



NGĀ PUKA RAPANGA PĀNGARAU TAUNAKI

Ine

TAU 3

Pukapuka Kaiako

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Tūmahi 1

Ko Aria tēnei no te moutere o Motiti. He pai ki a ia te ine i ngā mea, ā, ka whakamahi i ngā wāhanga o tōna tinana pēnei i tōna matimati, ringa, waewae, me te ringa hei wae inenga. I whakatau a ia kia mahia ia inenga roa i runga i te motu ki ōna wae inenga. Heoi anō, kāore i taea e ia te haere ki ngā wāhi katoa ki te ine i ngā mea katoa! Me pēhea e taea ai e ia te whakatika i tēnei raruraru? Whakamahia te kāri me te hoahoa i tētahi utauta inenga hei āwhina i a ia.

Whakamahia tō utauta inenga me te ine i ia roanga mā te whakamahi i ngā wae inenga rerekē e rua. Whakaotia te ripanga (tirohia ngā matua tārua) me te tuhi i te wae inenga me te tatau inenga.

Hei āwhina k ite kaiako

He rerekē te roa o ngā kāri hei hoahoa mā ngā ākonga i ā rātou utauta ine.

Kia mōhio koe he pēhea te tohu a ngā ākonga i te wae inenga, ka taea e rātou te tātuhia motuhake i ia wāhanga ine tinana, ka tohu rānei i te mutunga o te wae inenga wāhanga tinana i ia wā, he pai ake, ā, ka whakarite kāore he āputa. Mēnā ka tāngia e ngā ākonga te wāhanga o te tinana, aro atu ki tētahi huarahi pai ake ki te whakawhanake i te utauta.

Tautoko i ngā ākonga kia mōhio mēnā kāore ō tau i runga i te utauta inenga, ko te tikanga me tatau tonu koe i te maha o ngā wae inenga. Mā te tapa i ngā tohu i runga i te utauta inenga ki ngā tau, kāore koe e hiahia ki te tatau i te maha o ngā wae inenga.

Tirohia he pēhea te ine a ngā ākonga mā te utauta inenga me te tautoko i a rātou ki te whakamahi tika i tēnei, ki te aroturuki hoki i te tatau inenga ahakoa he roa ake te roa i te utauta.

Mō te tūmahi takitahi, me whai ahanoa ka taea e ngā ākonga te whakamahi hei ine (hei tauira, centi-cube, multilink, ones cube). Hoatu ki a rātou kia kotahi, kia rua rānei ngā ahanoa.

Wā toha

Tīpakohia ngā ākonga hei tiritiri nā rātou i hoahoa i tētahi utauta inenga paerewa-kore e tātuhia ana i ngā ariā inenga matua (kāore he āputa, inaki rānei, au, ka tīmata i te tapa) ā, kua tika te whakamahi i tēnei hei ine i ngā roanga. Whakapūketetia te wae inenga rerekē me ngā tatau kua kitea e ngā ākonga, ā, whakaurua ērā kua whakamahi i te wae tinana ōrite (hei tauira, waewae) engari he rerekē te tatau inenga mō te roanga ōrite. Whakangāwari i te matapakinga o te pātahitanga i waenga i ngā wae inenga (hei tauira, he ōrite ngā matimati e rua ki te ringa kotahi, ērā atu mea).

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

E hiahia ana e te māramatanga ariā o te inenga te māramatanga o te atawhai me te whakawhitiwhiti. E hiahia ana e te atawhai te māramatanga ina nekehia, ka wehewehea rānei, ka mau tonu te rahi o tētahi ahanoa. Ko te mōhiotanga ka taea te whakataurite i ngā ine o ngā ahanoa e rua ki tētahi ahanoa tuatoru. Hei tauira, mēnā he nui ake te taumaha o te ahanoa A i te ahanoa B, ā, he nui ake te taumaha o te ahanoa B i te ahanoa C, kātahi ka nui ake te taumaha o te ahanoa A i te ahanoa C.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana.

Hono

Pātai atu ki ngā ākonga kia matapaki he aha i rerekē ai te tatau inenga mō te wae inenga ōrite (mai i ngā ākonga rerekē). Mīramirahia te pātahitanga i waenga i te rahi o te wae inenga me te tatau inenga, ā, tūhonoa tēnei ki te hiahia mō tētahi wae inenga paerewa.

Whainga Ako: Ka ako ngā mokopuna ki te:

Hoahoa i tētahi utauta inenga mā te whakamahi i ngā wae paerewa-kore.

Whakamahia tētahi utauta inenga me ngā wae paerewa-kore hei ine i te roanga.

Whakatauritea te roanga mā te whakamahi i ngā wae paerewa-kore.

Whakamahia te reo inenga hei whakaahua i te whakataurite o te roanga.

Ngā Tūmahi Takitahi

E hiahia ana a Litea ki te haere paihikara roa (tirohia ngā rangatira tārua).

Ka taea e koe te whakamahi i ngā taputapu hei ine ko tēhea te ara i te pāka te roa rawa, he ōrite rānei?

Whakapūketetia tō wae inenga me te tatau inenga.

Kōwhiria he huinga taputapu kē hei ine i ngā ara.

Whakapūketetia tō wae inenga me te tatau inenga.

He aha tāu e kite ai mō te tatau inenga ina whakamahi koe i tētahi wae inenga rerekē?

Marautanga

Tau 3

*Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.*

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Te roa, te wae ine, te tatau inenga, te roa, te poto rawa, te ōrite.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 2

- 1) Hangaia he tauine mā te kupiki kotahi me te tīhore kāri.
- 2) Tirohia tō tauine tīhore kāri me tētahi tauine. He aha tāu e kite nei? He aha te ōrite? He aha te rerekē?
- 3) Tāngia tētahi atu tauine tīhore kāri kua whakapai ake koe.

Hei āwhina k ite kaiako

Hei whakarewa i tēnei tūmahi, tonoa ngā ākonga kia tāngia e ia tauine mai i te pūmahara. Tonoa rātou ki te whakataurite i ngā tātuhī me te kōrerorero he aha te ōrite, te rerekē hoki o ā rātou tātuhī.

Kia kotahi henimita te roa, kia kotahi henimita te roa, kia ōrite te roa o ngā kāri (i waenga i te 20 – 30 cm), me ngā tauine henimita paerewa.

