

Te Tukutuku Ako Mō Te Pāngarau

Kei hopu tōu ringa ki te aka tāepa, engari kia mau ki te aka matua

I tīkina atu te whakatauaāki nei i te Marautanga Pāngarau i tuhia ai i ngā tau 1992-5. Koinā te marautanga tuatahi i whakaritea ki te reo Māori.

Ko te aka matua e kōrerotia ake nei, ko te wawata kia tipu he ākonga kaha ki te mahi pāngarau, he ākonga mōhio, pakari hoki ki te whakawhitiwhiti kōrero i roto i te ao Maori, e ora ana te hinengaro, te tinana me te wairua, e tau ana ki tō rātou tuakiri, e mōhio ana ko wai rātou. Ka whiwhi rātou i ngā pūkenga me ngā mātauranga e pai ai te whakauru atu me te tautoko hoki i te hapori Māori me te ao whānui

E whakaatu ana tēnei tukutuku ako i nga āhuetanga ahurea-pāpori o te whakaako me te ako. Ko te kāinga, te hapori, te ahurea me te hapū o te ākonga e whai wāhi nui ana ki tāna e ako ana. Nō reira, e angitu ai te ākonga, me āta mahi tahi tōna kura, tōna kāinga, tōna hapū, tōna iwi me tōna hapori. E hāpaqi ana nga whakaaro o te tukutuku nei i te tuakiri ahurea me ngā taonga tuku iho a nga ākonga me ō rātou whānau. Kei roto hoki ko te tini o ngā aho - o te mātauranga, o te hapori, o te reo, o te kare-ā-roto, o te ahurea hoki - ka kitea i te wā e uru ana ngā ākonga e ako ana ki te reo-Maori ki te whiriwhiri i ngā whakataua pāngarau i roto i ō rātou ao.

Mai rā anō, ahakoa ko wai te iwi, he mātauranga ō rātou e mārama ai rātou ki ngā pānga maha, ki ngā pānga rau o ngā āhuetanga i roto i ō rātou ao. Ko te mātauranga pāngarau tērā. Tērā ō tātou tīpuna Māori e tino mātau ana ki ngā pānga o roto i ngā ao i nōhia ai e ngā tamariki a Rangī rāua ko Papa. He āwhina nui tēnei mātauranga i ā rātou mahi o ia rā, pērā i te hanga whare, i te whakaterere waka i te au moana, i te mahi māra kai me te tauhokohoko.

I te taenga mai o tauīwi, ka tino uru atu ō tātou tīpuna ki ngā mahi hou, pērā i te mahi arumoni. He mea nui anō te mātauranga pāngarau kia eke ai rātou ki ngā taumata o ēnei mahi hou. I te takanga o te wā, kua whanake haere te mātauranga pāngarau puta noa i te ao, engari he āwhina nui tonu te pāngarau i roto i ngā whakanekeneke o tō tātou ao o ngā tau rua mano me tua atu. Ahakoa huri ki hea, kitea ai te mātauranga pāngarau e whakamahia ana i roto i ngā mahi o ia rā, i roto i ngā kaupapa ako katoa o te kura, i roto hoki i ngā tūranga mahi whānui tonu.

Ko te Pāngarau te āheinga o ngā tāngata ki te whai, ki te whakamahi, ki te whakamārama, ki te whakawhitiwhiti kōrero, whakawhitiwhiti whakaaro mō ngā pārongo me whakaaro pāngarau, tauanga, hei kawe, hei whakahaere i ngā wero pāngarau me ngā wero tauanga o ngā pūāhua huhua o te ako, o ngā kawenga o ia rā, o ngā kawenga a te kirirarau pai, o ngā tini horopaki ahurea-pāpori, o te mahi anō hoki.

E tūhono ana te Toi Tātai ki ngā ritenga pāpori o tētahi ahurea, o tētahi horopaki. Whakaritea ai ngā whakatau toi tātai i runga anō i ngā paearu pāpori, ā, ka maha hoki ngā wā me whakamārama, me parahau hoki te taunga.

