

**This is a copy of the Translation of
Te Marautanga o Aotearoa: He tauira hei korero**

Released on the 15th of November 2007

Please note that only levels 1,4 & 6 have been translated in the Learning Areas

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Introduction

He Kupu Whakataki

Te Marautanga o Aotearoa is founded on Te Tiriti o Waitangi. This is expressed through the vision:

Kia tū tangata te ākongā

Students achieve their full potential

Te Marautanga o Aotearoa sets the direction for teaching and learning in Māori medium¹ primary and secondary kuras. It will enable students to:

- develop as confident and resilient individuals;
- realise their full potential and lead fulfilling lives;
- communicate effectively in te reo Māori;
- take pride in their identity; and
- participate and succeed in te ao Māori me te ao whanui²

Te Marautanga o Aotearoa provides pathways to achieve these aspirations by outlining optimal learning environments for Māori medium students to develop and extend their knowledge and skills across all learning areas.

Te Marautanga o Aotearoa is designed to retain and revitalise te reo Māori me ōna tikanga through teaching and learning programmes. Language is the essence of culture. Te reo Māori is the vehicle for Māori spirituality and thought, and enables the implementation of all aspects of te ao Māori. It is a treasure passed down from ancestors, and protected by Te Tiriti o Waitangi. Different regions have their own unique language, mana, wairua, beliefs and customs. It is through te reo Māori that the diversity of Māori traditions can be expressed, continued, and understood. Through the student's fluency in te reo Māori, their place and participation in te ao Māori is clearly understood.

Te Marautanga o Aotearoa acknowledges Māori cultural identity, and values the culture and heritage of all students. The need for this to be reflected in teaching and learning programmes is essential. Whānau, hapū, and iwi working collaboratively with kuras will contribute to students fulfilling their potential and therefore enduring links must be formed between the kura and theirā wider community.

Te Marautanga o Aotearoa supports students to pursue quality choices, engage in lifelong learning, and actively contribute to New Zealand's social and economic development.

¹ In the context of this document Maori medium refers to classes/kuras where teaching occurs in te reo Maori more than 51 percent of the time (currently referred as Levels 1 & 2).

² This includes all settings from whānau and marae through to national and international contexts.

Graduate Profile

Te Āhua O Te Ākonga Ka Puta

A graduate profile articulates the collective aspirations of whānau, hapū, iwi, and kura for students learning in te reo Māori. The development of a graduate profile provides the opportunity for whānau, hapū, iwi, and kura to work towards a shared vision and to set the strategic direction for the realisation of that vision. A graduate profile should include statements about high levels of educational achievement, a wide range of life skills, and quality career choices.

High Levels of Educational Achievement will enable students to:

- achieve their individual potential;
- have successful educational outcomes;
- be proud to be Māori;
- contribute to the wellbeing of whānau, hapū, and iwi;
- participate in te ao Māori me te ao whānui;
- confidently represent te ao Māori in other cultural settings;

A Wide Range of Life Skills will enable students to:

- develop a good work ethic;
- use their initiative;
- apply skills in multiple careers;
- have quality career choices

Quality Career Choices will enable students to:

- live successful and fulfilling lives;
- participate positively in society;
- contribute to the growth of the economy;
- respect others;
- pursue lifelong learning;

Rationale of Te Marautanga o Aotearoa

Te Pūtake o Te Marautanga o Aotearoa

Te Marautanga o Aotearoa is the framework that outlines the knowledge, skills, values and attitudes for kura teaching through the medium of te reo Māori.

Te Marautanga o Aotearoa must be included in kura charters and is the platform for the development of a kura based curriculum. This requirement will ensure the implementation of the principles and achievement objectives of each learning area. There is flexibility within *Te Marautanga o Aotearoa* for individual kura and teachers to implement, interpret, and utilise their own and/or local knowledge in learning contexts.

Te Marautanga o Aotearoa identifies:

- the elements that underpin teaching and learning in kura;
- the principles that will guide teaching and learning in kura;
- the qualities, characteristics and learning needs of students;
- the skills needed for students to be successful learners;
- the knowledge and skills valued by communities and wider society;

Te Marautanga o Aotearoa supports:

- the development of national policy for Māori-medium education;
- assessment for quality learning outcomes;
- the provision of teacher education and professional development;
- keeping parents well informed about the curriculum;
- the provision of information to community and business about the curriculum;
- the promotion of Māori-medium education.

Principles

Ngā Mātāpono

The principles of *Te Marautanga o Aotearoa* derive from Te Tiriti o Waitangi and guide the development of the Māori medium kura curriculum. The principles of the national curriculum are:

- Student-centred teaching and learning
- Students have a strong sense of self
- Students achieve their potential
- Kura work together with whānau, hapu, iwi, and community

These principles will be reflected in each kura curriculum.

Student-Centred Teaching and Learning:

The kura curriculum will:

- uphold the mana of each individual student;
- support the physical, spiritual, mental and emotional health of the student;
- provide learning experiences that enable students to reach their potential;

Students have a strong sense of Self:

The kura curriculum will:

- respect the mana of whānau, hapū, and iwi;
- provide experiences linked to tikanga Māori and the customary practices of their communities;
- provide the knowledge and experiences to enable their competent participation in te ao Māori me te ao whānui;
- be committed to achieving the expectations, hopes and aspirations of the community;

Students Achieve Their Potential

Through the kura curriculum, planned learning experiences will:

- engage students;
- be tailored to students needs;
- support students to make quality life choices;
- be focused on quality student outcomes;
- support the attainment of academic qualifications;
- support the development of transferable skills;
- foster lifelong learning;

The Kura Works Together with Whānau, Hapū, Iwi, and Community

The kura curriculum will:

- ensure pathways are accessible for whānau to participate in the life of the kura;
- include learning contexts relevant to the whānau and community;
- nurture te reo me ngā tikanga of whānau, hapū, and iwi.

Values and Attitudes

Ngā Uara, Ngā Waiaro

Kia māhaki mārire tōna mauri
Kia noho mārire tōna mana motuhake
Kia ngākau māhaki ki ōna hoa
tae noa hoki ki nga iwi whānui

Te Marautanga o Aotearoa supports a holistic approach to teaching and learning. It acknowledges that values and attitudes are integral, to who students are, how they act, how they engage with others, and how they respond to learning experiences. Values and attitudes are inextricably linked to and influenced by culture. The kura curriculum will reflect the shared values of the whānau, hapū, iwi and kura community.

The values developed by students will enable them to:

- have a strong sense of identity as an individual and as a member of the wider community;
- reflect on, assess and evaluate their own values and attitudes and those of others;
- be respectful of and value the contribution of all people;
- take responsibility for their learning and actively participate as a kura community member;
- learn, know, and apply the values and tikanga of whānau, hapū, and iwi;
- know, understand and practice the multiple roles within their whānau, hapū, and iwi;
- understand the value of their cultural and economic contribution in Aotearoa and globally;
- have a thirst for knowledge and a passion for lifelong learning;
- learn and develop an understanding of whakapapa and traditional concepts as a foundation to build; and maintain relationships with others.

The Māori Language
Te Reo Māori

Ko te reo te manawapou o te Māori
Mā te kōrero
te reo e ora ai
Mā te ora o te reo
Ka rangatira

Te Marautanga o Aotearoa supports the retention and revitalisation of te reo Māori me ōna tikanga through teaching and learning programmes. Through its' retention and revitalisation Māori culture continues to flourish. It is a treasure passed down from ancestors, and protected by Te Tiriti o Waitangi. It is through te reo Māori that the diversity of Māori traditions can be expressed, continued, and understood. The unique language, mana, wairua, beliefs and customs held by iwi will be acknowledged in the kura curriculum. Through the student's fluency in te reo Māori, their place and participation in te ao Māori is clearly understood.

Learning through the medium of te reo Māori provides students with the unique opportunity to become bilingual learners. *Te Marautanga o Aotearoa* acknowledges that as bilingual learner's students will extend their opportunities to actively contribute to New Zealand's social and economic development.

Student have High Levels of Bilingual Language Skills when they are:

- able to communicate effectively in a range of settings, and for a wide range of purposes, issues, and audiences;
- able to adapt their language to suit the context and audience;
- able to communicate easily with other speakers, regardless of who, and in which language;
- able to develop quality listening skills to improve speaking, writing, reading, presenting and viewing abilities;
- competent participants in local, national, and global settings;
- able to use either language in diverse contexts;
- able to portray themselves with confidence and maturity when speaking te reo Māori and/or English.

Personal Enhancement through Educational Achievement

He Toi Mātauranga, he Mana Tangata

Mā te whakaaro nui e hanga te whare

Mā te mātauranga e whakaū

Big ideas create the house

Knowledge maintains it

Te Marautanga o Aotearoa guides kura to develop their curriculum to prepare students for academic achievement. It advocates learning for the future and for participation at a global level through a foundation education that reflects and celebrates things Māori.

Te Marautanga o Aotearoa recognises that students carry with them a wealth of knowledge and experiences shaped by their everyday world. These include cultural and family values, attitudes, and beliefs. Knowledge is embedded within a framework of beliefs, values and cultural traditions each with their own mana and richness. Māori practices and knowledge both past and present are important in Māori medium contexts.

Te Marautanga o Aotearoa acknowledges the inherent wealth of Māori knowledge and highlights the importance of the use of that knowledge in teaching and learning programmes. This approach to learning ensures students are prepared to participate and contribute in a range of social, cultural, political and economic settings in their future.

