



PŪNIU RIVER CARE INC.
A REGISTERED CHARITY

TE AUKAIAO

CERTIFICATE IN INTRODUCTORY RIVER ENHANCEMENT (APPLIED)

Student Workbook

Kōnae Ako 1 – *Koha*

Ingoa:



STUDENT WORKBOOK

Pūniu River Care Inc © 2022

Copyright notice

This course material is provided for educational purposes. You may not copy or distribute any part of this material to any other person and may print it, in full or in part, only for your own use. You may not make any other copy/s for any other purpose. Failure to comply with the terms of this warning may expose you to legal action for copyright infringement and/or disciplinary action.

Disclaimer

The information in this publication is not intended as a substitute for professional advice. Pūniu River Care expressly disclaims all liability to any person/organisation arising directly or indirectly from the use of or reliance on, or for any errors or omissions in, the information in this publication, including any references to third parties. Whilst efforts have been made by Pūniu River Care to ensure the accuracy of the information provided, the adoption and application of this information is at the reader's discretion and is his or her sole responsibility.

Student use of reference materials

Where you are directed to third party copyright works, whether on the internet or elsewhere, please check the work's copyright notice (or license) to ensure that you are not breaching copyright in the work. Note that you have a statutory right of fair dealing for research or private student, see s 43 of the Copyright Act 1994.

STUDENT WORKBOOK

PEPEHA

Mōkau ki runga, Tāmaki ki raro

Pare Waikato, Pare Hauraki

Te Kaokaoroa o Pātetere

Mangatoatoa ki waenganui

Ā muri i a au

Kia mau tonu ki tēnā

Kia mau ki te kāwau mārō

Whanake ake, Whanake ake!

E kore au e mate

He kākano i ruia mai i Rangiātea

Mai te wāhi ngaro ki te mata o te whenua

Ko au te maunga, ko te maunga ko au

Ko au te moana, ko te moana ko au

Ko au te ngahere, ko te ngahere ko au

Ko au te awa, ko te awa ko au

He kaitiaki tūturu ahau arā Te Kāhui ā Hiwa

Tihei Mauriora!

STUDENT WORKBOOK

THE NAME: TE AUKAIAO

The name of the programme Te Aukaiao was given to this kaupapa by Paraone Gloyne.

'Te au' refers to the current in any body of water. In this case, the current of the Pūniu river and all the other smaller streams and waterways that lead to the Pūniu river.

Similarly, each individual person also has a current flowing within them and as kaitiaki, we have an obligation to care for and contribute to the mauri of our waterways. Our individual mauri combines with that of the river to bring and sustain life to the individual, the river and the wider taiao landscape.

'Kaiao' is another word for ora (living) and together the name encapsulates the kaupapa of this programme and represents the interdependence of kaitiaki and taiao alike.

STUDENT WORKBOOK

NGĀ UARA

Tupu te kākano

Tupu te taketake

Tupu te pihinga

Tupu te māhuri

Tupu te rākau

Ko au ko koe, ko koe ko au

Tihei Mauriora



Koha – *Limitless generosity acknowledging the celebration of life*

Is about celebrating life, acknowledging life and being grateful for the opportunities that arise. To Pūniu River Care it is to give without receiving, to contribute with endless generosity and to nurture all that is life.

Mauri – *Boosting a new life force into a sustainable world*

Kākano – literal translation is seed. This can also mean a provider of new growth. We are also trying to clean up our rivers and our waterways. Water is life, or a life force and we as people, and everything breathing has a life force. It is an interdependent relationship that affords mutual respect.



Whanaungatanga – *Strategic relationships and empowering whānau*

Pihinga are seedlings and as seedlings come into the world, with it comes a colony of whatever species they are. As we grow as people we find ourselves surrounded by whānau and then we find more whānau. We find new relationships and make new friends and before we know it, we find ourselves in partnerships we might never have thought possible.

Māramatanga – *To know your place in a sustainable world*

Māhuri is a young tree at an adolescent stage of life. This is a stage of life where youth are trying to find themselves and where they think they can contribute to life. We also need to figure out some things in life and in what we do to be sure of why we do what we do and understand the significance of what you do in life is also understood by those in and around your circle.



