Assessment Schedule – 2005

Science: Describe geological processes affecting New Zealand (90731)

Evidence Statement

Q	Achievement	Achievement with Merit	Achievement with Excellence
1(a)	a break / fracture in rocks / crust / where movement / sliding has occurred / where two tectonic plates meet. Answer may also be in 1 (b).		
1(b)	Energy / pressure / strain is released / which is transmitted as waves / vibration / shock waves.	Energy is released which is transmitted as waves / vibrations.	
1(c)	(i) S / secondary / transverse (ii) P / primary / longitudinal. BOTH correct.		
1(d)	Earthquakes become deeper towards the west / shallower towards the east.		
1(e)	Pacific plate is diving / subducting under the Indo-Australian / Australian plate / Pacific plate dives / sinks at an angle.	Pacific plate is diving / subducting under the Indo-Australian / Australian plate : the deeper the plate subducts / sinks the deeper the earthquakes.	Pacific plate is diving / subducting under the Indo-Australian / Australian plate : the deeper the plate subducts / sinks the deeper the earthquakes. The link explained in a valid way such as • Heavier oceanic crust is sinking under lighter continental crust • The closer together the different depths (of earthquakes) the steeper the plate is dipping.
1(f)	Indo-Australian plate is diving under the Pacific plate **or** reverse of what is happening in 1(e).	Indo-Australian plate is diving under the Pacific plate so that the depth of earthquakes increases from west to east / the plate is subducting at a steeper angle / the earthquakes don't go as deep as in the NI.	

Q	Achievement	Achievement with Merit	Achievement with Excellence
2(a)	High silica / 65% silica.		
2(b)	Caldera, formed by a collapse of rock into the magma chamber / forms a lake (may name a valid lake). Must be a description, not just the word "caldera".		
2(c)	Growth of domes is very slow and gentle / magma forming domes has very little / no dissolved water or gas / magma causing very explosive eruptions has lots of dissolved water / gas under pressure / magma is under pressure.	Growth of domes is very slow and gentle / magma forming domes has very little / no dissolved water or gas : magma causing very explosive eruptions has lots of dissolved water / gas under pressure / magma is under pressure. Must have a comparison between the gentle and violent eruptions for Merit. Must mention pressure build up.	Growth of domes is very slow and gentle because the magma forming domes has very little / no dissolved water or gas : magma causing very explosive eruptions has lots of dissolved water / gas under pressure causing violent eruptions. Must mention dissolved or lack of dissolved gases for excellence.

Judgement Statement

Achievement	Achievement with Merit	Achievement with Excellence
FOUR opportunities answered at Achievement level or higher. 4 × A	FIVE opportunities answered with at least TWO at Merit level or higher. 2 × M *plus* 3 × A	SIX opportunities answered with at least ONE at Excellence level and TWO at Merit level. 1 × E *plus* 2 × M *plus* 3 × A