

The Waiwhatu Project: Developing Shared Language (English-Te Reo Māori) for Communicating Geothermal Scientific Terms

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ABSTRACT

In the Waiwhatu Project, we created five new kupu (words) in Te Reo (language) Māori (Indigenous peoples of Aotearoa New Zealand) relating to geothermal. This search for shared understanding was born out of difficulties experienced when trying to source meaningful relevant words in Te Reo Māori to define scientific terms used in geothermal research and development.

This pilot project created an opportunity to understand the practice of others. We listened to scientists explain useful technical concepts, relevant to earth sciences, geothermal and volcanology, and then interpreted these through a Māori lens into a shared language, bringing Mātauranga Māori (indigenous knowledge) and western science into one space. One of the new kupu is *waiwhatu* for geothermal, which means fluid from the core (heart of the Earth), not fresh water, but fluid woven through the inside of the Earth to the surface.

We share the process for developing, testing and sharing the new kupu. Seven learnings from using the Waiwhatu model were:

- i. Embrace multiple world views
- ii. Don't rush
- iii. Choose the right people
- iv. Everyone must be a learner
- v. No one owns the words
- vi. Value outcomes, not outputs
- vii. Be the leader you wish to see in the world

The true test going forward will be in the uptake and use of the words and concepts outside of our project team—that is when language truly exists in the world.

TUHINGA WHAKARĀPOPOTO

I te Whaimahi Waiwhatu nei, hanga ai mātou i ngā kupu hou, i ngā kupu e hāngai ana ki Te Ahi Tupua, arā, ko ngā mea ngāwhā. I ahu ake te whāinga nei i te uaua o te rapu atu i ngā kupu e tika ana mō ngā kupu pūtaiao no te ao o te rangahau me te whakawhanake i aua mea ngāwhā.

Ko tā te whaimahi tōmua nei ko te whakatuhera i te māramatanga ki ngā mahi a tangata kē. I whakarongo mātou ki ngā mātanga pūtaiao e whakamārama ana i ngā āria matua e pā ana ki ngā tikanga pūtaiao ā-nuku, ki te mātai ngāwhā, ki te mātai puia, kātahi ka whakamāori i aua āria me ngā kupu e hāngai ana ki tā tērā tuku, ki tā tērā tuku, e tūtakitaki ai te mātauranga Māori me te pūtaiao o te rātō, e kiia nei, ki te marae kotahi. Ko tētahi o aua kupu ko 'waiwhatu' – *geothermal liquid* – e mea nei ko te wai no te whatu o te ao, ehara kē i te wai māori, engari ko te wai e rangā ake nei i te whatu o Papatūānuku ki te mata o te whenua.

Ko tā mātou ko te whākī i ngā tikanga o te whakawhanake, o te whakamātautau, o te tohatoha i aua kupu hou. E whitu ngā akoranga matua i puta ake i te taura Waiwhatu nei:

- i. Kia tuhera ki ngā tirohanga rere kē o te ao
- ii. Kei whakateretere
- iii. Whirihia ngā tāngata e tika ana
- iv. Me huri ngā tāngata katoa hei ākongā
- v. Ehara nō tētahi te mana o ngā kupu, engari no te kupu ake
- vi. Uaratia atu ngā putanga i ngā whakaputanga
- vii. Kia rite te tangata ki te kaiārahi e tika ana mo te ao

Ko te tino putanga mō ngā tau e whai nei, ko te mau me te kōrero i aua kupu nei me ngā āria e hāngai ana i waho atu o tō mātou kapa—kātahi ka tūturu te noho o te reo i tēnei ao.

1. Timatanga kōrero | Introduction

*Whaowhia te kete o te mātauranga
Fill the basket of knowledge*

1.1 Māori and geothermal resources in New Zealand

Geothermal activity is found all over the world, and each culture has responded to it in their own ways. Aotearoa’s central North Island hosts more than twenty world-class high temperature geothermal systems, making it one of the globally rare places where widespread geothermal development is economically viable and technically feasible. Geothermal energy is a critical component of New Zealand’s future renewable energy portfolio as it transitions to a low-carbon economy.