Rangatiratanga – *Self-determined to take the lead for a sustainable world*

Rākau is the fully established tree that has stood its ground from the humble seed. A giant kauri tree that stands in awe is a sight of pride and power and has an establishment of control and self-governance. For people to become and feel the same as this rākau will only know that feeling when a challenge in front of them has been met to the best of their ability. Whether it be buying food for the cupboards to buying their own home. Having a sense of ownership, knowing and understanding who you are and where you fit in this world by being self-governed will give you a sense of rangatiratanga.

Kaitiakitanga – *Keepers of our waterways, rivers, whānau and home*

Taketake – is the root of all things growing. For the life of a tree to thrive, it needs a good root system and needs to be carefully nurtured from inception. This can also be reflected within the homes of where if we want the best for our younger ones, we must ensure they are grounded first and with the right caring and nurturing we can ensure they will strive to be all they can be in a safe and healthy upbringing. We also do what we need to do to ensure we lead by example and show we can be guardians of our waterways, our families and homes.



STUDENT WORKBOOK

TABLE OF CONTENTS

PEPEHA.....	3
THE NAME - TE AUKAIAO	4
NGĀ UARA.....	5
PROGRAMME INFORMATION.....	7
KŌNAE AKO 1 – KOHA.....	8
SPECIES IDENTIFIED FOR THIS PROGRAMME ¹	10
KŌNAE AKO 1 – ASSESSMENT	11
KŌNAE AKO 1 – ASSESSMENT OBSERVATION CHECKLIST.....	12
HE AHA TĒNEI PUKAMAHI? – WHAT IS THIS WORKBOOK?.....	13
NGĀ TOHUTOHU MŌ TĒNEI PUKAMAHI – WHAT TO DO WITH THIS WORKBOOK.....	13
NGĀ TOHU ĀWHINA – HELPFUL ICONS	13
HE PAPA KUPU – GLOSSARY.....	14
ĒTAHI ATU RAUEMI – SUPPORTING RESOURCES	16
NGĀ KAUPAPA AKO – KOHA (COLLECTING SEEDS).....	17
1. KARAKIA WHAKARITE	18
HEI TAUIRA – AN EXAMPLE.....	18
HEI MAHI – ACTIVITY	18
2. PŪRĀKAU	19
HEI TAUIRA – AN EXAMPLE.....	19
HEI MAHI – ACTIVITY	19
3. MIHIMIHI	20
HEI TAUIRA – AN EXAMPLE.....	20
HEI MAHI – ACTIVITY	20
4. MARAMATAKA.....	21
HEI TAUIRA – AN EXAMPLE.....	21
HEI MAHI – ACTIVITY	21
5. SUSTAINABLE KAITIAKITANGA PRACTICES	22
HEI TAUIRA – AN EXAMPLE.....	22
HEI MAHI – ACTIVITY	22
6. PLANNING STRATEGIES WHEN COLLECTING SEEDS.....	23
HEI TAUIRA – AN EXAMPLE.....	23
HEI MAHI – ACTIVITY	23
7. ASSESSMENT PROCESSES WHEN COLLECTING SEEDS	24
HEI TAUIRA – AN EXAMPLE.....	24
HEI MAHI – ACTIVITY	24
8. BAGGING PROCESSES WHEN COLLECTING SEEDS	25
HEI TAUIRA – AN EXAMPLE.....	25
HEI MAHI – ACTIVITY	25
9. SEED PROCESSING SKILLS IN A TAI AO CONTEXT	26
HEI TAUIRA – AN EXAMPLE.....	26
HEI MAHI – ACTIVITY	26
10. STORAGE METHODS FOR COLLECTED SEEDS.....	27
HEI TAUIRA – AN EXAMPLE.....	27
HEI MAHI – ACTIVITY	27
TE WHAKARĀPOPOTONGA – A SUMMARY	29