The kura working together with whānau, hapū, iwi, and the community will identify relevant and culturally responsive curriculum choices of knowledge and skills that are significant to student learning.

Students Learning will:

- build on the student's existing knowledge as the starting point for all new learning;
- draw upon local knowledge;
- be supported through the inclusion of traditional knowledge held by whānau, hapū, iwi, and community;
- use traditional Māori knowledge as a foundation to produce new knowledge;
- acknowledge and understand that knowledge systems change over time to produce new knowledge;
- encourage active debate about knowledge systems and its relevance;
- promote an understanding that knowledge is different depending on who created it and their cultural contexts;
- include knowledge that is expressed in many forms including oral, written, visual, and digital;
- be structured to focus on high levels of educational achievement.

Ngā Āhuatanga Ako

Effective Teaching and Learning Statement

Motivating and stimulating student learning is the fundamental focus of quality teaching. Effective teaching focuses on all factors that promote positive learning experiences. This includes critical factors such as the physical learning environment, the need for high expectation of all students, and the interactions between teachers and students, learners and their peers. Student learning will be promoted through the collaborative development of the kura curriculum and will incorporate the factors below.

Kaupapa Māori Quality Teaching and Learning will:

- be flexible and encourage activities outside of the classroom;
- stimulate student motivation for learning, and enhance their spiritual, cognitive, physical and emotional development;
- prepare students for a life of learning;
- encourage supportive and positive relationships between students;
- uphold the charter of the kura, i.e. Te Aho Matua or the kura-a-iwi charter;
- encourage self evaluation;
- support students to become independent learners and to make quality choices;
- nurture students to develop a range of skills that will include numeracy and literacy skills, problem solving, physical and practical skills;
- incorporate in-depth topics of studies;
- provide exciting learning environments that reflect the perspectives and aspirations of the whānau;
- recognise the diversity of Māori learners;
- help students achieve excellence;
- validate students knowledge and provide scaffolds to facilitate new knowledge;
- value and respect the involvement of the community, the home and the whanau.

Assessment

The primary purpose of assessment is to inform the teaching and learning process to ensure that learning programmes are relevant and tailored to support ongoing student learning and achievement. Sound assessment practices support quality conversations. The conversations had with parents will provide feedback about student learning progress while the conversations had with students will outline the next learning steps for them to consider.

Assessment should be purposeful and will:

- improve student learning;
- identify current knowledge levels and positively support further learning;
- set the direction for teaching programmes and influences teaching practice;
- empower learners to set specific learning goals for themselves

Kura Wide Assessment Policies

Kura will measure and monitor learning outcomes for their students by collecting and analysing kura wide data regularly. Assessment data will inform kura policies and plans that influence teaching programmes to improve student learning outcomes.

Kura Curriculum Planning

Te Whakahoahoa Marautanga-ā-Kura

Te Marautanga o Aotearoa provides national education guidelines for all students in Maori medium levels 1 & 2 settings. Each kura will plan and implement their own curriculum in consultation with the students, whānau, hapū, iwi and the community.

The Board of Trustees, the whānau and the teachers will work together to plan their kura curriculum.

Possible starting points for Kura Curriculum Planning include:

- graduate profile (pg. 4);
- principles of the kura, principles of Te Aho Matua, of the iwi (pg. 6);
- values, and the attitudes fostered by the kura and the whānau (pg. 7);
- aspects relating to te reo Māori supporting bilingual learners (pg. 8);
- educational achievement (pg. 9);
- teaching and learning statements (pg. 10);
- assessment (pg. 10).

Kura will decide where and how it will start this process. Those kura where Te Aho Matua provides the framework for curriculum planning will begin from there. Others, such as kura-a-iwi, may follow their own particular charter. There will be many variations in the details of curriculum programmes at the kura level. For instance, planning may be followed by learning area, theme, or context.

Kura Curriculum links to the Schooling Strategy and National Education Guidelines:

Schooling Strategy Goal. “All students achieving their potential”

- all students experience effective teaching;
- Learning is nurtured by whānau/hapu/iwi;
- Practice is evidence based;

- Analysis of evidence
- Planning
- Kura Curriculum
- Analysis of evidence
- Reporting and further planning

National Education Policies

- Te Marautanga o Aotearoa
- National Educational Goals (NEGS)
- National Administration Guidelines (NAGS)

National Policies for Kura

- Te Aho Matua
- Ngā Kura-a-iwi

*This information is shown as a diagram
in the document*

The Learning Areas

Ngā Wāhanga Ako

Te Marautanga o Aotearoa is divided into seven learning areas:

The Arts/Ngā Toi, Mathematics/Pāngarau, Science/Pūtaiao, Te Reo Māori, Technology/Hangarau, Social Sciences/Tikanga-a-iwi, Health/Hauora,.

(A diagram of Learning Areas embedded in the Nautilus Shell is shown in the document)

TE REO MĀORI

*Ko te reo Māori te kākahu o te whakaaro, te huarahi i te ao tūroa.
(The Māori language cloaks Māori thought and provides a vehicle to the wider world.
-by Sir James Hēnare, 1984)*

Central to this learning area is the critical link between oral language, body language and written language, as a means of capturing and expressing thought, the human spirit and emotions through Māori language.

THE PURPOSE OF LEARNING TE REO MĀORI

It is through language that the many dimensions of a child’s uniqueness – be they linguistic, personal, cultural, or spiritual – can be exhibited. Language is the expression of thought and as such, thought and language are inextricably linked.

A learner needs to develop a high level of competence in language if they are to reach their full potential in all other areas of learning. Only then will Sir James Henare’s proverb be realised. Learners need to be competent in all facets of language, including listening, speaking, reading and writing in order to be able to participate in society and enjoy full lives.

THE STRUCTURE OF THIS LEARNING AREA

This learning area comprises three language strands – Oral, Written and Physical – illustrating the full breadth of language including body language. The facets of language (from the original document) - i.e. Listening, Speaking, Writing, Reading, Viewing, and Presenting - are captured within these three strands.

ORAL	WRITTEN	PHYSICAL
 speaking	 reading	 presenting
 listening	 writing	 viewing
	 presenting	 reading
	 viewing	

There are three main aims which are interwoven across the strands to capture the holistic nature of language teaching. These three aims are relevant at all levels and to all strands.

The first of these overarching aims relates to language functions and purposes for which language can be used – understanding the reasons why we exchange ideas.

The second overarching aim encourages the expansion of vocabulary and the understanding of how words work including pronunciation, vocabulary use and grammar.

The third of the overarching aims encompasses the teaching and learning of language strategies and language learning strategies.

These three overarching aims are explained further through achievement objectives within each of the strands. Through the achievement objectives the teacher will gain a clear understanding of what these overarching aims mean when it comes to teaching writing, speaking, reading, listening and all other aspects of the language.

The eight levels within this learning area outline a progressive pathway for language learning. The levels have been determined according to the potential of children learning in Māori immersion settings. Because of the wide range of language ability apparent amongst children on entry to kura, this learning area has specified four entry points at Level One, clarifying the appropriate learning pathway for each child. The four starting points within Level One have been named: He Pīpī (Limited Proficiency), He Kaha (Conversational Proficiency), He Kaha Ake (Moderate Proficiency), He Pakari (Higher Proficiency).

At each of the eight levels a general description is provided of the expected linguistic characteristics of a typical learner on entry to that level. This should enable teachers to quickly identify the appropriate level for each of their learners.

The achievement objectives within each level identify the linguistic characteristics of the learner when the level has been achieved. So, the descriptor entitled “Learner Characteristics” within each level, explains the expectations of a typical learner at the start of the level, while the achievement objectives for that level describe what a learner can do at completion of the level.

(A diagram of a sample of Level One is used in the document for teachers’ information.)

TE REO MĀORI

LEVEL 1: HE PĪPĪ (Limited proficiency)	Learner characteristics: Can talk about the things s/he understands. Will have little if any ability in spelling. May be limited to scribbling or creating patterns/symbols. Has had very little experience with books and writing.		
Oral	Written	Physical	
Utilises language for a wide range of purposes and to fulfil the desire to interact successfully with others:			
<ul style="list-style-type: none"> - Can convey a simple message.  	<ul style="list-style-type: none"> - Understands that texts are written by people to express personal ideas or share information.  - Understands that text is for reading.  	<ul style="list-style-type: none"> - Understands language.  	
Range of vocabulary increases along with the understanding of how words are used:			
<ul style="list-style-type: none"> - Pronounces sounds and words correctly.  	<ul style="list-style-type: none"> - Recognises the relationship between sound and letters/words.  		
Uses language strategies and is able to explain these strategies to produce and understand language.			
<ul style="list-style-type: none"> - Uses listening, repetition, chanting and memorisation as language learning strategies.  	<ul style="list-style-type: none"> - Can identify a topic for written work.  - Understands the directional nature of text – left to right, top to bottom.  	<ul style="list-style-type: none"> - Understands and...  	

