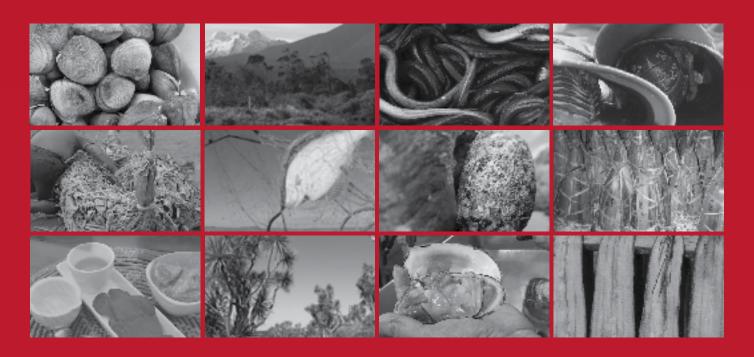
A framework for using the Ngāi Tahu Mahinga Kai video series in schools



"Our vision is that education enables the success and well-being of Ngāi Tahu whānau in all aspects of their lives"





What is Ngāi Tahu Mahinga Kai and how can it help me?

"Ngāi Tahu Mahinga Kai" is a lifestyle series featuring 12 ten minute episodes filmed in the stunning landscape of Te Waipounamu. It captures the stories and essence of traditional food gathering practices passed down through the generations.

The series offers a window into the lives of Ngāi Tahu whānau carrying on the food gathering traditions of their ancestors – from tūna and pātiki on the east coast, medicinal rongoā plants in the north and kanakana in the far south. Through our characters we explore the evolution of the practice – its past, present and future and we learn about the species and their natural environment.

This resource has been created to help you use those videos to inspire, inform and assist in a learning inquiry, with links to various other resources that can enhance the project as a whole. With the new Aotearoa New Zealand Histories curriculum released in 2022, these contexts can help meet the important "local histories contexts" for schools in the Ngāi Tahu takiwā, and for other Ngāi Tahu whānau and students outside of this takiwā to have access to these resources from their homes, ahakoa ki hea.



What is Ngāi Tahu Mahinga Kai and how can it help me?

"Mahinga kai / mahika kai" literally means "to work the food": and relates to the traditional value of food resources and their ecosystems, as well as the practices involved in producing, procuring, and protecting these resources. Understanding former and present mahinga kai sites and practices leads to meaningful scientific and social sciences learning opportunities.

Te Rautaka Mātauranga - The Ngāi Tahu Education Strategy - can be supported in schools to uplift outcomes through the Aotearoa New Zealand Histories curriculum, 2023.

The Aotearoa New Zealand Histories curriculum states that the sequence of "Discover-explore-respond supports ākonga to think critically as they explore culture and identity and develop an understanding of the big ideas."

These contexts help us to Understand, Know and Do as we learn of the importance to Māori settlement, life, and economy.

Link here to Aotearoa NZ Curriculum website

"Our vision is that education enables the success and well-being of Ngāi Tahu whānau in all aspects of their lives".



Videos

Click on the inquiry sheet links related to each topic. Click on an images to link directly to the video of your choice.

<u>Pātiki Inquiry sheet</u>	Kōura Inquiry sheet	<u>Pāua Inquiry sheet</u>
Kanakana Inquiry sheet	<u>Tuaki Inquiry sheet</u>	<u>Mōkihi Inquiry sheet</u>
Rongoā Inquiry sheet	<u>Īnaka Inquiry sheet</u>	<u>Pōhā Inquiry sheet</u>
<u>Tī Kōuka Inquiry sheet</u>	<u>Toheroa Inquiry sheet</u>	<u>Tuna Inquiry sheet</u>



Tuna

"The annual tuna migration from Lake Wairewa is a sight to behold as the mature female tuna make their way across the shingle to the sea on their journey to Tonga. Local Ngāi Tahu take this opportunity to dig drains, sustainably harvest and process those not quick enough to escape.

The locals, including our talented Iaean Cranwell are well known for their succulent, delicious smoked tuna."

Keywords □()))

Find out the meaning of these kupu (<u>www.maoridictionary.co.nz</u>) and press the symbol to hear the correct pronunciation of each kupu.

kaihoe pārua waipara

He pakirehua – an enquiry

- 1. Where is Wairewa? Explore <u>Kā Huru Manu</u> to find out. What's the name of the stream, lake, the significant maunga (mountain) and wharenui (meeting house) there?
- 2. We know that "wai" means water; what does "rewa" mean? There are several definitions; which makes sense to you for this location, and why?
- 3. Describe the first thing Iaean suggests we should do when preparing to catch or hunt tuna?
- 4. In the video, how was the term "mahinga kai" explained what does it mean?
- 5. What tools did you see being used in the video? What is a 'whata', and how is it used? What other tools/ methods could you use when hunting tuna?
- 6. The health of the awa is so important. What caused it to turn green? What improved its health? How can we care for the wellbeing of tuna and their habitat?
- 7. Listen for this whakataukī (proverb); 'Ka hāhā te tuna ki te roto, ka hāhā te reo ki te kāika, kā hāhā tetakata ki te whenua', and in your own words, describe what it means.
- 8. "The 9th Tall Tree of Ngāi Tahu" was mentioned in what context? What does it mean for people and their well being?

