

Te Whārangi Aromatawai mā te Pouako

Wai Turuturu

Te pātai	Ngā aromatawai a te pouako
1. Whāia ēnei tohutohu hei ine, hei whiriwhiri i te rōrahi o tētahi kōpata wai kotahi: - Paku hurihia tētahi kōrere wai kia turuturu noa iho te wai. - Whakanōhia tētahi ipu-ine ki raro hei hopu i ngā kōpata wai. - Tatauria ngā kōpata kia eke ki te 20mL te rōrahi o te wai ki roto i te ipu-ine. - Whakamahia te maha o ngā kōpata i te 20mL, hei whiriwhiri i te rōrahi o te kōpata kotahi.	
2. Kei te turuturu tētahi o ngā kōrere wai i te kāinga o Hiraani. Kotahi te kōpata ka turuturu i ia hēkona. Whiriwhiria te rōrahi o te wai moumou i te paunga o te 24 haora.	
3. E 50mL te rōrahi o te rongoā o Terewai mō ōna karu. Mēnā e rua kōpata ka tukuna ki ia karu i te ata, i te pō anō hoki, e hia te wā kia pau rā anō te katoa o te rongoā?	

Wai Turuturu

Tūārere	1	2	3
Tau	1	2	3

Tohu Ako: Te Ine, Te Tau

Kaupapa: Te ine rōrahi, te whakaolti rapanga tau

Hei whakamārama

He tauira ngohe tēnei, hei aromatawai i te mōhio o te ākonga ki te ine i te rōrahi me te whakaoti rapanga tau. Mā te āta mātakitaki me te āta whakarongo a te pouako ki te mahi a te ākonga, e mōhioitia 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 ine i te rōrahi me te whakaoti rapanga tau, kaua e tuku mātao noa iho.

Rauemi Tautoko:

Kei te whare whakaputu rauemi o Te Tāhuhu o te Mātauranga ēnei rauemi (Down the Back of the Chair), kei te whata rauemi tuihono hoki o Tāhūrangi.

- Te Poutama Tau, Pukapuka Tuarua: Te Uiui Aromatawai.** Ko ngā kōrero whānui e pā ana ki te aromatawai pāngarau.
- Te Poutama Tau, Pukapuka Tuaono: Te Whakarea me te Whakawehe.** Ko ngā huatau matua me ētahi ngohe whakaako e hāngai ana ki ēnei paheko tau e rua nei.
- Hei Tautoko i te Marautanga Pāngarau: Te Ine.** Ko ngā huatau matua me ētahi ngohe whakaako e hāngai ana ki te ine.

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. Tāruatia ‘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 ngā mahi 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 whai i ngā tohutohu hei whakaoti i tētahi tūhuratanga
- ki te whakamahi ipu-ine hei ine i te rōrahi wai
- ki te whakawhiti waeine: ritamano (mL) ↔ rita (L)
- ki te whakaoti rapanga e whai wāhi mai ana te whakarea me te whakawehe

Ngā kupu pāngarau e hāngai ana

ipu-ine, rita, ritamano, rōrahi

Ngā kupu e hāngai ana ki te horopaki

kōpata, kōrere wai, rongoā, turuturu

Ngā rauemi

- te kāri ngohe
- he kōrere wai
- he ipu-ine

Ētahi ngohe whakaako e hāngai ana

Hei Tautoko i te Marautanga Pāngarau: Te Ine

He Ngohe Whakaako:

- Te Pānui Āwhata
- Te Whakawhitiwhiti Waeine

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 e hāngai ana ki tēnā pātai?
- Kei hea te tohu mō te 20mL i te ipu-ine?
- E hia ngā kōpata e rite ana ki te 20mL?
- He aha tō mahi hei tātai i ngā hēkona kei roto i te 24 haora?

Hei Ārahi i te Aromatawai

Wai Turuturu

Te pātai	Tau 5	Tau 6	Tau 7
1. Whāia ēnei tohutohu hei ine, hei whiriwhiri i te rōrahi o tētahi kōpata wai kotahi: • Paku hurihia tētahi kōrere wai kia turuturu noa iho te wai. • Whakanōhia tētahi ipu-ine ki raro hei hopu i ngā kōpata wai. • Tatauria ngā kōpata kia eke ki te 20mL te rōrahi o te wai ki rato i te ipu-ine. • Whakamāhia te maha o ngā kōpata i te 20mL, hei whiriwhiri i te rōrahi o te kōpata kotahi.	Ka tika te whakamahi i te ipu-ine, me te pānui i te āwhata, hei kohi i te 20mL wai. E mōhio ana, me whakawehe te 20mL ki te maha o ngā kōpata hei whiriwhiri i te rōrahi o te kōpata kotahi.	E tika ana te whakamahi rautaki wāwāhi tau, te whakamahi tātaiwai rānei hei whakawehe i te 20mL ki te maha o ngā kōpata.	Ka whakamahi rautaki wāwāhi tau hei whiriwhiri i ngā hēkona kei roto i te 24 haora. (Mahere Tau, Kaupae 7) Hei tauira: (Mahere Tau, Kaupae 7) $24 \times 60 \times 60 = (20 \times 60 \times 60) + (4 \times 60 \times 60)$ $= 72,000 + (2 \times 2 \times 3,600)$ $= 72,000 + 14,400$ $= 86,400$
2. Kei te turuturu tētahi o ngā kōrere wai i te kāinga o Hiraani. Kotahi te kōpata ka turuturu i ia hēkona. Whiriwhiria te rōrahi o te wai mōumou i te paunga o te 24 haora.		Ka whakamāhia te tātaiwai hei whiriwhiri i ngā hēkona kei roto i te 24 haora. (Mahere Tau, Kaupae 6) Ka whakamāhia te tātaiwai hei whiriwhiri i te rōrahi o te wai mōumou. Arā, ka whakareatia ngā hēkona i te 24 haora (86,400) ki te rōrahi o te kōpata wai kotahi. (Mahere Tau, Kaupae 6)	Ka whakamahi rautaki wāwāhi tau hei whiriwhiri i te rōrahi rongoā ka whakapaungia i ia rā. Hei tauira (mēnā 0.05mL = te rōrahi o te kōpata kotahi): (Mahere Tau, Kaupae 7) $0.05 \times 8 = 0.1 \times 4$ $= 0.4$ Ka whakamahi rautaki wāwāhi tau hei whiriwhiri i te maha o ngā rā kia pau rā anō te katoa o te rongoā. Hei tauira: (Mahere Tau, Kaupae 7) $50 \div 0.4 = 500 \div 4$ $= 5 \times (100 \div 4)$ $= 5 \times 25$ $= 125$
3. E 50mL te rōrahi o te rongoā o Terewai mō ōna karu. Mēnā e rua kōpata ka tukuna ki ia karu i te ata, i te pō anō hoki, e hia te wā kia pau rā anō te katoa o te rongoā?	E mōhio ana, ka 8 ngā kōpata ka whakapaungia i ia rā.	Ka whakamāhia te tātaiwai hei whiriwhiri i te rōrahi rongoā ka whakapaungia i ia rā, arā, ka whakareatia te rōrahi o te kōpata kotahi ki te 8. (Mahere Tau, Kaupae 6) Ka whakamāhia te tātaiwai hei whakawehe i te 50mL ki te rōrahi rongoā ka whakapaungia i ia rā. (Mahere Tau, Kaupae 6)	