Māori, have a recognized and powerful constitutional role in New Zealand society, and a critical and increasing role in the national economy, including future geothermal development (Blair et al., 2018; 2024; Climo et al., 2022). As landowners, investors and kaitiaki (guardians of natural resources), Māori will determine the use of geothermal resources and make influential decisions in how they are developed. The long-term nature of such projects requires a multigenerational approach to resource management, which aligns with Māori values and worldview.

In New Zealand, geothermal use is regulated through the Resource Management Act (1991) and is considered primarily as a water take (i.e. volume of fluid per day), unlike many other countries that provide for geothermal exploration, development and production under mining permits (Blair et al., 2018). Developers in New Zealand can seek and obtain geothermal consents for fluid take; however, to obtain land access, and access to geothermal resources beneath the land, developers must have permission of the landowner(s). This permitting framework provides for landowners to negotiate commercially beneficial agreements (Blair et al., 2018). Most geothermal fields have a commercial arrangement with a Māori-owned entity in the form of, (for example), ownership, fuel supply agreements, royalties and lease agreements (Climo et al., 2022).

Yet, geothermal research still has low representation of, and participation by, Māori. One of the barriers is an inadequate understanding of Mātauranga Māori within the broader geothermal science community; it is our hope that this paper will add to the growing understanding and discussion in this area. A glossary of Māori terms is included at the end of the paper.

1.2 Embracing different knowledge systems make for better science

Western science systems have a strongly defined structure and methodology for excellence. Whilst the focus is increased knowledge, in practice, alternative knowledge systems are often deemed inferior. This is demonstrated by the need for validation of indigenous knowledge using Western scientific knowledge or criteria, assumed to be the gold standard (de Beer, 2022). We should “*not ... try to validate indigenous knowledge utilizing the processes of science, but rather to enhance appreciation and respect for the richness of indigenous knowledge and its merit.*” (de Beer, 2022)

Therefore, work that seeks to grow indigenous knowledge, whilst not actively discouraged, often fails to be prioritized when funds are limited. And in research, funds are always limited.

However, if the true nature of science excellence is the pursuit of understanding, and that an idea or concept becomes accepted when it is challenged over time and still maintains, the ability to apply an indigenous knowledge lens to Western scientific thinking will surely increase the robustness of scientific ideas, concepts and understanding. “*Challenges to our general knowledge of the world around us are equally challenges to our scientific knowledge.*” (McCain, 2016)

1.3 Māori language and geothermal research

Improved connection between Te Ao Māori ki te ao rangahau (the world of Māori to the world of research) was actively sought out in the *Geothermal: The Next Generation* (GNG; Chambefort et al., 2019; GNS Science, 2020) program. This New Zealand Government-funded research program (2019-2024) was established to explore and understand Aotearoa’s supercritical geothermal resources, by going hotter and deeper into the Earth than drilled before (>4 km, >400°C).

GNG had an extensive technical workplan, encompassing geophysical, geological, geochemical investigations as well as numerical modelling. In tandem with the geoscience, the program also aimed to reduce non-technical barriers to the adoption of geothermal technologies, including overcoming regulatory hurdles and formation of an engaged stakeholder community. A specific goal was to facilitate more culturally responsive, inclusive and effective approaches for undertaking geothermal research and resource development.

Three key elements in its engagement approach (Climo et al., 2023) were:

- i. Māori-first Engagement: interweaving knowledge systems and a multigenerational approach to resource management;
- ii. Strategic Partnering: involving others to expand the impact for, and beyond, the science activities; and
- iii. Authentic Communication: curating information and being open and honest about the unknowns.

Due to the long lead in times for the development and adoption of technologies and utilization of supercritical resources, and the increasing influence of Māori for legal and social license to operate with respect to natural resource management, Māori were a key stakeholder of this research program. The goal was to engage with Māori in a manner that provides future leaders and decision makers with the relevant insights to enable informed decision making for these projects.

External ‘push’ of scientific information in ways more palatable for Māori wasn’t the focus; often scientists look to educate others to understand their scientific concepts and views. Instead, focus was on broadening and growing the GNG science team’s thinking through exposure to a knowledge system different from their own.

1.4 The need for new language in geothermal

Science is often hard to relate to for non-scientists, as scientists use discipline-specific language, and concepts aren’t easily aligned to the natural knowledge systems of mātauranga (knowledge). Similarly, scientists find it hard to understand and relate to Māori concepts and thinking.