TE REO MĀORI

LEVEL 1: HE KĀHĀ (Conversational proficiency)	Learner characteristics: Can use words and short sentences to meet his/her needs. Speech is not very fluent. Understands simple speech. May know how to write some letters or punctuation marks. Is becoming familiar with text but does not necessarily read the words, focusing instead on what the text may be about.
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Oral	Written	Physical
Utilises language for a wide range of purposes and to fulfil the desire to interact successfully with others:		
<ul style="list-style-type: none"> - Can use simple sentences and simple questions.  	<ul style="list-style-type: none"> - Links text and illustrations to their personal experiences.  - Developing an awareness that text can be written for another reader.  	<ul style="list-style-type: none"> - Understands the concept of body language. 
Range of vocabulary increases along with the understanding of how words are used:		
<ul style="list-style-type: none"> - Pronunciation is correct.  	<ul style="list-style-type: none"> - Demonstrates an awareness that words retain their meaning each time a text is re-read.  	
Uses language strategies and is able to explain these strategies to produce and understand language.		
<ul style="list-style-type: none"> - Uses listening, repetition, chanting and memorisation as language learning strategies.  - Uses simple questions to gain information.  	<ul style="list-style-type: none"> - Uses pictures and symbols to gain meaning from text and is able to follow text correctly.  - Understands that punctuation and spacing between words serve a purpose.  	<ul style="list-style-type: none"> - Attends to body language in order to understand, clarify and follow oral instructions. 

TE REO MĀORI

LEVEL 1: HE KAHA AKE (Moderate proficiency)	Learner characteristics: Uses simple sentences and simple questions, although some errors are likely. Understands conversational language. Knows how words are made; able to create words. Sees the relationship between sound and letters and can follow the language examples of the teacher. Understands that writing, letters, words, phrases and sentences all serve a purpose. Reads to understand the main purpose of the text.	
Oral	Written	Physical
Utilises language for a wide range of purposes and to fulfil the desire to interact successfully with others:		

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<ul style="list-style-type: none"> - Understands some productive language.   - Can think broadly in order to describe actions, things and situations.   	<ul style="list-style-type: none"> - Can convey meaning through writing and drawing.   - Gives some consideration to the reader when writing.   - Knows why they like some stories and visual language.   	<ul style="list-style-type: none"> - Understands the concept of body language.  
<p>Range of vocabulary increases along with the understanding of how words are used:</p>		
<ul style="list-style-type: none"> - Able to follow some rules of grammar.   - Uses adjectives to add interest to their oral language.  	<ul style="list-style-type: none"> - Can identify particular words when they appear in different contexts.  	
<p>Uses language strategies, and is able to explain these strategies to produce and understand language:</p>		
<ul style="list-style-type: none"> - Aware that written and oral messages have an ordered sequence.   - Links personal experiences to text and speech as a strategy for gaining meaning.   	<ul style="list-style-type: none"> - Uses letter and sound knowledge to read and spell common words.   - Re-reads in order to correct errors.  - Shares ideas before writing text.  	<ul style="list-style-type: none"> - Attends to body language in order to understand, clarify and follow oral instructions.  

TE REO MĀORI

LEVEL 1: HE PAKARI (Higher proficiency)	Learner characteristics: Speaks and understands Māori language with ease. Can link sound to letters and words, and understands what s/he reads. Knows how to write some simple sentences, although there may still be some errors. Interacts easily with others in Māori because of his/her strong language skills.		
Oral	Written	Physical	
Utilises language for a wide range of purposes and to fulfil the desire to interact successfully with others:			
<ul style="list-style-type: none"> - Applies personal experiences to bring meaning to text  - Can talk about current topics.  	<ul style="list-style-type: none"> - Can identify and produce some forms of written and visual language.  - Understands that the ideas and knowledge expressed in text are those of the writer or illustrator.  	<ul style="list-style-type: none"> - Understands the concept of body language.  	
Range of vocabulary increases along with the understanding of how words are used:			
<ul style="list-style-type: none"> - Uses some conjunctions correctly.  	<ul style="list-style-type: none"> - Attempts to gain meaning from new words in a text.  - Can spell known words correctly.  		
Uses language strategies and is able to explain these strategies to produce and understand language:			
<ul style="list-style-type: none"> - Uses questioning to extend their own knowledge or ideas.  - Can consider and discuss the main ideas for a text prior to writing.  	<ul style="list-style-type: none"> - Self-corrects some reading and writing errors.  - Uses his/her personal experiences to gain meaning from text, symbols and illustrations.  	<ul style="list-style-type: none"> - Understands and follows more complex instructions involving several parts.  	

TE REO MĀORI

LEVEL 4	Learner characteristics: Has a broad range of oral language skills that enables him/her to debate, question, express emotions and joke. Can speak on topic or about a current event. Speaks fluently and is able to use both specifically learnt vocabulary as well as words s/he already knows. Writes well and is gaining competence in producing specific types of text including reports, narrative, explanations and opinions. Attempts to read a broad range of texts as a result of his/her expanding reading skills.	
Oral	Written	Physical
Utilises language for a wide range of purposes and to fulfil the desire to interact successfully with others:		
<ul style="list-style-type: none"> - Contrasts and contributes ideas about formal and informal topics in all contexts.  - Asks relevant and precise questions, provides explanations or debates points to infer and give effect to particular ideas.  	<ul style="list-style-type: none"> - Understands the differences between being a reader and a writer or illustrator.  - Chooses relevant features of written text forms to enhance non-fiction and creative writing.  - Gives consideration to the purpose and audience of a text.  	<ul style="list-style-type: none"> - Understands the use of body language in a wide range of formal and informal settings. 
Range of vocabulary increases along with the understanding of how words are used:		
<ul style="list-style-type: none"> - Understands and uses descriptive and comparative phrases to flesh out a topic.    	<ul style="list-style-type: none"> - Can spell new words correctly and follow the rules of grammar.  	

Uses language strategies and is able to explain these strategies produce and understand language:

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<p>- Listens in order to evaluate, make judgements and analyse inferences.</p> 	<p>- Can use some research strategies for a range of purposes.</p> 	<p>Oral language and body language are relevant to the topic.</p>  
<p>- Uses language fluently and flexibly for socialising.</p>	<p>- Clearly establishes and adapts information.</p>	
<p>- Can explain the links between Māori specific language features and other aspects of language within a formal setting.</p> 	<p>- Groups related ideas together in order to plan out text.</p> 	
	<p>- Can manipulate language features and the structure of text in order to reflect his/her own voice.</p> 	

TE REO MĀORI

LEVEL 6	Learner characteristics: Can manipulate and play with the language making it relevant to a wide range of groups while still retaining the meaning. Can listen, critique, debate and respond to alternative ideas. Knows how to communicate ideas, emotions and information through body language.		
Oral	Written	Physical	
Utilises language for a wide range of purposes and to fulfil the desire to interact successfully with others:			
<ul style="list-style-type: none"> - Able to talk descriptively using Māori imagery and idiom.  - Discusses a topic and its main ideas in order to present opinions and evidence to support an idea.  	<ul style="list-style-type: none"> - Gives consideration to the skills used by a writer or an artist to create and communicate their own unique style.  	<ul style="list-style-type: none"> - Understands body language used in many formal and informal contexts.  - Uses the combined features of oral and body language to address issues and convey opinions, emotions and information.  	
Range of vocabulary increases along with the understanding of how words are used:			
<ul style="list-style-type: none"> - Has a broad range of vocabulary and sentence structures appropriate to a variety of genres, including: discussion, reports, debating etc.  - Language is grammatically correct  	<ul style="list-style-type: none"> - A broad vocabulary enables him/her to write supportive argument, exchange understandings, collate and summarise ideas succinctly.  		

Uses language strategies and is able to explain these strategies to produce and understand language:

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<p>- Critically analyses traditional-use of language according to the topic, genre and audience.</p> 	<p>- Formulates and critiques-information as a research strategy.</p> 	<p>- Adapts oral and body language according to the topic.</p> 
<p>- Succinctly summarises main ideas from oral and written text.</p> 	<p>- Critiques specific reading strategies</p> 	
	<p>- Adapts the language of written work in order to persuade or convince the reader.</p> 	
	<p>- Uses a broad range of language features to enhance writing.</p> 	

PĀNGARAU / MATHEMATICS

Kei hopu tōu ringa ki te aka taepa, engari kia mau ki te aka matua.
Lest you grasp the vine hanging loose - better hold fast to the main vine

Throughout time, people of all cultures have developed knowledge and understanding about quantitative relationships within different aspects of their world. This is the basis of pāngarau. Our Māori ancestors were extremely knowledgeable about the pāngarau evident in the realms of the children of Rangi and Papa. This knowledge was of considerable importance in their everyday activity such as in building, in sailing and navigating on the open water, and in gardening. With the advent of European settlement, our ancestors took a full part in new opportunities of the time such as commerce. Pāngarau knowledge was important in their achieving success in these new endeavours. Over time, pāngarau has developed throughout the world, and has remained an important body of knowledge in all aspects of our lives. Wherever one turns, pāngarau can be seen in our daily activities, in other areas of the kura curriculum, and in most career pathways.

THE STRUCTURE OF THIS LEARNING AREA

The essence of Pāngarau is the exploration and use of patterns and relationships seen in aspects of quantity, of data sets, of space and time. These essential concepts are linked into the three strands of the Pāngarau curriculum, Number and Algebra, Measurement and Geometry, and Statistics from Levels One to Six. These reduce to two strands at Levels Seven and Eight, Algebra and Calculus, and Statistics.

The Māori language has its own corpus to describe and explain essential ideas in Pāngarau. In addition to this, symbols and representations such as tables and graphs are used to communicate meaning. These constitute 'pāngarau literacy', which is evident in all three strands of the curriculum. As the child learns, their pāngarau literacy develops and becomes essential to their understanding of and communication about pāngarau concepts, leading to success in this learning area.

