Tūhuratia te Ao Hangarau

Hangarau Teachers Manual

TE TĀHUHU O TE MĀTAURANGA
Ministry of Education
Te Kāwanatanga o Aotearoa

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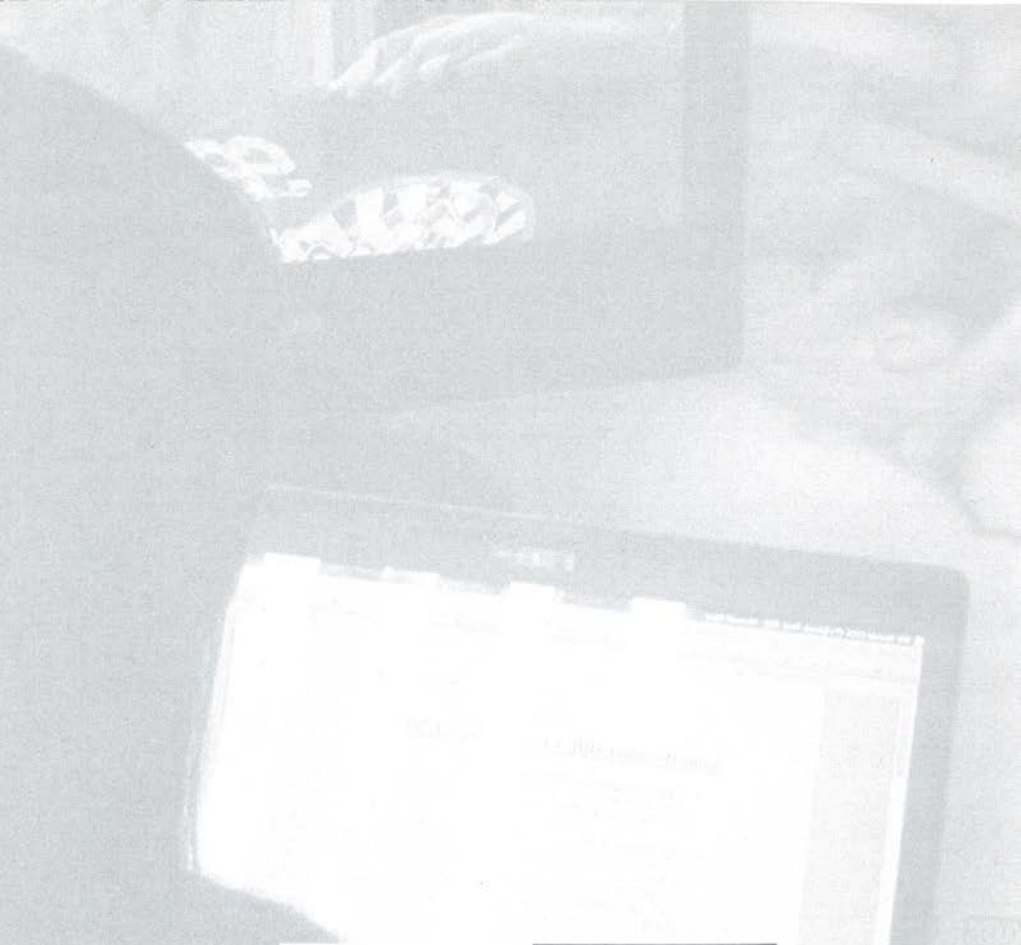

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He Kupu Whakataki

It is appropriate to acknowledge all those who have helped in the development of this hangarau resource. To those who have freely given their time, knowledge, skills and above all their support, our thanks are endless.

Also acknowledged are the ancestors, now passed on, for the gift of te reo Māori and the many treasured skills and knowledge that they have left as examples for us, their uri.

The purpose of this resource is to clearly show the relationship between Māori hangarau communities of practice and Te Marautanga o Aotearoa. It is also intended to motivate students by presenting examples of practice that are contemporary, challenging and exciting.

The resource consists of 5 student books, each accompanied by a DVD. The DVD supports the information provided as text and gives students visual examples of authentic Māori hangarau practice, in real communities.

Each part of the resource illustrates key messages. Essentially hangarau is about developing solutions to meet the needs of iwi, hapū, and whānau with the same purpose that our tūpuna had. What has changed are the materials used and the way that they are used to produce an outcome.

Additionally, in this book for teachers the intent is to highlight the links between level 6 whāinga paetae within Te Marautanga o Aotearoa, learning activities and assessment opportunities.