A search for shared understanding was born out of difficulties experienced when trying to source meaningful relevant words in Te Reo Māori to define scientific terms used in geothermal research. While there are traditional Māori terms relating to geothermal systems, the development of geothermal science has resulted in the borrowing or coinage of vocabulary internationally to keep pace. This needs to be matched in Te Reo Māori.

Many geothermal terms used are from specific languages, such as lahar from Javanese, pāhoehoe and a’ā from Hawai’ian, geyser from Icelandic ‘geysir’ and lava from Italian. Using English words as the basis for translation is also difficult – words driven by English often make no sense in Te Reo Māori. Instead, words and concepts are often cobbled together with literal translations for parts of words. For example, ngawha means hot spring, but is commonly used to replace the word geothermal.

Language is a fundamental tool to share knowledge, and a key barrier limiting effective engagement with Māori. Thus, the ‘Waiwhatu Project’ was developed to improve communication. It is important to note that our goal was to create new language for expression and use within Aotearoa New Zealand, not overseas. There is no expectation that the Māori words created will replace existing global terms for key scientific concepts.

2. The Waiwhatu Project

*I orea te tuatara ka patu ki waho
A problem is solved by continuing to find solutions*

The Waiwhatu model was developed through a pilot project, designed to take people on the journey of mutual understanding and collaboration through the development of shared language tools.

2.1 Project Goals

The project had two objectives:

1. Create five terms and basic concepts in Te Reo Māori that were meaningful and relevant.
2. Spread and use the new terms in the wider Aotearoa New Zealand geothermal community.

2.2 Team

The project team balanced a range of ages, genders, skills and experience:

1. Uenuku Fairhall (Ngāti Rangiwewehi, Waitaha): An expert Te Reo Māori linguist and fluent speaker who holds the underlying concepts of Te Ao Māori, including whakapapa, mātauranga, noa and tapu.
2. Aroha Campbell (Ngāti Tahu): A kaitiaki consultant who has deep experience navigating geothermal developments and Te Ao Māori.
3. Corey Rehua (Te Arawa, Tainui, Mātaatua): An early career Māori researcher and engineer, with a broad range of interests, who is on a reo journey.
4. Paul Siratovich: A senior scientist (geologist) who understands core geothermal concepts and terminology who is on a Te Ao Māori journey.
5. Andy Blair: A strong communicator, with a background in science and is comfortable in Te Ao Māori, who can help translate the concepts.

2.3 Methods

Selection of concepts/terms

A longlist of ideas was shortened by selecting five of the most common science words used when speaking about and describing geothermal energy and earth processes. These would be the ‘anchor’ words in sentences that other terms relate to.

The shortlist of terms selected were: geothermal fluid, magma, lava, reservoir, and enthalpy.

We deliberately chose common words (more likely to be used) but some are also hard to understand. For example, reservoir and enthalpy are hard concepts to grasp but are used a lot in geothermal research and industry.

Developing shared language

For each selected concept/term the following process was undertaken:

1. Scientific Concept

Scientists explained the technical concept, relevant to earth sciences, geothermal and volcanology. This included the genesis of the word/concept i.e., where it came from and why (including for example, the Latin basis for components of each word).

2. Word Use

The use of each term/concept was discussed. Examples of questions asked included:

- How is/will the word be applied in sentences?
- Does it have negative or positive connotations?
- When should (and shouldn't) the word be used?
- Who uses it?
- How does it work with other words?
- How is the word used within the science/geothermal community?
- How is the word commonly used in a lay context? e.g. the general public would call a geothermal surface feature a 'hot spring'.

3. Interpretation through a Māori Lens

The team discussed the concepts and interpreted them through a Māori lens, i.e. how the natural process of formation (e.g. reservoir, lava, etc) is thought about in Te Ao Māori. Examples of questions asked included:

- How is a reservoir made?
- What are the components?
- How do they behave and interact with the surroundings?

4. Kupu hou (new words)

A few Te Reo Māori kupu were proposed and the spelling and pronunciation clarified. These were tested against other words currently in use.

- How does the word sound? Is it pleasing to say? Does it sound good?
- Does the word flow in a sentence - spoken in Te Reo Māori and in English?
- Can it be used interchangeably in both English and Te Reo Māori sentences with ease?
- Is there an emotive response, and if so, what does it emote and is that consistent with the kupu?

