



Cambridge Lower Secondary Checkpoint

SCIENCE

0893/01

Paper 1

May 2026

FINAL MARK SCHEME

Maximum Mark: 50

Published

Before they start marking, examiners complete a standardisation process. They review a range of candidate responses and discuss the mark scheme in detail to agree which answers can and cannot be accepted. Examiners award marks where it is clear that candidate responses have met the requirements of the mark scheme. These requirements may vary between different components or different versions of the same component, depending on the exact requirements of the question and the candidate responses seen during the standardisation process.

Sometimes, our mark schemes may allow marks to be awarded to responses which contain elements that are factually incorrect or for content not covered by the curriculum. We do this in response to the demands of a specific question to support candidates and make sure that our assessments are fair. However, these allowances should not be used as a guide for teaching and learning.

We cannot discuss the mark scheme with schools, and we recommend that schools read the mark scheme together with the assessment material and End of Series Report for Teachers.

This document has **18** pages. Any blank pages are indicated.

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 phonetically correct answers, 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.

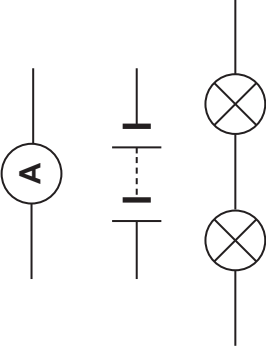
Annotations and abbreviations

/ 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
<u>Underline</u>	exact word is required
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.
Note	provides extra information when necessary
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

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Question	Answer	Marks	Further Information
1(a)	transpiration	1	Accept evaporation or diffusion or evapotranspiration Do not accept photosynthesis
1(b)	any three from from (water in) the soil taken up by the roots by absorption in root <u>hair</u> (cells)	3	each correct answer = 1 mark Accept water from the ground Accept osmosis or diffusion Note taken up by root hair (cells) = 2 marks Ignore reference to xylem
1(c)	mineral salts	1	Accept minerals Accept named examples, e.g. potassium (ions), calcium (ions), magnesium (ions), phosphate (ions) or nitrate (ions) Ignore nutrients, phosphorus or nitrogen Note salts is not sufficient Do not accept glucose or oxygen

Question	Answer	Marks	Further Information
2(a)	2.8.3 or 2,8,3	1	Accept dot-and-cross diagram or drawing of correct electronic structure Accept K2 L8 M3 Accept $1s^2 2s^2 2p^6 3s^2 3p^1$
2(b)	B or Ga or In or Tl or Nh	1	Accept correct names, but symbol takes precedence
2(c)	2	1	

Question	Answer	Marks	Further Information
3(a)		2	all three symbols correct = 2 marks one or two symbols correct = 1 mark Note if any component drawn in parallel = 1 mark maximum Ignore order of the components in the series circuit Ignore gaps in the circuit or polarity of battery of cells
3(b)	any two from increase the resistance of the variable resistor or turn the variable resistor up remove a cell or decrease the voltage increase the length of the wire in the circuit	2	each correct answer = 1 mark Accept another resistor or add another lamp Accept increase the resistance Accept decrease the (electrical) power or remove a battery Accept open the switch Accept reduce the current Ignore remove the ammeter or remove the switch or add another (unnamed) component

Question	Answer	Marks	Further Information
4(a)	A combustion B respiration C photosynthesis D feeding E decomposition	3	all five correct = 3 marks three or four correct = 2 marks one or two correct = 1 mark
4(b)	(suggestion) (global mean) sea level has increased (explanation) (idea that) the polar ice melts or (idea that) as water warms it expands	2	each correct answer = 1 mark Accept the line of the graph increases or the line on the graph goes up Accept sea ice melts or ice caps melt or glaciers melt Note ice melts is not sufficient

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Question	Answer	Marks	Further Information
5	function filters blood stores urine transports urine to the bladder part A B C D E	2	all three correct = 2 marks one or two correct = 1 mark Note if two lines from one function and one line is incorrect = 0 marks for that function

Question	Answer	Marks	Further Information
6(a)	any number or range between –30 to (+)30 (°C)	1	
6(b)	solid	1	
6(c)	simple	1	Ignore molecule or molecular or covalent Do not accept giant or ionic or metallic

Question	Answer	Marks	Further Information
7(a)	line with a greater frequency overall line with the same amplitude	2	each correct answer = 1 mark Accept within a quarter of a large square Accept within a quarter of a large square Note allow one error in the amplitude
7(b)	The pitch of sound wave B is higher and The loudness of sound wave B is the same	1	Both answers correct for the mark

Question	Answer	Marks	Further Information
8(a)(i)	(idea that) the coasts of the different continents fit together like jigsaw pieces (idea that) the continents have moved apart (over time) or because the tectonic plates have moved	2	each correct answer = 1 mark Accept the coasts have complimentary shapes Do not accept the coasts have the same shape Accept tectonic plates instead of coasts or continents Accept continents have split (apart) or continents divide
8(a)(ii)	any one from (idea that) there were no maps 145 million years ago or humans did not exist 145 million years ago (idea that) only two diagrams so do not know what Earth looked like in between these diagrams	1	Note the map may not be correct is not sufficient Ignore the map is not accurate Accept cannot actually see the tectonic plates or cannot see the plate boundaries as additional marking points Accept (idea that) coastline may have changed because of other factors such as erosion Accept the mechanism of the movement of tectonic plates is not explained or cannot see how they moved Accept the diagrams are not 3D (like the Earth) Accept not all continents match together or some coastlines do not fit (perfectly)

