



Ngā Kaitiaki Haumarū Koiora Wai Māori

Pukapuka Aratohu Kaiako

Nau mai ki 'Ngā Kaitiaki Haumarū Koiora Wai Māori', he rauemi mā ngā ākonga tuakana nō te kura tuatahi, mā ngā ākonga nō te kura waenga, mā ngā ākonga teina rānei nō te kura tuarua. Puta noa i tēnei rauemi, ko tā mātou whai ko te whakarato i tētahi hōparatanga māmā ki te āhei, he mea whakangahau hoki mō te tino kaupapa o te haumarū koiora wai māori.

I Aotearoa, he mea taketake ō mātou pūnaha rauropi wai māori ki tō mātou ora hauropi, ki tō mātou ora ahurea, ā-iwi whānui ake hoki. Kei mua hoki i te aroaro o aua pūnaha ko te piki o ngā mōrea mai i ngā momo urutomo me ētahi atu āhuatanga kōhukihuki taiao. Mā te whai i tēnei rauemi, ka tīmataria e ngā ākonga he haerenga kia mārāma ai ki te hiranga o te pupuri i te ora o ō tātou taiao wai māori, ka whakamanahia hoki rātou kia mahia ngā mahi hei tiaki i aua taiao.

Ko tā tēnei rauemi ko te mau o te aro, o te whakaaro me te wairua auaha o te ākonga me te whakatairanga ake i te wā kotahi i te mōhiotanga he aha e whaitake nei te haumarū koiora wai māori. Mā ngā mahi pāhekoheko, mā te ihirangi āhuareka me ngā rangahau whakapūaho tūturu, ka kite ngā ākonga i ngā pānga o ngā momo urutomo pēnei i te Morihana Koi (Koi Carp) mōiriiri ki ō tātou nei pūnaha hauropi wai māori. Ka ako rātou ka pēhea ngā mahi takitahi e mahi ai i tētahi panonitanga whai tikanga hei tiaki i ō tātou taiao wai māori puiaki, ka mutu hei te mutunga o te haerenga ka whai rātou i te mōhiotanga, i te kaha hihiri me ngā pūkenga ā-ringa e hiahiatia ana kia pai ai tā rātou āta whai wāhi atu ki ngā mahi haumarū koiora wai māori. Ko tā tēnei rauemi, he tuku i tētahi taputapu whai tikanga, taha wheako hoki mā ngā kaiwhakaako hei whakangako i te akoranga ākonga mā tētahi huarahi e hāngai tonu ana ki ngā wāhi maha o te Te Marautanga o Aotearoa. Kia rite ki te ruku ki roto me te tūhura i te mīharo o te ao haumarū koiora wai māori!

Wāhanga 1 – Te whakataki i te haumarū koiora wai māori [NGĀ KIRIATA](#)

Ngā whāinga akoranga

- Me mōhio he aha te haumarū koiora i Aotearoa
- Me mōhio he aha te haumarū koiora

Wāhanga 2 – Rangahau Whakapūaho Morihana Koi [NGĀ KIRIATA](#)

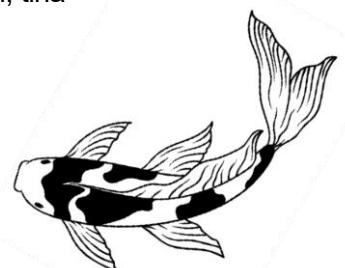
Ngā whāinga akoranga

- Me mōhio ki ngā pānga pea o ngā momo urutomo, o ngā kīrearea hoki ki ngā pūnaha hauropi wai māori, ā he aha ngā take he raruraru tēnei
- Whakatewhatewhatia te Morihana Koi hei tauira o tētahi kīrearea wai māori

Wāhanga 3 – Mō te Mahi i te Mahi [NGĀ KIRIATA](#)

Ngā whāinga akoranga

- Me mōhio kia pēhea te mahi i te mahi hei tautoko i te haumarū koiora wai māori
- Whakamāramahia mai ka aha ki te tūpono koe ki tētahi momo urutomo e whakapaetia ana
- Tautohua ngā karere matua e pā ana ki te haumarū koiora wai māori, tiria hoki aua mea ki ētahi atu



NGĀ KĀRI MŌREA KĪREAREA, PĀNGA HOKI I

Mōrea:

Ka hinga ngā
momo māori i te
whakataetae mā
ngā rawa

Mōrea:

Te whakakino
haere o te
kounga wai

Mōrea:

Te whakararu i ngā
tikanga ahurea e
whakawhirinaki mai
ana ki ngā momo
māori

Mōrea:

Te uru mai o
ngā mate ka pā
ki ngā momo
māori

Mōrea:

Te whakararu
i ngā
māwhaiwhai
kame

Mōrea:

Te pā atu ki ngā mahi
whakangahau (hei tauira
ko te hī ika, ko te kauhoe,
ko te haere mā runga poti)
nā te whakakino i te
kounga wai

Mōrea:

Te whai wāhi
atu ki te
whakakinotanga
wāhi noho

Mōrea:

Te whakararu i
ngā hononga ā-
wairua ki ngā taiao
wai māori me te ao
tūroa

NGĀ KĀRI MŌREA KĪREAREA, PĀNGA HOKI 2

Mōrea:

Te piki o ngā utu
hei whakahaere
kīrearea
patu kīrearea hoki

Mōrea:

Te heke iho o te
tāpoitanga nā te
whakakinotanga
o te taiao

Mōrea:

He mōrea hauora
mā te hōrapa o
ngā mate, o
pirinoa

Mōrea:

Te whakararu i ngā
ratonga pūnaha hauropi e
hāpai ana i te hauora me
te orange o te tangata (hei
tauira, ko te tātaritanga
wai)

Me whakamahi ēnei kāri i te taha o
te kiriata e whakaaturia i raro iho:

NGĀ MŌREA KĪREAREA, PĀNGA HOKI



- Me mahi takirua, hei rōpu iti rānei
- Tohatohaina ngā KĀRI MŌREA KĪREAREA, PĀNGA HOKI ki waenga i ngā rōpu
- Kia pau ētahi miniti ruarua hei whakaaro i ngā pātai i raro iho, ka mutu huahuatia te pānga o tō mōrea
- Tohatohaina tō huahua me ō whakautu ki te toenga o te karaehe

He aha te mōrea?

Ko tēhea momo mōrea taua mōrea?

(He mōrea rauropi? Pāpori? Ahurea? Ōhanga? Hauora Tangata?)

He aha te take he māharahara te mōrea nei?

He aha ngā pānga o tēnei mōrea?





PEPA MEKA Morihana Koi

(HEI HAERE TAHI KI TE ATAATA RANGAHAU WHAKAPŪAHO)

Ko te Morihana Koi he ika i taketake mai i Āhia me Ūropi. Kua haria pokanoatia mai ki Aotearoa i ngā tekau tau 1960, ā, mai i taua wā kua huri hei raruraru nui i roto i ō tātou nei wāhi noho wai māori.



Ngā raruraru ka puta i te Morihana Koi:

- Ka kai ana te Morihana Koi, whakamahia ai te māngai hei korekore: e ngongo ake ana i ngā mea katoa kei mua i a ia. Tutū ai te puehu nā tēnei whanonga kai whakararu ki te takere o te arawai, nā reira ka ehu te wai me te aha he uaua ki ētahi atu kīrehe te kite, te kimi kai rānei.
- I tua atu o te pōrohe o te whanonga kai a ngā Morihana Koi, ka kai rātou i te huhua o ngā momo kai, tae ana ki ngā pepeke, hua ika, punua ika hoki, me ngā tipu rawa. He kino rawa atu ngā hua o taua kaha hiakai mō ngā momo māori, ka noho toa hoki ngā Morihana Koi mō te taha rawa, ā, ka whakatōhenehene i te hangarite marore o te pūnaha rauropi.
- He tino tere te whakaputa uri a ngā Morihana Koi. Nā te ngaringari o aua ika, ka kino kē atu ngā raruraru ka puta i a rātou, me te hua he whānui noa atu te whakamōtī o ngā wāhi noho me te ngaronga o te kanorau koiora i roto i ō tātou nei taiao wai māori puiaki.



He aha ngā mahi ka taea e tātou?

Kua whakatūria he wāhi motuhake e kīia nei he Rohe Whakawhāiti, hei whakamātautau kia mutu te tino hōrapa o te Morihana Koi.

Ki te kite koe i tētahi Morihana Koi kei waho o aua rohe, tuku pūrongo ki te waea Haumarua Koiora Wai 0800 80 99 66



Waihoki, me maumahara kia Tirohia, Horoi, Whakamaroke!

Ahakoia he māmā noa iho, he huarahi tōtika tēnei hei āwhina ki te tiaki i ō tātou wai i ngā momo urutomo pēnei i te morihana koi. Ahakoia hī ika ai, ahakoia haere mā runga poti ai, ahakoia rānei noho pārekareka noa iho ai koe i te tahataha o te awa, taihoa kia tirohia, kia mātaihia hoki ō taputapu me kore e kitea ētahi manuhiri pokanoa. Mukua he paru, he tipu, he parapara rānei, ā, me āta whakarite kia maroke ngā mea katoa i mua i te hūnuku ki tētahi wāhi hou.

Mā te whai i aua mahi māmā ka taea e tātou te tiaki i ō tātou wai me te kaupare i te hōrapa o ngā momo urutomo.

