



Cambridge Assessment
International Education

Cambridge Primary Sample Test

For use with curriculum published in September 2020

Science Paper 1

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 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.

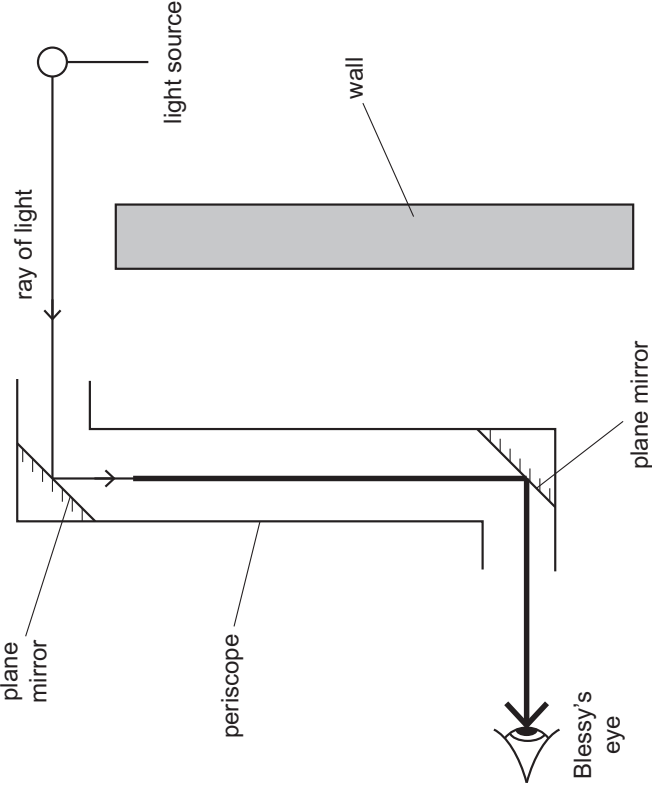
Unless specified all marking points are independent.

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
underline	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

Question	Answer	Mark	Further information
1(a)	pumps blood	1	
1(b)	artery / arteries	1	
1(c)	vein(s)	1	
1(d)	the blood goes through the heart twice during one circuit	1	Accept goes to the lungs, to the heart, to the body, to the heart, before going back to lungs / has two circuits Accept one side pumps blood to the lungs the other side pumps blood to the body
1(e)	to transport oxygen / transport nutrients / transport waste	1	Accept carries oxygen / nutrients / waste Accept to transport sugar / transport glucose / transport carbon dioxide etc. / clotting / defense against pathogens

Question	Answer	Mark	Further information
2(a)	liquid to gas	1	Accept vapour for gas Ignore evaporation
2(b)	temperature at which a liquid becomes a gas / the highest temperature a liquid can be (before it becomes a gas)	1	Note answer must include reference to temperature
2(c)	thermal conductivity / colour / solubility	1	Accept mass / density Accept other properties
2(d)	bromine has a melting point lower / less than room temperature and a boiling point greater / more / higher than room temperature	1	both required for the mark

Question	Answer	Mark	Further information
3(a)	all rays of light drawn as straight lines = 1 mark continuation of light ray from top plane mirror to touch the bottom plane mirror = 1 mark light ray entering the eye = 1 mark 	3	Note if any incorrect arrows maximum 2 marks Note line must not touch the edge of the periscope and must show a reflection (change of direction) at the plane mirror Note light ray should touch the diagram of Blessy's eye
3(b)	<u>reflection</u>	1	

Question	Answer	Mark	Further information														
4	<table><tr><th>process</th><th>description</th></tr><tr><td>A</td><td>erosion and sedimentation</td></tr><tr><td>B</td><td>heat and pressure</td></tr><tr><td>C</td><td>erosion and sedimentation</td></tr><tr><td>D</td><td>melting / heating</td></tr><tr><td>E</td><td>melting / heating</td></tr><tr><td>F</td><td>solidification / cooling / crystallisation</td></tr></table>	process	description	A	erosion and sedimentation	B	heat and pressure	C	erosion and sedimentation	D	melting / heating	E	melting / heating	F	solidification / cooling / crystallisation	4	each correct process = 1 mark Accept for C made into small particles which are cemented together Accept for C weathering for erosion Accept compaction for sedimentation Ignore for C transportation / references to air and water Do not accept for D reference to under pressure Do not accept for E reference to under pressure
process	description																
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Question	Answer	Mark	Further information
5(a)	any two from use insect repellent cover up skin with clothing sleep under a net wear light coloured clothing avoid long grass / keep to footpaths avoid times of day when insects are more active avoid insect breeding sites	2	each correct answer = 1 mark Accept any locally acceptable answers Ignore do not go there
5(b)	any two from virus parasite fungi	2	each correct answer = 1 mark Accept named examples of other organisms but ignore named diseases

Question	Answer	Mark	Further information
6(a)	more sugar cubes will dissolve the higher the temperature because the particles have more energy / particles are moving faster / more collisions with sugar cubes	2	ora Accept larger spaces between (water) particles Accept prediction and explanation anywhere in the answer Accept reference to water molecules or particles in the answer
6(b)	measuring cylinder	1	Do not accept beaker
6(c)	thermometer	1	Accept temperature probe
6(d)	for a fair test	1	Accept changing the volume of water will change number of cubes that will dissolve / volume of water is a control variable Do not accept more accurate, more reliable, more precise
6(e)	number of sugar cubes (dissolved)	1	Accept amount of sugar (dissolved)

Question	Answer	Mark	Further information
7(a)	any two from both have switches both have (at least one) lamp both are series circuits	2	each similarity = 1 mark
7(b)	any two from switch closed in A / switch open in B 2 lamps in A / one lamp in B no buzzer in A / buzzer in B lamps only on in circuit A / lamp off in B	2	each difference = 1 mark Accept one has switch open the other closed / only one circuit has switch open / only one circuit has switch closed Accept have different number of lamps / one circuit has two lamps and the other one lamp Accept one circuit has a buzzer / one circuit does not have a buzzer

Question	Answer	Mark	Further information
8(a)	F	1	Accept Uranus
8(b)	Neptune	1	Ignore planet E
8(c)	A	1	
8(d)	no and any piece of information to support the answer no, e.g. the biggest planet (H) is not furthest away	1	answer yes = 0 marks answer must have both no and an explanation

Question	Answer	Mark	Further information
9(a)	10.2	1	Ignore any units given
9(b)	kilogram / kg	1	Accept gram / g Accept the answer in the table but the answer line takes precedence
9(c)	newton / N	1	Do not accept n Accept the answer in the table but the answer line takes precedence
9(d)	weight is a force (due to gravity of the mass) / mass is the amount of matter the object has	1	
9(e)	gravity is smaller (on the Moon)	1	Note assume answer refers to the Moon Accept ora if Earth specified

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