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Question	Answer	Marks	Further Information
8(b)	any one from (location of) volcanoes (location of) earthquakes (idea of) same pattern of magnetic alignment (seen in rocks either side of the mid-Atlantic ridge) (idea that) similar fossils (record) are found on different continents (that are far apart)	1	Accept alignment is symmetrical about the plate boundary or same pattern of magnetic alignment on either side of plate boundary or same pattern of magnetic alignment on adjacent tectonic plates Accept fossils or fossil record or same or similar fossil (record) on different continents or same or similar fossil (record) in different parts of the world Accept (location of) mountain ranges or a named mountain range or mid-ocean ridges Accept same rock type or same rock composition

Question	Answer	Marks	Further Information
9(a)	magnesium + hydrochloric (acid) → magnesium chloride + hydrogen	1	Accept = for arrow in equation Accept correct symbol equation (Note balancing not required), e.g. $\text{Mg} + 2\text{HCl} \longrightarrow \text{MgCl}_2 + \text{H}_2$ Ignore dilute, solid and/or solution Do not accept 'and' instead of '+' Note names of reactants and products take precedence over formulae
9(b)	filtration or filtering	1	Accept use filter paper Accept decanting Do not accept sieving or evaporation
9(c)	evaporation or evaporating	1	Accept crystallisation Ignore heating or boiling or cooling or vapourisation or leave to dry or filtering Do not accept freezing

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Question	Answer	Marks	Further Information
10(a)	any two from small (size) or only 8 mm (idea of) hidden by leaves or camouflaged in leaves move quickly or jump large distances photograph gives a (permanent) record or to have (permanent) evidence (idea of) saves distress of the animals or does not scare the frogs	2	each correct answer = 1 mark Accept difficult to see Accept (idea that) you count the frogs at a later date Ignore to get a better reading Accept check that it is the correct species Ignore it is faster or it is easier
10(b)(i)	any one from to have representative data or to have enough data for a conclusion weather conditions may affect recordings (idea that) other animal sounds may affect recordings population size might be different in different parts of forest	1	Accept to get more diversity or increase the sample size or to have a large sample size or to have more data or to collect data from a larger area Accept to see if the result is biased Accept to see if there are frogs in other parts of the forest Ignore for reliability or for accuracy or for fairness or for precision

Question	Answer	Marks	Further Information
10(b)(ii)	any two from to have reliable data (repeat) to identify anomalous results to check the repeatability of results to calculate an average	2	each correct answer = 1 mark Accept to see if there are any new frogs Ignore for accuracy or precision
10(c)	any two from (idea of) reduction in habitat, e.g. deforestation (idea of) change in food sources, e.g. loss of insects or removal of prey (idea of) climate change or stated change in conditions, e.g. change in temperature or flooding or global warming or sea level rising or less rainfall or drought (idea of) introduction of predator or an invasive species	2	each correct answer = 1 mark Note limited resources is not sufficient Accept extreme weather events or a named extreme weather event Accept (new) disease Accept pollution Ignore migration

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Question	Answer	Marks	Further Information
11(a)	variable to keep the same any two from • initial temperature of (hot) water • volume of water or amount of water or quantity of water • (same) cup or lid or thermometer • type of insulation or material used for insulation • final temperature of water or (idea of) number of minutes for the investigation • same room temperature or same temperature of surroundings • surface the cup is placed on variable to change thickness of insulation measurement any one from initial temperature and final temperature of water time to reach a set temperature	4	each correct answer = 1 mark Ignore stop-watch Ignore the position of the insulation Accept temperature change Note time taken for water to cool unqualified is not sufficient
11(b)	convection conduction	2	each correct answer = 1 mark Ignore radiation

Question	Answer	Marks	Further Information
11(c)	(idea that) high(er) energy particles escape or high(er) energy particles are lost from the water	1	Note the answer must refer to particles or ‘they’ Accept high(er) energy particles escape or high(er) energy particles are lost from surface Accept high(er) energy particles evaporate Accept average energy of particles in the liquid is lower or after evaporation particles (in the liquid) are slower moving Ignore hot particles for high energy particles Ignore references to heat particles

Question	Answer	Marks	Further Information
12(a)	M1 particles have more energy or particles move faster M2 (idea of) more (frequent or energetic) collisions	2	each correct answer = 1 mark Accept molecules, atoms or ions instead of particles for M1 Note M1 must refer to particles Ignore for M1 particles move more Accept for both M1 and M2 more energetic collisions or more successful collisions or more effective collisions = 2 marks Accept more chance of collision for M2 Ignore faster collisions for M2

Question	Answer	Marks	Further Information
12(b)	M1 (idea of) more crowded particles M2 (idea of) more collisions	2	each correct answer = 1 mark Accept molecules, atoms or ions instead of particles for M1 and M2 Note M1 must refer to particles Accept particles are closer together or more particles in the same volume or more particles in the same area or greater concentration of particles Note more particles on its own is not sufficient Do not accept for M1 particles are moving faster or particles have more energy Accept for M1 and M2 more frequent collisions or more collisions per second or collisions more often or higher collision rate = 2 marks Accept more chance of collision for M2 Ignore reference successful or effective or energetic for M2 Ignore faster collisions for M2

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