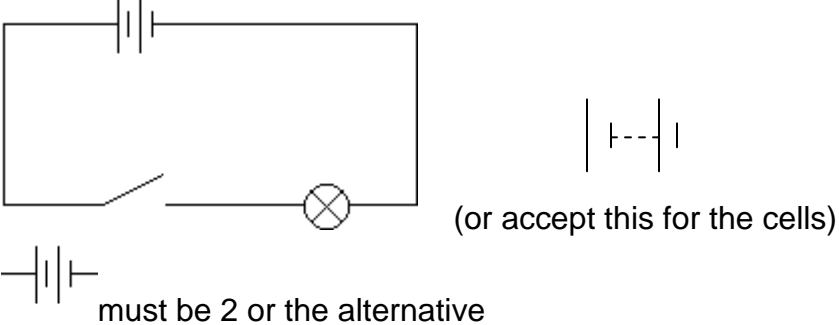


Assessment Schedule 10B 2005

Q.	Evidence	Marks
1 a.	Measure mass of the candle and saucer. Light the candle and it burn for a set amount of time. Re-weigh (mass) the candle and saucer.	Correct =2 marks 1 step missing =1 mark
b.	A mass decrease (would indicate that Cory is correct).	1 mark
2 a.	Both x and y axes have scales. All points correctly plotted (including 0,0). Line graph drawn, (a gap between 6 and 7 can be present).	Axes labeled with units = 1 mark Even scales = 1 mark Points correct = 1 mark
b.	145°C ($\pm 3^\circ\text{C}$) (or as calculated from their graph).	1 mark
c.	1.2-1.6 km (or from their graph).	1 mark
d.	For each 1 km the change is 24.375°C or 24°C or 195/8.	1 mark
e.	As the depth increases the temperature increases.	1 mark
3 a	Amount of salt.	1 mark
b.	Any 4 of: <ul style="list-style-type: none"> • amount of water • size/type of nail • size shape of container • surface area of nail • water temperature • time • location 	4 correct = 2 marks 3/2 correct = 1 mark
4.	Physical Physical Physical Chemical Chemical	All 5 correct = 2 marks 4/3 correct = 1 mark
	In a chemical reaction new substances can be formed / in a physical reaction no new substance is formed.	1 mark
	Chemical reactions usually can't be reversed / physical reactions can usually be reversed quite easily	1 mark

Q.	Evidence	Marks
5 a.	Water is boiled to remove the dissolved oxygen from it Oil is placed on top of the water to prevent oxygen from the air from entering back into the water	1 mark 1 mark
b.	Removes the moisture/water (from the air)	1 mark
c.	Water/moisture AND oxygen (NOT AIR)	1 mark
d.	(i) COAT METAL WITH PAINT, GREASE, PLASTIC OR A LAYER OF METAL (PLATING), eg tin. This method works by stopping water and air reaching the iron. Once the surface is scratched, the iron will rust. (ii) SACRIFICIAL PROTECTION relies on the fact that if a piece of more reactive metal is placed <i>in contact</i> with the iron, it corrodes instead. (iii) GALVANISING means coating with zinc. Initially it works by excluding water and air, but once scratched, it works by sacrificial protection.	1 mark for 2 named or described methods 1 mark for 2 named + 2 described correctly Total of 2
6 a.	Sodium bicarbonate + ethanoic acid → carbon dioxide + water + sodium ethanoate	1 mark
b.	Methane + oxygen → carbon dioxide + water	1 mark
7a.	Blood, dishwasher powder, oven cleaner, baking soda (ALL 4)	1 mark
b.	Baking soda (oven cleaner and/or dishwasher powder NEGATES, ignore blood.)	1 mark
c.	Neutralization is described	1 mark
8 a.	D	1 mark
b.	C	1 mark
c.	A	1 mark
d.	Labelled diagram for hydrogen preparation <ul style="list-style-type: none"> flask / boiling tube with delivery tube gas collected by displacement of water or into a syringe reactants : acid eg hydrochloric and a suitable metal eg magnesium or zinc neat (mostly) labelled pencil diagram of suitable size correct use of scientific diagram / symbols 	4/5 correct 3 marks 3 correct 2 marks 2 correct 1 mark
e.	Weather balloons Rocket fuel Used to make margarine Any other correct use!	1 correct = 1 mark 2/3 correct = 2 marks Maximum of 2