Kia mōhio ki te whakawhanake a ngā ākonga i te tauine, ka taea e rātou te tuhi motuhake i ia kupiki, ka tohu rānei i te mutunga o te rākau inenga i ia wā, he pai ake, ā, kāore he āputa. Ka tohu pea ētahi ākonga i waenganui o te tīhore:



Tautokona ngā ākonga kia mōhio mēnā kāore ō tau i runga i te tauine, ko te tikanga me tatau tonu koe i te maha o ngā wae inenga.

Mā te tapa i ngā tohu i runga i te tauine ki ngā tau, kāore koe e hiahia ki te tatau i te maha o ngā wae inenga.

Tonoa ngā ākonga ki te whakawhanake anō i te tauine i hangaia e rātou kia tata rā anō te tauine ki te henimita.

Mō te mahi takitahi, tapahia ngā tīhore whero me te kikorangi, whakamahia rānei ngā tokotoko.

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

E hiahia ana e te māramatanga ariā o te inenga te māramatanga o te atawhai me te whakawhitiwhiti. E hiahia ana e te atawhai te māramatanga ina nekehia, ka wehewehea rānei, ka mau tonu te rahi o tētahi ahanoa. Ko te mōhiotanga ka taea te whakataurite i ngā ine o ngā ahanoa e rua ki tētahi ahanoa tuatoru. Hei tauira, mēnā he nui ake te taumaha o te ahanoa A i te ahanoa B, ā, he nui ake te taumaha o te ahanoa B i te ahanoa C, kātahi ka nui ake te taumaha o te ahanoa A i te ahanoa C.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana.

Wā toha

Mō te pātai tuatahi, tonoa ngā ākonga kia tiritiri i ā rātou utauta inenga, kia whakataurite hoki i ēnei. Pātai atu ki a rātou kia kōrerorero he pēhea rātou? He rerekē? He aha te huarahi pai rawa atu, he aha hoki?

Mō te pātai tuarua, tīpakohia ngā ākonga hei tiritiri ko wai e kite ana kei te tauine ngā tohu kei te tapa, ngā tau hei tohu i te tatau inenga, he nui ake ngā tohu engari he ōrite te mokowā o ngā mea e rua. Tonoa ngā ākonga katoa kia kōrerorero he aha te tikanga o ngā tau.

Tonoa ngā ākonga kia tuhi anō me te whakapai ake i tō rātou tauine kia pēnei rā anō te āhua:



Hono

Whakaritea he huinga ahanoa he poto ake i te roanga o te tauine i waihangatia e te ākonga. Tonoa ngā ākonga ki te ine i tētahi ahanoa mā te tauine kātahi ka ine i taua ahanoa mā te kupiki.

Pātai, he ōrite, he rerekē rānei tō tatau inenga?

Whainga Ako: Ka ako ngā mokopuna ki te:

Waihangatia he tauine me ngā wae henimita.

Whakamahia he tauine henimita hei ine ahanoa.

Ngā Tūmahi Takitahi

I whakatau a Aria e hiahia ana ia ki tētahi whāriki moe hou. E hiahia ana a ia kia ono waewae te roa o te whāriki, e toru waewae te whānui.

He ōrite te rahi o te tīhore whero ki tōna wae inenga waewae.

Kua ngaro i tana kaiāwhina te wae inenga waewae, ā, ka whakatau ki te whakamahi i tō rātou ake waewae. He rite tonu te rahi o te tīhore kikurangi ki te waewae o te kaiāwhina. (tirohia ngā matua tārua).

Whakamahia ia tīhore hai hanga i te moenga mo te Aria.

Marautanga

Tau 3

Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Henimita, roa, wae ine, kaute inenga, tauine.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 3

Whakataua te roa o te _____ i roto i ngā mita.

Whakataua te roa o te _____ i roto i ngā mita.

Whakamahia te tīhore mita hei ine i te roanga me te tāhopu i te tataua inenga me te wae inenga. Inenga -

Kimihia ētahi ahanoa i roto i te akomanga kotahi henimita te roa.

Pēhea te roa o tō tīhore mita i roto i ngā henimita?

Hei āwhina k i te kaiako

I te wā o te whakarewatanga, whakaaturia ki ngā ākonga he tauine mita me te whakataua me pēhea te hopu i te tataua inenga (hei tauira, 5 m). Tautoko i ngā ākonga ki te hopu i ā rātou whakataua tata mita hei 'tata ki te 3 m', 'i waenga rānei i te 2m me te 3m'. Hei whakarewa i te tūmahi tuarua, whakaurua ngā raina mātiti i runga i ngā tīhore henimita hei henimita, ka whakataua me pēhea te hopu i te tataua inenga (2 cm).

Kia kotahi mita te roa mai i te takai pepa, i te rīpene whānui rānei. Tapahia te pepa mātiti 1 cm (tirohia ngā matua tārua) kia 1 cm te whānui, 20 cm te roa.

Tautokona ngā ākonga ki te ine i ngā ahanoa e whakaaro ana rātou he 1 cm mā te whakamahi i te tīhore henimita.

Whakangāwari i ngā ākonga ki te whakamahi i te whakarōpū, i te tataua hanganga rānei kia kite e hia henimita i roto i te mita kotahi.

Mō te tūmahi takitahi, whakaritea he huinga ahanoa hei ine mā ngā ākonga mā te tīhore henimita.

Wā toha

Tīpakohia ngā ākonga hei tiritiri e āhei ana ki te ine tika i ngā ahanoa huri noa i te akomanga mā te whakamahi i ngā tīhore mita. Mō te wāhanga tuarua o te tūmahi, tīpakohia ngā ākonga hei tiritiri nā wai i whakamahi i te tataua hanganga, i te whakarōpū rānei hei tāutu he 100 henimita kei roto i te mita kotahi. Mēnā kāore he ākonga i kite i tēnei, me whakataua me pēhea te whakamahi i te tīhore henimita me te aroturuki i te tataua i roto i te tekau, i te rua tekau rānei.

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine, paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana.

Hono

Ka taea e te tamaiti te maka pēke pīni kia 2 mita. He aha te roa i roto i ngā henimita?

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakatau tata te roa i roto i ngā mita.

Inea te roa ki ngā mita.

Inea te roa ki ngā henimita.