He whakaaro mō te mahi e whai ake nei – Ideas for further action:

All about tuna:

- Check out the education resources at Conversation volunteers NZ <u>Tamariki For Tuna Longfin Eel Educational</u> <u>Resources Conservation Volunteers New Zealand</u> videos, posters, downloadable fact sheets and stories
- Imagine you are preparing to hunt tuna. Make a plan (including a list of what to pack). Design and make your own spear or gaff to take (using found materials).

He pakirehua – an enquiry (continued)

- In pairs, co-design a Google Slide presentation describing: the 3 types of tuna, their habitats, life-cycle, migrations and highlight the best time to catch tuna-
- Feed mince to tuna! Discover, identify and count tuna living beneath <u>The Terraces</u> in the Ōtākaro (or at another place near to you). Record yourself, observe their type, size, movement.
- Ask ākonga to talk to their whānau about traditional or current fishing practices from their culture. Ākonga
 could bring images or items that illustrate these practices and display them. As a class, discuss similarities and
 differences between the various practices.
- Create an artwork featuring tuna you may be inspired by Ngāi Tahu artist <u>Priscilla Cowie</u> and informed by the movement of tuna. Explore tuna formations through drawing then do a print (<u>collagraph</u>, <u>card relief</u>).

All about sustainable practices: Check out these links for more information:

<u>Wairewa</u> — <u>Lake Forsyth | Christchurch City Libraries</u>

Canterbury's poisonous Lake Forsyth kills sheep, full of green slime | Stuff.co.nz

Freshwater feature: Managing Te Roto o Wairewa | NIWA

From reading, the video and discussions with your classmates, you will have found out about the high algal production which affects the health of the lake.

- What has contributed to this state?
- What solutions have been suggested?
- Do you have other ideas of actions that can be taken?
- What can you do to influence change?

Create a presentation so you can share the information you have learned through this study with others, so they can be aware of the challenges for this lake. Don't forget to offer some ideas for solutions.

Taking the perspective of the tuna, how does it feel when the lake is unhealthy? How do the elver thrive in that environment? Present your ideas to others.

Link to web series

Mahinga Kai Web Series

Other useful links

- https://niwa.co.nz/tools-and-resources/tuna
- https://teara.gout.nz/tuna-eeling/
- Amazing Facts About Longfin Eels | Forest and Bird

- <u>Te hopu tuna eeling Te Ara Encyclopedia of</u> New Zealand
- <u>Tuna</u>, <u>The Eel</u> <u>His Life History | NZETC</u> (victoria.ac.nz)
- A creature of mystery: New Zealand's love-hate relationship with eels | Marine life | The Guardian
- <u>Tuna-Kuwharuwharu-Longfin-Eel.pdf</u> (<u>longfineel.co.nz</u>)
- <u>Tuna ā tātou taonga: Freshwater eels</u> (doc.gout.nz)



Īnaka

Paul Wilson was born and bred on the West Coast of the South Island. He comes from a long line of baiters and for Paul and his whānau the river is a way of life they wouldn't trade for anything — it's in their blood! The Wilson's share their connection with this special place as they lay in wait for the prized īnangato swim their way.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.nz) and press the symbol to hear the correct pronunciation of each kupu.

tangata <u>inanga or inaka</u> <u>Te Tai Poutini</u>

Rāhui means...

to put in place a temporary ritual prohibition, closed season, ban, reserve.

Traditionally a rāhui was placed on an area, resource or stretch of water as a conservationmeasure or as a means of social and political control for a variety of reasons.

Pātai

- 1. There are so many rivers on the West Coast of the South Island. What makes them great rivers for inaka to flourish?
- 2. I wonder, what actually is a inaka? Where in the world can they be found?
- 3. Māori have always fished for īnaka. What would have happened to the īnaka populations if the miners hadn't started fishing, preserving and exporting īnaka?
- 4. Whitebait gathering and selling by the public has its own special legislation. Should rāhui be placed on the peoples, rivers, or times for seasonal gathering, why?
- 5. Can you think of and design for a better way to catch inaka? Explain and demonstrate how your design will be an improvement on current methods.