STUDENT WORKBOOK

PROGRAMME INFORMATION

Programme Name	Te Aukaiao - Certificate in Introductory River Enhancement (Applied)			
Level	4			
Credits	120			
Length	36 weeks			
Total hours	Teaching hours (on the job)	800 hours	Self-directed hours	400 hours
Graduate profile outcome statement	A graduate of this programme will be able to: Be a Pūniu River Care Kaitiaki that is: • Humble and respectful • Professional and reputable • Connected to the taiao • Strong in their identity • Competent in their mahi as an individual and as a team player Be a Pūniu River Care Kaitiaki that knows relevant: • Tikanga practices • Maramataka knowledge • Kaitiakitanga practices • Sustainable taiao practices Be a Pūniu River Care Kaitiaki that can [do]: • Apply knowledge of seed collection processes from a taiao worldview. • Apply knowledge of seed sowing processes from a taiao worldview • Apply knowledge of potting up processes from a taiao worldview • Apply knowledge of preparing planting sites from a taiao worldview • Apply knowledge of planting processes from a taiao worldview • Apply knowledge of maintaining plant processes from a taiao worldview.			
Programme outcome statement	At the end of this programme, graduates will be able to: 1. Demonstrate broad operational and technical knowledge in a values based planting approach towards a rākau Māori industry. 2. Select and apply relevant solutions to various stages of the planting process. 3. Select and apply relevant processes specific to Pūniu River Care that is relevant to the planting process. 4. Select and apply a range of communication skills relevant to the rākau Māori industry.			

STUDENT WORKBOOK

KŌNAE AKO 1 – KOHA

Programme Name	Te Aukaiao - Certificate in Introductory River Enhancement (Applied)			
Kōnae Ako name	Koha			
Level	4			
Credits	20			
Length	6 weeks			
Total hours	Teaching hours (on the job)	150 hours	Self-directed hours	50 hours
Overview (aim)	The value of koha is limitless generosity that acknowledges the celebration of life. It is about celebrating life, acknowledging life and being grateful for the opportunities that arise. To Pūniu River Care it is to give without receiving, to contribute with endless generosity and to nurture all that is life. In alignment with this description, this kōnae ako aims to examine and implement the seed collecting process using tikanga practices within a taiao worldview.			
Learning Outcomes	At the end of this kōnae ako, students will be able to: 1. Demonstrate tikanga practices when collecting seeds (Range includes karakia, whakarite, pūrākau, mihimihi). 2. Demonstrate maramataka knowledge when collecting seeds (Range: phase, atua, month, and impacts on hinengaro, tinana, tāngata and taiao). 3. Select and apply sustainable kaitiakitanga practices when collecting seeds (Range: plant care and maintenance, collecting 20% of the seed, from more than one specimen, from different areas to maintain the genetic integrity, minimal damage to the tree, returning unused material, and bi-products for compost). 4. Select and apply appropriate planning strategies when collecting seeds (Range: Identifying species, mapping, seeking permission, team members, resources). 5. Conduct assessment processes when collecting seeds (Range: mini assessment and documenting). 6. Implement appropriate bagging processes when collecting seeds (Range: bagging in reusable paper bags and documenting). 7. Demonstrate appropriate seed processing skills in a taiao context (Range: risk mitigation, weighing, counting and documenting). 8. Demonstrate appropriate storage methods for collecting seeds (Range: storage containers/bags, labelling, plant identity coding system and seed bank).			

STUDENT WORKBOOK

Graduate Profile Outcomes	Graduates of this programme will be able to: • Apply knowledge of tikanga practices to promote a taiao worldview. • Apply knowledge of the maramataka to enhance practice and production. • Implement kaitiakitanga practices to care for and maintain plants and people. • Implement sustainable practices to promote a taiao worldview. • Apply knowledge of seed collection processes from a taiao worldview.
Kōnae ako content	This kōnae ako will cover the following topics: • Tikanga (Karakia, whakarite, pūrākau, mihimihi) • Maramataka • Sustainable practices • Care and maintenance • Identifying species and its whakapapa • Mapping • Seeking permission • Appropriate resources • Mini assessment • Documenting • Collecting • Bagging • Processing • Storage containers/Bags • Seed bank
Resources	The maramataka section of this kōnae ako is to be completed in conjunction with the Matataiora Maramataka app.
Internal requirements	The following are required in this kōnae ako: • Nil
External requirements/licences	The following are required in this kōnae ako: • Full licence (or working towards) • First Aid
Special notes	The species used throughout this programme are: 1. Mānuka / Tea tree (<i>Leptospermum scoparium</i>) 2. Kahikatea / NZ White Pine (<i>Dacrycarpus dacrydioides</i>) 3. Karamū (<i>Coprosma robusta</i>) 4. Whanake / Cabbage tree (<i>Cordyline australis</i>) 5. Tarata / Lemonwood (<i>Pittosporum eugenioides</i>)

STUDENT WORKBOOK

SPECIES IDENTIFIED FOR THIS PROGRAMME¹



Mānuka
(*Leptospermum scoparium*)

The many uses of Mānuka in rongoā is due to its strong anti-microbial properties and as a natural antiseptic, it is an ideal healer and protector for the body.