Tautuhia te pātahitanga i waenga i ngā henimita me te mita.

Ngā Tūmahi Takitahi

Whakatau tata te roanga o ia ahanoa ki ngā henimita. Tirohia tō whakatau tata ki tō tīhore henimita. Me mātua whakapūkete koe i te wae inenga.

Whakatau tata –

Inenga –

Marautanga

Tau 3

Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Paenga, roa, wae ine, kaute inenga, tauine.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 4

E hiahia ana a Hamuera ki te whakairi pukapuka ki tōna hoa e noho ana i rāwāhi mo to rātau rā whānau. Inea kia mōhio ai mēnā ka uru te pukapuka ki roto i te pūhera. Whakatau tata i te roanga o ia taha o te pukapuka i te tuatahi ki ngā henimita.

Whakatau tata –

Paenga –

Whakamahia tō tauine ki te kimi i te paenga o te pukapuka.

Whakapūketetia te inenga mō ia taha ki ngā henimita.

Inenga –

Paenga –

Whakatau tata i te roanga o ia taha o te pūhera i te tuatahi ki ngā henimita.

Whakatau tata –

Paenga –

Whakamahia tō tauine hei kimi i te paenga o te pūhera.

Whakapūketetia te inenga mō ia taha ki ngā henimita. I

nenga –

Paenga –

Hei āwhina k ite kaiako

I te wā o te whakarewatanga, whakamōhiohia ngā ākonga ki te kupu paenga me te whakamārama ko te tawhiti huri noa i te tapa o tētahi ahanoa papatahi e kīia ana ko tōna paenga. Me whai ahanoa papatahi (pikitia, pukapuka, kāri) me te whakataki i tō matimati huri noa i te paenga, ka tono i ngā ākonga kia mahi anō.

Me whai tauine, ngā tīhore henimita rānei a ngā ākonga, ngā pukapuka pikitia, me ngā pūhera nunui.

Whakangāwari i ngā ākonga kia kite me whakanoho e rātou te pito mauī o te tauine ki te pito o te wāhanga o te paenga e ine ana rātou.

Tūmanako kia whakamahi ngā ākonga i te reo inenga tae atu ki te paenga, me te hopu i te whakatau tata me te inenga mā te whakamahi i te whakapotonga cm. Mō te mahi takitahi, me tīpako pukapuka pikitia me te tauine henimita, ngā tīhore rānei.

Wā toha

Tīpakohia ngā ākonga hei tiritiri ko wai e āhei ana ki te ine tika i te paenga mā te whakamahi i tō rātou tauine me te whakamārama i te paenga hei tapeke o ngā taha katoa.

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

E hiahiatia ana e te māramatanga ariā o te inenga te māramatanga o te atawhai me te whakawhitiwhiti. E hiahiatia ana e te atawhai te māramatanga ina nekehia, ka wehewehea rānei, ka mau tonu te rahi o tētahi ahanoa. Ko te mōhiotanga ka taea te whakataurite i ngā ine o ngā ahanoa e rua ki tētahi ahanoa tuatoru. Hei tauira, mēnā he nui ake te taumaha o te ahanoa A i te ahanoa B, ā, he nui ake te taumaha o te ahanoa B i te ahanoa C, kātahi ka nui ake te taumaha o te ahanoa A i te ahanoa C.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he īnaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana.

Hono

Hoatu ki ngā ākonga he tauine me ngā henimita me ngā mirimita kua tohua ki runga. Whakamāramatia ko te mirimita he henimita e wehea ana kia tekau ngā wāhanga ōrite, ā, ka tuhia hei mm. Pātai atu ki ngā ākonga kia kōrerorero he aha ka pā ki te paenga mēnā ka inea e koe ki ngā mirimita, kaua ki ngā henimita.

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakatau tata te roa ki ngā henimita.

Inea te roa ki ngā henimita.

Kimihia te paenga o tētahi ahanoa papatahi. Whakamahia te reo inenga hei whakaahua me pēhea te ine paenga.

Ngā Tūmahi Takitahi

E hiahia ana a Haumea ki te whakairi pukapuka mo o rātau rā whānau ki ōna hoa e noho ana i rāwāhi. Inea kia mōhio ai mēnā ka uru ia pukapuka ki roto i te pūhera.

Whakatau tata i te roanga o ia taha o te pukapuka i te tuatahi ki ngā henimita.

Whakatau tata –

Paenga –

Whakamahia tō tauine ki te kimi i te paenga o te pukapuka.

Whakapūketetia te inenga mō ia taha ki ngā henimita.

Inenga –

Paenga –

Whakatau tata i te roanga o ia taha o te pūhera i te tuatahi ki ngā henimita.

Whakatau tata –

Paenga –

Whakamahia tō tauine hei kimi i te paenga o te pūhera.

Whakapūketetia te inenga mō ia taha ki ngā henimita.

Inenga –

Paenga –

Marautanga

Tau 3

Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Paenga, henimita, roa, wae ine, kaute inenga, tauine.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 5

Kei te hanga a Marama i ngā urunga tiavaevae mo ōna urunga. Me ine e ia te horahanga o te urunga kia tika ai te nui o te papanga.
He pēhea te rahi o te urunga?
Whakamahia tētahi tapawhā hei kimi i te horahanga o te urunga.
He nui ake te urunga tuarua? Kimihia te rohe ka tirohia.

Hei āwhina k ite kaiako

I te wā o te whakarewatanga, whakamaharatia ngā ākonga ki te horahanga kupu, ā, ko te horahanga te nui o te mokowā i roto i tētahi hanga Ahu-2 (te mata). Tonoa ngā ākonga ki te tohu i te horahanga o te mata o tētahi tēpu, tēpu rānei.

Mō te tūmahi, kia rua ngā rau pepa nui (pepa nūpepa engari tapahia whakapae, poutū rānei kia whakarahi anō, kia rerekē ai te rahi) me ngā paraka hanga tapawhā. Hoatu ki ngā ākonga tētahi tapawhā inenga. Mēnā e hiahia ana ngā ākonga kia nui ake ngā tapawhā, kia rua ngā tapawhā kia taea ai e rātou te whakanoho i tētahi, kātahi ko te mea panuku hei ine i te horahanga.

