

Te Kirinuku me ngā Papaneke

Mā te aha e nuku ai te kirinuku?

He aha tērā e whakaneke nei i ngā papaneke?



Kia hoki rā anō ki ngā rautau kua taha ake nei, tae noa atu ki ngā tau o te 1600, he mea kite e ngā kaupūtaiao te āhua o ngā paparahi i ngā taha e rua o te Moana Atlantic e tino rite nei ki te pangahono (Amerika ki te Tonga me Awherika). Haere nei ngā rautau, ka toko ake te whakaaro i ngā kaupūtaiao he mea hono ngā whenua o te Ao i roto i tētehi paparahi tino nui, ā, ka whakawehea e tētehi mea.

I te tau 1912, nā Alfred Wegener, kaupūtaiao Tiamana, te ariā o te nuku paparahi i whakatakoto ki te whakamōhio atu e āta neke haere ana ngā paparahi huri noa i te ao. He mea whakamahi ngā momo toka, ngā whakatakotoranga mātai aronuku me ngā mātātoka hei taunakitanga ki te whakaturuma he maha ngā paparahi i waihanga i tētehi paparahi kaitā e kīia nei te ingoa ko Pangaea. Hei tā Wegener, kāore i tautokona tana ariā i tērā wā i te korenga o tētehi momo pūrere ki te whakamārama pēhea te wehenga i ngā paparahi e mōhiotia whānuitia ana i ēnei rā.

I ngā tau o te 1960, ka puta ngā taunakitanga i ngā wāhanga hou o te rangahau pūtaiao, pēnei i te hōrapa haere i raro i te moana me te autō o ngā toka ki te tautoko i tā Wegener ariā, ki te whakamārama hoki i ngā pūrere mō te nekenga o ngā paparahi. I roto noa i te tekau tau ka hipa, ka puta tētehi ariā hou e kīia nei ko ngā papaneke, ā, ka tautokona whānuihia. Kua whakakotahihia tā Wegener ariā me ngā taunakitanga i ngā wāhanga hou o te pūtaiao o te Ao i whakamārama ai i ngā pūrere e neke ai ngā paparahi. E ai ki te ariā Papaneke e kī ana kua tauwehea te lithosphere (te kirinuku me te nukuratarata o runga hoki), ki ētehi papaneke uka nui nei e āta neke ana i te Ao.

He rite tonu te waihanga me te tāhorotia o ēnei papaneke. E tauwehea ana ngā papaneke i ngā paehua o roto i te moana e kitea nei te tokarewa e pupū ake ana i te nukuratarata e whakawehe nei i ngā papa. Kua hūnukuhia hoki tērā atu taha o te papaneke ki te taha tonu o tētehi atu. Kia tūtuki ngā papaneke e rua, kei te āhua o te taumahatanga me te konae o te tuinga. Ko ngā papaneke taumaha rawa atu ko erā i te papa o te moana. Ahakoa he angiangi ake te kirinuku i raro i te papa o te moana, he taumaha ake tēnā i te papaneke paparahi i te momo toka e kīia nei ko te karā e waihanga ana i ngā paehua o te moana. He whenumitanga te nuinga o ngā papaneke, ko te aumoana, ko te kirinuku paparahi me ētehi wāhanga o ētehi atu paparahi kua whenumihia. I te wā e tūtaki ana tētehi papaneke taumaha ki tētehi papaneke māmā, ka neke whakararo te mea taumaha i te mea māmā. Ko te āinga whakararo te ingoa o tēnei momo āhuatanga. Haere nei te wā, ka hōhonu te hekenga o te papaneke taumaha ki te nukuratarata e rewā ai, ā, ko tōna otinga atu ko ngā ahi tipua i ngā wāhanga o te āinga whakararo. Nā tēnei tukanga ko te Wāhi Ahi Tipua o Taupō, ko Taranaki, me ngā ahi tipua o Kermadec Arc.

Ko te take e neke nei ngā papaneke tētehi tauira pai o te aho o te marautanga o te Pūtaiao o Te Taiao. E tautohe tonu nei te ao pūtaiao mō te nekehanga o ngā papaneke mehemea he 'pana paehua', he 'kume toka' rānei. Ākene pea, ko te papaneke hou ka waihanga ake i te paehua o te moana tērā e pana ana i te papaneke, heoi, ākene pea ko tērā atu taha o te papaneke e kukume ana i te papaneke i te āinga whakararo. Ko te nekehanga o te nukuratarata hoki pea te take e pērātia ana. E hāngai ana ngā kōrero e rua ki te āhua o te mātauranga pūtaiao ka panonihia ā tōna wā. Ahakoa te pūrere, e toru ki te whā henimita i ia tau, e toru, e whā mīta i ia rautau rānei te tawhiti o te nekenga, te pōturi hoki!