Kahikatea
(*Dacrycarpus dacrydioides*)

The Kahikatea is the oldest member of the ancient Podocarp family and have been around for more than 160 million years.



Karamū
(*Coprosma robusta*)

It is a sacred plant to Māori and a branch of the Karamū was often used by tohunga when conducting a karakia over a sick person.



Whanake
(*Cordyline australis*)

All the parts of the Whanake have important uses such as food, fibre and medicine. The root, stem and top are all edible, a good source of starch and sugar.



Tarata
(*Pittosporum eugenioides*)

Tarata was used to make perfume and hair oils. The gummy resin that oozes from the bark was mixed with bird fat and the Tītoki and Kōhia and rubbed over the hair and body.

STUDENT WORKBOOK

KŌNAE AKO 1 – ASSESSMENT

Assessment overview	The assessment for this kōnae ako will be a combination of written and practical activities. Learning outcome 1 and 2 will be assessed and evidenced through the Student Workbook. Learning outcomes 3 – 8 will be assessed and evidenced through the Assessment Observation Checklist.
Learning Outcomes	At the end of this kōnae ako, students will be able to: 1. Demonstrate tikanga practices when collecting seeds (<i>Range includes karakia, whakarite, pūrākau, mihimihi</i>). 2. Demonstrate maramataka knowledge when collecting seeds (<i>Range: phase, atua, month, and impacts on hinengaro, tinana, tāngata and taiao</i>). 3. Select and apply sustainable kaitiakitanga practices when collecting seeds (<i>Range: plant care and maintenance, collecting 20% of the seed, from more than one specimen, from different areas to maintain the genetic integrity, minimal damage to the tree, returning unused material, and bi-products for compost</i>). 4. Select and apply appropriate planning strategies when collecting seeds (<i>Range: Identifying species, mapping, seeking permission, team members, resources</i>). 5. Conduct assessment processes when collecting seeds (<i>Range: mini assessment and documenting</i>). 6. Implement appropriate bagging processes when collecting seeds (<i>Range: bagging in reusable paper bags and documenting</i>). 7. Demonstrate appropriate seed processing skills in a taiao context (<i>Range: risk mitigation, weighing, counting and documenting</i>). 8. Demonstrate appropriate storage methods for collecting seeds (<i>Range: storage containers/bags, labelling, plant identity coding system and seed bank</i>).
Assessment evidence	The evidence of assessment for this kōnae ako is: 1. Student Workbook completed by the student 2. Assessment observation checklist completed by Assessor

STUDENT WORKBOOK

KŌNAE AKO 1 – ASSESSMENT OBSERVATION CHECKLIST

Student name			
Assessor name			
Assessment date(s)			
Assessment activity	Kōnae Ako 1 - Koha		
		ACH	YTA
Learning Outcomes	1. Demonstrate tikanga practices when collecting seeds (Range includes karakia, whakarite, pūrākau, mihimihi).	☐	☐
	2. Demonstrate maramataka knowledge when collecting seeds (Range: phase, atua, month, and impacts on hinengaro, tinana, tāngata and taiao).	☐	☐
	3. Select and apply sustainable kaitiakitanga practices when collecting seeds (Range: plant care and maintenance, collecting 20% of the seed, from more than one specimen, from different areas to maintain the genetic integrity, minimal damage to the tree, returning unused material, and bi-products for compost).	☐	☐
	4. Select and apply appropriate planning strategies when collecting seeds (Range: Identifying species, mapping, seeking permission, team members, resources).	☐	☐
	5. Conduct assessment processes when collecting seeds (Range: mini assessment and documenting).	☐	☐
	6. Implement appropriate bagging processes when collecting seeds (Range: bagging in reusable paper bags and documenting).	☐	☐
	7. Demonstrate appropriate seed processing skills in a taiao context (Range: risk mitigation, weighing, counting and documenting).	☐	☐
	8. Demonstrate appropriate storage methods for collecting seeds (Range: storage containers/bags, labelling, plant identity coding system and seed bank).	☐	☐
Final result (ACH or YTA)		☐	☐
Assessor signature and final date assessed			
Assessor feedback			

STUDENT WORKBOOK

HE AHA TĒNEI PUKAMAHI? – WHAT IS THIS WORKBOOK?

