



Over hundreds of years Māori developed an intimate understanding (science of sorts) about fish and environment. Māori developed fishery management techniques or Tikanga [ways of doing things] to protect fish stocks and habitat. Rāhui for example, is a temporary closure of an area that can be used to allow for recovery of kai moana when showing signs of decline. Here we look at how traditional fisheries management tools (including rāhui) are given expression under the Quota Management System (QMS). These activities investigate traditional fishery management tools including tikanga and rāhui.

See slide sets Traditional Fisheries Management

FOCUS QUESTIONS

- What are some traditional fishery management tools used to manage fisheries sustainably in Aotearoa New Zealand?
- What new words and concepts have we learnt?

LEARNING OBJECTIVES

- Describe traditional fishery management tools used to manage fisheries sustainably in Aotearoa New Zealand
- Use scientific and fishery management related vocabulary

LOCATION

Indoors

DURATION

50 mins +

TEAE

Level 3 - 5+

CURRICULUM

Science; Social Science; Geography; Pūtaiao; Tikanga-ā-iwi; Hauora

Key competencies: Thinking; Managing Self; Using language, symbols & texts; Relating to others

NEXT STEPS

- Quota Management System (QMS)
- EEZ & the Law of the Sea
- Kaitiakitanga

PRIOR LEARNING

- Sustainable Fishing & Overfishing
- Marine Ecology





MATERIALS

- Slide set Traditional Fisheries Management
- Teacher Outline (this)
- Access to internet (for film clips and extra learning on worksheet)
- Copies of worksheet Te Kaitiaki Toheroa
- Something to write with

PROCEDURE

- DISCUSS traditional fisheries management tikanga and tools and CONSIDER tikanga you might follow when fishing [slides 19 & 20]
- 2. WATCH the short film <u>Guardianship</u> [4:48] [slide 21] and CONSIDER the role you play in managing fisheries sustainably.
- INVESTIGATE the Te Ara webpage on <u>Traditional Practices</u>, invite a kuia or Kaumātua or use your own knowledge to learn more about traditional fishery management practices. Make a list of traditional fishery management tools used by Māori [slide 21]. See also teacher notes [slide 21].
- **4.** READ <u>Te Kaitiaki Toheroa</u> and complete the Te Kaitiaki Toheroa Worksheet.
- 5. WATCH the short film Marae TV film about <u>Toheroa</u> [8:12] [slide 22] To deepen learning about toheroa and the role of mātauranga Māori and science in fisheries management WATCH <u>Toheroa</u>: <u>Rejuvenating a Delicacy</u> [26:05]
- **6.** DISCUSS how traditional fisheries management is still alive and incorporated in to the QMS [slide 23]

KEY WORDS

Rāhui

Kaitiakitanga

Tikanga

Kaitiaki / Tiaki

Rohe moana

Quota Management System





CURRICULUM LINKS

Nature of Science (Level 3-5)

- Investigating in science
- Communicating in science
- Participating and contributing

Living World (Level 3-5)

Ecology

Science (Level 6+)

- Participating and Contributing
- Ecology

Social Science (Level 3-5)

- Understand how groups make and implement rules and laws (Level 3)
- Understand how people make decisions about access to and use of resources (Level 3)
- Understand how formal and informal groups make decisions that impact on communities (Level 4)
- Understand how people's management of resources impacts on environmental and social sustainability (Level 5)

Geography (Level 6, 7, 8)

Geographic research

Contemporary New Zealand geographic issue

Geographic topic at a global scale

Application of geographic concepts

Pūtaiao

 Uses of Science: Learn about the people and the work they do to produce science knowledge. Apply knowledge of science to community decisions and actions, in order





- to think about iwi and wider issues impacting on the individual, society and the environment (Level 4+)
- The Natural World: The Biological Environment: Investigate the effect of human actions, and natural processes, on an Aotearoa ecosystem (Level 6+)

Hauora

Relationships to earth and sky (natural environments) (Level 4+)

<u>Tikanga-ā-iwi (Level 3-5)</u>

- Kotahi tonu te matua o te tangata Māori, ko Ranginui e tū nei, ko Papa-tū-ā-nuku e takoto nei. Place and Environment
- E tama, e hine, tangata i ākona ki te whare, tū ana ki te marae, tau ana. The Changing World
- E kore e ngaoko te rākau ki te tīkina i te pūtake whakangaoko ai engari, me tiki ki te matamata. The Economic World



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