Both the English and Te Reo Māori versions were defined and put into example sentences and the team practiced using the different sentences. The kupu were also informally tested on the Waiwhatu Project team's contacts.

3. Ngā Kupu Hou | New Words

*Whāia te mātauranga hei oranga mō koutou
Seek after learning for the sake of your wellbeing*

Table 1: The new kupu and their definitions.

Magma: Tokarewa [toh-car-reh-wah]	
Definition	Magma – Extremely hot molten or semi-molten rock that exists exclusively underground. toka - rock; rewa - to melt, to become liquid.
Example sentence	A surprise tokarewa pocket was found in Iceland during deep drilling project. He mea ohore te kite iho i te pūkoro tokarewa i Tiorangi i te wiringa iho ki raro rawa.
Lava: Rangitoto [rung-ee-taw-taw]	
Definition	Lava – Molten rock that has been erupted at the surface of the earth, magma that has now become lava. Rangitoto - black lava, scoria; said to be the blood from Tamatekapua's nose.
Example sentence	Scientists use the term tokarewa for molten rock that is underground and rangitoto for molten rock that breaks through the Earth's surface. Whakamahi ai ngā mātanga pūtaiao i te kupu tokarewa hei tohu i ngā toka kua rewa i raro i te whenua, ā, ko te kupu ' rangitoto ' ina pākaru ake te tokarewa ki runga i te mata o te whenua.
Geothermal fluid: Waiwhatu [why-fuh-too]	
Definition	Geothermal fluid - The liquid present inside a geothermal reservoir that can flow to the surface naturally or through wells. Geothermal fluid is the energy carrier that allows the extraction and utilization of heat from the core of the earth. Wai - liquid, oil, etc; whatu - stone, core.
Example sentence	Waiwhatu is a hot and concentrated saline solution, having circulated through the very hot rocks of geothermal areas and are enriched with minerals. He mehanga kurutai kukū wera te waiwhatu , na te rēre haere i waenga i ngā toka wera rawa o ngā wāhi ahitupua, ā, nā reira hoki i kīkī ai i ngā kohuke.
Reservoir: Māpuna [mah-poo-nah]	
Definition	Reservoir - The section of a geothermal field below ground that is so hot and permeable that fluid can be economically extracted for the production of fluid and heat. This contains: (1) an aquifer or fracture network containing hot fluid, (2) a path through which cold water can flow to recharge the system or an input of magmatic fluid and (3) a source of heat. Māpuna - to well up, to form a pool.
Example sentence	The resource is not the power station on the surface but the māpuna in the subsurface. They are a treasure. Ehara te wharehiko i te rawa no runga i te mata o te whenua, engari ko te māpuna waiwhatu kē o raro iho. He tāonga ērā.
Enthalpy: Ngaohū [ng-ow-who]	
Definition	Enthalpy - the sum of the internal energy and the product of the pressure and volume of a thermodynamic system Ngao - strength, energy; hū - still, at rest
Example sentence	The specific ngaohū of geothermal liquid depends primarily on temperature. Hāngai ai te ngaohū ake o te waiwhatu ki te paemahana.

4. Kōkiritia ngā kupu hou | Sharing the new words

Mā mua ka kite a muri, mā muri ka ora a mua

Those who lead give sight to those who follow, those who follow give life to those who lead

Early Testing

July 2022 A group of Māori postgraduate students, all ancestrally connected to the Central North Island of Aotearoa New Zealand, attended Reykjavik University's Iceland School of Energy for a 3-week Summer School course on Sustainability and Energy Systems. This was an opportunity for the group to test the kupu, as they were constantly being spoken to about geothermal, they had good Te Reo fluency and they were in a foreign country so could think about how others used the terms. Their overall assessment was:

“In the end, we all collectively agreed that these kupu do effectively support bridging the gap between science and Te Ao Māori.”

Launch

November 2022 Delivery of project report to GNG program team.

February 2023 Corey Ruha, a member of the Waiwhatu Project team and Ngā Tauira o Rūaumoko, presented the project and shared the new kupu at the IAVCEI (International Association of Volcanology and Chemistry of the Earth's Interior) Scientific Assembly (Ko Rūaumoko e Ngunguru Nei) in Rotorua, New Zealand.

March 2023 The kupu were shared using the GNG website and social media channels. This included the words, definitions, sentence examples, and accompanying audio files.