This workbook can help support and guide you through your mahi for this programme. This workbook contains:

- Additional information to support what you have learnt with your kaiako and your class.
- Some activities to help you consolidate your learning.
- Some key words (and their meanings) to help you through your journey.
- Ideas of additional resources to help you along the way.

NGĀ TOHUTOHU MŌ TĒNEI PUKAMAHI – WHAT TO DO WITH THIS WORKBOOK

- 1) Look at what you have learnt during this kōnae ako and the assessment material.
- 2) Work through each exercise of this workbook – it is a support tool for you. You can make notes in it, highlight important ideas and things you want to make special note of.
- 3) Have a think about how particular activities relate to your mahi at Pūniu River Care to help understand its significance.

NGĀ TOHU ĀWHINA – HELPFUL ICONS

The following section explains several helpful icons that you will see throughout this workbook to help navigate and guide you through this workbook.

	He kupu āwhina – <i>Some tips to help you work through an activity.</i>
	He mahi takitahi – <i>An individual activity.</i>
	He mahi pānui – <i>A reading activity.</i>
	He mahi whakarongo – <i>A listening activity.</i>
	He mahi tuhituhi – <i>A writing activity.</i>
	He mahi titiro/mātakitaki – <i>A observation activity.</i>
	He mahi arotake – <i>A reflection activity within your journal.</i>
	Ētahi atu rauemi – <i>Additional resources.</i>

STUDENT WORKBOOK

HE PAPA KUPU – GLOSSARY

This glossary contains Māori words and their meanings that are found through this workbook.

Māori word/phrase	English translation
Awa	<i>River</i>
Ētahi rauemi	<i>Some (additional) resources</i>
He kupu āwhina	<i>Tips - Some tips to help you work through an activity</i>
He mahi pānui	<i>A reading activity</i>
He mahi takitahi	<i>An individual activity</i>
He mahi titiro/mātakitaki	<i>A looking/watching activity</i>
He mahi whakarongo	<i>A listening activity</i>
Hei mahi	<i>Activity</i>
Hei tauira	<i>An example/an introduction</i>
He papa kupu	<i>Glossary</i>
Hinengaro	<i>Mind</i>
Ingoa	<i>Name</i>
Iwi	<i>Tribe</i>
Kaiako	<i>Teacher</i>
Kaitiakitanga	<i>The keeping of our waterways, rivers, whānau and home</i>
Kākano	<i>Seed</i>
Karakia	<i>Ritual chant, prayer</i>
Kaupapa ako	<i>Learning topic</i>
Koha	<i>Limitless generosity acknowledging the celebration of life</i>
Kōnae ako	<i>Module</i>
Mahuri	<i>A young tree at an adolescent stage of life</i>
Marae	<i>Traditional meeting place/complex</i>
Maramataka Māori	<i>Māori lunar calendar</i>
Māramatanga	<i>To know your place in a sustainable world</i>
Maunga	<i>Mountain</i>
Mihimihi	<i>To greet, pay tribute</i>
Papatūānuku	<i>Earth mother</i>
Pepeha	<i>An introduction of yourself using physical landmarks to share where you are from/who you are</i>
Pihinga	<i>Seedlings</i>
Pukamahi	<i>Workbook</i>
Pūrākau	<i>Story</i>
Rākau	<i>Tree</i>
Rangatiratanga	<i>Self-determination; to take the lead for a sustainable world</i>
Taiao	<i>Natural world/environment/outdoor activities</i>
Taketake	<i>The root of all things growing</i>
Tāngata	<i>In this context it means energy level²</i>
Taniwha	<i>Guardian</i>
Tapu	<i>Sacred</i>
Te whakarāpopototanga	<i>The summary</i>
Tikanga practices	<i>Practices using Māori customs/values/worldview</i>
Tinana	<i>Body/physical wellbeing</i>
Uara	<i>Values</i>
Waka	<i>Canoe</i>
Whakarite	<i>To prepare</i>
Whānau	<i>Family</i>
Whanaungatanga	<i>Strategic relationships and empowering whānau</i>