Other teaching ideas around inaka:

- 1. Create a mural featuring inaka and other river species for school. Choose species that you know are found in your area.
- 2. How many names for the different growth stages or varieties of inaka are you able to find? How many of those names are also names of varieties of pounamu (NZ nephrite jade/greenstone)? Can you find out why that may be?
- 3. Map the West Coast rivers distances from Hokitika and calculate travel times.

Other teaching ideas around inaka: (continued)

- 4. Sustainable waterways inquiry, design new fishing methods, go whitebaiting in season, digitally document the process (photos, videos)
- 5. Create a step-by-step instructional recipe for others to make whitebait patties.
- 6. Referring to the video links below about the Whaka-inaka project to establish inanga breeding habitat, could you do something similar to improve the waterways nearest to you? Chart the progress and results in a similar way to that project.

Link to web series

Mahinga Kai Web Series

Other useful links

- https://tki.org.nz/Ready-to-Read/Whitebait-Season
- Whitebait: more than meets the eye Forest & Bird (forestandbird.org.nz) Whitebait Science Learning Hub
- Inanga: Freshwater fish (doc.gout.nz)

- Freshwater care for inanga Care for inanga (doc.gout.nz)
- EOS Ecology Whaka Inaka Causing
- WhitebaitWhaka_Inaka_Project_ Overview_16_01_27_LowRes(1).pdf (eosecology.co.nz)
- Whaka Īnaka"Causing" whitebait in Ōtautahi rivers - Te Rūnanga o Ngāi Tahu (ngaitahu.iwi.nz)
- Resilient Shorelines | natural solutions for nature's extremes: Whaka Inaka: Causing Whitebait project



Mōkihi

Mōkihi or mogi were an essential means of transport for early Māori traveling the waterways of Te Waipounamu. They were light, buoyant and easily constructed. They were a clever innovation designed to traverse the waterways of Te Waipounamu in the search for kai. Long since replaced in a practical sense, by fiberglass and modern technology, the art and craft of mōkihi lives on through the passion and dedication of people like Joe Wakefield.

Keywords □)))

Find out the meaning of these kupu (www.maoridictionary.co.ng) and press the symbol to hear the correct pronunciation of each kupu.

raupō <u>tūturu</u> maroke

Pātai

- 1. Mōkihi are river boats, what are the main materials used to create these waka?
- 2. Joe Wakefield says 'a swamp to us is a supermarket' what do you think he means by this? Can you think of any places where there is another example of this type of "supermarket"?
- 3. Inside the raupō are small pocket structures. What is the importance of these for making mōkihi?
- 4. Is drying the reeds crucial to the success of the end product? Why/why not?
- 5. Technology changes over time; is there a more successful craft made with modern materials? What makes it so?

Other teaching ideas around mokihi:

- 1. Using natural materials from around your own home, attempt to make a mōkihi. Fill your sink or bath with some water and try it out. You could test your craft out against another. You could have prizes for the one that goes the furthest, or can carry a weight for the furthest. Choose an accessible part of the river to plan the race course.
- 2. Pretend you are traveling on a mōkihi. Write a poem about your experience. What would you be able to see, smell, hear and touch? Do you think you would get wet?
- 3. The gathering and creation of mōkihi is normally done alongside whānau. Ring a whānau member and describe the main points of building mōkihi.
- 4. Raupō has so many other uses. How did raupō help improve the health, wellbeing and lives of Māori (and early settlers)? How many uses did you find?
- 5. How many place names can you find that use the name "Mōkihi? Can you find out why? Map where they all are, and any significant land marks nearby.

Mahinga Kai Web Series

Other useful links

- <u>Build a traditional canoe build a traditional</u> maori raft 'Mokihi'.
- Māori Plant Use Database Plant Use Details of Typha orientalis (landcareresearch.co.ng)
- Raupō Wetlands Te Ara Encyclopedia of New Zealand
- <u>Bullrush Raupo, Herb Federation of New Zealand</u> (herbs.org.nz)
- <u>Typha orientalis, New Zealand Plant</u> <u>Conservation Network (nzpcn.org.nz)</u>

- Raupō, Manaaki Whenua (landcareresearch.co.nz)
- Pre-schoolers craft a mokihi and sail down the
 Arrow River | RNZ
- <u>Travelling on a mōkihi Rural language Te Ara</u> <u>Encyclopedia of New Zealand</u>
- Mōkihi Waka canoes Te Ara Encyclopedia of New Zealand
- Records of the Canterbury Museum Volume 34 2020
- Mokihi to voyage back in time | Otago Daily Times Online News (odt.co.nz)
- A man of the river Cultural Mapping Project Te Rūnanga o Ngāi Tahu (kahurumanu.co.nz)
- Mokihi Film 2018 YouTube



Pāua

The spectacular coastline, once awash with the much sought-after delicacy that is pāua — pāua steaks, pāua patties, pāua in cream or just plain raw...now a fishery protected by customary fishing regulations. Khyla Russell and Brendan Flack are two locals with a passion for protecting and enhancing its health and abundance to make sure there will always be a feed for them and their whānau.