April 2023 The New Zealand Geothermal Association shared the kupu and the Waiwhatu Project information (via a link to the GNG website) to their members through their monthly newsletter.

June 2023 Engagement with GNS Science to share the kupu (GNS Science is a research institute with geothermal as one of its focus areas and was the lead organization for the GNG program).

July 2023 To coincide with Geothermal Week, GNS Science posted one kupu per day to their social media channels. This was shared by other groups and was picked up by New Zealand news media.

5. Ngā Whakaaro | Lessons & Learnings

*He waka eke noa
A canoe which we are all in with no exception
[we're all in this together]*

This endeavor to develop shared language is not unique, and it may be a suitable test case and example for other areas and undertakings. As such, below are seven learnings gained from using the Waiwhatu model.

5.1 *Embrace multiple world views*

Learning a language is also learning a new culture and discovering new ways of seeing the world. Developing shared language is not the place to contest the relative validity of Western Science and Indigenous Knowledge systems, rather, it is an opportunity to build relationships, seek personal growth, to share understanding, and for innovation.

Whilst English is impacting the evolution of the Māori language, it was important to be conscious of the need to protect, but not stifle, the scientific understanding as well as the linguistic integrity of either language. For example, English and Te Reo have different language structures – how a word is used in a sentence is different.

The process of looking at scientific concepts through a different lens helped us to know the concepts better, to be more thoughtful than just using the existing terms. For example, a question about how geothermal reservoir formed sparked a discussion about the parallels with a pregnant belly. We moved from a 2D/3D understanding of geothermal terms and levelled up our understanding, bringing in richness through adding time, values and beliefs.

We did not seek to rationalize nor to justify geothermal development in developing the new kupu. It was important that the new kupu did not reinforce a positive or negative association. There is no 'right' and 'wrong'. There is no universal truth – the team did not have to all come to one agreed position. This meant the team had to overcome their own biases, embrace the emotive response to the concepts, and explore the philosophical relationship between humans and the natural environment.

5.2 *Don't rush*

Learning a language, and developing shared language, is not just having an intellectual discussion about the translation. It's about becoming part of another culture. Don't try to translate. Instead, seek the essence of the relevant scientific terminology by discussing concepts and their deeper meanings.

It's better to focus on taking time to develop less words/concepts in depth, than rushing through many words lightly. We took time to explore, discuss and iterate. We didn't settle for the first 'close-enough' word. Proposed kupu were left alone to percolate and be tested by the group over weeks and months before coming back together to share thoughts and feedback.

5.3 Choose the right people

Ensure the team is diverse. Having a range of ages, genders and experience meant richer conversations and perspectives influenced the development of shared language.

Deduce who the best candidates are to model the language and improve exposure. For example, those who understand the geothermal science, communicate well, and have influence.

It was important to select team members that were predisposed to embracing new ways of working. They had to be willing to try to understand the science. They had to be willing to try to understand indigenous knowledge. Many people may say they're interested, and be genuinely interested, but when selecting team members, look for evidence of interest i.e. judge them on their actions and behavior. What have they done to lean into those interests already? For example, are they scientists who are taking language lessons, and trying to use the second language in their daily lives? Curiosity and commitment are key.

5.4 Everyone must be a learner

Learning a language is an act of bravery and vulnerability. It is important to create a safe space where team members can say something 'wrong' and make mistakes – a prerequisite part of learning a language! No-one can be defensive or protective; ego and pride must be put aside. There should be no hierarchy in the team, with everyone's mana (authority) mutually respected. Everyone in the team is both teacher and student, gaining new knowledge.

This high-trust environment allows team members to challenge each other on definitions, explanations and deeper meanings. Having non-specialist team members is critical – it pushes the 'experts' for a better explanation of something they intrinsically understand. The discourse discussion is more important than the words. The team iterates and optimizes until the shared meaning is reached. This will include open questions, and lots of seeking clarification. Many times, our team built an ideological visual picture of each concept, and then much of the discussion was spent clarifying with each other if they saw the same thing.

Consider colonization and personal histories in the relationships being formed within the team. This is not an academic exercise. If necessary, spend time recording the rules of engagement or how to deal with each other, at the start.

5.5 No one owns the words

It was important to choose Māori kupu that were not already in use or already associated with a particular region, dialect or place. The new words need to be usable across Aotearoa New Zealand without any perceived prior 'ownership' or expectation on their use.

