

Ocean Literacy & Te Moana-nui-a-Toi

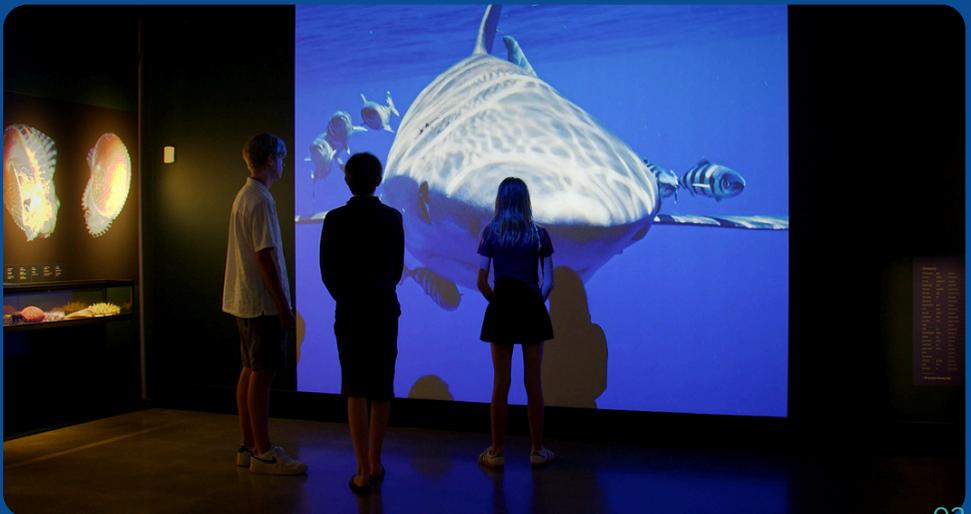
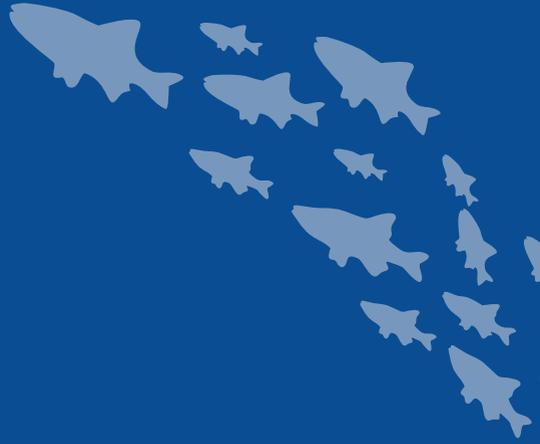
Guided Trail for Exhibition



New Zealand
Maritime Museum
HUI TE ANANUI A TANGAROA

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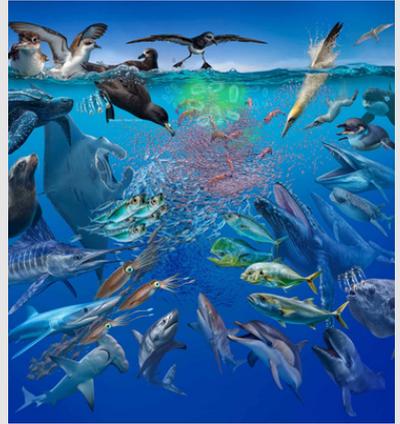
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Welcome Note

Welcome to Ngā Huhua - Abundance at Hui Te Ananui a Tangaroa: New Zealand Maritime Museum.

Dive into the exhibition "Ngā Huhua: Abundance," which celebrates Te Moana-nui-a-Toi: the outer Hauraki Gulf Marine Park, in partnership with Ngāti Rehua Ngātiwai ki Aotea, the region's mana whenua. Through storytelling, science, and Mātauranga Māori, it delves into the rich marine life of the area. The display emphasises the delicate balance of the ecosystem, which faces threats from climate change and human activities. With interactive exhibits and ancestral stories, the exhibition invites visitors to actively engage with and safeguard this essential marine environment.



Learning areas

Science

English Language Arts

Social Science



Trail Guide

Stations 1-7

This booklet outlines the stations on the exhibition trail and how to encourage meaningful, fun learning at the exhibition. We recommend you take a few minutes at each station to focus your group on the activities.