Whakangāwari i ngā ākonga kia kite me āta whakatakoto ngā tapawhā kāore he āputa, he inaki rānei, ā, ka tīmata i te tīmatanga o ia haupae. Tautokona rātou kia mōhio ka taea e rātou te whakamahi matimati, tohu rānei hei aroturuki i te wāhi i whakatakotoria ai e rātou te tapawhā.

Kia mōhio mēnā ka inea e ngā ākonga te pepa katoa ki te tapawhā, mēnā rānei ka tīmata rātou ki te mōhio he ōrite te tatau inenga o ia haupae, tīwae rānei, ā, ka taea kē te whakapūkete.

Tūmanako kia whakamahi ngā ākonga i te reo inenga tae atu ki te horahanga.

Mō te tūmahitakitahi, hoatu ki ngā ākonga he paraka hanga tapawhā iti hei ine i te horahanga. Tirohia Ngā Matua Tārua

Wā toha

Tīpakohia ngā ākonga hei tiritiri ko wai e āhei ana ki te ine tika i te horahanga mā te whakamahi i ngā tapawhā inenga kotahi mā te ine haupae me te ine i te haupae panuku me te whakarite kāore he āputa, he inaki rānei. Otiia, tīpakohia tētahi ākonga kua inea tētahi haupae, tīwae rānei, kātahi ka whakatata i te toenga mā te whakamahi i tēnei inenga hei mahi i te tapeke.

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

E hiahia ana e te māramatanga ariā o te inenga te māramatanga o te atawhai me te whakawhitiwhiti. E hiahia ana e te atawhai te māramatanga ina nekehia, ka wehewehea rānei, ka mau tonu te rahi o tētahi ahanoa. Ko te mōhiotanga ka taea te whakataurite i ngā ine o ngā ahanoa e rua ki tētahi ahanoa tuatoru. Hei tauira, mēnā he nui ake te taumaha o te ahanoa A i te ahanoa B, ā, he nui ake te taumaha o te ahanoa B i te ahanoa C, kātahi ka nui ake te taumaha o te ahanoa A i te ahanoa C.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana.

Hono

Ka inea a ia te haupae o runga pēnei (tauira e ine ana i te haupae) kātahi ka taea te mahi i te toenga. Ki tōu whakaaro he aha te mahi a Marama.

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakamahia ngā wae paerewa-kore (tapawhā) hei ine horahanga.

Whakatau tata i te horahanga o ngā mata mā te whakamahi i ngā wae paerewa-kore.

Kimihia te horahanga o tētahi mata mā te whakakī i te mata ki ngā ine tapawhā.

Kimihia te horahanga o tētahi mata mā te tāpiri tukurua.

Whakamahia te reo inenga hei whakaahua me pēhea te ine horahanga.

Ngā Tūmahi Takitahi

Kei te hanga a Marama i ngā urunga tiavaevae mo ōna urunga. Me ine e ia te horahanga o te urunga kia tika ai te nui o te papanga.

He pēhea te rahi o te urunga?

Whakamahia tētahi tapawhā hei kimi i te horahanga o te urunga.

He nui ake te urunga tuarua? Kimihia te rohe ka tirohia.

Marautanga

Tau 3

*Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.*

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Horahanga, mata, tapawhā, wae ine, tatau inenga

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 6

I pātai atu ahau ki ērā atu kaiako kia āwhina i ahau ki te kimi i te horahanga o ēnei tapawhā. Tērā pea i nekehia rātau, ā, kāore i mutu. Ka taea e koe te āwhina mā te tā i ngā raina ngaro me te kimi i te horahanga o ēnei tapawhā? (Tirohia ngā matua tārua mō ngā atahanga)

Hei āwhina k ite kaiako

Hoatu he tauine ki ngā ākonga kia taea ai e rātou te tā i ngā wāhanga raina ngaro hei hanga i tētahi mātiti, huānga rānei.

Kia mōhio mēnā ka tatau takitahi ngā ākonga i ngā tapawhā katoa, mēnā rānei ka whakamahi rātou i te whakarōpūtanga, te tāpiritanga tukurua, te whakarea rānei.

Mō te tūmahi takitahi, whakaratohia he tauine kia taea ai e ngā ākonga te tā i ngā raina hei whakaoti i ngā mātiti.

Wā toha

Tīpakohia ngā ākonga hei tiritiri kua whakamahi i te tāpiritanga, te whakarōpū, te whakarea rānei hei kimi i te horahanga, kaua ko te tatau takitahi i ia tapawhā

Hono

Tonoa ngā ākonga ki te whakawhanake i tētahi whakamārama mō ngā kaiako mā te huarahi tere ki te kimi i te rohe me te kore tatau takitahi i ngā tapawhā katoa.

Ngā Whakaaro Matua o te Ao

Anei ētahi awhe huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he īnaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana.

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakamahia ngā wae paerewa-kore (tapawhā) hei ine horahanga.
Kimihia te horahanga o te tapawhā mā te whakarōpū, te tāpiritanga tukurua rānei.
Kimihia te horahanga o te tapawhā mā te whakamahi i te whakareatanga.
Whakamahia te reo inenga hei whakaahua me pēhea te ine horahanga.

Ngā Tūmahi Takitahi

Kei te kōwhiri a Timo i tētahi kura ika mō tana ika. E hiahia ana a ia ki te kōwhiri i te kura ika me te wāhi nui rawa. Ko ia hanga te horahanga o raro o te kura.

(Tirohia Ngā Matua Tārua mō ngā āhua).

Whakatau tata te horahanga mō ia kura. Whakapūketetia tō whakatau tata. Inea te kura mā te ine tapawhā.

Whakapūketetia te tatau inenga. Ko tēhea kura me kōwhiri e Timo?

Marautanga

Tau 3

Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Horahanga, mata, tapawhā, wae ine, kaute inenga.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 7

Tirohia te kupenga o te pouaka me te whakatautaata e hia ngā kupiki e hiahiaatia ana e koe hei whakakī i te pouaka.

Tirohia tō whakatautaata mā te hanga i te pouaka me te whakakī ki ngā kupiki 1 cm^3 .

Tāngia tētahi whakaaturanga e whakaatu ana i te rōrahi o te pouaka.