Te Marautanga o Aotearoa

Key messages when working with this resource.

Me whai take ngā kaupapa kia kore ai e whāia mō te kore noa iho.
Hei whakahiato i ngā mōhiotanga hangarau ka tīmata i te ao Māori me tōna hāngai ki te ao hurihuri. Me aro anō ki ngā uara ngā pūkenga me ngā mōhiotanga hangarau o te ao e taunga ana ia. (TMoA whārangi 104)

Ensure that each hangarau unit is purposeful . When researching hangarau knowledge begin in the Māori world to see how relevant this knowledge is in todays changing world. Students can then utilise those values, skills and hangarau knowledge as appropriate in their own environment.

As you develop a unit of work around any of these contexts remember also that hangarau supports sustainable practices. You should give consideration to Papatūānuku in the way students collect, use, and dispose of materials in their work. The potential life of their products or environment, and the overall impact that this development has on the environment, should be given serious consideration.

The two strands Ngā Āhuatanga Matua and Te Whakaharatau Hangarau sit together in a unit of work. Hangarau also pulls in knowledge and skills from Hauora, Tikanga-ā-iwi, Pūtaiao Pāngarau and Ngā Toi. It is underpinned by Te Reo Māori.

More often than not a context of learning is applied across two or three Aho Hangarau. The aho provide a focus from which the contexts are developed.

It is the Whāinga Paetae that remain consistent in the unit. It is recommended that one main aho is selected as this will guide the development of learning activities. The second or third is incidental.

The table below demonstrates possible aho that support the contexts provided in this resource.

HOROPAKI	AHO HANGARAU	
He Wahakura	Main	Ngā Hanga me te Pūhanga Manawa
	Supporting	Te Koiora
Te Tā Moko	Main	Te Tuku Mōhiohio
	Supporting	Te Koiora
Te Miēre Mānuka	Main	Te Hangarau Kai
	Supporting	Te Koiora Ngā Hanga me te Pūhanga Manawa
Te Tiaki Manu	Main	Te Koiora
	Supporting	Ngā Hanga me te Pūhanga Manawa
Ngā Mahi Pāpāho Māori	Main	Te Tāhiko me te Hangarau Whakatina
	Supporting	Te Tuku Mōhiohio

Overview of Key Messages in Texts

He Wahakura

A Ngāti Kahungunu doctor has developed a solution to help address the high rates of cot death in Māori babies.The product known as a wahakura is based on Māori values and practices and supports whānau, hapū and iwi to take greater control over real issues in contemporary Māori society.

The product is a result of knowledge from 3 sources:

- Health statistics and research
- Māori knowledge, values and beliefs
- Skills and knowledge of weavers

The combination of these 3 pools of knowledge result in a product which meet an area of high need in Aotearoa.

This text supports and acknowledges that hangarau practice is an outcome of knowledge domains drawn from other areas.

Te Tā Moko

Tā Moko explores the reasons why Māori choose to wear moko, as well as the beliefs and practices of moko artists. The need identified by individuals is one of expressing identity, whakapapa, whānau, hapū and iwi relationships.

The moko artists discuss designs and procedures. Working on a living canvas is a skill mastered over many years.

This context is closely related to both Ngā Toi and Tikanga-ā-iwi.

Te Mīere Mānuka

Te Mīere Mānuka epitomises a small rural community taking responsibility for identified needs in their own immediate community. In Te Mīere Mānuka the wider community are involved, or at the minimum have knowledge of this development in Whangaparāoa.

A point of special interest is that this land is Māori owned, therefore the land owners have mana whenua and take their kaitiaki roles seriously.

Because of the dual roles of Tuihana Pook, as Director and also as Principal of the school, the additional learning opportunities for the students are put into 'real life' contexts.

Te Mīere Mānuka although a hangarau context has relationships with both Tikanga-ā-iwi and Pūtaiao.

Te Tiaki Manu

A common element in this text, as in Mīere Mānuka, is land ownership. Because the Barrett whānau at Kapiti Island and the trustees of Ōmataroa Rangitaiki Block 2, own their land, they have the authority within themselves to make the best decisions for the use of that land.

Both whānau have similar visions and attitudes. To them conservation is about saving native species for further generations, so that those not yet been born, see, hear and understand the incredible results of Tānemahuta's work.

Whilst students should explore the economic feasibility of hangarau outcomes at this level, in these examples the key work comes first and perhaps financial gain may follow.