Pāngarau extends into the other learning areas of the kura, to the many contexts of family life, of kin group endeavour, of community activity and of the Māori world, and is important in achieving our aspirations in all these areas. It is also important that students gain a growing awareness and understanding of the many ways Pāngarau can be used, and become critical of the origin of these ideas, and the reasonableness of their use. This is another aspect woven through all three strands of the Pāngarau curriculum.

The achievement objectives are grouped under key divisions within each strand.

(A diagram showing the groupings within strands is shown in the document)

THE PURPOSE OF LEARNING PĀNGARAU

Pāngarau enhances the creativity and the critical and logical thinking of students, as well as their reasoning skills, and their ability to strategise, solve problems, evaluate and communicate.

It is important that Pāngarau teaching is enjoyable and engaging for students, as well as cognitively challenging. Teachers will need to craft their language of teaching so that it is simple and clear, their questions and explanations are effective, and their students are settled in their learning.

Problems and activities in Pāngarau should include Māori contexts with which the students are familiar. In Pāngarau students will be involved in using appropriate materials and apparatus, constructing models, looking for relationships, predicting and justifying outcomes, estimating, calculating with precision, exploring patterns, and making generalisations.

(A diagram showing teaching progression for Pāngarau is shown in the document)

PĀNGARAU / MATHEMATICS

Level 1

PATTERNS AND RELATIONSHIPS IN:		
Number and Algebra	Measurement and Geometry	Statistics
Pāngarau Literacy Students will exchange ideas and communicate using both written and oral language, symbols and other types of pāngarau representations. Pāngarau literacy is important in order for students to learn the content contained in the achievement objectives, and also in strengthening their logical and critical thinking, their reasoning skills and creativity appropriate for this level.		
Using Pāngarau Students will understand and explore the use of pāngarau relating to their own experiences. The achievement objectives should be taught within contexts familiar to the student.		

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<p>Number Knowledge</p> <p>1. Know numbers 0 – 100:</p> <ul style="list-style-type: none"> ○ forward and backward counting sequences ○ place value conventions: <ul style="list-style-type: none"> ○ groups with five ○ groups within ten ○ groups with ten ○ the ‘tens’ numbers ○ the number of tens and ones in a number ○ the size and structure of a number <p>2. Know simple fractions such as halves and quarters:</p> <ul style="list-style-type: none"> ○ symbols for simple fractions ○ the meaning of the numerator and denominator of a simple fraction ○ arrange simple fractions in sequence ○ give examples of fractions (such as a $\frac{3}{2}$ turn) <p>Number Strategy</p> <p>3. Solve problems involving whole numbers and simple fractions, and explain the strategy used:</p> <ul style="list-style-type: none"> ○ counting strategies ○ grouping strategies ○ equal sharing strategies <p>Patterns and Relationships</p> <p>4. Make and extend repeating and sequential patterns</p>	<p>Measurement</p> <p>1. Understand attributes that are able to be measured:</p> <ul style="list-style-type: none"> ○ length ○ area ○ volume (capacity) ○ weight (mass) ○ rotation ○ temperature ○ time ○ money <p>2. Understand the convention of measuring where the attribute being measured is compared to a unit of measurement</p> <p>3. Use non-standard instruments for measuring</p> <p>4. Sequence and compare measurements</p> <p>5. Count simple units of measurement</p> <p>6. Understand the concept of conservation of measurement</p> <p>Shape</p> <p>7. Group objects according to their appearance such as colour, size and the number of sides</p> <p>8. Know 2-dimensional shapes such as triangle, square, rectangle, circle, pentagon, hexagon and octagon</p> <p>9. Know 3-dimensional shapes such as box, cylinder, and sphere</p> <p>Position and Direction</p> <p>10. Follow and give directions for movement involving:</p> <ul style="list-style-type: none"> ○ distance ○ direction ○ rotation (0, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$... turns). <p>11. Explain the location of something</p>	<p>Statistical Investigation</p> <p>1. Follow the conventions for statistical investigations to pose and answer questions:</p> <ul style="list-style-type: none"> ○ gather data ○ sort data ○ count data ○ display data <p>2. Understand data displays</p> <p>Probability</p> <p>3. Predict, and trial for, all possible outcomes in a simple probability situation</p>
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PĀNGARAU / MATHEMATICS

Level 4

PATTERNS AND RELATIONSHIPS IN:

Number and Algebra	Measurement and Geometry	Statistics
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Pāngarau Literacy

Students will exchange ideas and communicate using both written and oral language, symbols and other types of pāngarau representations. Pāngarau literacy is important in order for students to learn the content contained in the achievement objectives, and also in strengthening their logical and critical thinking, their reasoning skills and creativity appropriate for this level.

Using Pāngarau

Students will understand and explore the many uses of pāngarau relevant to the communities in which they live. The achievement objectives should be taught within contexts arising from the community.

<p>Number Knowledge</p> <p>1. Know:</p> <ul style="list-style-type: none"> ○ basic division facts ○ how to round whole numbers and decimals <p>1. Know conventions involving:</p> <ul style="list-style-type: none"> ○ negative and positive numbers ○ prime numbers ○ ratios ○ place value of decimal numbers: the number of thousandths, hundredths, tenths, ones, tens, hundreds and thousands in a decimal number (up to 3 decimal places) <p>2. Know how to find the multiples and factors of a number</p> <p>3. Understand fractions, decimals, percentages and simple ratios:</p> <ul style="list-style-type: none"> ○ conversion of fractions: fraction \leftrightarrow decimal \leftrightarrow percentage ○ decimal counting sequences (thousandths, hundredths, tenths) ○ sequence fractions, decimals and percentages ○ find equivalent fractions <p>Number Strategy</p> <p>4. Choose and explain the most appropriate strategies for solving problems involving whole numbers, fractions, decimals, percentages, integers and simple exponents:</p> <ul style="list-style-type: none"> ○ counting strategies ○ additive strategies ○ multiplicative strategies ○ simple proportional strategies <p>5. Understand the reasonableness of an answer.</p> <p>Patterns and Relationships</p> <p>6. Know how a number can be</p>	<p>Measurement</p> <p>1. Solve practical problems:</p> <ul style="list-style-type: none"> ○ choose and use appropriate units of measurement for length, area, volume (capacity), mass (weight), temperature, angle and time ○ convert between simple units of measurement ○ use measurement of sides to calculate the perimeter and area of rectangles, and the volume of rectangular based prisms ○ create, explain and use timetables and charts ○ know the reasonableness of a measurement <p>Shape</p> <p>1. Identify and explain the geometric properties of two and three dimensional shapes</p> <p>2. Match 3-dimensional shapes and their 2-dimensional representations</p> <p>3. Draw nets to make polyhedra</p> <p>Position and Direction</p> <p>4. Show explain and use the location and direction of something using:</p> <ul style="list-style-type: none"> ○ compass points ○ compass angles ○ aspects of the environment ○ grids (ordered pairs) ○ maps <p>Transformation</p> <p>5. Identify and explain the symmetry of two and three dimensional shapes</p> <p>6. Identify, explain and use invariant properties of transformations</p>	<p>Statistical Investigation</p> <p>1. Follow the conventions for statistical investigations involving multivariate category data, measurement, and time series data:</p> <ul style="list-style-type: none"> ○ pose questions and make assertions ○ decide on the variables to be measured ○ decide on the data gathering process ○ gather data ○ sort data ○ create useful data displays ○ compare the appearance of data distributions (central tendency and spread of data) ○ discuss the question under investigation <p>2. Understand the meaning and uses of measures of central tendency</p> <p>3. Explain and evaluate the usefulness of various data displays and discuss apparent variability</p> <p>Probability</p> <p>4. Explore probability situations:</p> <ul style="list-style-type: none"> ○ compare the distribution of predicted and experimental outcomes ○ know all possible outcomes ○ understand cases where the variability between samples is not reasonable ○ use fractions to show probability
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PĀNGARAU / MATHEMATICS

Level 6

PATTERNS AND RELATIONSHIPS IN:		
Number and Algebra	Measurement and Geometry	Statistics
<p>Pāngarau Literacy Students will exchange ideas and communicate using both written and oral language, symbols and other types of pāngarau representations. Pāngarau literacy is important in order for students to learn the content contained in the achievement objectives, and also in strengthening their logical and critical thinking, their reasoning skills and creativity appropriate for this level.</p> <p>Using Pāngarau Students will understand and be critical of the many uses of pāngarau relevant to their communities. The achievement objectives should be taught within the many contexts of the wider world.</p>		