Keywords □)))

Find out the meaning of these kupu (www.maoridictionary.co.nz) and press the symbol to hear the correct pronunciation of each kupu.

taiapure kuiti hapori

Pātai

- 1. Look on a map (<u>Ka Huru Manu</u>) where is Karitane? What does the name mean? What is the name of the maunga (mountain), the awa (river) and marae there?
- 2. "...cultural resources were disappearing. Something needed to be done". Why were they disappearing and what was done about it?
- 3. Describe and compare traditional Māori and scientific methods for translocating and reseeding pāua. Explain how and why the pāua were tagged.
- 4. When preserving an ideal environment for shellfish, what are the contributing factors that help or hinder growth and flourishing populations? How do people affect outcomes?
- 5. Another place known for pāua beds is the coastline of Kaikoura. What happened to the pāua there after the earthquakes and why?

Other teaching ideas around pāua:

- 1. Make a film about 'Protecting Pāua' why and how to take care of pāua and their habitat. Get creative props, music, a character!
- 2. Talk to your family about memories of collecting and or cooking pāua. Are there any family recipes? Cook some pāua fritters. Try to give recipe instructions in te reo Māori or simply learn the nouns.
- 3. Read the story Tangaroa's Gift or Kahungunu & Rongomaiwahine. Retell it with you in the story.
- 4. Raupō has so many other uses. How did raupō help improve the health, wellbeing and lives of Māori (and early settlers)? How many uses did you find?
- 5. How many place names can you find that use the name "Mōkihi? Can you find out why? Map where they all are, and any significant land marks nearby.

Mahinga Kai Web Series

Other useful links

- http://www.puketeraki.nz
- https://nzgeo.com/stories/about-paua
- Kahungunu and Rongomaiwahine (and the paua)

- https://pacificpicturebooks.co.nz/tangaroas-gift
- <u>Tangaroa's Gift YouTube</u>
- Image (scholastic.com.au)
- The legend of how Pāua got his shell <u>The legend</u> of how the Paua got its shell | Ariki New Zealand <u>Jewellery (arikinz.com)</u>



Toheroa

Cyril Gilroy takes us to Ōreti Beach where we dig for the prized toheroa. We meet the marae cooks who tell tales of gathering this once plentiful bounty and although we can't get a decent soup recipe out of them, we are treated to a decent feed of patties.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.ng) and press the symbol to hear the correct pronunciation of each kupu.

<u>moumou huhua āwangawanga</u>

Pātai

- 1. Do each of the different kaimoana species compete for space, or do they have their own environments to thrive in? How do they breathe and eat? Do they move around?
- 2. In earlier times meeting on the beach, gathering, having a fire and whānau day occurred regularly. This has changed. What has impacted on those changes?
- 3. Mr Skerrett mentioned the reduction in number from over 2 million to around 300,000. What were the causes?
- 4. That important message of "you have to give something back, you can't just take" was heard. How can you contribute to protect the habitat so that toheroa thrive?
- 5. Since the 1990s tangata tiaki manage the quota through permits. How have they helped improve the toheroa population?
- 6. If you have friends or whānau who have not gathered shellfish before, what would you be able to tell them about the process benefits, cautions and consequences now that you have seen this video?

Other teaching ideas around toheroa:

- 1. Compare and contrast the kai species of toheroa/ paua/ tuna/ tio/ kōura/ and īnanga.
- 2. Create a poster, a letter, or a tourist guide pamphlet to share the information you have learned about taking care of the shellfish species.
- 3. Design signs to protect beaches, with some example ways to protect kaimoana.
- 4. Kaimoana recipes, recipe book, share with local marae.
- 5. See what other school readers, journal articles or story books that tell about seafood and their habitat. One you may enjoy is "Te Koha a Tangaroa" (Tangaroa's Gift).