STUDENT WORKBOOK



ĒTAHI ATU RAUEMI – SUPPORTING RESOURCES

Videos:

Land, Air, Water Aotearoa - <https://www.youtube.com/watch?v=lwJGpFIJ9mc>

Momentum Waikato - <https://vimeo.com/300860022>

Pūniu River Care, Sustainable enterprises - <https://www.youtube.com/watch?v=3htUhFvIHog>

Pūniu River Care, Waterway restoration project - https://www.youtube.com/watch?v=-jjdaQ_xSnw

Pūniu River Care, Growing jobs back home - https://www.youtube.com/watch?v=X_onB47mAT0

Pūniu River Care, Freshwater Improvement Fund - <https://www.youtube.com/watch?v=8WpR5Fwdoks>

Pūniu River Care, Waikato River Authority - <https://www.youtube.com/watch?v=S0YpgaSve8Y>

Pūniu River Care, Hikoi May 2021 - <https://www.youtube.com/watch?v=h9ldZrcrCTE>

Waikato Tainui, Taiao Grant - <https://www.youtube.com/watch?v=lcGRGH-Rx-0>

Waikato BFEA Catchment Group Award - <https://www.youtube.com/watch?v=VTGT9giVg0c>

Matataiora Maramataka app by Maniapoto Māori Trust Board - <https://www.youtube.com/watch?v=zNki9cyqjKw>

(Available to download from Google Play or Apple Store).

Waiata:

Ehara i te mea: <https://www.youtube.com/watch?v=ujluANcY3fE>

E tū Maniapoto: https://www.youtube.com/watch?v=_ho7ANdEhE0 (@ 3:48)

Haere mai ki Maniapoto: https://www.youtube.com/watch?v=_ho7ANdEhE0 (@1:16)

He aha kei taku uma: <https://www.youtube.com/watch?v=bY9EISgYbrg>

Hoki hoki tonu mai: https://www.youtube.com/watch?v=_CL0-JJmclK

Mangatoatoa: https://www.youtube.com/watch?v=W_00w3hY3wg (@0:00 - 0:51)

Mā wai rā: <https://www.youtube.com/watch?v=FRXjYJxYLCc>

Rimu rimu: <https://www.youtube.com/watch?v=hSCq3FIEQa0>

Tai aroha: <https://www.youtube.com/watch?v=awVVAaEILfw>

Tōia: https://www.youtube.com/watch?v=aZS_B8ZtIEo

Whakataurangi ake: <https://www.youtube.com/watch?v=n8uN4l3MkNs>

STUDENT WORKBOOK



NGĀ KAUPAPA AKO – KOHA (COLLECTING SEEDS)

Koha is limitless generosity that acknowledges the celebration of life. It is about celebrating life, acknowledging life and being grateful for the opportunities that arise. To Pūniu River Care it is to give without expectation of receiving, to contribute with endless generosity and to nurture all that is life.

In alignment with this description, this kōnae ako aims to examine and implement the seed collecting process using tikanga practices within a taiao worldview.

Throughout this workbook we will cover the following topics:

- Tikanga (Karakia, whakarite, pūrākau, mihimihi)
- Maramataka
- Sustainable practices
- Care and maintenance
- Identifying species
- Mapping
- Seeking permission
- Appropriate resources
- Mini assessment
- Documenting
- Collecting
- Bagging
- Processing
- Storage containers/Bags
- Seed bank



1. WHAKARITE



Below is an example

Āianeī ake nei, āe!



Using what you know now, write another whakarite below that you would use when collecting seeds.

[illegible]

STUDENT WORKBOOK

2. PŪRĀKAU

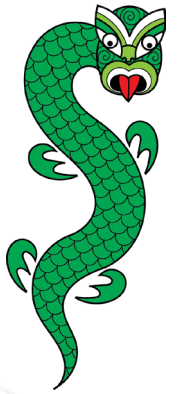


HEI TAUIRA – AN EXAMPLE

Pūrākau are a way to capture stories of our whānau, hapū and iwi. These stories talk of our ancestors' successes, failures, lessons and history. Pūrākau are often used to teach younger generations about the significance of places and people in those stories. Below is the pūrākau of Peketahi and Parekawa as told by Paraone Gloyne and Quinton Tunoho of Raukawa ki Wharepūhunga.³

*"Whirowhiro ana riporipo ana te au o Pūniu, wai kaukau o Peketahi."*⁴

This is an excerpt of a waiata composed by Paraone Gloyne, Ngahuia Kopa and Te Aorere Tunoho which celebrates the taniwha who are the guardians of Pūniu, Waipā and Waikato rivers. Peketahi in particular is known throughout Owairaka, Wharepūhunga to Pūniu and through to Waipā rivers. This is their story.



