

Paerewa Paetae

Aronga Pāngarau 1.4

Ingoa Te whakamahi whakaaro āhuahanga me te ine hei whakaoti rapanga

Kaupae 1 **Whiwhinga** 4 **Aromatawai** Ā-waho

Marau akoranga Te Marautanga o Aotearoa

Kokonga akoranga Pāngarau

Mana rēhita **Te rā i mana ai**

Te rā e arotakengia ai **Te rā i puta ai**

Te Hononga ki te Marautanga

I ahu mai tēnei paerewa paetae i te Taumata 6 o *Te Marautanga o Aotearoa*, i whakaputaina e Te Tāhuhu o te Mātauranga i te tau 2017.

Whāinga Paetae

Te Ine me te Āhuatanga, Te Hanga

- 4 *Ka whakaputa, ka whakamahi i ngā tikanga koki o te porowhita.*
- 5 *Ka aro ki ngā āhua ōrite, ā, ka whakamahi whakaaro pānga riterite hei tātai i tētahi tapa.*
- 6 *Ka whakamahi ōwehenga pākoki me te ture a Pythagoras, i ngā pūāhua ahu-2, ahu-3 hoki.*

E hono ana ki te Papa Whakaako mō Pāngarau kei te pae tukutuku nei:

<http://tmoa.tki.org.nz/Te-Marautanga-o-Aotearoa/Taumata-Matauranga-a-Motu-Ka-Taea>

Te Hononga ki ngā Paearu Aromatawai

Arā ngā Paearu Aromatawai mō tēnei paerewa paetae, kei te:

<http://tmoa.tki.org.nz/Te-Marautanga-o-Aotearoa/Taumata-Matauranga-a-Motu-Ka-Taea>

Paerewa Paetae

<p>Paetae Te whakamahi whakaaro āhuahanga me te ine hei whakaoti rapanga.</p>	<p>Hei tohu i te paetae:</p> <ul style="list-style-type: none"> • Ka whiriwhiri, ka whakamahi i ētahi tikanga whānui hei whakaoti rapanga. • Ka whakaatu mōhiotanga ki ngā huatau ine/āhuahanga me ngā kupu e hāngai ana. • Ka whakamārama i ngā otinga mēnā kotahi, e rua rānei ngā mahi o roto i te tikanga i whakamahia. • Ka whakamahi kupu āhuahanga/ine, whakaahuahanga rānei hei whakamārama i ngā otinga.
<p>Kaiaka He kaiaka te whakamahi whakaaro āhuahanga me te ine hei whakaoti rapanga.</p>	<p>Hei tohu i te kaiaka:</p> <ul style="list-style-type: none"> • Ko te whakaaro tūhonohono te mea nui. Arā, kia kotahi, nui ake rānei o ēnei: <ul style="list-style-type: none"> ○ ka whiriwhiri, ka whakatutuki i te raupapatanga mahi arorau e hāngai ana ○ ka tūhono i ētahi huatau rerekē, ētahi whakaahuahanga rerekē rānei ○ ka whakaatu māramatanga ki ngā huatau e hāngai ana ○ ka hanga, ka whakamahi tauira. • Ko te tūhono i ngā otinga ki tētahi horopaki, te whakamahi rānei i ngā kīanga pāngarau hei whakawhitiwhiti whakaaro ki te reo Māori. • Ko te whakahāngai i te kaupapa ki tētahi pūāhua Māori me te tautohu i ngā tikanga Māori e whai take ana.
<p>Kairangi He kairangi te whakamahi whakaaro āhuahanga me te ine hei whakaoti rapanga.</p>	<p>Hei tohu i te kairangi:</p> <ul style="list-style-type: none"> • Ko te whakaaro waitara te mea nui. Arā, kia kotahi, nui ake rānei o ēnei: <ul style="list-style-type: none"> ○ ka waihanga rautaki hei tūhura, hei whakaoti rānei i tētahi rapanga ○ ka tautohu i ngā huatau e hāngai ana ki te horopaki ○ ka whakaputa i tētahi raupapatanga whakaaro arorau, tētahi hāponotanga rānei ○ ka hanga whakawhānuitanga. • Ko te whakamahi kīanga pāngarau tika, te whakawhitiwhiti rānei i te aroā pāngarau ki te reo Māori. • Ko te whakahoropaki i te kaupapa ki tētahi pūāhua Māori me te tautohu i ngā tikanga Māori e whai take ana.

Kōrero Āpiti

- 1 E whai ake nei ngā whakamārama mō ngā kupu me ngā kīanga whaitake matua o te paerewa nei:

rapanga	Ko ngā āhuatanga o ia rā, ngā āhuatanga pāngarau rānei, ka whai wāhi mai te whakamahinga o te mātauranga pāngarau, o ngā huatau pāngarau, o ngā tikanga pāngarau rānei.
ētahi tikanga whānui	Kia toru, nui ake rānei ngā tikanga.

- 2 Kia taunga te ākongā ki ngā tikanga e whai wāhi mai ana:

- te ture a Pythagoras
- ngā pānga pākoki o te tapatoru hāngai
- ngā taparau he ōrite te āhua
- ngā hononga koki o te rārangi pūtahi me te rārangi whakarara
- ngā hononga koki o ngā momo taparau
- ngā hononga koki o te porowhita
- te roa, te paenga, te horahanga me te horahanga mata, te rōrahi
- ngā waeine ngahuru
- te kītanga, te papatipu, te paemahana me te wā
- ngā waeine pāpātanga pērā i ērā mō te kiato, te tere, te utu ā-waeine me te whakapau kōhinu.

- 3 Horopaki Ahurea, Pāpori:

- Ka whātoro atu te pāngarau ki ērā atu wāhanga ako o te kura, otirā, ki ngā kaupapa me ngā horopaki huhua o te whānau, o te hapū, o te iwi, o te hapori, o te ao Māori, e ahu whakamua ai tātou i ēnei tū kaupapa katoa.
- Ko ngā tāngata e whakamahi ana i te pāngarau, ka kōtuitui i te mātauranga me ngā tukanga pāngarau ki te reo pāngarau me ngā horopaki pāngarau.
- Me kākahu anō ngā whāinga paetae ki nga momo horopaki e taunga ana te ākongā.
- Ki te mahi pāngarau ka whai tikanga i roto i te porihanga e whai pānga ana.
- He nui te honohono kei waenganui i te pāngarau me te ahurea.

- 4 Te reo matatini o te Pāngarau:

- Te whakamahi i te reo pāngarau e whaitake ana.
- Te whakamahi i ngā rautaki maha hei kōrerorero whakaaro pāngarau.

Kuputaka

whakaaro tūhonohono	relational thinking
whakaaro waitara	abstract thinking

Tātari Kounga

- 1 Me mātua whakamana ngā Kaituku Akoranga me ngā Whakahaere Whakangungu Ahumahi e te Mana Tohu Mātauranga o Aotearoa ka rēhita ai i ngā hua ka puta mai i ngā aromatawai ki ngā paerewa paetae.
- 2 Ko ngā Kaituku Akoranga me ngā Whakahaere Whakangungu Ahumahi kua mana, ā, e aromatawai ana i ā rātou hōtaka ki ngā paerewa paetae, me uru rātou ki ngā pūnaha whakaōrite e tika ana mō aua paerewa paetae.

Ko te tohutoro ki te Mahere Whakamana, Whakaōritenga hoki 0233