Ka pai anō te toi tātai hei torotoro i ngā take o te tuakiri ahurea. Māna hoki e tautoko te whakaaro arohaehae, me te arotakenga o ngā pāpāho, ngā tirohanga pāpori me ngā āhuatanga nui kua pā i roto i ngā tau.

Tuitui ai ngā tāngata toi tātai i ngā tukanga pāngarau me ngā tukanga tauanga ki ngā kaupapa, ā, hei reira whakawhitiwhiti kōrero ai, ā-pāngarau nei. Mā te tūhonohono tahi i ngā tukanga, ngā kaupapa, te whakawhitiwhiti kōrero me te whakahāngai (ki ngā āhuatanga ahurea-pāpori) ka tautokona ngā tāngata toi tātai kia kite i ngā tikanga whakaoti me ngā putanga.

Hoahoa 1 E whakaatu ana te hoahoa nei i te raranga tahi o ngā aho reo Matatini o te pāngarau, ngā aho tukanga, ngā aho whakaaro pāngarau me ngā aho ahurea-pāpori.

Ngā Whakaaro Whānui: Te Reo Matatini o te Pāngarau

Te whakaaro whaitake me te whakawhitiwhiti kōrero, ā-pāngarau nei, ki te reo Māori.

Ngā Whakaaro Whānui: Ngā Horopaki Ahurea-Pāpori

- Te tautohu me te whakamāori i ngā hanga ahurea-pāpori i ngā pūāhua/horopaki pāngarau, tae atu ki te tūhonohono i te pāngarau, te ahurea, me te hapori.



Ngā Whakaaro Whānui: Ngā Tukanga

- Te whakakaupapa i ngā pūāhua ki ngā tikanga pāngarau
- Te whakamahi i ngā tikanga pāngarau ki ngā tini pūāhua whaitake
- Te whakamāori me te arotake i te whaitake o ngā pūāhua pāngarau

Ngā Whakaaro Whānui: Pāngarau

- Ngā Paheko Tau
- Te Ine me te Āhuahanga
- Ngā Tauira me ngā Pānga
- Te Tauanga me te Tūponotanga

Ngā Whakaaro Tukanga

Whakaaro Tukanga 1:

Te whakakaupapa i ngā pūāhua ki ngā tikanga pāngarau

Ngā Akoranga Tāpua

- ko te tautuhi i ngā tikanga pāngarau e tika ana hei whakatutuki i ngā wero o ngā tini pūāhua;
- ko te whakakaupapa me te whai i te mahere hei whakamahi i ngā tikanga pāngarau;
- ko te whiriwhiri i ngā whakaahuahanga pāngarau e tika ana, arā, ngā kauwhata, ngā tūtohi, ngā hoahoa, ngā whārite, ngā kianga.

Whakaaro Tukanga 2:

Te whakamahi i ngā tikanga pāngarau ki ngā tini pūāhua whaitake

Ngā Akoranga Tāpua;

- ko te whiriwhiri me te whakahāngai i ngā ariā pāngarau me ngā ariā tauanga;
- ko te whiriwhiri me te whakamahi i te aronga tātai/aronga tauanga e tika ana (tae atu ki ngā tātaitanga matihiko);
- ko te whai i te taumata o te tika e hāngai ana ki te pūāhua (tae atu ki te whakaawhiwhitanga).

Whakaaro Tukanga 3:

Te whakamāori me te arotake i te whaitake o ngā pūāhua pāngarau

Ngā Akoranga Tāpua;

- ko te arohaehae i te whaitakenga o ngā whakaotinga, o ngā putanga, o ngā aronga, me te whakaaroaro ki ngā tikanga i kōwhiria hei whakatutuki i te mahi
- ko te tāpae i ngā whakataunga whai taunakitanga
- ko te whakamahi arohaehae whakawā judgements e pā ana ki ngā kōrero i runga i ngā whakaaro pāngarau/tauanga

Te Reo Matatini o te Pāngarau

Te whakaaro whaitake me te whakawhitiwhiti kōrero, ā-pāngarau nei, ki te reo Māori.