Mahinga Kai Web Series

Other useful links

- https://www.nzgeo.com/stories/the-elusive-toheroa
- <u>Te Kaitiaki Toheroa | New Zealand Geographic</u> (nzgeo.com)
- https://www.stuff.co.ng/environment/110671140/ decades-of-fishing-bans-have-not-rescuedseafood-delicacy-toheroay

- https://www.sciencelearn.org.nz/resources/1048-reviving-toheroa
- Reviving toheroa Science Learning Hub
- Toheroa: Rejuvenating a Delicacy Science Learning Hub
- The Vanishing Act of New Zealand's Iconic Clam -Gastro Obscura (atlasobscura.com)
- Toheroa Shellfish Te Ara Encyclopedia of New Zealand
- <u>Collecting toheroa Coastal shoreline Te Ara</u> <u>Encyclopedia of New Zealand</u>



Tuaki

Meri and Charlie Crofts at Koukourārata – four generations of the Crofts whānau gather cockles, we investigate the degradation of the cockle bed and how cockles are now only harvested for customary take.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.ng) and press the symbol to hear the correct pronunciation of each kupu.

tuaone kohikohi karekau

Pātai

- 1. The locals showed their respect for the sea. How? What other ways can you show respect for your environment?
- 2. The local hapū Ngāti Huakai are very protective of the tuaki, and selective about sharing their place with others. Why is that?
- 3. If the rāhui had not been placed on the resources, what may have happened?
- 4. Charlie Crofts mentioned they have introduced mahinga mātaitai in the whole bay. What does that mean?
- 5. The locals of Koukourarata aim to continue to protect the tuaki and their environment. What suggestions would you make so they can succeed?

Other teaching ideas around tuaki:

- 1. Further readings and research on healthy waterways and sustainable food gathering practices: top tips, posters to encourage action, requests for rahui.
- 2. "the bay is our heartbeat" depicted as mural, waiata, poi, rotarota (poetry)
- 3. Recipes using tuaki (tuangi, cockles) experiment, record, share, enjoy.

Mahinga Kai Web Series

Other useful links

- Te Koha a Tangaroa adapted lesson plan Activity for 'Tangaroa's Gift (Te Koha ā Tangaroa)'
 - NZ Pacific Picture Book Collection (pacificpicturebooks.co.ng) and information sheet Image (scholastic.com.au)
- Information about cockles shellfish https:// padlet.com/conserved/cockles-tuangir5j8nceikgry

- Cockles Science Learning Hub
- The Guardians of Pauatahanui Inlet (gopi.org.ng)
- Cockles Mātaitai shellfish gathering Te Ara Encyclopedia of New Zealand
- <u>M arine resources in Māori oral tradition: He kai moana, he kai mā te hinengaro ScienceDirect</u>



Pōhā

Eighty-five-year-old Tiny Metzger has been making pōhā for as long as he can remember. The bull kelp and tōtara bark food storage container is an innovation at least 100 years ahead of its time. For Tiny and his whānau, making pōhā is an annual tradition as they prepare to head to the Tītī Islands for the birding season.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.nz) and press the symbol to hear the correct pronunciation of each kupu.

whītau tōtara rimurapa

Pātai

- 1. Tiny talks about a species of kelp good for making pōhā. What is it and what makes it good? Then describe the impact pollution has had on the kelp.
- 2. What tool, material or technique shown to make pōhā, is most interesting and why?
- 3. Pōhā were traditionally used for preserving a particular kind of manu (bird). Have you or someone you know eaten it? Describe the taste. Watch how Covid-19 impacted hunting here.
- 4. Further you research and discover what else were pōhā traditionally used for.
- 5. Have you heard this <u>pūrakau</u> (story) about a sacred pōhā?

Other teaching ideas around pohā:

- 1. Go for a walk/bike ride: explore a local waterway, identify and photograph resources suitable for pōhā. Collect found materials along the way to design and make a storage container without a knife, what could you use to cut the material?
- 2. Make a poster about the different tools and techniques Ngāi Tahu/Māori used in preserving kai (pre-colonial) and compare them to what is used now.
- 3. Draw a flow diagram to show the steps to making pōhā, then make a Kahoot or Quizizz quiz of facts about pōhā for your classmates.
- 4. Find out about your own whānau traditions of preserving food. Have a go at preserving some kai with your whānau!

Mahinga Kai Web Series

Other useful links

- https://www.tepapa.gout.nz/traditional-maori-food-gathering
- https://teara.gout.nz/en/maori-foods-kaimaori/page-2
- https://ngaitahu.iwi.nz/kaikoura/takahanga-marae/
- https://teaomaori.news/ngati-ruahikihiki-titi-hunting (Covid)

- A Seaweed Pantry Tales from Te Papa episode 100 - YouTube
- Southland's surprise TikTok star | RNZ
- School Journal Pōhā A Clever Way of Storing Food-SJ L2 Sept 2014.pdf
- Te manu tītī waiata written by Ngāi Tahu kaumātua Piri Sciascia in 2000 NZ Folk Song * Te Manu Tītī – explanations, translations included. To hear the song, listen to Te Manu Titi – YouTube



