TE TĀHUHU O TE MĀTAURANGA

Ministry of Education

He Aorangi

Te kaupapa: Te Taurea Pātahi, te Tauira me te Pānga
Te whenu: Te Tau me te Taurangi: Taumata 3–4

Hei whakamārama

He tauira ngohe tēnei, hei aromatawai i te mōhio o te ākonga ki te taurea pātahi, te tauira me te pānga. Mā te āta mātakitaki me te āta whakarongo a te pouako ki te mahi a te ākonga, e mōhiotia ai te taumata o te ākonga, ngā wāhi e pakari ana, me ngā wāhi hei whakapakari ake.

I ētahi wā, mā te whakawhitiwhiti kōrero, mā te paku whakamārama rānei a te pouako, e kite ai te ākonga i te rautaki, i te huarahi rānei hei whakaoti i te ngohe.

E tika ana kia taunga te ākonga ki tēnei mea te whakaoti rapanga, te wetewete i ngā kōrero me ngā tohutohu, te āta whakaaro i te rautaki e hāngai ana, me te tūhonohono anō i ngā maramara mātauranga kei roto i tōna hinengaro. Koirā te āhua o tēnei ngohe aromatawai.

Me tuku kia mahia tēnei ngohe aromatawai i muri i ngā akoranga e hāngai ana ki te taurea pātahi, te tauira me te pānga, kaua e tuku mātao noa iho.

Kei ēnei pukapuka ētahi kōrero hei āwhina i te pouako:

- Te Pukapuka Tuarua o Te Poutama Tau *Te Uiui Aromatawai*. Ko ngā kōrero whānui e pā ana ki te aromatawai pāngarau.

- *Whanaketanga Pāngarau: He Aratohu mā te Pouako*. Ko ngā kōrero me ētahi tauira ngohe e hāngai ana ki ngā Whanaketanga Pāngarau.

- *Hei Tautoko i te Marautanga Pāngarau: Te Tauira me te Pānga*. Ko ngā huatau matua mō tēnei mea te tauira me te pānga.

Ngā tohutohu

Whakaaturia te kāri, ākene pea me pānui tahi me te ākonga, **kia mārama ai ngā kōrero**.

Hoatu he wā hei whakaoti mā te ākonga i ngā pātai.

Tonoa te ākonga kia whakamārama i āna mahi. Whakaahuangia 'Te Whārangi Aromatawai mā te Pouako', hei tuhi māu i āna whakamārama, me ō whakaaro, ō whakataunga aromatawai.

Āta tirohia ngā kōrero kei te whārangi 'Hei Ārahi i te Aromatawai' hei āwhina i a koe ki te whakatau i te taumata e hāngai ana ki te otinga a te ākonga. Kei tēnei whārangi te ngako o te pāngarau e hāngai ana ki tēnei ngohe, me ngā tauira whakamārama a ngā ākonga.

Me mātua mōhio te ākonga

- ki te whiriwhiri taurea pātahi
- ki ngā meka whakarea matua (tae atu ki te 10×10)
- ki te whakaatu tauira ki te tūtohi
- ki te whakamahi rautaki taurangi hei whiriwhiri i te huānga o tētahi tauira

Ngā kupu pāngarau e hāngai ana

hauwhātanga, tauira, taurea pātahi, torotika, tūtohi

Ngā kupu e hāngai ana ki te horopaki

amio, aorangi

Ngā rauemi

- te kāri ngohe

Ētahi ngohe whakaako e hāngai ana

Hei Tautoko i te Marautanga Pāngarau: Te Tauira me te Pānga

He Ngohe Whakaako i te Tauira me te Pānga:

- Te Taurangi me te Whārite (wh.79)
- Whiriwhiria te Huānga o te Tauira Tāruarua (wh.85)
- Ngā Whakaaturanga Pānga (wh.87)

He Tūhuratanga: Te Tauira me te Pānga:

- Te Raupapa Tapaono (wh.163)
- Te Hanga Poro Tapawhā Hāngai (wh.164)
- Tohaina te Pūtea (wh.165)
- Taitapa Pikitia (wh.166)

He tauira pātai hei kukume whakaaro

- Whakamāramahia ngā mahi i oti i a koe i tō hinengaro. He aha tō mahi tuatahi? He aha tō mahi tuarua?
- He aha koe i whiriwhiri ai i tēnā i te tuatahi?
- E mōhio ana koe ki tētahi atu rautaki hei whakaoti i tēnā pātai?
- Me pēhea te whakaatu i ngā tau e oti ai ngā amiotanga o ngā aorangi ki te tūtohi?