Key concepts for the trail:

- Getting to know Te Moana-nui-a-Toi: the outer Hauraki Gulf Marine Park
- Recognise the area's biodiversity: from small producers like phytoplankton to large predators such as the whai rahi- oceanic manta rays and their feeding relationships
- Learn about the threats to Te Moana-nui-a-Toi
- Understand kaitiakitanga and what we can do to care for Te Moana-nui-a-Toi.



Trail station

1

Entering Te Moana-nui-a-Toi



Focus

- The geography and history of Te Moana-nui-a-Toi- the outer Hauraki Gulf.

Activity ideas

1. Stand at the entrance to the exhibition and listen to the karanga by Ngāti Rehua, Ngātiwai ki Aotea, the area's mana whenua, inviting you in (played every ten minutes).
2. Observe the artefacts from times past such as the stone adze and the precious items in the concertina wall.
3. View the maps of Te Moana-nui-a-Toi: the outer Hauraki Gulf Marine Park. Explore the comings and goings of Polynesian wayfinders such as Toi Te Tuatahi and Kupe.



Trail station 1 continued

Te Moananui ō Toi (The Ocean of Toi)

This area is named after the ancestor Toi Te Huatahi, who arrived on the island of Aotea in the 12th century. His name is forever encapsulated within these islands. Ngāti Rehua are his direct descendants.



Student questions:

At the entrance, ask students the following questions:

- Which islands are within the Te Moananui-a Toi boundary: the rohe of Ngāti Rehua, Ngātiwai ki Aotea?
- Why is it important to know the history of the area?

Trail station

2

Connecting with the moana & the manta ray

Topics

- Connection with the moana



Activity ideas

- 1.** Stand on the back of Emmy: the whai rahi /oceanic manta ray. They can grow up to seven metres wide!
- 2.** Breathe in deeply and hold your breath. Imagine diving into the deep, blue moana (ocean). Let out a long exhale, as you think about your connection to the moana.
Phytoplankton produce oxygen for land and water animals, through the process of photosynthesis, so we can breathe easy!
- 3.** Use your imagination and move with the manta ray: lift your arms, feel the water on your back, flutter arms through the 'water'. Swish, wriggle, float and glide through the moana.

Trail station

3

Feeding relationships



Topics

- The food web and feeding relationships

Learning Objectives

- 1.** Explore the display of The Food Web illustration and pyramid. Choose a role of something in the illustration and think about what it eats and what it would be eaten by.
- 2.** Share ideas about who eats who: for example: Ngengero/Bronze whaler sharks eat warehenga/kingfish, which eat kahawai and tāmure/snapper, which eat pilchards and jackmackerel, which eat zooplankton, which eat phytoplankton! Act out a feeding relationship as predator and prey.



Trail station 3 continued

3. Examine the whakapapa diagram of the Te Riu o Tangaroa- The realm of Tangaroa. Which creatures do you recognise?
4. The eyes have it: Look at the photos of the eyes on the circles on the wall. Think about whose eye each could be before lifting each one, to see if you're right.
5. Look at the photos from mantawatchnz.org of individual manta rays and listen to the video of Lydia Green.



Student questions:

- Who is the record-breaking manta mentioned in the display?
- Where do what rahi migrate to?

Trail station

4

A race to save the Gulf

Focus

- Threats to Te Moana-nui-a-Toi.

Activity ideas

1. Read some of the displays about the current situation, the price of fish, and the park in jeopardy.
2. View the information and video about ocean warming and climate change simulations.
3. Listen to some of the stories shared on the listening post headphone sets about wero-challenges for the area.

Student questions:

- How is the acidity of the ocean changing?
- Share something you've learned about how people influence Te Moana-nui-a-Toi with a partner.



Trail station

5

From microscopic to mammoth



Focus

- Experience plankton, specimens and the megafauna of Te Moananui-a-Toi.

Activity ideas

- 1.** Immerse yourself in the 3D plankton wall. Here the microscopic world of plankton can be seen up close and zoomed in! What shapes and types of plankton can you see?
- 2.** View the display of beautiful drifters (zoo plankton/ animal plankton). Try the magnifier to look at paper nautilus, sea urchins, and baleen.
- 3.** Examine the specimen jars on the wall and see what treasures they hold.