Rongoā

Maurice Manawatu makes traditional medicines. He takes school groups through the Kaikōura forests and shows them how to make traditional medicines with the plants they gather.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.ng) and press the symbol to hear the correct pronunciation of each kupu.

rongoā tohunga kowaowao

Pātai

- Our forests have looked after us and now within a few generations we now need to look after them.
 Why is this? What can you do to look after our forests?
- 2. "...Crushing lemon scented leaves and rubbing the oil under your armpits". Which plant might Maurice be talking about? Name some other plants with deodorising qualities. Tell us the benefits and disadvantages of using plants as a natural deodorant.
- 3. Specific trees attract specific birds into the forest. If you could plant a forest at school, which trees would you plant and why? Why is it important to plant natives?
- 4. Which karakia did the boy chant? What does it mean? Why are karakia used? Find and learn some appropriate karakia that you can use before harvesting from the earth, when you wake up, before kai or before bed.

Other teaching ideas:

"Rongoā Māori is considered the traditional healing system of Māori. It focuses on the oral transmission of knowledge, diversity of practice and the spiritual dimension of health. Rongoā Māori encompasses herbal remedies, physical therapies and spiritual healing." Following are some ideas with many links to further information about rongoā. There are many school journal articles, and some are linked in this list also.

Other teaching ideas around rongoā:

- 1. Learn about a range of rongoā. Find recipes, talk to your elders, gather materials and make some balms/ antiseptics/ deodorants you can use as alternatives to what you have in the cupboard. Make an instructional video of you making it to teach others.
- 2. Think about how the use of plants for rongoā or kai impacted on life in Aotearoa at the time. Give examples of plants that were readily sourced and used by settlers. Make a big book for the junior class talking about those plants/ medicines you have learned about. If you don't have photographs, do some sketches to beautify your book.

- Talk to your grandparents or elders about the use of rongoā in their childhood; what "recipes" were used, which plants, what did they treat, and did they work? Compare and contrast that with the contemporary pharmacy medicines used to treat the same ailments.
- 4. When settlers came to Aotearoa, they brought with them new diseases (influenza, measles, whooping cough and dysentery). These were unfamiliar to Māori and a rongoā solution to combat these diseases was not previously known. Investigate and respond to the question "How did the arrival of these diseases impact on the social structure of life here for tāngata whenua (the Māori people)"?
- 5. Visit a native forest or reserve near you and gather data about the plants you find. What is the Māori/ English/scientific name? What rongoā uses does it have? Is it thriving in NZ or in threat of extinction? Which birds does it feed or home? What identifiable features does it have? Make an informative brochure about the forest you visited using as much te reo Māori as you can.
- 6. When investigating plants and their medicinal properties, there is of course a science link to the learning. Reflect also on the social sciences aspect. How did the understanding of native plants and their healing properties contribute to the wellbeing of society, and to the economic outcomes and opportunities that came along as well. We have all heard of kawakawa balm and its helpful properties. What other rongoā Māori can you find that became a commercial, economic opportunity for Māori and settlers alike? Add your commentary on the impact of the production of these traditional medicines on the economic wellbeing (or lack thereof) on people.

Mahinga Kai Web Series

Other useful links

- https://teara.gout.nz/en/rongoa-medicinal-use-of-plants
- https://www.tepapa.gout.nz/read-watch-play/ maori/maori-medicine
- Māori Plant Use Database (landcareresearch.co.nz)
 bpj13_rongoa_pages_32-36.pdf (bpac.org.nz)
- Rongoā for the Land / 2020 / Articles / School Journal / Instructional Series / Media – English – ESOL – Literacy Online (tki.org.nz)

- The Science of Rongoā / Connected 2015 level
 3 Fact or Fiction? / Connected / Instructional
 Series / English ESOL Literacy Online website Instructional Series (tki.org.nz)
- <u>Search Instructional Series (tki.org.nz)</u> "Rongoā Māori" JJ48, L.2, 2014
- Healing with Tutu: Rongoā Māori YouTube

Suggested publications to borrow (library) or purchase

Rob Tipa (Ngāi Tahu) has had over 50 columns published in Te Karaka magazine over a period of ten years. Much of the information in those articles is contained in this beautiful publication: "Treasures of Tāne: Plants of Ngāi Tahu".





Tī Kōuka

The plains and valleys of South Canterbury were once abundant with Tī Kōuka, sustaining whole communities not only as a food source but also as a fire starter, material for making protective clothing and a marker in the landscape. These days they are more appreciated for their aesthetic value than their practical uses. Local Mahinga Kai aficionado Karl Russell takes us on a journey of discovery to explore the taste, texture and appeal of this once staple of the local diet.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.nz) and press the symbol to hear the correct pronunciation of each kupu.