Peketahi and Parekawa

Set in the Owairaka valley is the story of Peketahi and Parekawa. The story goes that Parekawa had been asked by her father to cut his hair – which in those times saw significant tapu surrounding those kinds of activities and the associated rituals and customs. Her father was a tapu person and as she cut his hair she also became tapu as a result.

While tapu, Parekawa had to prepare kai for some visitors which broke the tapu and she became noa. Shortly after this, her appearance started to change dramatically, she spoke in a strange manner and was not herself. She fled into the forest, chased by her friends and whānau and she leapt into the river and disappeared.

Her friends and whānau thought she had drowned but she had been taken by the taniwha Peketahi to the taniwha underworld. After some kōrero, Peketahi (who is the chief taniwha) sent Parekawa back to this world. She was met by her father who recited a karakia over her and she once again regained her human form.

A moral of this story is to acknowledge tapu and karakia and other means to keep yourself safe – spiritually and physically.



HEI MAHI – ACTIVITY

After reading the pūrākau of Peketahi and Parekawa, what are 3 lessons you would take from it and use in your everyday practice?

1

2

3

³ The story of Parekawa and the Taniwha: <http://nzetc.victoria.ac.nz/tm/scholarly/tei-Bes02Reli-t1-body-d4-d6-d2.html>

⁴ Excerpt taken from composition 'Teretere Taku Tia Rere' by Paraone Gloyne, Ngahuia Kopa and Te Aorere Tunoho.

STUDENT WORKBOOK

3. MIHIMIHI



HEI TAUIRA – AN EXAMPLE

A mihimihi is a greeting or introduction that happens at the start of a meeting or gathering. A mihimihi is used to establish links between the speaker and the audience and the kaupapa of the gathering and may include a pepeha.

Below is an example of a mihimihi.

Pepeha

Mōkau ki runga, Tāmaki ki raro
 Pare Waikato, Pare Hauraki
 Te Kaokaoroa o Pātetere
 Mangatoatoa ki waenganui
 Ā muri i a au
 Kia mau tonu ki tēnā
 Kia mau ki te kāwau mārō
 Whanake ake, Whanake ake!
 E kore au e mate
 He kākano i ruia mai i Rangiātea
 Mai te wāhi ngaro ki te mata o te whenua
 Ko au te maunga, ko te maunga ko au
 Ko au te moana, ko te moana ko au
 Ko au te ngahere, ko te ngahere ko au
 Ko au te awa, ko te awa ko au
 He kaitiaki tūturu ahau arā Te Kāhui ā Hiwa
 Tihei Mauriora!



HEI MAHI – ACTIVITY

Using the space provided, write your pepeha that you would use during a mihimihi.

	Ko.....waka
	Ko.....maunga
	Ko.....awa
	Ko.....marae
	Ko.....iwi
	Ko.....ingoa

STUDENT WORKBOOK



HEI MAHI AROTAKE – JOURNAL ACTIVITY

Refer to your Student Journal to complete the activities for this kōnae ako.

4. MARAMATAKA



HEI TAUIRA – AN EXAMPLE

The Māori lunar calendar called the Maramataka marks the phases of the moon in a lunar month. The maramataka was once used for almost any activity taking place in the community. Some days or nights of the maramataka were better to do certain activities than other days.



HEI MAHI – ACTIVITY

Using the Matataiara Maramataka app, complete the following table for today's date and write the impact of today's phase on collecting seeds.

	Date ⁵	
	Atua (Deity)	
	Maramataka (Month)	
	Hinengaro (Mindfulness)	
	Tinana (Physical wellbeing)	
	Tāngata (Energy level)	
	Taiaro (Outdoor activities)	
	How does today's phase impact on collecting seeds?	

⁵ The translations given here are from the Matataiara app.