Hei āwhina k ite kaiako

Mō te whakarewatanga, whakaratohia ngā momo pouaka rerekē me ngā rahi, ā, ka whakangāwari i ngā ākonga ki te tūhura i te rōrahi mā te whakamahi i ngā wae ine ōpaki (hei tauira, ngā paraka, ngā wāhanga lego). Tirohia anō te ariā ko te rōrahi o tētahi ahanoa te nui o te mokowā e pau ana.

Mō te mahi, me whai momo kupenga mō ngā cuboids iti me ngā rōrahi rerekē (hei tauira, te pae muesli, ngā pouaka kikokiko rānei) me ngā kupiki centi.

Whakarewahia ngā tūmahi mā te whakaatu i ngā ākonga i ngā kupiki 1 cm^3 engari kaua e tukua kia whakamahia e rātou i mua i te whakatautaata i te rōrahi o tō rātou kupoti.

Whakangāwari i ngā ākonga kia kite e inetia ana tētahi ahanoa e te maha o ngā rōrahi wae e uru ana ki roto. Tērā anō, kia tika ai te inenga, kaua he āputa, he mokowā rānei i waenganui i te 1 cm^3 .

Tūmanako kia whakamahi ngā ākonga i te whakarōpū me te whakarea hei kimi i te rōrahi me te whakaatu i te inenga rōrahi mā te cm^3 .

Mō te tūmahi takitahi, me whai kohinga pouaka rerekē, ōrite rānei. Hoatu ki ngā ākonga ngā kupiki heneti- $(1\text{ cm}^3 \text{ \& } 1000\text{ cm}^3)$ hei kimi i te rōrahi.

Wā toha

Tīpakohia ngā ākonga ki te tiritiri ko wai i kite me te whakamahi i te whanaungatanga i waenga i te kimi i te horahanga (apa tuatahi) me te whakamahi i tēnei ki te kimi i te rōrahi. Mēnā kāore he ākonga i kite i tēnei, miramiratia te pātahitanga ki a rātou.

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana.

Hono

Whakaaturia ki ngā ākonga kia rua - e toru ngā kupenga rerekē mō ngā pouaka e ōrite ana te rōrahi, ka tono kia whakatau tata i te rōrahi o ia pouaka, ka whakaraupapa mai i te iti rawa ki te nui rawa.

Hangaia te pouaka, kātahi ka tono i ngā ākonga kia ine i te rōrahi me te whakataurite i ngā hua.

Tonoa ngā ākonga ki te kōrero mō ngā mea e kitea ana e rātou.

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakatauritea me te raupapa i te rōrahi o ngā ahanoa.

Whakamāramatia te rōrahi hei mokowā i roto i tētahi ahanoa/ipu.

Whakamahia ngā wae paerewa hei ine rōrahi.

Tātaitia te tau o ngā wae hei whakaahua i te inenga.

Ngā Tūmahi Takitahi

Ko tēhea pouaka e tino rōrahi ana?

Ko tēhea pouaka te iti rawa o te rōrahi?

He ōrite te rōrahi o ēhea pouaka?

Whakaaturia he pēhea tō kitenga i te rōrahi mō ia pouaka, ā, tapaina ko tēhea te rōrahi nui rawa, te rōrahi iti rawa, me te rōrahi ōrite.

Marautanga

Tau 3

*Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.*

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

*Whakaahua ā-hinengaro, te whakatau tata me te ine;
- i te paenga o ngā taparau ki ngā waeine ngahuru
- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite
- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).*

Reo Pāngarau

Rōrahi, henimita pūtoru, kupiki, pūkoro, wae ine, tatau inenga.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 8

He ōrite te rahi o te pouaka wai o Matiu rāua ko Linea. Ka inea e Matiu te rōrahi o te pouaka wai mā te whakamahi i ngā henimita pūtoru. Ka inea e Linea te kaha o tana pouaka mā te wai me te mirimita. Ka whakataurite rātau i ā rātou hua, ā, ka ohorere.

Mā tō pouaka whakamahia ngā wae ine e rua kia mōhio ai he aha te mea i mīharo ai rātou.

Me mātua whakamārama me te whakatautika i tō whakautu mā te whakamahi i ngā whakaaturanga.

Hei āwhina k ite kaiako

Me whai ipu tapawhā hei tohu i ngā pouaka me ngā ipu ine me ngā tauine millilitre me ngā centicubes hei whakamahi hei utauta ine.

Whakangāwari i ngā ākonga ki te kite i te whakamahinga o ngā wae ine rerekē mō ngā wai me ngā ahanoa mārō me ngā kupu kaha me te rōrahi.

Tūmanako kia tāhopu ngā ākonga i ō rātou whakaaro mā te whakamahi i ngā whakaaturanga (tātuhi Ahu-3) me ngā wae inenga.

Whakatūpato i ēnei e whai ake nei hei tautoko i ngā ākonga ki te whakawhanake i ngā tohu oro:

- He rite tonu te rōrahi o te mirimita ki te henimita pūtoru.
- Kua tautuhia te rīta hei nui o te wai ka whakakī i te kupiki, arā, he rōrahi 1000 cm^3 .
- Nā reira, he ōrite te 1 mL ki te 1 cm^3 .
- Millilitres te mehua e whakamahia ana mō ngā wai me ngā henimita pūtoru mō ngā totoka.
- Ko te mokowā e puritia ana e tētahi ipu ko tōna rōrahi
- Ka whakamahia te kupu kaha hei kōrero mō te rōrahi o te wai e puritia ana e te ipu me te kore e maringi i tētahi.

Whakatūpato kia whakamahia te kupu rīta/rīta hei ine i te rōrahi wai.

Mō te tūmahi takitahi, me whai kohinga kupiki 1 cm^3 hei whakamahi mā ngā ākonga ki te hanga cuboids.

Wā toha

Tīpakohia ngā ākonga hei tiritiri e whakamahi ana i te awhe reo inenga, ā, kua whakapūketetia mā te cm^3 me te mL . Whakatauiria anō i te hopukanga inenga mō ngā ākonga.

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana

Hono

Me whai huinga pikitia o ngā ipu, ā, tonoa ngā ākonga kia whakatau tata, kia hopu hoki i tō rātou rōrahi hei cm³ me te mL.

