

## Assessment Schedule 10C 2006

/ 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	Marks
1 (a)	<p>Labels must have some explanation either on the diagram or underneath. Process must be explained – not marks for just labels.</p> <p><u>3 marks</u>            Must have <b>key explanation</b> that:            The (oceanic/one) plate is forced down under the (continental/other) plate.</p> <p>And two of:</p> <ul style="list-style-type: none"> <li>• Mountain range: mentions faulting or folding</li> <li>• Volcano: any mention of re-melting/rising magma</li> <li>• Earthquakes: mention movement of plates or faulting</li> <li>• Trench: edge is bent downwards where the two plates meet</li> <li>• Dotted lines on oceanic plate: plate being destroyed /reabsorbed/destructive plate boundary</li> <li>• Mantle: mentions the mobility/plastic nature of the layer/ which moves the plates.</li> </ul> <p>If they have missed the key explanation they can only ever get one mark.</p>	3
1(b)	<p><u>3 marks</u>            Must have <b>key explanation</b> that:</p> <ul style="list-style-type: none"> <li>• Arrows on diagram to show plate movement away from ridge/              The plate is being torn apart as this point/the plates are moving apart : <u>by the convection currents in the mantle.</u></li> </ul> <p><u>And two of</u></p> <ul style="list-style-type: none"> <li>• Ridge: erupting/magma/molten rock cooling at the surface</li> <li>• Magma rising to the surface : rising to fill the gap/through the cracks</li> </ul> <p>If they have missed the key explanation they can only ever get one mark.</p>	3
2 a)	<p>The indicator would change colour / blue goes purple or red accepted.            Didn't accept "green" as this is the neutral colour for UI.</p>	1

b)	<p>Hydrochloric acid + sodium hydroxide → sodium chloride + water</p> <p>Reactants and one product = 1 mark All correct = 2 marks</p> <p>(NOT acid + base → salt + water. This is a general equation)</p> <p>NOTE: you must use an arrow NOT an equals sign. And please write the full name of the acid (hydrochloric acid) not just "acid". It was given in the question.</p>	2
c)	Neutralisation	1
d)	Sodium sulfate	1
3 a)	<p>Calcium carbonate + hydrochloric acid → calcium chloride + carbon dioxide + water</p> <p>(same comments as above)</p> <p>Reactants and one product = 1 mark All correct = 2 marks</p>	2
b)	<ul style="list-style-type: none"> <li>• Limewater</li> </ul> <p>/ accepted "burning splint" BUT the positive test for CO<sub>2</sub> is to bubble the gas through LIMEWATER.</p>	1
c)	<ul style="list-style-type: none"> <li>• If the carbon dioxide was bubbled through the limewater it would turn cloudy/milky</li> </ul> <p>OR "Put the burning splint in the test tube of CO<sub>2</sub> and it goes out" (Qn asks how to do it, so some description of the event was required)</p>	1
4 a)	A in series : V across bulb. Both needed	1
4 a)	5V	1
b)	Increase / brighter	1
c)	<ul style="list-style-type: none"> <li>• They would all be dimmer. (1 mark)</li> <li>• The available energy is now having to be shared by more bulbs so each bulb gets less energy (therefore the bulb glows less brightly) / Less power through each bulb (1 mark)</li> </ul>	2

5a)	Chemical (potential) energy	1
b)	Chemical (potential) energy to heat energy	1
	<p>1 mark for each step from the following: (2 marks in total)</p> <ul style="list-style-type: none"> <li>• Temperature has gone up <math>50 - 20 = 30^{\circ}\text{C}</math></li> <li>• Energy given to water = <math>20 \times 30 \times 4 = 2400 \text{ J}</math></li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>• Temp goes up <math>30^{\circ}\text{C} / 50 - 20 = 30</math></li> <li>• 4 Joules per gram but there is 20g = 80 Joules for <math>1^{\circ}\text{C}</math> So energy = <math>80 \times 30</math> = 2400J</li> </ul> <p style="text-align: right;">units not required</p>	2
	<p><math>2400/200 = 12 \text{ J (every second)}</math>. Accept answer only units not required</p>	1
6 a) (i)	Dampness/ darkness – limited light mentioned but don't accept any reference to behaviour or nocturnalism.	1
a) (ii)	<p>Named and relationship given or general statement must link to the kiwi:</p> <ul style="list-style-type: none"> <li>• Their predators (stoats, ferrets, dogs and cats).</li> <li>• Their food supply (fruit and seeds, invertebrates)</li> <li>• Prey (earthworms, spiders, larvae of beetles and cicadas, freshwater invertebrates)</li> </ul> <p>NOT nocturnalism because this is a behavioural adaptation. NOT stoats. Must be specific and say things like eaten by stoats.</p>	1
(b)	Damp/ It is sheltered / generally covered with bush or trees of some sort (for shelter or nests or burrows)/ Nests in holes or burrows	1
(4)	<p>One mark for each idea.</p> <ul style="list-style-type: none"> <li>• A Community is all the living things (plants and animals etc) in an area/ecosystem/environment/place.</li> </ul> <p>whereas</p> <ul style="list-style-type: none"> <li>• The kiwi population is the number of kiwi/any one species, living in that area/environment.</li> </ul>	2
		/40

7 (a) (b)	(i) 1 <sup>st</sup> quarter = position 2 Draws a full moon	(ii) 2 <sup>nd</sup> quarter = position 4 2 or more out of 3 for 1 mark	1
(c)	Position 1 AND explanation – one of.... <ul style="list-style-type: none"> <li>• (In the new moon phase the moon is between the sun and the earth) In this position all the sunlight falls on the opposite side of the moon to earth and so we cannot see any of it reflected back to our eyes /</li> <li>• it's not possible to see it because no light from the sun falling on the moon can be reflected to Earth. /</li> <li>• All of the moon facing the Earth is in shadow.</li> </ul> <p>Or words to that effect.</p>		1
(d)	<u>2 out of three ideas</u> <ul style="list-style-type: none"> <li>• The moon orbits/goes around the Earth</li> <li>• we see different amounts/views of the lit up side.</li> <li>• At any one time, half the moons surface is illuminated/lit up by the sun is implied in the second statement.</li> </ul> <p><b>NOT</b> the sun shines on different parts of the moon  The moon changes shape  Moon reflects different amount of sunlight</p>		2
(e)	The moon reflects the light of the sun (towards the Earth/our eyes). NOT it uses light from the sun.		1
8a)(i)	Boat 2	(1 mark)	2
(ii)	Its streamlined/hydrodynamic/thinner shape/ reduced friction/reduced drag/offers less resistance (with the water). Correct choice must link to explanation (1 mark)		
(b)	C		1
(c)	2 mark answer: <ul style="list-style-type: none"> <li>• Yes :</li> <li>• Greater (total) force can be applied to the water (to move the boat forwards) / Blade will push more water</li> </ul> <p>1 mark answer:  <ul style="list-style-type: none"> <li>• Yes and SUITABLE statement about greater force.</li> </ul> </p>		2