Ngā Akoranga Tāpua;

- ko te whakawhitiwhiti kōrero o ngā tikanga pāngarau ki ngā kupu motuhake, ki te wetereo, ki te tikanga kupu e hāngai ana ki te pūāhua;
- ko te whakawhitiwhiti kōrero o ngā tikanga pāngarau ki ngā rautaki maha hei kōrerorero whakaaro pāngarau (ā-tuhituhi, ā-waha, ā-ataata);
- ko te whakamahī i ngā whakaahuahanga pāngarau motuhake a Māori ake, hei whakaatu auaha nei, tōtika nei, i ngā ariā pāngarau.

Ngā Horopaki Ahurea-pāpori

Te tautohu me te whakamāori i ngā hanga ahurea-pāpori i ngā pūāhua/horopaki pāngarau, tae atu ki te tūhonohono i te pāngarau, te ahurea, me te hāpori (hei tauira, mā roto mai i tētahi anga hangarite ahurea).

Ngā Akoranga Tāpua;

- ko te whakatau atu me te tūhono i te pāngarau ki ngā horopaki ahurea-pāpori
- ko te tautohu i ngā whakaaro ahurea-pāpori e noho tūāpapa mai ana ki ngā tini horopaki/pūāhua. Hei tauira:
 - ko ngā waiaro, ngā whakaaro me ngā uara taketake o ngā tāngata kei roto i aua pūāhua
 - ko ngā painga me ngā wero ka pā ki ngā tāngata me ngā whānau kei roto i tētahi pūāhua pāngarau
 - ko te pānga ki a Papatūānuku o te whakahāngaitanga atu o te pāngarau ki te pūāhua
 - ko te mārama ki te tikanga o te mātauranga Māori me te ahurea-pāpori kei roto i te pūāhua pāngarau
 - ko te whakahoropaki i te pūāhua – hei tauira, ki ngā kawenga o ia rā, ki ngā mahi a te kirirarau i te hāpori, ki te mahi – e puta ai he whakataunga i runga i te mārama, e pai ake ai rānei te oranga o ngā tāngata.

Ngā Whakaaro Pāngarau (e hono ana ki Te Tīrewa Ako: Pāngarau)

1. ko te tere me te tāwariwari ki te whakaotioti rapanga e kawea ai he paheko tau, te mārama ki te rahi tauriterite o aua tau, me te whakamārama i te otinga i runga anō i te horopaki. (Te Whakaaro Tāpiri; Whāinga 10, Whakaaro Whakarea Whāinga 9 & 10)
2. ko te mōhio ki ngā rau pānga o te pāngarau, me te whakamahi i aua pānga. (Te Tauira me te panga Whāinga 6 & 7)
3. ko te mārama ki ngā āhuatanga o te mokowā me te whakaahuahanga o ngā taonga, me te whakamahi i aua āhuatanga. (Te Āhuahanga; Whāinga 8 & 9)
4. ko te mārama me te whakamahi i ngā pūnaha hei whakarite i ngā tūwāhi me te tātai ara haere (Te Āhuahanga; Whāinga 8 & 9)
5. ko te whakamahi i ngā tau me ngā waeine hei ine, hei whakaahua i ngā taonga me ngā pāpono hei rahinga, me te whakaawhiwhitanga tika mō te horopaki. (Te Ine; Whāinga 6 & 7)
6. ko te mārama ki ngā tikanga tauanga, raraunga, (Te Tauanga; Whāinga 8)
7. ko te whakamahi i te tūponotanga hei whakamāori i ngā pūāhua e mau mai ana he āhuatanga tūpono. (Te Tūponotanga; Whāinga 5)

E hono ana te paeoro Toi Tātai ki ngā anga e toru e whai ake nei.

1. Ki te mutunga o te taumata 4 me te tīmatatanga o te taumata 5 o te Marautanga Pāngarau

Kua mau ngā mātauranga kei te mutunga o te taumata 4, heoi, kei te ako tonu i ngā mātauranga kei te taumata 5.

