <td>consumer</td> <td>an animal that eats another animal</td> </tr> <tr> <td>predator</td> <td>an animal that eats plants</td> </tr> <tr> <td>prey</td> <td>a plant at the start of a food chain</td> </tr> <tr> <td>producer</td> <td>an animal that gets eaten by another animal</td> </tr> </tbody> </table> | word | meaning | consumer | an animal that eats another animal | predator | an animal that eats plants | prey | a plant at the start of a food chain | producer | an animal that gets eaten by another animal | <p>three correct = 2 marks</p> <p>one or two correct = 1 mark</p> <p>more than one line from a word = 0 marks for that word</p> | | |
| word | meaning | | | | | | | | | | | | | | |
| consumer | an animal that eats another animal | | | | | | | | | | | | | | |
| predator | an animal that eats plants | | | | | | | | | | | | | | |
| prey | a plant at the start of a food chain | | | | | | | | | | | | | | |
| producer | an animal that gets eaten by another animal | | | | | | | | | | | | | | |
| Total | 2 | | | | | | | | | | | | | | |

| Question | 7 | | |
|--------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | not many left / endangered species / many are dying / being hunted / being poached | Accept idea of tourism |
| (b) | 2 | any two from protect the habitat / set up conservation areas stop hunting / stop poaching do not buy mountain gorilla products breeding programme education collect money (to help) / adopt a mountain gorilla | Accept other things humans can do to protect the mountain gorilla |
| Total | 3 | | |

| Question | 8 | | |
|--------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| | 2 | keep the angle of the slope the same <input type="checkbox"/> repeat each test five times <input type="checkbox"/> start the marble from the same place each time <input checked="" type="checkbox"/> use the same marble <input checked="" type="checkbox"/> wear safety spectacles <input type="checkbox"/> write the results in a table <input type="checkbox"/> | each correct answer = 1 mark three ticks, two correct = 1 mark two incorrect ticks = 0 marks Accept any indication of the correct answer, e.g. circling or underlining but ticks take precedence |
| Total | 2 | | |

| Question | 9 | | |
|--------------|----------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 2 | salt will dissolve in water chalk will not dissolve in water | each correct answer = 1 mark |
| (b) | 2 |  | each correct label = 1 mark Do not accept paper for filter paper |
| (c) | 2 | pieces have a bigger particle size (than powder) both are insoluble / both do not dissolve (in water) | Accept pieces are bigger / powder is smaller Accept powder goes through (sieve) but pieces do not Accept copper for pieces and steel for powder Ignore just they both stay on the filter paper each correct answer = 1 mark |
| Total | 6 | | |

| Question | 10 | | |
|--------------|----------|--------------------------------------------------|---------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | arrow(s) or symbol of an arrow → | Accept an arrow drawn in the picture |
| (b) | 1 | feeding relationships / (idea of) what eats what | Accept energy flow |
| Total | 2 | | |

| Question | 11 | | |
|--------------|----------|--------|--------------------------------|
| Part | Mark | Answer | Further Information |
| | 1 | sun | Accept sunlight / light |
| Total | 1 | | |

| Question | 12 | | | | | | | | | | | | |
|---------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------|-------------|---------------------------------------------------------------|-------------|------------------------------------------|-------------|-------------------------------------------|--|--------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information | | | | | | | | | | |
| (a) | 1 | <table border="1"> <thead> <tr> <th>idea</th> <th>true or false</th> </tr> </thead> <tbody> <tr> <td>I can pull down on the toy gently.</td> <td>true</td> </tr> <tr> <td>If I let go then the toy will not bounce up very high.</td> <td>true</td> </tr> <tr> <td>I think that the toy will stop bouncing.</td> <td>true</td> </tr> <tr> <td>This is because of the force of friction.</td> <td></td> </tr> </tbody> </table> | idea | true or false | I can pull down on the toy gently. | true | If I let go then the toy will not bounce up very high. | true | I think that the toy will stop bouncing. | true | This is because of the force of friction. | | both correct = 1 mark Accept ✓ or yes or T for true |
| | | idea | true or false | | | | | | | | | | |
| | | I can pull down on the toy gently. | true | | | | | | | | | | |
| If I let go then the toy will not bounce up very high. | true | | | | | | | | | | | | |
| I think that the toy will stop bouncing. | true | | | | | | | | | | | | |
| This is because of the force of friction. | | | | | | | | | | | | | |
| (b) | 1 | 20 bounces and then divide by 10 <input type="checkbox"/> | | | | | | | | | | | |
| | | 10 bounces and then divide by 20 <input type="checkbox"/> | | | | | | | | | | | |
| | | 20 bounces and then divide by 20 <input checked="" type="checkbox"/> | more than one tick = 0 marks Accept any indication of the correct answer, e.g. circling or underlining but ticks take precedence | | | | | | | | | | |
| | | 5 bounces and then divide by 10 <input type="checkbox"/> | | | | | | | | | | | |
| | | 10 bounces and then divide by 5. <input type="checkbox"/> | | | | | | | | | | | |
| Total | 2 | | | | | | | | | | | | |

| Question | 13 | | |
|--------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | kilogram(s) / gram(s) | Accept Kg or kg or g Accept answer in table but answer line takes precedence |
| (b) | 1 | newton | Accept N Do not accept n |
| (c) | 1 | (idea that they) looked more carefully through the rubbish / learnt about new materials to recycle / collected recycling materials from friends | Accept any suitable reason for the increase, e.g. recycled just paper to start with and then added plastic to their collection |
| (d) | 1 | any number in the range 3.9 to 5.0 | Accept answer in table but answer line takes precedence |
| Total | 4 | | |

| Question | 14 | | |
|--------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | cell or battery | |
| (b) | 2 | <p style="text-align: center;">aluminium</p> <p style="text-align: center;">copper</p> <p style="text-align: center;">nylon</p> <p style="text-align: center;">rubber</p> <p style="text-align: center;">steel</p> <p style="text-align: center;">string</p> | three correct = 2 marks one or two correct = 1 mark three correct and one incorrect = 1 mark two correct and two incorrect = 0 marks Accept any indication of the correct answer, e.g. ticking or underlining but circling takes precedence |
| (c) | 1 | (answer) C | Accept answer on diagram but answer line takes precedence |
| Total | 4 | | |

| Question | 15 | | |
|--------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Part | Mark | Answer | Further Information |
| | 3 | <p>any three from</p> <p>(idea that it) protects from the outside / acts as a barrier</p> <p>(idea that it) keeps all the other organs inside the body</p> <p>keeps dirt out / keeps germs out / keeps bacteria out</p> <p>waterproof / stops water getting into the body</p> <p>stops you drying out / stops you losing too much water</p> <p>is a sense organ / sense of touch / (idea of) feeling things</p> | <p>Accept protection from the sun for two marks</p> <p>Accept senses heat / senses cold / senses pain for two marks</p> |
| Total | 3 | | |

| Question | 16 | | |
|--------------|----------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Part | Mark | Answer | Further Information |
| (a) | 1 | thermometer | Accept temperature probe |
| (b) | 1 | use the same volume of water / use the same mass of carrot / use the same size of carrot / use the same type of carrot | Do not accept use the same temperature |
| (c) | 1 | As the temperature of the water increases time (to cook carrot) decreases. | Accept (carrot) cooks faster |
| (d) | 1 | any time more than 90 (minutes) | |
| Total | 4 | | |

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