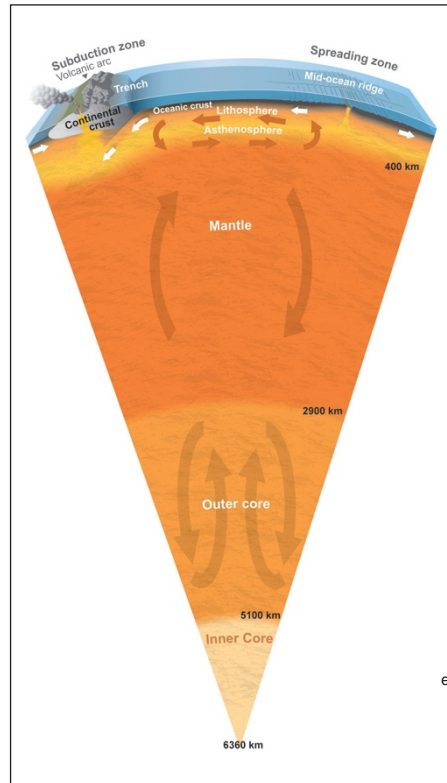
Mō ngā pitopito kōrero, tēnā tirohia:
http://www.msnuceus.org/membership/html/k-6/pt/plate/2/ptpt2_1a.html

Hononga ā-rorohiko Marautanga

Te Ao, ā tua atu hoki

Te Ao Mārama

Te Ariā Pūtaiao	NOS
PE-Ngā Pūnaha o te Ao L3/4 – me mārama ki te āhua o te Ao.	Te māramatanga ki te Pūtaiao
PW-Ngā Pūnaha Mātai Ahupūngao L1/2-Me āta rangahau i ngā whakamīharotanga ōkiko pēnei i ngā nekehanga, i ngā tōpana me te wera.	Te Mātaitunga o te Pūtaiao



Ngā pātai e rite tonu ana te pātaihia me ngā hononga ā-ipurangi e whakautu nei i ō pātai 3 & 4



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E hia ngā papaneke?

Hei tā te nuinga o ngā kaipūtaiao, kei te takiwā o te 8 ki te 15 ngā papaneke. He nui ētehi wāhanga o ngā papaneke, ānō nei he papaneke anō kua tapaina ki te ingoa 'papaneke iti'. I konei, he uaua kia whakapuakina tētehi nama tika.

Kei runga a Aotearoa i tēhea papaneke?

E rua ngā papaneke e noho nei a Aotearoa. Ko ētehi wāhanga kei te taha uru o te Papaneke o Te Moana-nui-a-Kiwa, ā, ko ētehi wāhanga kei te taha rāwhiti o te Papaneke o Ahitereiria.

He papaneke paparahi te Papaneke o Ahitereiria nā te mea he whenua te nuinga.

He papaneke moana te Papaneke o Te Moana-nui-a-Kiwa nā te mea he papamoana te nuinga.

He taumaha ake ngā papaneke moana i ngā papaneke paparahi, ahakoa te angiangi o te papaneke moana. He karā te nuinga o te kirinuku moana, he toka pōuri i ahu mai ai i te tokarewa e pupū ake ana i ngā paehua moana e tupu haere nei ngā papaneke.

He raruraru rānei kia noho a Aotearoa i ngā papaneke e rua?

Kei te tukituki ngā papaneke e rua me he tuinga mātai aronuku nui.

Mā te tōpana o ngā tuinga e rū ai te whenua, e pahū hoki ai ngā ahi tipua.

Kāore i te tōtika ngā roherohenga o ngā papaneke, nō reira, ka rerekē te otinga atu o te tuinga o ngā papaneke e rua ki ētehi wāhi rerekē. Koinei pū te take ka kitea ngā ahi tipua me ngā maunga, ka rū hoki te whenua i ētehi wāhi tūtuinga o Aotearoa.

Kei tēhea papaneke koe?

Kei te Papaneke o Ahitereiria te katoa o te Ika-a-Māui me te taha uru o te Ripa Ōpaina i te Waipounamu, tae noa atu ki Whakatū me Westland.

Kei te Papaneke o Te Moana-nui-a-Kiwa te toenga o te Waipounamu, Rakiura me Wharekauri.

He ngāwari noa te kite atu i te wāhi tūtuinga i te mahere mai i te East Cape, i te rāwhiti o te Ika-a-Māui, ki Raukawa Moana, heke iho ki ngā pae maunga o Te Waipounamu, tōtika atu ai ki te tonga o Piopiotahi.

Kei tēhea papaneke a Ahitereiria?

Kei te Papaneke o Ahitereiria a Ahitereiria. Kāore ōna roherohenga papaneke i Ahitereiria. Me uaua kē a Ahitereiria ka rū, me uaua kē hoki ōna ahi tipua ka pahū i te korenga o ngā tūtuinga o ngā papaneke.

Mehemea e neke ana ngā papaneke i ngā wā katoa, he pēhea te āhua o te Ao i mua, ā, ka pēhea tana āhua ā tōna wā?

Mō ngā pikitia, tēnā tirohia ēnei pae tukutuku:

http://www.tki.org.nz/r/wick_ed/science/crusty.php

http://www.gns.cri.nz/research/tectonics/images/v2Low_res2.html

Ka pēhea te āhua o Aotearoa ā tōna wā?

Kia kitea te āhua o Aotearoa ā tōna wā, tēnā tirohia tēnei pae tukutuku

<http://www.gns.cri.nz/store/download/plates.html>