2. Ki ngā pae o runga o te Tīrewa Ako Pāngarau

Ka puta tēnei anga hei te tau hou. Kei te whakaaturia ngā whāinga ako mai i te tau 1 ki te tau 10. Ka whakaatu ngā whāinga i te whanaketanga o ngā whakaaroaro pāngarau. He whakaaro nui te tūāpapa. Ko tā ngā whakaaro nui, he whakaatu i ngā wāhanga o te pāngarau me mātua ako, ā, ka tūhonohono i ngā mātauranga me ngā whakaaro pāngarau maha. E kī ana hoki te Tīrewa Ako ko te reo pāngarau te tūāpapa e honohonoa ai, e kōrerotia ai ngā whakaaro pāngarau.

3. Ki te kaupae 5 o te Learning Progressions for Adult Numeracy (LPAN)

E whakaatu ana te LPAN i ngā whanaketanga toi tātai e mahi ai, e whai wāhi ai ngā pakeke o Aotearoa ki te ao hou i runga i te whaihua.

(tirohia: <https://ako.ac.nz/assets/Knowledge-centre/ALNACC-Resources/Learning-progressions/682d9852b0/Learning-progressions-numeracy.pdf>)

Ko ngā whakaaro raranga o te Pāngarau me te ahurea:

Whenu	Ngā whakaaro ahurea	Ngā ariā pāngarau
Te Tatau Te Pūnaha Tau	Te whakamahi tikanga ahurea hei whakatairiterite, hei whakaraupapa. Ko te whakamāori anō i te reo motuhake o te pāngarau, ōna pūnaha tatau, ōna ingoa, ōna tikanga tatau, me te whakamahi i ngā āhuatanga wetereo o te Māori me te whai wāhi mai o te reo ā-iwi.	Hangā ai ngā pūnaha tau hei whakatau i te maha o ngā rōpū rānei, o ngā taonga rānei, o ngā wāhanga o ngā taonga rānei. Ko te tere me te tāwariwari ki te whakaoti rapanga e kawea ai he paheko tau, te mārama ki te rahi tauriterite o aua tau, me te whakamārama i te otinga i runga anō i te horopaki.
Te Taurira me ngā pānga	Ahako te whenua, he nui ngā momo taurira e haere ana. He nui hoki ngā pānga kei waenganui i tēnā, i tēnā āhuatanga o te taiao.	Ko te hononga kei waenga i ētahi taurangi e rua. Mā te kupu, mā te tūtohi, mā te whārite, mā te takirua raupapa, mā te kauwhata rānei e whakaatu te pānga o tētahi taurangi ki tētahi. Ka whakaaturia te pānga kei waenganui i ngā tau, ngā inenga me ngā kianga ki ngā tohu/kianga rite, ki ngā tohu/kianga rite kore.
Te Hoahoa	Ko te waihanga i te āhua rānei, i te hoahoa rānei mō tētahi āhua, hei wāhanga mō te mokowā taiao. Tērā pea ka waihangatia, ka whakamaheretia rānei he taurira ā-hinengaro, ka meahia rānei hei waitohu.	Tautuhia ai, whakarōpūhia ai ngā hanga, tae atu ki ngā āhua me ngā taurira, i runga anō i ngā āhuatanga o tēnā, o tēnā, arā, i runga i ngā pānga o roto i ngā āhua me ngā taurira, pērā me te hangarite me ngā panoni. Ko te mārama me te whakamahi āhua mokowā me ngā whakaaturanga o ngā taonga
Te Ahunga, Te whakataunga	Ko te torotoro i te taiao o te tangata me te whakariterite i ngā ariā me ngā tohu o taua taiao ki ngā taurira, ki ngā hoahoa, ki ngā whakaahua, ki ngā kupu, ki te aha, ki te aha.	Ko te mārama me te whakamahi i ngā pūnaha hei tautohu i te pūwāhi me te tātai ara haere.
Te Ine	Ko te whakatātai āhua kia pai ai te whakatairiterite, te whakamahi i te tinana, i ngā taura/aho hei taputapu ine ki ngā waeine, ki ngā kupu ine.	Ko te whakamahi i ngā tau me ngā waeine hei ine, hei whakaahua i ngā taonga me ngā pāpono hei rahinga, me te whakaawhiwhitanga tika mō te horopaki.
Te Tūponotanga me te raraunga	Ko te rapu i ngā huarahi hei whakaatu i te āhuatanga o nga putaputa āhua, ahako he whakapono, he wairua, he pūtaiao ranei.	Ko te kohikohi, te whakaatu me te tātai raraunga e pā ana ki tētahi kaupapa kia puta he māramatanga mō taua kaupapa. Ko te arotake kia mōhiotia ai ngā āhuatanga whaihua me ngā āhuatanga kāore e tino whaihua ana.
		Ko te tūponotanga, he matapae, he ine rānei mehemea ka hua ake tētahi āhuatanga, kāore rānei. Ka taea te kimi tūponotanga mā te tūponotanga tātai, mā te whakamātautau rānei.

