

Assessment Schedule 10B 2008

/ means OR eg. green / blue – answer needs green OR blue

() means additional, not really required eg. Gauze (mat) – gauze would be sufficient

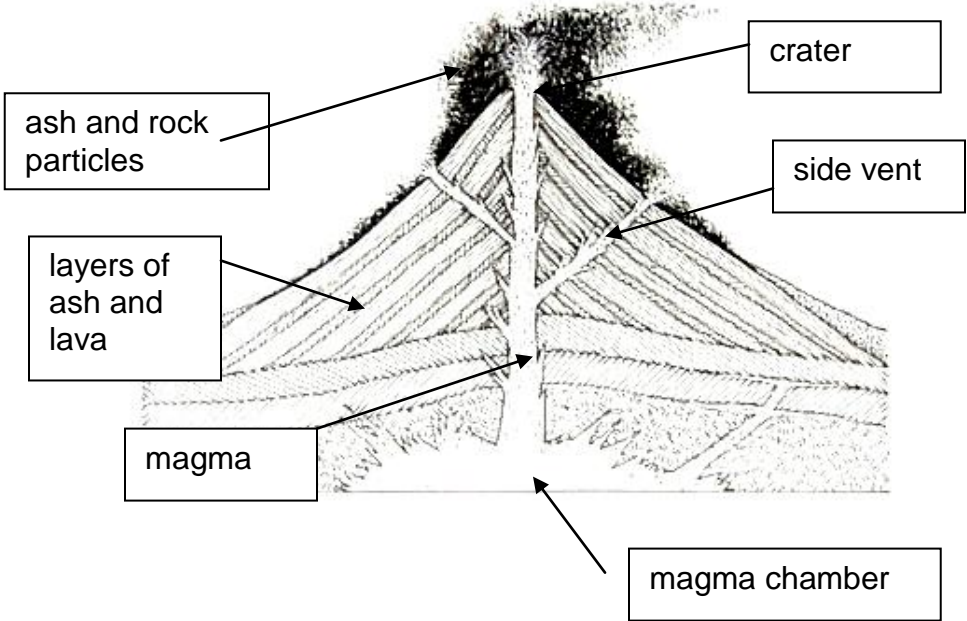
: means AND eg. red : hot - answer needs red and hot.

Question	Evidence	Mark	
ONE (a)	<ul style="list-style-type: none"> • Starting temp of water • Amount of water • Height between fuel/burner • Size of beaker 	<ul style="list-style-type: none"> • “Same Tripod” = Same height • Type of flame (blue/yellow) • Time intervals • Same starting time 	2 Marks 2 out of 3 = 1 mark
(b)	Thermometer	1 Mark	
(c)	Graph has: <ul style="list-style-type: none"> • Correct curves plotted for experiment B and C • Key for experiment B and C 	2 Marks	
(d)	(i) 4 minutes 12 seconds (ii) 50 degrees	1 Mark	
	(iii) Exp A 33°C; Exp B 13°C 33-13 = 20°C (Must show working: if no working = no marks)	1 Mark	
(e)	Acts as an insulator/stopped heat escaping and heated up quicker	1 Mark	
TWO (a)	TWO producers named Duckweed, Microscopic algae, Elodea	1 Mark	
(b)	<ul style="list-style-type: none"> • Duckweed → snail → stickleback → dragonfly • Algae → snail → stickleback → dragonfly • Algae → tadpole → beetle larva → dragonfly • There are several others (e.g. elodea → tadpole → beetle larva → dragonfly) 	1 Mark	
	Correct food chain. Arrows present and correct	1 Mark	
(c)	Stickleback / water beetle / beetle larva	1 Mark	
	They are the second consumer in a food chain. Producers/plants are NOT a consumer	1 Mark	

(d)	Way food goes BUT Direction energy flows	1 Mark OR 2 Marks	
(e)	<ul style="list-style-type: none"> • More sticklebacks or snails or tadpole to feed on. • No dragonflies would mean more food for water beetles • Did NOT accept: "remove beetle larva" as these are the young of water beetles. 	1 Mark	
(f)	More snails because number of sticklebacks would decrease so less eating the snails so they would go up	1 Mark	
THREE	(i) Dark : moist	1 Mark	
(a)	(ii) If light slaters can be seen by predators and if dry they dry out and die (can talk about both (best!!!) BUT did accept just one aspect!) Also accepted: moist, rotting wood best food type for slater	1 Mark	
(b)	<p>TWO of:</p> <ul style="list-style-type: none"> • Antenna • Compound Eye • Legs • Uropod • Thorax (but only if they later indicated that they meant (i) exoskeleton or (ii) the segments which allowed movement) in other words; just not "thorax" because it is on the diagram. 	2 Mark	
(c)	<p>Explains ONE</p> <ul style="list-style-type: none"> • Antenna allows woodlice to sense food/mates • Compound eye allows woodlice to see in several directions at once and detect danger • Legs allow woodlice to move towards food/shelter/mates • Thorax: indicating exoskeleton/ segments to roll up/ movement 	1 Marks	
(d)	<p><u>Abiotic factors:</u></p> <ul style="list-style-type: none"> • Daylength • Rainfall • Humidity • Temperature • Wind 	<p><u>Biotic Factors:</u></p> <ul style="list-style-type: none"> • Predators • Food Supply • Parasites • Competition 	1 Mark & 1 Mark (if ONE of them missing or wrong = 1 Mark only)