Whainga Ako: Ka ako ngā mokopuna ki te:

- Inea te rōrahi o te ipu mā te mirimita (mL).
- Inea te rōrahi o tētahi ipu mā te whakamahi i ngā henimita pūtoru (cm³)
- Whakatauritea me te whakaahua i te pātahitanga i waenga i te rōrahi me te kaha me ngā mano me ngā henimita pūtoru.
- Tātai, tāhopu hoki i ngā wae inenga hei whakaahua i te tatau inenga.

Ngā Tūmahi Takitahi

- Whakamahia ngā kupiki e 24 hei hoahoa i ētahi whare āhua pouaka.
- Tāngia he whakaaturanga o tō hoahoa, ā, tuhia te rōrahi mō ia hoahoa.

Marautanga

Tau 3
*Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.*

- Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.
- Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.
- Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

- Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.
- Whakaahua ā-hinengaro, te whakatau tata me te ine;
 - i te paenga o ngā taparau ki ngā waeine ngahuru
 - i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite
 - i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Wai, henimita pūtoru, kaha, mirimita, rīta, rōrahi.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 9

Kimihia ngā ipu e ōrite ana te kaha, engari he rerekē te hanga.

Whakamātauria he ōrite, he tata rānei te kaha o rātou.

Me mātua whakamārama koe me te whakatika i tō whakaaro mā te whakamahi i ngā whakaaturanga maha tae atu ki te raina-tau.

Hei āwhina k ite kaiako

Hei whakarewa i te tūmahi, tonoa ngā ākonga kia kōrerorero i ngā mea e mōhio ana rātou mō ngā mirimita me ngā rīta, me te hoatu tohu āhea ka whakamahia.

Me whai awhe o ngā ipu ine me ngā ine kua tohua rerekē, ā, kia mātakitaki āta mātakitaki i ngā ākonga e kōwhiri ana i ngā mehua kāore i te tika.

Tūmanako kia whakamahi ngā ākonga i tētahi raina tau hei whakaatu anō i te inenga. Tautokona rātou kia mōhio ai me ōrite te mokowā o ngā tohu i te raina tau nā te mea ko ngā mokowā i waenganui i a rātou e tohu ana i ngā poro rōrahi ōrite. Miramiratia te ōritetanga e hiahiatia ana ki te ine rōrahi, ā, he ōrite tēnei ki te ine i te kaha.

Whakangāwari i ngā ākonga ki te tataui i roto i te 100 (ētahi atu pahekotanga rānei) kia mōhio ai ko te kotahi rīta he 1000 mL. Tautokona rātou kia haere ki tua atu i te kotahi rīta me te whakamahi i te reo hautau.

Hangaia he hononga ki ngā kupu, te mirimita, me te mitamano, ā, ko te kupu milli e tohu ana i te mano.

Mō te tūmahi takitahi, me tīpako ngā ipu ine/kapu me ngā tohu mirimita i te taha me te tīpakonga o ngā ipu kāore i tohua.

Wā toha

Tīpakohia ngā ākonga hei tiritiri kua whakamahi i ngā momo whakaaturanga tae atu ki tētahi raina tau me ngā tohu mokowā ōrite hei tohu i te rōrahi ōrite i waenga i ngā inenga. Whakahauhautia me te whakatauiria i te whakamahinga o te reo inenga wae paerewa (hei tauira, mirimita, rīta, 500 mL te haurua ki te 1 L).

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he īnaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana

Hono

Me whai raina tau kua tohua mai i te 50 mL ki te 1000 mL ki tētahi tauine engari kāore he tau kē. Pātai atu ki ngā ākonga kia tautohu e hia ngā mirirīta ka whakaaturia i ētahi wā.

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakamahia ngā wae paerewa (mirirīta me ngā rīta) hei whakaahua me te ine i te kaha.

Tātaitia ngā tau o ngā wae hei whakaahua i te inenga.

He rerekē te tohu i ngā tauine inenga.

Ngā Tūmahi Takitahi

Whakatau tata e hia ngā mirimita ka uru ki ia ipu. Tuhia tō whakatau tata.

Whakamahia tētahi o ngā ipu ine hei whakataurite i te nui o te wai i roto i ngā mirirīta e pupuri ana i te ipu.

Hangaia he raina tau e whakaatu ana i te tauine mō ia ipu.

Marautanga

Tau 3

*Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.*

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Te kaha, te mirimita, te rīta, te tauine, te wae, te tatau inenga.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 10

Kimihia te papatipu o ia pēke ahanoa.

Tuhia te papatipu ki ngā wetereo me te tohu i tēnei ki tētahi raina-tau.

Kimihia te rerekētanga o ngā karamu i waenga i ngā pēke ahanoa me te whakaraupapa mai i te tino nui ki te iti rawa.

Hei āwhina k ite kaiako

Hei whakarewa i te tūmahi, pātai atu ki ngā ākonga mēnā kua rongo rātou i te kupu 'gram' me te 'kirokaramu' me ō rātou whakaaro. Me whai centi-cube (1gm) me ngā pēke ahanoa e ōrite ana ki te 1 kiro. Tukuna ngā tauira ki te hiki, ki te pupuri i a rātau. Kōrerorerotia te whakamahinga o te g mō ngā karamu me te kirokaramu hei tāhopu i ngā ine papatipu.

Me whai tauine mamati, tairitenga rānei e ine ana i ngā wetereo me ngā kirokaramu me ngā pēke ahanoa e rerekē ana ngā ine papatipu.

Ko te papatipu o tētahi ahanoa te nui o te matū i roto. Kua e whakamahi i te kupu "pauna", engari e pā ana ki te kimi i te tini o ngā ahanoa. Waihoki, me whakangāwari ngā ākonga ki te whakamahi i ngā kupu nui ake, iti iho rānei, kua e taumaha ake, māmā ake rānei.

Kia mōhio mai, ko te papatipu o te ahanoa e inetia ana e te maha o ngā waeine e whārite ana. Ka kitea e ngā unahi te taumaha o tētahi ahanoa. Ko te tō-ā-papa tēnei e kawea ai ki te Ao (tō ā-papa). Heoi anō, nā te mea he tata ōrite te tō ā-papa i ngā wāhi katoa o te Ao, he pai te whakaaro o te taumaha o tētahi ahanoa. Ko te kirokaramu he wae whakaae ā-motu, ā-ao hoki (paerewa ngahuru) mō te ine i te papatipu.