Whakaatu ai ngā ākonga kei te paearu i ngā tukanga pāngarau, tauanga ki ngā mahi e whai ake nei.

1. Ka wānanga, ka whakawhitiwhiti whakaaro ā-pāngarau nei. Whakawhitiwhitia ai te pāngarau ki ngā kupu motuhake, ki te wetereo, ki ngā tikanga kupu. Ka whakawhitiwhitia hoki ki ngā hanga kē atu me ngā whakaahuahanga rerekē hei whakapuaki tika i ngā ariā pāngarau.
 - a. Ka whakamahi i te reo pāngarau motuhake (i ngā kupu/kīanga, i te wetereo, i ngā tikanga kupu) e hāngai ana ki te pūāhua.
 - b. Ka whakamahi i ngā whakaahuahanga – ā-waha nei, ā-tuhituhi nei, ā-ataata nei – hei whakamārama, hei kauhau i te ariā pāngarau.
2. Ka whakahoropaki i te pūāhua.
 - a. Ka whakawhāitihia te pūāhua kia tutuki ai ngā matenga o te whānau, o te hapori, o te hapū, o te iwi.
 - b. Ka tautohu i ngā whakaaro ahurea-pāpori e noho tūāpapa mai ana ki ngā tini horopaki, ki ngā tini pūāhua.
 - c. Ka tautohu i ngā uara me ngā waiaro e pā ana ki ngā whakataunga pāngarau.
 - d. Ka tautohu i ngā tikanga me ngā mātauranga e hāngai ana.
3. Ka tere, ka tāwariwari te whakaotioti rapanga e kawea ai he paheko tau, ka mārama ki te rahi tauriterite o aua tau, ka mārama hoki ki te otinga, me te tika o taua otinga e hāngai ana ki te horopaki.

Ka whiriwhiri i te aronga tātaitai tika, ahakoa ko te tuhituhi, ko te mahi ā-hinengaro, ā-matihiko rānei. Kua waia ki ngā tau oti (tae noa ki ngā piriona), ki ngā hautau, ki ngā tau-ā-ira (tae noa ki te mati-ā-ira tuatoru), ki ngā ōrau, ki ngā tau tōpū. Ka whakaoti i ngā rapanga e mau mai ana ngā pāpātanga, ngā taupāpātanga, ngā taupū e kaha ana te puta ake.

- a. Nō waho atu o te paearu ēnei e whai atu nei (hei āwhina i ngā kaiwhakarite ngohe):
 - Ko te whakarea me te wehewehe i ngā hautau, ko ngā taupū tōraro me ngā taupū hautau, ko ngā āhuatanga taupū, ko ngā pāpātanga whakawhiti, ko te huamoni whakaputu, ko ngā rapanga ōrautanga hoki whakamuri.
4. Ko te mōhio me te whakamahi i ngā rau pānga (rārangi nei, taupū ngāwari nei, pānga poutama nei) ka whakaahuahia hei kauwhata, hei ture ā-kupu rānei, ā, ko te tātai i ngā uara o te pānga e huna ana.
 - a. Hei whakamāramatanga i te paearu:

- Ko ngā taupū ngāwari hei tohu i ngā pūāhua e pāpā noa nei ki te tangata i āna kawenga o ia rā, hei tauira, ko te urutā, ko te tupuranga o te taupori, ko te whakamātaotao matū;
 - Ko ngā pānga poutama e whakamahia nuitia ana, hei tauira, ko ngā pāpātanga utu mō ngā tūnga motukā.
- b. Nō waho atu o te paearu ēnei e whai atu nei:
- Ko te tuhi i ngā kauwhata.
5. Ko te mārama me te whakamahi i ngā hanga mokowā me ngā whakaahuahanga taonga, he pērā me te hangarite me te panoni, hei hoahoa ki te whakatutiki i tētahi kaupapa. Ka tūhonohono i ngā whakaahuahanga taonga ngāwari, ahu-2 nei, ahu-3 nei.
- a. Nō waho atu o te paearu ēnei e whai atu nei:
- Ko te whakamahi i ngā motuhanga.
6. Ko te mārama me te whakamahi i ngā pūnaha hei whakaterere hei whakatau wāhi, hei whakatau ahunga.
- a. Hei whakamāramatanga i te paearu:
- He tikanga ā ngā ākonga hei tātai i te ara haere i waenga i ngā tūwāhi, hei whakaatu i te tūwahi me te ahunga. Me tāwariwari te pūnaha e tūhura ai rātou i ēnei mahi i roto i tētahi pūāhua.
 - Mō ngā ahunga, kāore pea e kitea he taunakitanga o tētahi mea pērā i te UTT (te uru mā tonga ki te tonga) e whakamahia ana.
7. Ko te whakamahi i ngā tau me ngā waeine hei ine, hei whakaahua i ngā taonga hei rahinga, me te whakaawhiwhitanga e tika ana mō te horopaki. Ko te whakamahi me te whakamāori i ngā putanga o te ine, tae atu ki ngā wātaka me ngā kauwhata wā. Ka āta whiriwhiri ngā ākonga i ngā waeine tika me te whakawhitiwhiti i waenga i ngā waeine ngahuru mō te mea e inea ana. Ka whakaotioti i ngā rapanga ine i ngā horopaki whaitake (ko te paenga, ko te rōrahi (poro-tapawhā hāngai anake), ko te horahanga (tapawhā hāngai, tapawhā whakarara, tapatoru), ko te papatipu, ko te paemahana).
- a. Nō waho atu o te paearu ēnei e whai atu nei:
- Ko ngā inenga porohita.
8. Ko te mārama me te wānanga i te tauanga me ngā raraunga, mā te mōhio me te whakamahi i ngā whakaari raraunga hei tūhura pātai, ngā tāpae mō ngā pūāhua whakarāpopoto, ngā pūāhua whakariterite hoki me ngā pūāhua houanga. Ka whakamāori i ngā whakaari raraunga mā te whakamahi i te hora, i te rāpoipoi, i te auautanga, i te wēanga, i ngā mōwaho. Ka arotake i ngā tāpaetanga kōrero me ngā whakaahuahanga a tangata kē i runga i te āhua o ngā raraunga i kitea.

a. Nō waho atu o te paearu ēnei e whai atu nei:

- Ko te tīpakopako, ko te hīkaro mai i te tīpako ki te taupori, ko te tātai toharite, ko te kohikohi me te whakariterite raraunga (*ina tūpono ara ake tētahi atu mea pēnei, me tāpiri ki te rārangi nei*).

9. Ko te whakamahi i te tūponotanga hei whakamāori i ngā pūāhua e whai wāhi mai ana ngā āhuatanga tūpono o ia rā, pērā i ngā tūraru me ngā tūwehe. Ka whakamahi ngā ākonga i te reo o te tūponotanga hei whakaahua i ngā putanga.

a. Nō waho atu o te paearu ēnei e whai atu nei:

- Ko te mahi i ngā whakamātau me te whakatairite ki ngā tauira ā-ariā.