Likewise, the new words are not 'owned' by the creators. Language is common to all who use it, and is a social, not individual act. Te Reo Māori is an ever-evolving language, and the true test of these kupu will be how widely they are used by others outside the test group. If the new words are not adopted, don't be afraid to go back and change them, or to adopt what becomes common use.

5.6 Value outcomes, not outputs

The true value of this work is not the new words – these are outputs, and short-term thinking. Some, especially those who are driven by financial measures of success, may perceive that creating five new words is not good value for money (i.e. because time (money) is required to do this well).

The value in this work is in the long-term outcomes: A proven process that works. Opening lines of communication and inviting diverse perspectives. The start of acceptance within New Zealand’s geothermal research and industry that there is another way to view geothermal resources. Supporting Māori stakeholders to feel more included in the geothermal industry. It can be useful to start by asking the questions: *What is this worth to you? What is it worth to the wider industry and community at large?*

5.7 Be the leader you want to see in the world

Individuals are on a personal journey, and many people are not ready for work that decolonizes research and welcomes indigenous voices into ‘science’ discussions. It challenges the infrastructures that they have built their careers and thinking frameworks on. This means some people can’t appreciate the problems and are unable to see the vision. We had this experience.

In order to realize the project, we had to put significant effort into convincing others that this work was important, including self-funding some of the time required. However, once the kupu were developed and shared (and a tangible product was available), many questioners (sceptics) became supporters and the work is now being extended. Adoption of the kupu brings credibility, and credibility converts the sceptics.

If you think developing shared language is important, then you are the right person to move it forward. Leading this work isn’t about expertise, rank, titles or your role within an organization. Don’t wait. Believe in yourselves and the project. You don’t need permission.

6. Ā Mua | Next Steps

Ka mua, ka muri
Walking backwards into the future
[look to the past to inform the future]

This project has been extended and continues under the leadership of the Māori Strategy team at GNS Science, under a new name: Waiwhatu-Arawhata. Arawhata means “bridge”, recognizing that the next stage of this journey is transitional. Their goal is to use and refine the Waiwhatu methodology in a workflow that sees more development of shared language.

Through their efforts, in June 2024 the Waiwhatu kupu was officially accepted in Te Aka (Māori dictionary) through a submission to Te Taura Whiri i Te Reo Māori (the Māori Language Commission).

Planned future initiatives (2024-2026) include:

- Promotion of the existing kupu at Geothermal Week 2024
- Develop ten more kupu, and launching them by mid 2025

- Presentations at conferences and workshops
- Delivery of an outreach event to socialise the new terms with Māori geothermal communities

7. Whakamutunga | Conclusion

*Whāia e koe te iti kahurangi, ki te tūohu koe, me he maunga teitei
Pursue excellence – should you stumble, let it be to a lofty mountain*

The Waiwhatu model was successful in demonstrating an effective methodology for developing shared language and the pilot project produced five new kupu. This approach is a reproducible and not limited to use in Aotearoa New Zealand.

Developing shared language is an opportunity to build relationships, seek personal growth, to share understanding, and for innovation. The discourse and discussion are more important than the words.

Our hope is that the geothermal community becomes a welcoming place for indigenous peoples to meaningfully engage, participate and lead discussions, debate and direction for future research and industrial developments.

Ngā mihi | Acknowledgements

*Ehara taku toa i te toa takitahi, engari kē he toa takitini
My success should not be bestowed onto me alone,
it was not individual success but the success of a collective*

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Te Aka; www.maoridictionary.co.nz

Kuputaka | Glossary

Te Reo Māori Terms used in this paper.

Term	Description
Kaitiaki, kaitiakitanga	Guardian of natural resources and the act of guardianship; principle of intergenerational sustainability and the practices to achieve it
Kupu	Word
Māori	The Indigenous peoples of Aotearoa New Zealand
Mātauranga Māori	Knowledge, culture, values, and world view held by Māori
Noa	Ordinary, unrestricted (free from the extensions of tapu)
Tangata whenua	People of the land
Rangahau	Research; to seek, search out, pursue, research, investigate.
Reo	Language
Tauira	Student
Tapu	Sacred, prohibited
Te Ao Māori	Māori world views
Te Reo Māori	Māori language