<u>manomano</u> <u>whakakā rauemi</u>

Pātai

- 1. What likely quantities of tī kōuka were harvested from Maungatī, and the uses?
- 2. Some say tī kōuka is not actually a tree. What is a tī kōuka?
- 3. To maintain tī kōuka populations, how often should we establish new plants? How can we care for the tī kōuka?
- 4. The change in use of land has had a great impact on the populations of tī kōuka. Is there some way that tī kōuka can thrive on a stock or agricultural farm?
- 5. Justify whether tī kōuka should be treated as a taonga, or just a nuisance plant.

Other teaching ideas around tī kōuka:

- 1. Create a mural featuring tī kōuka and other plant species that grow in your area for school wall, fenceline or classroom, learn meanings of other words mentioned (tītī, rongoā, kamokamo)
- 2. **Tī-Kōuka-Kola!** Tī-kōuka-kombucha! invent a new "soft drink" using the appropriate parts of the tī kōuka, record the process, and advertise and market your product. Prepare a "dragon's den" type persuasive argument with reasons why we should choose to purchase your new product.
- 3. Recipe writing, preparation methods and cooking experiments with tī kōuka.
- 4. **Create a whāriki** (woven mat) using tī kōuka, video/photograph the process. What else could you weave using tī kōuka? Make an instructional "how to" book for the junior classes to try.

Mahinga Kai Web Series

Other useful links

- https://my.christchurchcitylibraries.com/tikouka-the-cabbage-tree/
- https://ojs.victoria.ac.nz/jnzs/article/ view/395/318

- https://www.youtube.com/watch?v=e8kAUtlcZ7g
- Cordyline australis, New Zealand Plant Conservation Network (nzpcn.org.nz)
- <u>Cabbage trees Te Ara Encyclopedia of</u> New Zealand



Pātiki

Te Waihora was once a considerable tribal resource known as Te Kete Ika a Rākaihautū – The Fish Basket of Rākaihautū and home to the sand, yellow belly and black flounders. Today, it is one of New Zealand's most polluted lakes. We visit local kaumātua Don Brown, who has lived his entire life on the lake's edge. We learn about Te Waihora and its importance to Ngāi Tahu as a food source and we talk to David Perenara-O'Connell and Craig Pauling about the restoration of the lake and the vision for its future.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.nz) and press the symbol to hear the correct pronunciation of each kupu.

<u>tūrangawaewae</u> <u>patu</u> <u>hāpua</u>

Pātai

- 1. What's different in the way you fish for pātiki and the way you fish for īnaka or tuna? Why is it that way?
- 2. How does your whānau prepare pātiki? Where do you catch pātiki? Do you have a family recipe to share for a kai cook off? Re-write the recipe for a class cookbook. Once all recipes have been tested, the cookbook could be gifted back to the marae.
- 3. Despite being the first-equal most polluted lake in NZ, Te Waihora is still a great food source. How is that possible?
- 4. The level of the lake used to be far higher. How would you convince the local farmers and community to allow the level to be raised again?

Other teaching ideas around pātiki:

- 1. Research the use and significance of pātiki designs in whakairo, tukutuku and other Māori arts e.g. kapa haka.
- 2. Compose a waiata or rotarota to learn the names and appearance of the different species of pātiki in Te Waihora.
- 3. Experiment with different materials for filtering water, and research strategies being used around the world to clean lakes.
- 4. Settlers occupied the lands surrounding the lake, and mostly the land become farms. How did that changed land use of the lands surrounding Te Waihora impact on those families that used the lake for fishing to feed their families. How do you suppose they adapted in order to provide and survive? Can you think of different actions that could have benefited all who used the lake?

Mahinga Kai Web Series

Other useful links

- <u>Pātiki | Christchurch City Libraries</u>
- Fishing Methods and Devices of the Māori (Best; Tikao)

- <u>Te reo o te taiao Our amazing flat-faced pātiki</u>
- <u>Taonga Species Series: Pātiki | NIWA</u>
- <u>Pātiki monitoring on Te Waihora Te Waihora</u>
- <u>An introduction to mahinga kai Te Waihora</u>



Kōura

Kaikōura local Butch McDonald has been gathering kaimoana for as long as he can remember. Growing up with his grandmother at Peketā, he learnt how to catch, process and cook the bounty of the Kaikōura coastline. His love and passion for the moana and the food it provides is as strong as it ever was.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.ng) and press the symbol to hear the correct pronunciation of each kupu.