Te pātai	He tauira whakautu a te ākonga me te taumata whanaketanga e tohua ana
1. Kei te tika, kei te hē rānei tēnei kōrero? I te paunga o te 7 tau, kua hoki mai te aorangi 'A' ki te wāhi e whakaaturia ana i te pikitia.	Ka tautohua ngā tau 3, 6, 9, e hoki ai te aorangi 'A' ki te wāhi e whakaaturia ana. **3a (Te Tauira me te Pānga)** → Ka tautohua ko ngā taurea o te 3 (ko ngā tatauranga mawhiti o te 3 rānei) ngā tau e hoki ai te aorangi 'A' ki te wāhi e whakaaturia ana. **3e (Te Tauira me te Pānga)** →
2. Kei te tika, kei te hē rānei tēnei kōrero? I te paunga o te 132 tau, kua hoki mai te aorangi 'E' ki te wāhi e whakaaturia ana i te pikitia.	Ka whakamahia he rautaki wāwāhi tau hei whiriwhiri ko te 132 hei taurea o te 6. Hei tauira: $132 ÷ 2 = (130 ÷ 2) + (2 ÷ 2) = 65 + 1 = 66$, he taurea te 66 nō te 6, nō reira, he taurea hoki te 132. **3e (Te Tau)** → (Kaupae 6) $132 ÷ 6 = (120 ÷ 6) + (12 ÷ 6) = 22$, nō reira, he taurea te 132 nō te 6. **4a (Te Tau)** → (Kaupae 7)
3. Kei tēhea hauwhātanga o te rangi te aorangi 'A' i te paunga o te 2 tau?	Ka tuhia he porowhita me te whakaatu i ōna hauwhātanga. Ka hautorutia te porowhita hei whakaatu i ngā tau. **2e (Te Tau)** → (Kaupae 5) Ka hauruatia te 3, me te whakahaurua anō i tērā hei whiriwhiri i ngā hauwhātanga: $\frac{3}{4}$, $1\frac{1}{2}$, $2\frac{1}{4}$, 3. **3a (Te Tau)** → (Kaupae 6) Ka whakawehea te 3 ki te 4, ka $\frac{3}{4}$, me te whakarea i tērā ki te 3, ka $2\frac{1}{4}$. **3e (Te Tau)** → (Kaupae 6)
4. Kei te tika, kei te hē rānei tēnei kōrero? I te paunga o te 57 tau, kei te hauwhātanga tuatahi te aorangi '1'.	Ka tuhia tētahi tūtohi, me te whakaatu anō i ngā tau katoa ki ia hauwhātanga o te rangi, tae atu ki te tau 57. **3e (Te Tauira me te Pānga)** → Ka tīmata ki te tuhi tūtohi, ā, ka kitea atu te tauira. **4a (Te Tauira me te Pānga)** → | Hauwhātanga	1	2	3	4
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Ngā tau	0–2	2–4	4–6	6–8
	8–10	10–12	12–14	14–16
	16–18	18–20	20–22	22–24
	…	…	…	…	 Ka whakamahia te rautaki tauranga $8x + 1 = 57$. Arā, i te tau tuatahi, kei te hauwhātanga tuatahi te aorangi 'E', me ia tau tuawaru i muri i tērā. **4e (Te Tauira me te Pānga)** →
5. E hia ngā tau kia torotika anō ai te rārangi mai o ngā aorangi e toru nei?	Ka tuhia tētahi tūtohi, hei whakaatu i ngā tau e hoki mai ai ia aorangi ki te wāhi e whakaaturia ana, ā, ka kitea ko te tau 24 e pātahi ana ki ia aorangi. **4a (Te Tauira me te Pānga)** → 	Aorangi	A	E	I
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Ngā tau	3, 6, 9, 12, 15, 18, **24**, 27 …	6, 12, 18, **24** …	8, 16, **24** …	 Ka whiriwhiria te taurea pātahi o te 3, te 6 me te 8. **4e (Te Tauira me te Pānga)** →
6. Mēnā e 3 tau, e 6 tau, me te 10 tau ngā amiotanga, e hia ngā tau kia torotika anō ai te rārangi mai o ngā aorangi e toru nei?	Ka tuhia tētahi tūtohi, hei whakaatu i ngā tau e hoki mai ai ia aorangi ki te wāhi e whakaaturia ana, ā, ka kitea ko te tau 30 e pātahi ana ki ia aorangi. **4a (Te Tauira me te Pānga)** → Ka whiriwhiria te taurea pātahi o te 3, te 6 me te 10. **4e (Te Tauira me te Pānga)** →

Te Whārangi Aromatawai mā te Pouako

Te pātai	Ngā aromatawai a te pouako
1. Kei te tika, kei te hē rānei tēnei kōrero? I te paunga o te 7 tau, kua hoki mai te aorangi 'A' ki te wāhi e whakaaturia ana i te pikitia.	
2. Kei te tika, kei te hē rānei tēnei kōrero? I te paunga o te 132 tau, kua hoki mai te aorangi 'E' ki te wāhi e whakaaturia ana i te pikitia.	
3. Kei tēhea hauwhātanga o te rangi te aorangi 'A' i te paunga o te 2 tau?	
4. Kei te tika, kei te hē rānei tēnei kōrero? I te paunga o te 57 tau, kei te hauwhātanga tuatahi te aorangi 'I'.	
5. E hia ngā tau kia torotika anō ai te rārangi mai o ngā aorangi e toru nei?	
6. Mēnā e 3 tau, e 6 tau, me te 10 tau ngā amiotanga, e hia ngā tau kia torotika anō ai te rārangi mai o ngā aorangi e toru nei?	