<p>Number Knowledge</p> <p>1. Know conventions regarding whole numbers, fractional numbers, integers and irrational numbers</p> <p>Number Strategies</p> <p>2. Solve problems and use conventions of pāngarau to model a situation involving proportional reasoning:</p> <ul style="list-style-type: none"> ○ choose, create and use appropriate strategies ○ estimate ○ choose the most appropriate method of calculation ○ use proportional strategies ○ convert quantities and units of measurement ○ use variables <p>3. Understand the reasonableness of an answer</p> <p>Patterns and Relationships</p> <p>4. Solve problems and model situations:</p> <ul style="list-style-type: none"> ○ write and solve linear equations and inequations, simultaneous equations, and simple quadratic equations ○ write and use algebraic conventions for linear relationships, quadratic relationships, and exponential relationships which arise from geometric models and number patterns ○ manipulate algebraic equations ○ compare the structure of algebraic expressions ○ know the shape of graphs showing linear, quadratic and exponential equations ○ relate rate of change to the gradient of a graph 	<p>Measurement</p> <p>1. Solve problems and model situations:</p> <ul style="list-style-type: none"> ○ ensure the precision of a measurement is appropriate to the context of the task ○ understand limits of accuracy ○ use the relationships between metric units of measurement, including the relationship of units for different attributes ○ use formulae to calculate the volume of prisms, pyramids and spheres <p>Shape</p> <p>2. Solve problems and model situations:</p> <ul style="list-style-type: none"> ○ derive and use angle properties of a circle ○ solve two and three dimensional problems involving trigonometric ratios and properties of right angle triangles ○ use the theorem of Pythagoras <p>Position and Direction</p> <p>3. Solve problems and model situations:</p> <ul style="list-style-type: none"> ○ use co-ordinate planes and maps to show common positions and regions within two or more loci <p>Transformation</p> <p>4. Solve problems and model situations:</p> <ul style="list-style-type: none"> ○ compare and use single-level and multi-level transformations ○ analyse symmetrical patterns by showing the transformations used to create them 	<p>Statistical Investigation</p> <p>1. Follow the conventions for statistical investigations to plan and implement statistical surveys and experiments:</p> <ul style="list-style-type: none"> ○ pose questions and make assertions ○ decide upon and justify the variables to be measured and the appropriate units of measurement ○ use a range of random sampling techniques ○ gather multivariate data or access multivariate data that has already been gathered ○ choose appropriate data displays to show patterns trends, relationships and variability within and between data distributions ○ make informal inferences arising from data ○ communicate findings from statistical investigations <p>1. Critique statistical reports appearing in the media:</p> <ul style="list-style-type: none"> ○ carefully consider the measurements, the data displays, the calculations and the claims made <p>Probability</p> <p>3. Investigate practical probability situations:</p> <ul style="list-style-type: none"> ○ estimate the population parameters and the theoretical probability of a sample, and understand the relationship between sample size and the validity of the conclusions ○ calculate probability as a percentage
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PŪTAIAO / SCIENCE

Nā Rangi tāua, nā Tū-a-nuku e takoto nei

Ko ahau tēnei, ko mea ā mea.

You and I both descend from Rangi and Papa

This is me, so-and-so child of so-and-so

The Pūtaiao curriculum is based on the view that knowledge is referred to as ‘the two repositories/ systems (metaphorically: baskets)’. In this view there is a place for both Māori and Western knowledge relating to the natural world. Both knowledge systems are facilitated through a Māori worldview.

(A diagram showing that “By learning about both the Māori worldview and the Pākehā worldview, the student builds and extends their personal ‘repositories of knowledge’ is shown in the document)

Knowledge is a human product: it originates in all cultures, and ultimately belongs to all cultures. Pūtaiao is human knowledge about the natural world. It involves testing ideas against sensory experience of the world; it is flexible, fallible knowledge, which is subject to continual review.

Pūtaiao assists the Māori world to face and embrace the future. Linking traditional knowledge to modern knowledge will enable the production of improved and more profound knowledge bases.

THE PURPOSE OF LEARNING PŪTAIAO

It is important for the student to gain competency in the skills of research, experimentation, exploration and problem solving. Nevertheless it is appropriate to remain vigilant concerning the effects and end results of science in the world. The student needs to develop science literacy as well as physical, moral and cognitive competence. The aim is to allow access to the highest professional levels in the world of science, while retaining enduring empathy for the natural environment and all its inhabitants. To be sensitive and sympathetic to the difficult issues that immerse their world, and strive to find ways in which these can be overcome.

THE STRUCTURE OF THIS LEARNING AREA

There are four strands within the Pūtaiao curriculum. An explanation of each of these follows. The schedule below outlines the aims of Pūtaiao.

The Nature of Pūtaiao:

This strand envelops and underpins all of the others. There are five parts of this strand: Understanding, Skills, Values, Communicating Ideas, and Social Action. Through this strand, the student develops their knowledge about the histories and philosophies of science, up to and including knowledge of how to apply science to their own world. These objectives are embodied through the following three strands.

The World of Nature:

This strand covers all living things and their progeny: human, plant, animal, microbial. This is the strand protected by the majority of the familial deities – namely the parents, Ranginui and

Papatūānuku, and their children Tānemahuta, Tangaroa, Haumiatiketike, Rongomātane, Tūmatauenga, and others. This reminds us to respect all of their descendants which are discovered, consumed, and used by humans: the mauri of all things inheres.

The Physical World:

This strand contains the principles underlying the operation of the entire universe, in all dimensions. Tāwhirimātea in perpetual motion is guardian of this strand.

The Material World:

This strand consists of knowledge concerning the chemical building blocks of the manifest world, from the lowly worm to the celestial bodies of space. Rūaumoko stands guard over this strand.

(A diagram showing the aims of Science is shown in the document)

PŪTAIAO / SCIENCE

Level 1-2/Te Pū & Te More

<p>T h e Nature of Pūtaiao</p> <p><i>T h e student will:</i></p>	<p>UNDERSTANDING: Learn about the knowledge system of science: the role of central concepts and theories; how it develops and advances; and its relationships to the individual, to society, and to the environment. Develop critical abilities in order to carefully evaluate the world of science from a Māori viewpoint.</p> <p>SKILLS: Complete various types of investigation: classifying and identifying; exploration; pattern seeking; fair testing; problem solving; making a product or a model.</p> <p>VALUES: Develop increasing understanding of: cognitive and moral values; ancient and modern narratives; and the philosophies of science. Hold fast to traditional values, originating from a notion of the relationships between all living things.</p> <p>COMMUNICATING IDEAS: Develop competence in scientific literacy, numeracy, and the symbol systems of science, and use these literacies to communicate their own ideas, and the ideas of others.</p> <p>SOCIAL ACTION: Relate their knowledge of science to social decisions and actions: to take care of the environment in the vicinity of their home, and to think about issues impacting on their iwi, as well as wider issues, relating to the environment.</p>		
<p><i>Appropriate to this curriculum level, as s/he:</i></p>			
<p>The Natural World</p> <p>The Organism</p> <p>1. Learns about the needs every living thing has in order to survive.</p> <p>2. Discusses ideas about living things, so as to classify them according to observable differences.</p> <p>The Environment</p> <p>3. Gains understanding about extinct types of animals that once lived on the earth.</p> <p>4. Develops understanding that each living thing has characteristics appropriate to survival in its own habitat.</p> <p>Papatūānuku (Earth)</p> <p>5. Learns about and describe ancient and modern geological features of the local area.</p> <p>Ranginui (Space)</p> <p>6. Discusses ideas about the sun and the moon, and their impacts on the earth.</p>	<p>The Physical World</p> <p>Forces and Motion</p> <p>1. Explores and experiences the following physical phenomena: motion, floating, pushes and pulls.</p> <p>Waves and Particles</p> <p>2. Explores and experiences the following physical phenomena: light, shadows and colours, making sounds, heat.</p>	<p>The Material World</p> <p>Chemical Properties</p> <p>1. Explores and describes properties such as colour, texture, and odour, in order to classify familiar materials.</p> <p>Chemical Processes</p> <p>2. Observes and describes temporary (physical) and permanent (chemical) changes in familiar chemical substances.</p>	

PUTAIAO / SCIENCE

Level 4 - Te Aka

<p>The Nature of Pūtaiao</p> <p><i>The student will:</i></p>	<p>UNDERSTANDING: Learn about the knowledge system of science: the role of central concepts and theories; how it develops and advances; and its relationships to the individual, to society, and to the environment. Develop critical abilities in order to carefully evaluate the world of science from a Māori viewpoint.</p> <p>SKILLS: Complete various types of investigation: classifying and identifying; exploration; pattern seeking; fair testing; problem solving; making a product or a model.</p> <p>VALUES: Develop increasing understanding of: cognitive and moral values; ancient and modern narratives; and the philosophies of science. Hold fast to traditional values, originating from a notion of the relationships between all living things.</p> <p>COMMUNICATING IDEAS: Develop competence in scientific literacy, numeracy, and the symbol systems of science, and use these literacies to communicate their own ideas, and the ideas of others.</p> <p>SOCIAL ACTION: Relate their knowledge of science to social decisions and actions: to take care of the environment in the vicinity of their home, and to think about issues impacting on their iwi, and wider issues, relating to the environment.</p>
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Appropriate to this curriculum level, as s/he:

The Natural World	The Physical World	The Material World
<p>The Organism</p> <p>1. Learns about the biological processes common to all organisms, and that those processes vary in different types of organism.</p> <p>2. Makes detailed scientific classifications of some organisms.</p> <p>The Environment</p> <p>3. Investigates the changes undergone by species of organisms over long periods of time, especially the unique species of Aotearoa New Zealand.</p> <p>4. Investigates biological food chains, and the effects of human actions on these.</p> <p>Papatūānuku (Earth)</p> <p>5 (a) Investigates how the characteristics of the earth change, the signs, and the timescale of those changes, in describing the geological history of the local area.</p> <p>(b) Identifies the factors which enable life to exist on earth.</p> <p>Ranginui (Space)</p> <p>6. Investigates and uses models to show the spatial relationships between the earth, moon and sun, such as eclipses, tides, and seasons.</p>	<p>Forces and Motion</p> <p>1. Investigates and uses scientific models to explain physical phenomena, such as friction, levers and pulleys.</p> <p>Waves and Particles</p> <p>2. Investigates and uses scientific models to explain physical phenomena, such as light, shadows and lenses.</p> <p>Electricity and Magnetism</p> <p>3. Investigates and uses simple scientific models for electrical circuits and magnets.</p>	<p>Chemical Properties</p> <p>1. Investigates physical and chemical properties of some chemical substances, such as electrical and heat conductivity, and rusting.</p> <p>Chemical Processes</p> <p>2. Investigates the familiar chemical reactions of rusting and burning.</p> <p>Chemical Particles</p> <p>3. Develops understanding of the interactions between particles that take place in physical and chemical changes.</p>