Tūmanako kia whakamahi ngā ākonga i tētahi raina-tau hei whakaaturanga me te whakangāwari i ngā ākonga ki te whakarite kia ōrite te mokowā o ngā tohu i te raina tau nā te mea ko ngā mokowā i waenganui i a rātou e tohu ana i ngā poro papatipu ōrite. Kia mōhio mēnā ka whakamahi ngā ākonga i te whakaaro whakarea ina tataui i roto i ngā rōpū tekau kia 100 g, 20 rānei, 50 rānei hei hanga i te 100 g, 1000 g rānei, 100 rānei hei hanga i te 1000 g.

Wā toha

Tīpakohia ngā ākonga hei tiritiri kua whakamahi i ngā momo whakaaturanga tae atu ki tētahi raina tau me ngā tohu mokowā ōrite hei tohu i te tauine. Whakahauhautia me te whakatauiria i te whakamahinga o te reo inenga wae paerewa (hei tauira, karamu, kilokaramu, 1000 karamu is the same to one kilogram).

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he īnaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana

Hono

Tonoa ngā ākonga ki te tā i tētahi raina tau me te tohu i te rerekētanga i waenganui:

49 karamu me te 32 karamu
330 karamu me te 500 karamu
850 karamu me te 1 kilogram.

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakataurite me te raupapa i te papatipu o ngā ahanoa.

Whakamahia te reo inenga hei whakaahua i te whakataurite o te papatipu.

Kimihia te papatipu o ngā ahanoa i roto i ngā karamu me ngā kirokaramu.

Ngā Tūmahi Takitahi

Kimihia te rerekētanga o te papatipu i waenga i ia takirua ine.
Whakaaturia tō rongoā ki tētahi raina-tau wātea.

19 karamu me te 67 karamu
26 karamu me te 75 karamu
183 karamu me te 57 karamu
43 karamu me te 118 karamu
312 karamu me te 99 karamu
708 karamu me te 409 karamu
687 karamu me te 1 kg
1 kg me te 446 karamu

Marautanga

Tau 3

*Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.*

Whakatairite me te whakamahia waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahia waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahia huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Papatipu, ōrite, rerekē, taumaha ake, māmā ake, iti iho te papatipu, nui ake, nui, kirokaramu.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 11

Kimihia e toru ngā mea e kotahi kirokaramu te tapeke.

Tāngia he raina tau hei tohu i te mehua papatipu o ia tūemi, ā, ka whakaatu he pēhea te katoa o te papatipu whakaaro kotahi kirokaramu.

Ināianei whakamahia ngā tauine hei taki i te papatipu o ia ahanoa ki tō whakatau tata.

Tāngia tētahi atu raina tau hei tohu i te ine papatipu o ia tūemi mai i te tauine me te whakaatu i te papatipu takitahi me te paheko.

Pēhea te tata ki te kotahi kirokaramu i tō whakaaro?

Hei āwhina k ite kaiako

Me whai awhe ahanoa rerekē te rahi me te papatipu me tētahi tauine mamati/tairitenga hei ine i te papatipu.

Whakangāwari i ngā ākonga kia kite he rerekē pea ngā tohu o ngā tauine rerekē, engari ko te mokowā i waenga i ngā tohu e tohu tonu ana i ngā karamu.

Tūmanako kia whakamahi ngā ākonga i te reo inenga tae atu ki te kimi i te papatipu, nui ake, iti iho te nui, karamu, kirokaramu.

Whakangāwari i ngā ākonga ki te kite me te whakamahi i ngā tohu pēnei i te 1000 karamu ko te kotahi kirokaramu (ngā wae hiato), ko te 500 karamu te haurua o te kirokaramu.

Kia mōhio ki ngā ākonga e mōhio ana ko te tapeke inenga i roto i ngā karamu e whakapūketetia ana hei tau nui ake i te inenga ki te kirokaramu ahakoa he ōrite ēnei. Ki te kore tēnei e puta, me kōrero mārama.

Mō te tūmahi takitahi, whai tauine mamati/tairitenga me te tīpakonga ahanoa

Wā toha

Tīpakohia ngā ākonga hei tiritiri kua tata tata ki te 1 kirokaramu (tae atu ki raro iho, ki runga ake hoki i te kiro). Whakangāwari i ngā ākonga ki te whakaahua he pēhea te ōrite o te 1000 karamu ki te kirokaramu kotahi.

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana

Hono

Pātai atu ki ngā ākonga kia whakamārama, kia whakatika hoki ko tēhea mehua e tata ana ki te kotahi kirokaramu.

1k g me 9 g 990 g rānei
1 + hawhe kirokaramu, 750g rānei
500g, 1 + hawhe kiro rānei

Whainga Ako: Ka ako ngā mokopuna ki te:

Whakatau tata te papatipu o ngā ahanua i roto i ngā karamu me ngā kirokaramu.

Kimihia te papatipu o ngā ahanua i roto i ngā karamu me ngā kirokaramu.

Tahuri karamu ki te kirokaramu.

Whakamahia te reo inenga hei whakaahua i te inenga o te papatipu.

Ngā Tūmahi Takitahi

Kōwhiria tētahi rōpū ahanua e matapae ana koe ka whai papatipu katoa o:

50 karamu
175 karamu
500 karamu
1 kg
2 kg

Whakamahia ngā tauine hei taki i te papatipu o te rōpū. Tāngia tētahi raina tau me te tohu i te inenga papatipu o ia tūemi i roto i te rōpū, ka whakaatu i te papatipu tapeke.

He pēhea tō tata ki te katoa o te papatipu e ngana ana koe ki te mahi?

Marautanga

Tau 3

Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Papatipu, iti iho te nui, nui ake, ōrite te papatipu, kirokaramu, gram, unahi.

Ngā Tumanako

Ngā Rongoā, Ngā Pōhēhētanga

Tūmahi 12

Kua whiriwhiria e Maia rāua ko tōna tuahine ko Quantum tētahi pāketē rōpere. He nui ake ngā rōpere i roto i te pāketē a Quantum i a Maia, ā, e kī ana ia he nui ake tana pāketē i a Maia. Ka inea e rāua tahi te papatipu o a rāua pāketē.

Ko te pouaka a Maia ko te 1 kg me te 373 g, ko te pouaka a Quantum ko te 1 kg me te 294 g.