But the whānau do what they do because they are guided by their values, beliefs and tikanga.

Te Tiaki Manu is closely related to Pūtaiao.

Ngā Mahi Pāpāho Māori

Ngā Mahi Pāpāho Māori explores opportunities that were created by an ongoing human need, communication, in association with a national drive to preserve and revitalise Te Reo Maori.

Although the providers discussed in this text have a national coverage and exposure, for other iwi and hapū, whānau and kura, broadcasting can be a reality. In this time of quickly changing technology, communication remains a human need and opportunities abound for young people.

This example draws on knowledge and skill from Ngā Toi and e-learning. Te Reo Māori is a key component.

Developing a Unit of Work

Planning for Practice

By this level students should be competent in:

- Planning for their own practice
- Designing potential outcomes
- Self/peer and group reviewing
- Identifying targets, clients and planning an outcome that takes cognisance of their particular values, attitudes and behaviours
- Identifying barriers to achievement and being able to address these
- Setting goals and planning strategically to meet them
- Exploring materials and providing options
- Project management
- Develop conceptual designs and models
- Identify and model elements of technology and practice outside the classroom.

Common Elements in a Unit of Work

Identifying a Need

This is often student driven but may be introduced by the teacher as a result of a current/contemporary issue.

Examples of needs illustrated in the resource:

He Wahakura. To reduce the high rate of unexpected cot death in Māori babies.

Tā Moko. To show identity and develop a sense of belonging, whānaungatanga and responsibility.

Te Mīere Mānuka. To address unemployment in a rural community.

Te Tiaki Manu. To preserve native bird species for future generations.

Ngā Mahi Pāpāho Māori. To provide broadcasting choices that educate, inform and entertain Māori speaking audiences of all ages.

Identifying and understanding the issues around the need identified.

- Why is it a need?
- Who is being affected?
- What is the impact on others?
- Why should I plan to address this need?

Undertaking and Presenting Research

The purpose of research is:

- to widen the student's knowledge about the need or opportunity
- to support and guide the student's thinking
- to clarify a situation
- to inform potential solutions

There are many ways of presenting research, the purpose of the presentation is:

- to inform others
- to clarify their own thinking by sharing it
- to substantiate a case for the development
- to help others understand the need and the issues

Develop an Action Plan from a Brief

A Brief

A brief is a description of the intended outcome and the constraints that will be met by the solution.

A brief discusses the need identified, and the opportunities or issues to be addressed. It contains detailed specifications from which the solution is constructed and tested. As the work progresses the brief and the specs may be amended as the students gets a clearer picture of the intended solution.

Action plans show progressive steps towards achieving an action or goal, stated in the brief. An action plan will take account of some or all of the follow learning activities, that inform the research:

- Interviews
- Site visits
- Client discussions
- Internet
- Journals, texts and other hard copy sources

When students plan goals it is because they have evaluated the issues and the need and can plan a pathway forward. Remind them that goals should be:

Specific	(Details)
Measurable	(How do I know if I've completed?)
Achievable	(Am I actually able to do this?)
Realistic	(Does this fit within my parameters of work?)
Time Framed	(When do I need to have this goal completed?)

Considerations and Constraints

Students should think about:

Materials. What do I have access to? Are the materials suitable? Is there a negative environmental impact if I use these materials?

Costs. What are the costs associated with materials, the equipment needed and an effective trial of my solution? How does this compare with my budget?

Time. When and how long will this take? Is that practical? Achieveable?

Space and Equipment. Do I have access to the equipment, where is the best place to work on this solution?

Knowledge. What do I need to know more about in order to complete this?

Help from others. Who can help me? Where are the experts? How can I access them?

A simple format for creating actions plan could be:

What	Who	When	Expected Outcomes

Point to note

When students work towards completing their first conceptual design it is not unusual for them to change their action plans.

At each stage of achievement they should be able to ask themselves:

- Have I achieved/completed the outcomes?
- Is the outcome satisfactory?
- Can I improve it? Do I need to improve it?
- On completion is my thinking still the same?

The process is one of continual review and amendment.

Trial and error

Practical technical skills will have to be learned. The resource highlights several examples, particularly in Te Mīere Mānuka and He Wahakura.

It is the teacher's responsibility to ensure safe use of equipment. These are skills that students must practice in order to use equipment safely. This also incudes knowing how certain materials behave under certain conditions or react to one another, and the idiosyncrasies of certain materials.