PŪTAIAO / SCIENCE

Level 6 – Te Waonui

<p>T h e Nature of Pūtaiao</p> <p><i>T h e student will:</i></p>	<p>Understanding Understand that scientific investigations are based on current theories, with the aim to collect sufficient evidence that is interpreted through processes of logical argument.</p> <p>Skills Complete a variety of types of investigations. Variables will be considered, so as to draw logical and justifiable conclusions.</p> <p>Values Develop increasing understanding of: cognitive and moral values; ancient and modern narratives; and the philosophies of science. Hold fast to traditional values, originating from a notion of the relationships between all living things.</p> <p>Communicating Ideas Use a wider range of science vocabulary, symbols and conventions (e.g. diagrams, graphs, formulae). Apply their understanding of science (including visual and numerical literacy) to evaluate both popular and scientific texts.</p> <p>Social Action Develop understanding of science issues that impact on society by collecting relevant scientific information in order to draw evidence-based conclusions, and where appropriate undertake action.</p>		
<p><i>Appropriate to this curriculum level, as s/he:</i></p>			
<p>The Natural World</p> <p>The Organism 1. Investigates the environmental factors that affect biological processes. 2. Explores patterns in the inheritance of gene-linked characteristics.</p> <p>The Environment 3. Recognises the effect of human actions, and natural processes, on an ecosystem in Aotearoa New Zealand. 4. Explains the importance of genetic variation within the changing environment.</p> <p>Papatūānuku (Earth) 5. (a) Understands how plate tectonic processes shape and change the structure of the earth. (b) Investigates how geological and astronomical cycles, over time, gradually alter the conditions supporting life on the earth.</p> <p>Ranginui (Space) 6. Investigates the parts of the solar system, and shows understanding of the distances within it.</p>	<p>The Physical World</p> <p>Forces and Motion 1. Learns and uses concepts, principles and models to describe the behaviour of the physical phenomena of force, velocity and acceleration, gravity, momentum, work, and the energies associated with these phenomena.</p> <p>Waves and Particles 2. Learns and uses concepts, principles and models to describe the behaviour of the physical phenomena of heat energy transfer, heat capacity and insulation, the energies associated with these phenomena, and simple nuclear physics.</p> <p>Electricity and Magnetism 3. Learns and uses concepts, principles and models to describe the behaviour of the physical phenomena of static electricity, DC circuits and electromagnetism.</p>	<p>The Material World</p> <p>Chemical Properties 1. Identifies patterns and trends in the properties of a range of substances. Applies this information to the uses of these substances, and the issues (if any) arising from such uses.</p> <p>Chemical Processes 2. (a) Observes and classifies a range of chemical reactions and the factors that affect those reactions. (b) Explores ways that chemical reactions can be used to address issues and needs of society.</p> <p>Chemical Particles 3. (a) Uses collision theory to explain the rate of chemical reactions. (b) Develops their understanding of atoms, ions, and molecules, including the appropriate representation of these particles.</p>	

HANGARAU / TECHNOLOGY

The essence of Hangarau is expressed within the following traditional text. From the technological practices of our tīpuna, through to the technological processes that present contemporary challenges, a pathway has been laid for students to acknowledge and value traditional wisdom and skills, whilst meeting the needs of their world.

**Tīkina atu i tuawhakarere
I te ao kōhatu
Ngā mōhiotanga o rātou mā
Hei kawē i a tātou i roto i te ao tūroa
Kua takoto kē te whāriki i rarangahia e rātou
Wānangahia tuakina kia tau
Rangahaua kia maumahara
Manakohia kia whiwhi ai
Te mātauranga Māori motuhake**

*Take the knowledge of our ancestors
To guide us in this contemporary world
The foundations have already been laid
Discuss, debate, in order to understand;
Research, to remember
Practice, to retain
The essence of Māori knowledge*

Students learn Hangarau by way of discussion, research, experimentation, trial and error methodologies and hands-on experience.

THE PURPOSE OF LEARNING TECHNOLOGY:

Hangarau teaching and learning programmes will be purposeful. The learning programmes will empower students to develop hangarau knowledge and skills. Students are influenced by the values, beliefs, attitudes, skills and technological knowledge of their own world therefore, their learning experiences will stem from a traditional knowledge base and be adapted to incorporate a contemporary focus. In their learning experiences, students will access expert advice and model their practice on the expertise of past and present technologists.

Hangarau teaching and learning programmes will create outcomes that fulfil a need or opportunity that encapsulate cultural beliefs and heritage. Philosophically, Hangarau learning experiences will validate Māori knowledge and skills within a global society.

Hangarau Skills include:

- Planning and strategising
- Creating a design
- Selecting and using appropriate technological principles
- Creative and hands on skills

Hangarau Learning includes:

- Traditional and contemporary technological practice
- Contextual knowledge and understanding technological principles

THE STRUCTURE OF THIS LEARNING AREA:

The two strands included in Hangarau are:

- Key Concepts of Hangarau
- Hangarau Practice

Both strands are interrelated within all learning and therefore will be mutually incorporated into learning programmes.

From these develop the Areas of Learning include:

- Structures and mechanisms
- Electronics and Control Technology
- Information Transfer
- Biotechnology
- Food Technology

This information is shown as a diagram in the document

THE MAJOR FEATURES OF HANGARAU:

Key Concepts of Hangarau:

Technological practice is informed by the needs and opportunities of people. This is achieved through research and exploration. Understanding the impact of technological development ensures that students understand and appreciate the values and beliefs of people. They understand, acknowledge, and practice the concept of guardianship of land, environment and the interaction between technological practice and communities. Students will consider traditional and contemporary practices in order to make informed decisions.

Technological Practice:

Hangarau knowledge and skills are developed within this strand. Technological practice is the combination of skills in order to meet an outcome.

Within these two strands there are five learning areas. These areas include:

LEARNING AREA / NGA AHO	EXPLANATION / HEI WHAKAMĀRAMA)
STRUCTURES & MECHANISMS	Construction starts with simple structures such as a carton, and develops to difficult structures: eel weir, rat snare, manu aute (traditional kite). Understand the links and relationships between the parts of a product and the essential function of each part
ELECTRONIC & CONTROL TECHNOLOGY	Electronics consists of planning, constructing and manipulating electrical systems and electronic devices. Control technology is concerned with the management of electronically controlled systems.
COMMUNICATION TECHNOLOGY	Communications technology is concerned with the transfer of knowledge, including by vocal and visual means (such as in carving) and extending to writing/drawing using pen or computer.
BIOTECHNOLOGY	Biotechnology uses biological systems in order to manipulate natural processes, in ways that benefit humanity. Applications include hydroponics crops and medicines.
FOOD TECHNOLOGY	Food technology is concerned with all aspects of growing, harvesting, labelling, processing, preserving and packaging foods.

HANGARAU / TECHNOLOGY

Technological Knowledge	Technological Practice
LEVEL 1:	
<p>1. Investigate and explore their community and in particular look at:</p> <ul style="list-style-type: none"> • peoples beliefs & values • how to use the expertise of past and present technologists to reach a successful outcome 	<p>1. Investigate and identify the process, principles and skills required to achieve a hangarau outcome.</p> <p>Understand:</p> <ul style="list-style-type: none"> • that there are many and varied forms of outcomes • the reason for this type of outcome <p>2. Promote their ideas by designing a simple plan and then:</p> <ul style="list-style-type: none"> • describe the plan • explain what materials were required • explain what process was used
LEVEL 4	
<p>1. Learn that beliefs and values are integral to a solution. They will understand:</p> <ul style="list-style-type: none"> • the principles of hangarau • the relationship to people • the relationship to the environment 	<p>1. Learn to plan and review the progress of their plan to determine the effectiveness of past actions and resources.</p> <p>These will include:</p> <ul style="list-style-type: none"> • reviewing the plan • explaining its relationship to people • explaining its relationship to the environment <p>1. Ensure that all the appropriate skills are being used to achieve the technological outcome including:</p> <ul style="list-style-type: none"> • hands on experience • using appropriate metacognitive skills • using creative and innovative ideas <p>2. Understand that customers or clients feedback is very important to a final technological outcome</p>

LEVEL 6	
<p>1. Critically analyse their own and others beliefs and values and learn how to adapt these to achieve a technological outcome including:</p> <ul style="list-style-type: none"> • Looking at the values and beliefs of their own and other iwi; • Analysing whether they are appropriate to achieve the desired outcome; • Explaining what technological understanding do they have; • Understanding what opportunities or pathways are available. <p>2. Investigate and explore a process, or a strategic plan to promote the needs of the client or customer.</p>	<p>1. Critically analyse their own and others past and present planning practices to support and justify ongoing planning including:</p> <ul style="list-style-type: none"> • Reviewing other’s plans to help with their planning. <p>2. Evaluate ongoing experimentation to select and justify the final technological outcome which best addresses the specifications.</p>

TIKANGA Ā IWI / SOCIAL STUDIES

“Kāore i kotahi te whakahaere o ngā tikanga ā iwi. He iwi anō me ōna tohunga me ōna tikanga me āna whakahaere. Hiki atu he iwi, pērā tonu. Nō reira, kia mau koe ki ōu ake Mā ō rātou uri e mau ō rātou nā kōrero. Engari kia mau koe ki ngā kōrero a ōu mātua, a ōu tūpuna. Ina ka tika, ka waiho mai ētahi mātauranga hei taonga mōu.”