Trail station 5 continued

4.

Lounge on a bean bag and take in the real life video footage of life in Te Moana-nui-a-Toi: the outer Hauraki Gulf Marine Park (provided by Steve Hathaway of Young Ocean Explorers).

5.

Experience the moana in Augmented Reality/AR with the app: AR Tour Ocean.

Download for your device at:

Google Play store: play.google.com/store/apps/details?id=com.arara.ARTOUROCEAN&hl=en_NZ&pli=1

Apple store: apps.apple.com/us/app/artourocean/id1284557703

For health and safety reasons, use while seated.



Student questions:

- Which animal or lifeform do you find most interesting? Why?
- Why are plankton so important? What are the names of some types of plankton?

Trail station

6

Feeding frenzies

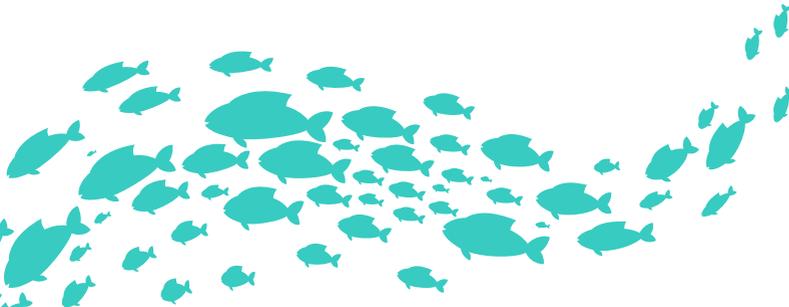


Focus

- Food web of the moana.

Activity ideas

- 1.** Explore the food web diagram and choose a creature. Consider what it eats and what might eat it.
- 2.** Look at the eyes on the wall and lift the flaps to discover which animals they belong to.
- 3.** Notice the whakapapa of Tangaroa's realm and the creatures within it.



Trail station

7

Kaitiakitanga

Focus

- Kaitiakitanga (Guardianship/ stewardship and protection).



Activity ideas

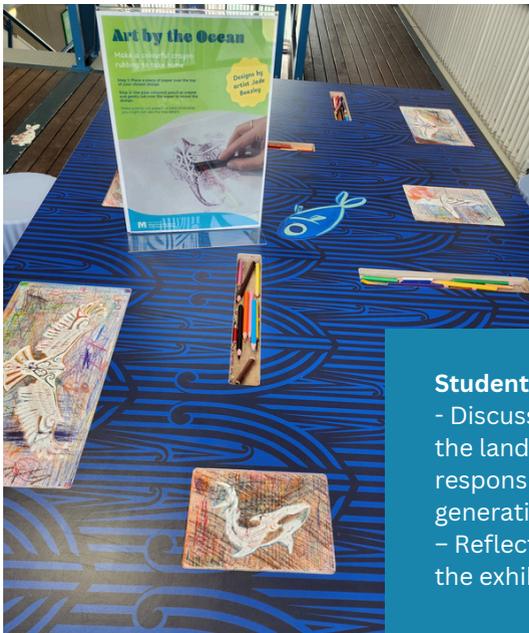
1. Gather at the kaitiakitanga display and discuss what this concept means to students. Read the whakatauki out loud:
*Ko au te whenua me te Moana
Ko te whenua me te Moana ko au
I am the land and sea
and the land and sea are me.*
2. Discuss our connection and reliance on the land and sea for survival, as well as our responsibilities as guardians to protect it for the generations to follow.

Student questions:

- How is the acidity of the ocean changing?
- Share something you've learned about how people influence Te Moana-nui-a-Toi with a partner.

Trail station 7 continued

3. Continue the trail through the doors in Stairwell 2. Complete a coloured pencil or crayon rubbing of an animal of choice on the activity table.
4. Discuss actions you could take to help the moana. Students can note down something they can do in their daily lives to make a difference.



Student questions:

- Discuss our connection and reliance on both the land and sea for survival and our responsibilities as guardians to protect it for the generations to follow.
- Reflect on what students learned overall from the exhibition.



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