Q.	Evidence	Marks
9 a.	2. Allows penguins to see to collect food/catch fish/ avoid predators when underwater	1 mark
	3. Reduces heat loss/helps maintain constant body temperature.	1 mark
	4. Contributes to excellent swimming ability to enable food gathering and avoidance of predators.	1 mark
a.	TWO of Daisy or algae or cattails	1 mark
b.	The direction the energy flows (NOT what eats what)	1 mark
c.	Crayfish and muskrat (both needed)	1 mark
d.	Eg. Algae/cattails → mosquito larvae → crayfish → raccoon → female mosquito	1 mark
11.	a) kinetic b) radiant OR kinetic c) radiant d) potential e) potential f) potential g) kinetic	2/4 correct = 1 mark 5/7 correct = 2 marks Total = 2
12.	a) Wind-up toy b) Digital watch c) Battery charger d) Hand-turned egg beater e) Battery clock with moving hands f) Torch	6 = 3 marks 4/5 = 2 marks 2/3 = 1 mark
13.	<p>Against the mine development. Any 3 of:</p> <ul style="list-style-type: none"> • The original vegetation is destroyed. • There will be dust/noise pollution. • The landscape will look scarred for a long time. • The tailings/over burden will need to be kept somewhere until the land is restored. • The burning of coal releases pollution/carbon dioxide. • Any other acceptable answers. <p>For the mine development. Any 3 of:</p> <ul style="list-style-type: none"> • Will provide employment. • This type of mine is easier/more economic to access. • The environment is restored for future use. • Coal is required by the community for.....(named use) • Coal is needed for electricity generation. • Any other acceptable answers. 	3 marks 1 mark for each point (identified) for OR against

Q.	Evidence	Marks
14 a.	<p>Cell – makes electricity/energy source/supplies electrons</p> <p>Metal cone – to reflect/direct light (out of torch).</p> <p>Metal strip – to complete the circuit (for electricity to flow).</p> <p>Spring – to make sure there are good contacts/keep batteries connected / firmly in place / joined</p> <p>Switch – to break the circuit to turn lamp off/to connect the circuit (or any similar answer). [NOTE: do not accept "turns the torch on and off"].</p>	5 marks - 1 mark each
b.	 <p>must be 2 or the alternative</p> <p>(or accept this for the cells)</p>	<p>Correct symbols = 1 mark</p> <p>Correct circuit (order doesn't matter) = 1 mark</p> <p>-1 mark if gaps</p>
15 a.	(i) C	1 mark
	(ii) Because of the solar panels.	1 mark
b.	<p>Any 2 of:</p> <ul style="list-style-type: none"> • Food • Water • air/oxygen supply 	<p>2 marks 1 for each correct</p> <p>Max 2 marks</p>
c.	Crew/astronauts don't need to go outside space station to perform tasks.	1 mark
d.	<p>Any 1 of:</p> <ul style="list-style-type: none"> • Because there is no air/atmosphere in space. • Air lock system stops air rushing out of craft / oxygen loss <p>or any similar statement.</p>	1 mark
16 a.	The focus of the earthquakes are close/on/in the same region as the plate boundaries.	1 mark
b.	<p>Any 2 of:</p> <ul style="list-style-type: none"> • volcanoes/volcanic zone • earthquakes/fault lines • plate movement/disturbed boundary zone/on plate boundaries 	1 mark each, max 2 marks

Q.	Evidence	Marks
17 a.	i) An ' S ' drawn in the region of sea floor spreading	1 mark
	ii) Magma rising up from the Earth's interior. The magma forces/pushes the older/other rocks away (from the spreading zone/centre).	1 mark 1 mark
b.	i) An ' E ' drawn in the subduction zone. [Also accept an ' E ' drawn in the region of sea floor spreading.]	1 mark
	ii) Because of 1 plate 'moving' against another in 'jerky' movement.	1 mark
c.	Ocean trench	1 mark
d.	Correctly labels 'Oceanic' and 'Continental' crust	1 mark for each max 2 marks
e.	A ' Y ' drawn in the region of sea floor spreading <u>or</u> at volcano vent	1 mark
f.	<ul style="list-style-type: none"> • Because New Zealand is on the boundary of 2 plates. • It is in this region that (rock) movement occurs. • Australia is not on a plate boundary. 	1 mark each point max 3 marks
		80 marks