"The organisation of social customs and practices is diverse, not unitary. Each people has its own experts, customs and organizational structures. It is a pattern that is consistent irrespective of the people. Therefore, hold fast to your own ... Let the descendants of others retain their own histories and stories. You must retain the collective wisdom of your parents and ancestors. If this is done appropriately greater knowledge will result. "

(by Te Whatahoro, 1865)

THE PURPOSE OF LEARNING TIKANGA Ā IWI

The spirit of Tikanga ā Iwi is encapsulated in the above quote by Te Whatahoro: through a critical examination of human social behaviour, students gain an understanding of their world. Tikanga ā Iwi also examines the ways people meet their physical, social, emotional and spiritual needs.

Social Studies is studied from Level 1 in primary through to Level 5 in secondary. Beyond Level 5, students will specialise to study Social Studies, History, Geography and/or Economics, as optional subjects at Level 6 - 8 in the senior secondary years.

What are the benefits of learning Tikanga ā Iwi?

In Tikanga ā Iwi students develop knowledge of the diverse and dynamic nature of society and understanding of the complexity of human behaviour. Through this, students will be informed, be constructively critical, and be able to participate responsibly in shaping society. The Treaty of Waitangi and its historical and contemporary relevance is a major underlying principle in this learning area.

Students develop an understanding of their own identity through a focus on the people, the events and the influences that have contributed towards shaping New Zealand society. As well as this students will study peoples and communities beyond New Zealand, and their worldviews.

Through Tikanga ā Iwi students will have an opportunity to investigate current events to develop knowledge and understanding of significant events and people in their local community, in the national community and in the global community.

THE STRUCTURE OF THIS LEARNING AREA

Tikanga ā Iwi is comprised of four strands.

In the strand **Social Organisation and Culture**, students develop their knowledge and understanding of:

- the reasons and ways that people organise themselves to meet their needs;
- the rights, roles and responsibilities of people as they interact within groups;
- the links between culture and identity, and the outcomes of cultural interaction.

In the strand **The Changing World**, students develop their knowledge and understanding of:

- the relationships between people and past events, and the beliefs and influences that have shaped, and continue to shape, society;
- the interpretations of those relationships over time.

In the strand **Place and Environment**, students develop their knowledge and understanding of:

- peoples' interactions with places and environments;
- how people sustain the environment.

In the strand **The Economic World**, students develop their knowledge and understanding of:

- the ways people use, allocate and manage resources;
- the reasons and ways people engage in economic activities.

Tikanga ā Iwi will be taught through the process of **social inquiry**. Through this process students will have the opportunity to:

- ask questions, process information, and communicate findings;
- investigate differing perspectives and values, and positions and the reasons for these;
- examine issues, identify solutions, evaluate outcomes, and make decisions about possible social action.

TIKANGA A IWI / SOCIAL STUDIES

S O C I A L ORGANISATION AND CULTURE	P L A C E AND ENVIRONMENT	T H E WORLD	C H A N G I N G WORLD	T H E WORLD	E C O N O M I C WORLD
<i>Whiria te kaha tūātinitini Whiria te kaha tūāmanomano. Nō ngā tūpuna, tuku iho, tuku iho.</i>	<i>Kotahi tonu te matua o te tangata Māori, ko Ranginui e tū nei, ko Papa-tū-ā-nuku takoto nei.</i>	<i>E tama, e hine Tangata i akona ki te whare Tū ana ki te marae, tau ana.</i>			<i>E kore e ngaoko te rākau ki te tīkina i te pūtake whakangaoko āi ngari, me tiki ki te matamata.</i>
Level 1					
1. Explain reasons why people belong to social groups, and the different roles people play within social groups.	1. Explain the natural and cultural features of a place.	1. Describe important events in her/his own life.			
Level 4					
1. Explain how people organise themselves in response to challenge or crisis. 2. Explain how and why individuals and groups pass on and sustain their culture and heritage.	1. Explain how places reflect the past interactions between people and the environment. 2. Explain how exploration presents opportunities and challenges for people, places, and environments.	1. Identify the causes and effects of events that have shaped the lives of people. 2. Describe ways the past is recorded and remembered.		1. Explain how and why people use resources differently, and the consequences of this. 2. Explain how and why individuals and groups seek to safeguard the rights of consumers.	
Level 6 Social Studies	Level 6 Geography	Level 6 History		Level 6 Economics	
<i>Through the social enquiry process, and in a range of contexts, students understand that:</i>					

Te Tāhuhu o Te Mātauranga / The Ministry of Education
Translation of Te Marautanga o Aotearoa: He tauira hei kororero
November 2007

<p>1. individuals, groups and institutions work to promote social justice and human rights;</p> <p>2. cultures adapt and change, and this has consequences for society.</p>	<p>1. natural and cultural environments have particular characteristics, and are shaped by processes that create spatial patterns;</p> <p>2. people interact with their environments in particular ways.</p>	<p>1. there are causes and consequences of past events that are of significance to New Zealanders and that shape the lives of people and society;</p> <p>2. people have different perspectives about past events that are of significance to New Zealanders.</p>	<p>1. as a result of scarcity, consumers, producers, and government make choices that affect New Zealand society;</p> <p>2. the different sectors of the New Zealand economy are interdependent.</p>
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TOI / THE ARTS

IHO TOI

Kei te tipua, e Toi

Hiko kau ana te ngākau i tō karanga

Mā tō ngākau te wairua e hiki

Mā tō wairua te reo e tuku

Mā tō reo te hinengaro e whakapuaki

Mā te hinengaro te kupu e raranga

Mā te raranga i te kupu te taonga tuku iho e whakairo. *Weaving the words
carves the inherited taonga.*

Mau ake ana i tō hei tiki

Ko Puoro e tangi nei

Ko Rēhia me ōna wiwini, ōna wawana

Ko Ataata me ōna kanohi

E rere ai te reo hei herenga.

ESSENCE OF THE ARTS

Like a supernatural being, Toi

The heart quickens at your call

Your heart gladdens the spirit

Your spirit releases the voice

Your voice opens the mind

The mind weaves the words

*Weaving the words
carves the inherited taonga.*

Inspired by your image

Musical sounds

Dramatic movement

Artistic views

Linked by a soaring voice.

Mau kau atu ōu kamo ki ngā iwi

Mai i te ao kōhatu ki te ao mārama

Kia pā mai, kia pā atu tō hā.

Fix your eyes on the people

From traditions to the future

Let your breath be felt.

Kia hiko tonu au e ...

Still my inspiration ...

Taku patu

Taku taiaha

Taku meremere

Taku toki pounamu e

In these two

verses,

traditional tools

of artistry

Taku tewhatewha

Taku tokotoko

Taku hei tiki e

and expression

are identified

and named

Ngā whaikōrero

Ngā whakapapa e

Ngā mōteatea, whakataukī, pātere

These two verses

name genres

of traditional texts

Te raranga *and vehicles*
Te whakairo *of visual expression*
Te haka taparahi e *and cultural meaning*

Kia hiko tonu! Tukua te hinengaro kia rere, kia kore ai ngā taonga nei e noho tapu, e noho kōhatu. Heipū noa he mea kē noa atu te patu; te tatangi, te wiri, te whātero.

Inspiration continues! Let the mind explore them, don't leave these taonga to sit in museums. Make them accessible, bring them to life.

TOI / THE ARTS

Puoro Music	Ngā Mahi a Te Rēhia Drama	Toi Ataata Visual Art
LEVEL 1:		
<p>Investigate, participate in, and develop an understanding of:</p> <ul style="list-style-type: none"> • elements and types of sound heard in the everyday environment; • musical learning activities including listening, imitating, repetition and creative play; • many different types of sound. <p><i>Self-guided musical exploration aids learning at this level</i></p>	<p>Investigate, use, develop an understanding of and celebrate:</p> <ul style="list-style-type: none"> • dramatic elements including use of the body, sound, and language; • types of spaces and participation in imitation activities and improvisation; • use of body and voice together in diverse contexts; • her/his original dramatic work and those of others. 	<p>Investigate, participate in, develop knowledge and understanding of:</p> <ul style="list-style-type: none"> • elements and concepts • signs in her/his world. <p><i>Learn by experimenting with diverse resources from the Māori world and beyond.</i></p>
LEVEL 4:		
<p>Investigate, use technology, develop and recognise:</p> <ul style="list-style-type: none"> • the different types of music s/he is familiar with; • her/his knowledge of music trends; • the range of types of sounds used in making music, and instruments for producing music. <p><i>Students have many diverse musical experiences, in order to enhance and embellish their understanding.</i></p>	<p>Investigate; describe; show understanding of; and share ideas about:</p> <ul style="list-style-type: none"> • dramatic processes; • drama types. 	<p>Develop notions and skill competences, that explains and seeks understanding:</p> <ul style="list-style-type: none"> • by exploring and using the results produced by and with resources, art media, and tools of art including electronics; • selecting art processes and identifying required tools in her/his art work; • using the processes and media used by the working artist. <p><i>Thoughts and concepts must be carefully guided and developed.</i></p>