Ko tēhea pouaka te nui ake?
E hia ngā karamu e hiahiatia ana e koe kia ōrite ai te papatipu o ngā pouaka?
Whakaaturia tō rongoā mā te raina-tau.

Hei āwhina k ite kaiako

Tūmanako kia whakamahi ngā ākonga i tētahi raina tau me ngā whārite hei tohu i tā rātou rongoā.

Kia mōhio me te whakangāwari i te whakaaro ākonga e mōhio ana kāore te rahi e whakatau i te kiato.

Wā toha

Tīpako me te tiritiri i ngā rongoā ākonga kua tangohia e rātou i ētahi wāhanga, i whakamahia ai te whakawhitiwhiti ki ngā tekau tau, i whakamahi rānei i te ōritetanga me te utu.

Hono

He aha te rerekētanga o te papatipu i waenganui i ēnei ine?

1 kirokaramu me te 9 karamu
1 kg me te 19 karamu
1 kg me te 99 karamu

Ngā Whakaaro Matua o te Ao

He maha ngā huanga ka taea e mātou te ine tae atu ki te roa, te papatipu, te wā, te horahanga, te koki, me te rōrahi. Ina ine mātou, ka whakamahi mātou i te whakataurite, ka whakataurite mātou i ngā āhuatanga pēnei kia kite ko tēhea te mea nui ake. Ka taea e mātou te whakataurite mā te whakamahi i ngā wae ine paerewa, paerewa rānei, ā, ka whakamahi mātou i te reo pāngarau hei whakaahua i ēnei.

He mātāpono matua e pā ana ki te inenga tae atu ki te rahi o te wae inenga e noho ōrite ana (tae atu ki ngā wae ōrite, ngā wehenga iti rānei), ka tāruatia ngā wae kāore he āputa, he inaki rānei (au), he wāhanga te wae o te katoa, ā, ka whakapuakina te inenga hei tapeke o ngā wae e whakamahia ana

Whainga Ako: Ka ako ngā mokopuna ki te:

Tautuhia te nuinga o te papatipu.

Whakaotia ngā raru tāpiri, tangohanga hoki e pā ana ki te papatipu.

Ngā Tūmahi Takitahi

Īpakohia tētahi, ētahi rānei o ngā tūmahi aromatawai e whai ake nei (kua āpitihia ki te mutunga o te tuhinga) hei tūmahi takitahi:

Tūmahi Aromatawai 1: Horohanga

Tūmahi Aromatawai 2: Rōrahi

Marautanga

Tau 3

*Whakatau tata, ka ine ai i te roa, papatipu, rōrahi me te kītanga mā te whakawahi i ngā waeine ngahuru:
h.t., he taputapu whai tohu tapanga.*

Whakatairite me te whakamahi waeine ngahuru hei ine i te roa, te papatipu me te kītanga.

Whakatairite me te whakaraupapa taonga mā te whakamahi waeine o te roa, te papatipu, te kītanga rānei.

Whakatau i ngā waeine e tika ana mō te horopaki me te inenga tika.

Huri me te whakaahua i te rahi o te huringa, te tangata, te taonga mā te whakamahi huringa haurua, huringa hauwha, huringa toru hauwhā hei waeine.

Whakaahua ā-hinengaro, te whakatau tata me te ine;

- i te paenga o ngā taparau ki ngā waeine ngahuru

- i te horahanga o ngā āhua ahu-2 ki ngā tapawhā ōrite

- i te kītanga o ngā poro ki ngā waeine ōrite (poro-tapawhā rite).

Reo Pāngarau

Papatipu, ine, karamu, nui ake, iti iho, orite

Ngā Tumanako

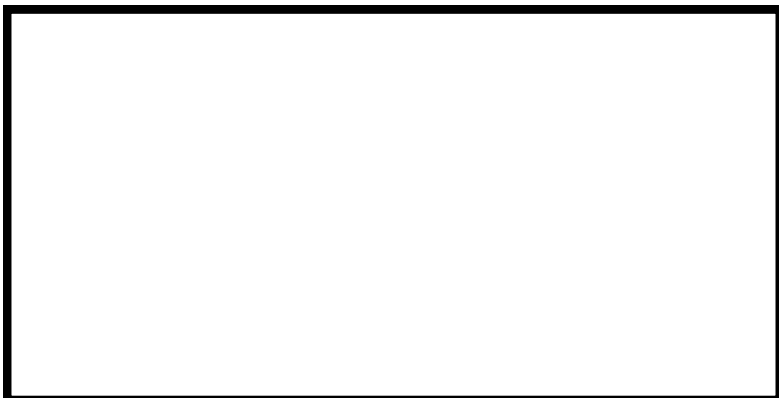
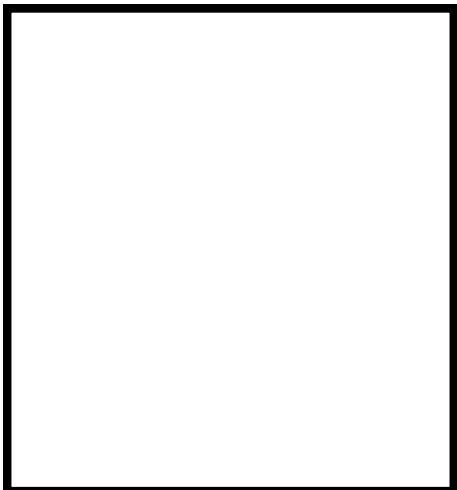
Ngā Rongoā, Ngā Pōhēhētanga

Aromatawai 1

Ko tēhea o ngā moenga kurī te wāhi nui rawa, iti rawa rānei?

Whakamahia ngā tapawhā 1 cm, te tauine rānei hei ine i ngā moenga kurī. Tuhia te inenga me te wae horahanga.

Whakamārama, whakatautika hoki i tō ine i ia moenga kurī mā te whakamahi i ngā tau, pikitia, kupu rānei.



Aromatawai 2

Kua whakamahia e Jodie ēnei kupiki (1cm³) hei mahi i te rōrahi o te ipu.



He aha te rōrahi o te ipu?

Whakaaturia me te whakamārama i ngā huarahi rerekē ka taea e ia te whakamahi hei mahi i tēnei.

He aha te huarahi tere rawa, he aha hoki?