STUDENT WORKBOOK

5. SUSTAINABLE KAITIAKITANGA PRACTICES



HEI TAUIRA – AN EXAMPLE

Sustainability and kaitiakitanga are complementary when working in the taiao space. Kaitiakitanga practices allow efficiency and also respect Papatūānuku when working with the land.



HEI MAHI – ACTIVITY

Using the table below, describe what each kaitiakitanga practice means when collecting seeds.

Collecting 20% of the seed	
From more than one specimen	
From different areas to maintain the genetic integrity	
Minimal damage to the tree	
Returning unused material	
By-products for compost	

STUDENT WORKBOOK

6. PLANNING STRATEGIES WHEN COLLECTING SEEDS



HEI TAUIRA – AN EXAMPLE

Seed collecting requires planning around what, where, when, who and how. As an example of good planning, knowing where a seed has come from means that it can be replanted in the right area when the time is right. Appropriate planning saves time and resources but it also ensures the safety of the team members that are doing the collecting.



HEI MAHI – ACTIVITY

Using the table below, describe the importance of each of these areas when collecting seeds.

Karakia whakarite <i>(Appropriate karakia and person to conduct karakia and why is it important?)</i>	
Identifying species <i>(What needs to be collected, what is available and why is it important?)</i>	
Mapping <i>(Recording the GPS location etc. Why is this important?)</i>	
Seeking permission <i>(Who are we seeking permission from and why is it important?)</i>	
Team members <i>(What do we consider when putting the team together and why are these things important?)</i>	
Resources <i>(What resources are needed and why are they important?)</i>	

STUDENT WORKBOOK

7. ASSESSMENT PROCESSES WHEN COLLECTING SEEDS



HEI TAUIRA – AN EXAMPLE

Collecting the seeds of plants for replanting can be a rewarding exercise and is a sustainable way to increase the number of plants available for replanting in the future. However, collecting appropriate and good quality seeds requires an assessment of the seed as it is being collected. For example, assessing the species of the seed may be done as it is collected.



HEI MAHI – ACTIVITY

Using the table below, describe what happens at each step and why it's important in this stage of collecting seeds.

Mini assessment	
Documenting	



STUDENT WORKBOOK

8. BAGGING PROCESSES WHEN COLLECTING SEEDS



HEI TAUIRA – AN EXAMPLE

When collecting seeds the bagging processes ensure the quality of the seed remains intact, ready for the next step in the seed collecting process. An example of this is bagging seeds to keep them dry and away from moisture.



HEI MAHI – ACTIVITY

Describe both of the processes in the table below and explain why they are important when bagging seeds.

Bagging in reusable paper bags	
Documenting	



STUDENT WORKBOOK

9. SEED PROCESSING SKILLS IN A TAILO CONTEXT



HEI TAUIRA – AN EXAMPLE

Seed processing involves a number of steps and the process can differ for the numerous seeds that could be collected and processed at any one location



HEI MAHI – ACTIVITY

Using the table below, describe what each step means and why it's important to store seeds so that they stay healthy enough to be sown at a later date.

Risk mitigation	
Weighing	
Counting	
Documenting	

STUDENT WORKBOOK

10. STORAGE METHODS FOR COLLECTED SEEDS



HEI TAUIRA – AN EXAMPLE

Seed storage (if completed correctly) can prolong the quality and life of seeds while they are stored. There are a number of steps involved with appropriate seed storage. For example, deciding on the container/bag to use to store the seeds so that they stay healthy enough to be planted at a later date.



HEI MAHI – ACTIVITY

Using the table below, explain each step in the storage process and explain why these are important when storing seeds.

Storage containers/ bags	
Labelling	
Plant identity coding system	
Seed bank	

STUDENT WORKBOOK



STUDENT WORKBOOK

TE WHAKARĀPOPOTONGA – A SUMMARY

What karakia should we start with?

E Ihoa
Manaakitia i a mātou
Me a mātou mahi katoa
Ko Te Māngai hei tautoko mai
Āianei ake nei, āe!

It's a perfect day to collect seeds, now where should we go?

We need to ask the land owner.

KOHA

Do we have everything we need?
Paper bags?
Equipment?
Team members?
Labels?

The seeds need to be weighed and counted before we look at storage

4
3
2
1



PŪNIU
RIVER
CARE INC.