<u>nāwai</u> <u>puraka</u> <u>rimurapa</u>

Pātai

- 1. What does the name Kaikōura mean? What is the full name of the place Kaikōura? How did Kaikōura get its name?
- 2. When you have found out what the words quota, rāhui and mātaitai mean, write about the importance of these. What would happen if there were no such thing?
- 3. Gina Solomon mentioned a strategy that Te Korowai initiated. What was its purpose and tools that would provide solutions. What were mentioned and what do they mean?
- 4. Compare freshwater koura and saltwater koura find out about their appearance, how they taste, their habits, how they feed, methods of catching them, what changes occur when cooking them, where they are found.
- 5. What part do koura play in the ecosystem?

Other teaching ideas around koura:

- 1. Make a 3D model of a koura and label it. Find out how to measure a koura using these guidelines. Measure your koura. Would you be able to keep your koura or would you have to throw it back into the moana/awa? How do you know that?
- 2. There are many ways to make a device to catch crayfish, from traditional tāruke kōura, to plastic bottles. Do your research, make one, then test it out and hopefully feed your whānau.
- 3. Compare freshwater kōura and saltwater kōura find out about their appearance, how they taste, their habits, their habitat, their predators and their prey, how they feed, methods of catching them, what changes occur when cooking them, where they are found.?
- 4. Research how a hāngī is put down, how it is done in modern times compared to traditionally. Look into the benefits of using this method of cooking. Write a persuasive letter to the principal requesting you make a hāngī pit at school.
- 5. What advice would you give to protect and preserve the seafood resources at the coast nearest to you? Prepare that information as a persuasive presentation, justifying your point of view.

Mahinga Kai Web Series

Other useful links

- https://www.landcareresearch.co.nz/ assets/Publications/Te-reo-o-terepo/5_2_Fauna_Koura.pdf
- https://niwa.co.nz/our-science/ freshwater/tools/kaitiaki_tools/species/ koura
- Rock lobster (crayfish): rules and guidelines | Fishing and aquaculture | NZ Government (mpi.govt.nz)

- Lobster facts | ngrocklobster.co.ng
- Understand the Predator-prey relationship: Play the Crayfish game (pg19) Education Unit Coast.pdf (trc.gout.nz)



Kanakana

Older than the dinosaur, the kanakana is a taonga species for Ngāi Tahu whānau especially those from Murihiku like the Blair whānau. Kanakana migrate from around August to the end of October swimming up the Waikawa and Mataura rivers on route to their spawning grounds upstream.

Keywords □()))

Find out the meaning of these kupu (www.maoridictionary.co.ng) and press the symbol to hear the correct pronunciation of each kupu.

matau pakihau mātātoka

Pātai

- 1. In the mahika kai web series the kanakana are described as 'living fossils in our waterways'. Why do you think that was said?
- 2. Scientists have found it difficult to measure the abundance of this species. What are some of the reasons why and how can local iwi help in this?
- 3. Kanakana have 'had a hard time' due to barriers. List some of these barriers Dr Kitsen speaks about in the video.
- 4. Kanakana live in local waterways, using (<u>Ka Huru Manu</u>), find your local waterway closest to your school. What is the Māori name of this waterway? Can you find out what it means?
- 5. In what way would local tangata whenua have utilised that waterway to provide for their whānau? How would they have cared for the waterway so it remained healthy?

Other teaching ideas around kanakana:

- 1. Research the shape and visual characteristics of kanakana. Does the colour or shape of the species change as it matures? Draw the kanakana traveling from the sea back into its local awa (river)
- 2. Kanakana are a loved species of mahika kai. Write a letter to your local council explaining the importance of kanakana and the need to protect them from the barriers Dr Kitsen spoke of.
- 3. Do you have access to take a walk along a local waterway? If so, what features do you notice there? What local flora and fauna do you notice? What colours, and patterns do they have? Create a picture collage of your findings. Use the traditional Māori names for the flora and fauna featured in your collage.
- 4. Compare and contrast the characteristics of the freshwater species of tuna (eel), and kanakana (lamprey) and the ocean dwelling koiro (conger eel). What benefits does the kanakana have due to its different characteristics?
- 5. Track the approximate migration route of the kanakana to include distances and times. What changes occur for the lamprey during this time?

Mahinga Kai Web Series

Other useful links

- <u>Catching piharau lampreys Te Ara</u> <u>Encyclopedia of New Zealand</u>
- Piharau | NIWA
- <u>CCVA-species_Piharau-Kanakana_</u> <u>Geotria-australis.pdf (waimaori.maori.nz)</u>

- The secretive life of lamprey Science Learning Hub
- <u>Ecology of the New Zealand Lamprey</u> (doc.gout.n<u>z</u>)
- <u>Lamprey (Geotria australis)</u> Rare Species (ngfoa.org.ng)
- Lampreys aka 'vampire fish' | RNZ