TOI / THE ARTS

Puoro Music	Ngā Mahi a Te Rēhia Drama	Toi Ataata Visual Art
LEVEL 6:		
<p>Investigate, create, theorise about, and describe:</p> <ul style="list-style-type: none"> • a range of types of music in context, and cultural activities directly related to those contexts. <p><i>Based on her/his knowledge of the contextual settings of the various types of music.</i></p>	<p>Investigate, use, develop knowledge of and explain:</p> <ul style="list-style-type: none"> • how physical movement and the voice are used and applied in a wide range of dramatic contexts. 	<p>Investigate in depth, seek creative inspiration, recognise, and develop understanding of:</p> <ul style="list-style-type: none"> • ideas about the role in art of modern technology; • competent use of technologies for communicating ideas and information; • processes of development and exploration the artist must undertake. <p><i>To develop competence in a range of art processes and a wide variety of art media.</i></p>

HAUORA / HEALTH AND PHYSICAL WELLBEING

**E tipu ai te pakiaka tangata, me whakatō he purapura wairua.
Whakahaukūtia te whenua ki te waiora pūmau kia puta ai ko te Hauora.**
*For the roots of humanity to grow well, spiritual seeds must first be sown.
Irrigate with the enduring waters of life, and Hauora will result.*

**Ko te oranga te tino pūmanawa i homai ki a tāua ki te tangata.
Kei a tāua te tino kawenga ki te manaaki, ki te tiaki i tēnei taonga tuku iho.**
*The most precious gift we are given is life itself.
Our duty is to nurture and care for this precious inheritance.*

**Ko ā tātou tamariki ngā rangatira mō āpōpō.
Mā te tiaki, mā te ropiropi ka puta te oranga ki a tātou katoa.**
*Our children are the leaders of the future.
By caring for them and fostering their learning, we assure future life for all.*

THE PURPOSE OF LEARNING ABOUT HAUORA

Hauora provides students with access to the world of health and well-being. Students will have opportunities to learn about total health and well-being – of spirit, mind, body, and heart, extending to environmental health. They will develop understanding about total health and well-being by describing, explaining, trialling and evaluating the many facets of Hauora.

THE STRUCTURE OF THIS LEARNING AREA

Strands help to organise key learning. There are four strands in this learning area:

Personal Health and Development (Waiora)

*Piki mai, kake mai. Homai te waiora ki ahau.
(Come to me, join with me. Bring me the waters of life)*

Students explore and learn about food, nutrition and sustenance, personal growth and development, safety and safe practices.

Movement concepts and motor skills (Koiri)

*Ko te piko o te māhuri, tērā te tupu o te rākau.
(As the sapling is bent, so the tree will grow)*

Students develop and apply movement concepts and motor skills and have opportunities to participate in and enjoy physical activities.

Health and the environment (Taiao)

*Hāhā te whenua, hāhā te tangata.
(Desolate land, desolate people.)*

Students discuss and exchange ideas about the close and enduring relationship between people and the natural environment, exploring ways to lessen harmful environmental impacts.

People and relationships (Tangata)

He taura taonga e motu, he taura tangata e kore e motu.

(A string of beads is easily broken, but human bonds can never be severed)

Students describe and analyse human relationships in a variety of contexts, both personal and those of others.

Each strand has specific themes to help describe and explain the key learning it contains. The achievement objectives derive from these themes. Although strands and themes are organised separately, each relates to the other and should be integrated in planning Hauora teaching and learning programmes.

There are four encompassing aspects of Hauora, interwoven within all the strands: Wairua (which involves Māori perspectives on the fundamental nature of humanity); Customs, Practices and Protocols; Te Reo Māori; Values and Attitudes. The purpose of including these aspects is to provide guidance in teaching and learning Hauora in safe and positive ways, and to affirm and support unique Māori views of the world.

The structure of the Hauora learning area is shown below:

	HAUORA			
Aspects integrated through all strands:	WAIRUA			
	CUSTOMS, PRACTICES, PROTOCOLS			
	TE REO MĀORI			
	VALUES AND ATTITUDES			
Strands	Personal Health and Development	Movement Concepts and Motor Skills	Health and the Environment	People and Relationships
Themes	Food and nutrition Growth and development Safety	Physical education Applying movement skills Science and technology in movement	Relationships to/in natural environments Relationships to other environments (man-made, created environments)	Personal relationships Relationships with whānau, hapū, iwi and the wider world

HAUORA / HEALTH AND PHYSICAL WELLBEING

Level 1

Integrating Aspects	WAIKUA		
	CUSTOMS, PRACTICES, PROTOCOLS		
	TE REO MĀORI		
	VALUES AND ATTITUDES		
Personal health and development	Movement concepts and motor skills	Health and the environment	People and relationships
<p>1. Food, nutrition and sustenance</p> <p>2. Growth and development Discuss and express feelings about their development such as food and nutrition, looking after themselves, and family routines.</p> <p>3. Safety Describe simple health and safety practices.</p>	<p>1. Physical Education Develop a range of movements.</p> <p>2. Applying movement skills Participate in games and activities and identify the factors that make participation enjoyable.</p>	<p>1. Relationships to Earth and Sky (natural environments) Investigate and describe relationships within the natural environment, between people and the environment, and how it contributes to well-being.</p> <p>2. Relationships to other environments (man-made, created environments) Discuss environments familiar to them (the student).</p>	<p>1. Personal relationships Describe oneself in relation to his or her role in the family and in other contexts.</p> <p>2. Relationships with whānau, hapū, iwi and the wider world Demonstrate care, respect and consideration with others so that shared environments can be enjoyed by all.</p>

HAUORA / HEALTH AND PHYSICAL WELLBEING

Level 4

Integrating Aspects	WAIKUA		
	CUSTOMS, PRACTICES, PROTOCOLS		
	TE REO MĀORI		
	VALUES AND ATTITUDES		
Personal health and development	Movement concepts and motor skills	Health and the environment	People and relationships
<p>1. Food, nutrition and sustenance Discuss the types of food that contribute to physical, spiritual and intellectual well-being.</p> <p>2. Growth and development</p> <p>i. Describe the characteristics of puberty in positive ways in relation to themselves and others.</p> <p>ii. Recognise and describe how social messages can affect feelings of self-worth.</p> <p>3. Safety Use information to make and action safe choices in a range of contexts.</p>	<p>1. Physical education</p> <p>i. Demonstrate consistency and control of movements in a range of contexts.</p> <p>ii. Demonstrate willingness to accept challenges, learn new skills and strategies, and extend their abilities in movement-related activities.</p> <p>2. Applying movement skills Participate in and demonstrate an understanding of how social and cultural practices are expressed through movement.</p> <p>3. Science and Technology (in movement) Investigate the effect of science and technology on the selection and use of equipment in different contexts.</p>	<p>1. Relationships to Earth and Sky (natural environments) Contrast lore, customs and practices of Māori and the effect of those actions on the environment.</p> <p>2. Relationships to other environments (man-made, created environments)</p> <p>i. Investigate ways to improve aspects of a kura environment and other environments.</p> <p>ii. Investigate the effect of the wider community on the student community.</p>	<p>1. Personal relationships Identify effects of changing situations on relationships and describe appropriate responses.</p> <p>2. Relationships with whānau, hapū, iwi and the wider world</p> <p>i. Describe and demonstrate a range of assertive communication skills that enable appropriate interactions with others.</p> <p>ii. Recognise instances of discrimination and act responsibly to support their own rights and feelings and those of others.</p>

HAUORA / HEALTH AND PHYSICAL WELLBEING

Level 6

Integrating Aspects	WAIKUA		
	CUSTOMS, PRACTICES, PROTOCOLS		
	TE REO MĀORI		
	VALUES AND ATTITUDES		
Personal health and development	Movement concepts and motor skills	Healthy and the environment	People and relationships

<p>1. Food, nutrition and sustenance Investigate and explain the effects of food, nutrition and sustenance issues on family health – children, adolescents and adults.</p> <p>2. Growth and development Identify and investigate choices related to adolescent development and evaluate the outcomes of those choices.</p> <p>3. Safety Plan safe strategies to protect the rights and responsibilities of students and others, in a range of contexts.</p>	<p>1. Physical education</p> <p>i. Apply the principles of motor skill learning to refine and improve specialised motor skills.</p> <p>ii. Demonstrate physical abilities and responsible attitudes in challenging physical situations.</p> <p>2. Applying movement skills Demonstrate understanding and affirmation of people’s diverse cultural and social needs when participating in physical activities.</p> <p>3. Science and Technology (in movement) Apply environmental, scientific and technological knowledge to enhance physical abilities in a range of contexts.</p>	<p>1. Relationships to Earth and Sky (natural environments) Evaluate the effectiveness of the work and practices of an environmental group.</p> <p>2. Relationships to other environments (man-made, created environments)</p> <p>i. Investigate the roles, practices and effectiveness of local, national, and international organisations that promote well-being and environmental safety</p> <p>ii. Analyse kura and community initiatives that promote the health, well-being and safety of adolescents.</p>	<p>1. Personal relationships Investigate how individuals and groups affect relationships by influencing people’s behaviour, beliefs, decisions, and sense of self-worth.</p> <p>2. Relationships with whānau, hapū, iwi and the wider world</p> <p>i. Plan strategies and demonstrate interpersonal skills to respond to challenging situations appropriately.</p> <p>ii. Demonstrate an understanding of factors which contribute to personal identity, celebrate individuality and affirm diversity.</p>
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