Developing a prototype

Where this is appropriate students should be encouraged to develop a prototype. From the prototype they can make further tests and conclusions about the appropriateness of the outcome as a solution to the identified need. Usually prototypes are constructed from a cheaper form of material.

The final solution

A solution is not necessarily a product. The outcome is entirely dependent on the initial need identified. A solution could be a process, an environment, or a product. A solution does not have to be tangible, it could be a waiata, a management system, or perhaps a part of an already established product or system.

Assessment Opportunities and NCEA Links

The Whāinga Paetae for taumata 6 are in the inside cover of each text. The table below illustrates the relationship between the Whāinga Paetae, one section of the resource, He Wahakura and elements of the Achievement Standard at NCEA Level 2, as examples of how this resource can be used to develop assessment opportunities.

Whāinga	Evidence and examples in the text	Paerewa
Ka tirohia ngā uara me ngā whakapono o iwi kē, ka:	He Wahakura	MAS90344 Develop and model a conceptual design in structures and mechanisms Criteria for Excellence
whakahāngai ki te otinga	Māori values and practice are maintained in the development of the wahakura, to the extent that mainstream health statistics and findings identify the need, but do not impinge on the final outcome. One of the key factors impacting on this outcome was that Māori whānau like to sleep with their babies, a solution that allows this practice to continue was essential to its success.	Prioritise key factors, explaining their implications and interactions, in formulating a brief to address an identified issue.
mōhio ki ngā whakaharatau	Dr Tipene-Leach goes back to the kuia of Tūranganui-a-Kiwa to get their support and their weaving knowledge. Communities of practice, such as weavers are in the communities in which we live. Identifying them is essential. The technical knowledge of the weavers about processes and design, and best flax types for strength was sought. This action pre-empted problems arising with safety once the baby was in the wahakura.	Use planning to develop, review, and revise ongoing development work and to pre-empt anticipated problems and/or overcome actual problems and/or maximise opportunities.
whakarite ki ngā hangarau a tangata kē	Information was sought about the sleeping practices of our ancestors, and similarities between the wahakura and the Moses Basket are evident. The key stakeholders in this instance are the pregnant mothers who are at risk because of a variety of conditions. The issue is that their babies are more prone to unexpected early death. The conceptual model was developed and later improved upon aesthetically, but also from a safety point. Its fitness for purpose was soundly tested.	

Whāinga	Evidence and examples in the text	Paerewa
mārama ki ngā ārai me ngā huarahi wātea ka taea.	Many issues are evident and still to be resolved. The distribution of wahakura to families at risk, or in need relies on the support of midwives. The midwives are also key stakeholders in this project, their willingness to take it on board as a viable option for Māori whānau will affect its eventual acceptance. Ensuring that at risk whānau receive and use a wahakura is also key to its ongoing success. Recognition by other agencies that this solution is successful and a major impact on the reduction of Māori cot death, may result in an ongoing funding pool that acknowledges the skill of the weavers.	Use modelling media to develop and model a conceptual design and demonstrate its fitness for purpose to address the identified issue and concerns of key stakeholders.
Ka tūhura i ngā āhuatanga matua o te tangata e pā ana ki:		
ngā pūnaha, ngā tukanga rānei	Wahakura are created by whānau, hapū and iwi groups weaving together for a common purpose. A wahakura has set requirements to ensure safety for the babies, and durability of the product.	Justify the viability of the conceptual design as a potential outcome.
te hiahia o ngā kiritaki	The need in the community is clearly identified by health statistics.	
ngā rautaki whakatairanga ki te kiritaki.	At this point in time, promotion of the product is by word of mouth, and through the resources of the Māori SIDS staff. Small weaving groups across the country are beginning to hear about the project through their weaving networks.	

There are several available Achievement Standards whose requirements are modelled in these texts. For example:

MAS 90351 Develop a one-off solution for Structures and Mechanisms.

He Wahakura demonstrates this very well, as in the table above.

MAS 90352 Develop a multiunit production of a technological outcome.

Giving over the concept of wahakura to the weaving communities in different rohe, has resulted in a multi unit production system being established, to address the need.

To succeed in hangarau students need to be able to explore, be creative, develop and use their innovative skills, become technically capable, critique themselves and stay focused if things don't go according to their plan. But most importantly they need to be able to do all of this in a culturally safe learning environment that takes cognisance of their values and tikanga practices.