FOUR (a)	(i) Chemical change (ii) A gas was produced (fizzing) / can't be reversed / new substance formed	1 Mark	
	(iii) Physical change (iv) It is a reversible reaction / no new substance formed / salt dissolved and could be got back by evaporation	1 Mark	
(b)	magnesium + oxygen → magnesium oxide OR correct symbol equation $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$ (when writing equation it's an → NOT =)	1 Mark	
(c)	(i) Bung in inverted test tube	1 Mark	
	(ii) magnesium + hydrochloric acid → magnesium chloride + hydrogen OR correct symbol equation $\text{Mg} + 2\text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$ (when writing equation it's an → NOT = for future information)	1 Mark	
	(iii) TWO of: ❖ Bubble of gas / fizzing / effervescence ❖ Gets hotter ❖ Mg disappears / "dissolves" NOTE bubbles and fizzing count as only one	2 Marks	
	(iv) place lighted splint at mouth of test tube; a squeaky pop indicates hydrogen NOT "pop test" : Must explain how to carry out the test	1 Mark	
	(v) TWO of: ❖ Odourless ❖ Colourless ❖ Lighter than air / less dense than air ❖ Flammable	1 Mark	
FIVE	<u>Chemical name:</u> hydrochloric acid sodium hydroxide	<u>Chemical Formula:</u> H_2O O_2 CO_2 H_2SO_4 H_2 NaCl	3 / 4 or 5 = 1 6 / 7 = 2 All correct = 3
		O^2 , Co_2 , H_2O etc. not accepted. Formula must be written correctly.	

SIX (a)	(i) sodium hydroxide and (ii) blue	1 Mark
(b)	7; 14; Yellow; Purple; Acid; Base / alkali	4 or 5 = 1 All = 2
(c)	(i) It's an acid OR pH 4 - 6	1 Mark
	(ii) orange; 4-6; (blue=) 8-10	1 Mark
	(iii) Green (iv) 5	1 Mark
	(v) Blue (vi) Neutralising	1 Mark
	(vii) Carbon dioxide	1 Mark
SEVEN	(a) C (b) C	1 Mark
	(c) D (d) D	1 Mark
EIGHT (a)	Australian-Indian ; Pacific Plate	1 Mark
(b)	(i) D	1 Mark
	(ii) B : C (iii) Y	1 Mark
	(iv) Three / many plates meet (African; Australian-Indian; Antarctica) (1 mark). Colliding plates or plates moving apart result in volcanic activity (1 mark).	2 Marks

(c)		<p>3 - 5 labels correct = 1 mark 6 correct labels = 2 marks</p>
(d)	<ul style="list-style-type: none"> • Collect sample in test tube AND add a little H₂O to make a solution (1 mark) • Dip in some UI or Litmus paper AND a red colour indicates an acid. (1 mark) 	2 Marks
NINE (a)	Basalt; slate; granite	1 Mark
(b)	<ul style="list-style-type: none"> • Layers of mud...+ SHALE + crumbly, layered.... • Magma cooling slowly...+ GRANITE + large interlocking crystals • Limestone changed by heat...+MARBLE + hard, shiny, white.... 	<p>1-2 correct = 1 mark all 3 correct = 2 Marks</p>
(c)	<ul style="list-style-type: none"> • Weathering: (eg. wind, rain, roots) breaks down the rock into fragments • Erosion: carries sand fragments to sea; then washed up onto beach 	<p>Either = 1 mark Both = 2 Marks</p>
TEN (a)	The belt of the van de Graaff rubs removes/adds* electrons (1 mark) to the dome. The girl holding the dome also becomes charged (1 mark). Each strand of hair has the same charge so they repel each other and therefore stand on end (1 mark). (*either accepted as not required to know).	3 Marks
(b)	Using her jersey she rubs the balloon. This adds/removes electrons to the balloon causing it to charge	1 Mark

ELEVEN (a)	Electron; atoms; neutron; conductor; insulator; proton 3 of the above	2 Marks 1 mark
(b)	(i) A (ii) B and C	1 Mark
	(iii) C; When switch in circuit C is open there is still a complete circuit for the electrons to travel through so bulb 1 will still go on.	1 Mark
	(iv) A; In series: loosening bulb 1 breaks the circuit and electrons can no longer flow along the wire.	1 Mark
(c)	(i) Correct circuit is drawn. <ul style="list-style-type: none"> • Straight lines • Correct symbols (cell, lamp) • Crocodile clips or junction points in position to test material • No crocodile clips or junction points, space indicated for testing material 	2 Marks 1 Mark
	(ii) <u>Conductors</u> <ul style="list-style-type: none"> • Copper metal • Silver spoon • Nail <u>Insulators</u> <ul style="list-style-type: none"> • Glass rod • Eraser • Plastic ruler 	1 Mark
TWELVE (a)	<ul style="list-style-type: none"> • Attract • Repel • Repel • Attract 	1 Mark
(b)	Area around magnet in which pull acts	1 Mark
(c)	Position A = 3, Position B = 1, Position C = 4, Position D = 5	1 Mark
THIRTEEN (a)	TWO of: Water, Oxygen, Food	1 Mark
(b)	It could repair the space station/carry out activities outside of the craft and the crew would not have to go outside and be exposed to dangers (e.g. gases, radiation etc)	2 Marks
	Repair or maintenance but no indication of remaining inside	1 Mark
FOURTEEN (a)	Eclipse of Sun = B	1 Mark
(b)	A shadow gradually passes over the Sun, finally covering the Sun entirely, before moving away, darkness, blocks the sun, etc.	1 Mark