Titoa he whakaari hangareka poto, he whakaaturanga, he waiata, he whakaari rānei e kawea ana te karere matua:

**KA KAUAHŌE ANA, KA HAERE RĀNEI KOE MĀ RUNGA
POTI, HE MEA HIRA KIA TIROHIA, KIA HOROI, KIA
WHAKAMAROE!**

Āta whakaritea he wāhi ki tēnā ākonga, ki tēnā ākonga. Mā ō koutou hoa ākonga e whakamātautau ki te raparapa i tō koutou karere matua.

Titoa he whakaari hangareka poto, he whakaaturanga, he waiata, he whakaari rānei e kawea ana te karere matua:

**HE MEA WHAKAMŌTĪ NGĀ MORIHANA KOI NĀ TE MEA
KAI AI RĀTOU I NGĀ MOMO MĀORI ME NGĀ PUNA KAI
O AUA MOMO, WHAKAMŌTĪ AI HOKI I NGĀ WĀHI NOHO.**

Āta whakaritea he wāhi ki tēnā ākonga, ki tēnā ākonga. Mā ō koutou hoa ākonga e whakamātautau ki te raparapa i tō koutou karere matua.

Titoa he whakaari hangareka poto, he whakaaturanga, he waiata, he whakaari rānei e kawea ana te karere matua:

**KI TE KITE KOE I TĒTAHI MOMO KĪREAREA, ME TUKU
PŪRONGO KOE KI NGĀ ĀPIHA HAUMARU KOIORA.**

Āta whakaritea he wāhi ki tēnā ākonga, ki tēnā ākonga. Mā ō koutou hoa ākonga e whakamātautau ki te raparapa i tō koutou karere matua.

Titoa he whakaari hangareka poto, he whakaaturanga, he waiata, he whakaari rānei e kawea ana te karere matua:

**ĀKONA ME PĒHEA TE MŌHIO KI NGĀ MOMO KĪREAREA, KIA
TAEA AI E KOE TE MŌHIO KI AUA MOMO KA MAHI AI I TE
MAHI.**

Āta whakaritea he wāhi ki tēnā ākonga, ki tēnā ākonga. Mā ō koutou hoa ākonga e whakamātautau ki te raparapa i tō koutou karere matua.

Titoa he whakaari hangareka poto, he whakaaturanga, he waiata, he whakaari rānei e kawea ana te karere matua:

**HE TAKAHI Ā-TURE TE HOKO ATU, TE WHAKATUPU, TE ĀTA
WHAKAHŌRAPA RĀNEI I NGĀ MOMO KĪREAREA (KA WHAINAHIA
PEA KOE KO TE \$100,000 TE WHAINA, KA TUKUNA RĀNEI
KOE KI TE WHARE HEREHERE MŌ TE 5 TAU!)**

Āta whakaritea he wāhi ki tēnā ākonga, ki tēnā ākonga. Mā ō koutou hoa ākonga e whakamātautau ki te raparapa i tō koutou karere matua.

Titoa he whakaari hangareka poto, he whakaaturanga, he waiata, he whakaari rānei e kawea ana te karere matua:

**KI TE KITE KOE I TĒTAHI MOMO KĪREAREA, KA TAEA E KOE
TE PŪRONGO MĀ TE WAEA HAUMARU KOIORA.**

0800 80 99 66

Āta whakaritea he wāhi ki tēnā ākonga, ki tēnā ākonga. Mā ō koutou hoa ākonga e whakamātautau ki te raparapa i tō koutou karere matua.

Kei te hiahia koe kia hōhonu rawa te ruku?

Ngā mahi kōwhiringa hei whai

Anei ētahi pātai hei āta whakatewhatewha pea mā ngā ākonga:

**Ka pēhea te āhua o tētahi pūnaha
hauropi wai māori e ora ana?**

**He aha ngā momo māori wai
māori e tūmanako ana mātou ki
te tiaki mā te hāpai atu i te
haumarū koiora wai māori?**

**Ka pēhea te āhua o te haumarū
koiora ina tiaki mātou i ētahi atu
taiao, pēnei i te ngahere tūturu, i ngā
pūnaha hauropi moana rānei?**

**He aha ngā pānga o te panoni
āhuarangi ki ō tātou pūnaha
hauropi, ki te haumarū koiora
anō hoki?**

Kua taea te rauemi mātauranga 'Ngā Kaitiaki Haumarū Koiora Wai Māori' nā ngā whai wāhitanga me te tautoko o ērā e whai ake nei:

Maeroa Intermediate School
Place Group
Rotokauri Primary School
Waikato EnviroSchools

Te Kaunihera ā-rohe o Waikato
Waikato River Authority
Water of Life Encounters