21 DAY Challenge! YOUNG OCEAN EXPLORERS

TOGETHER FOR OUR MOANA - WE'RE SHAPING OUR FUTURE

CORE LESSON 1 - HEALTHY OCEANS

Background information for teachers:

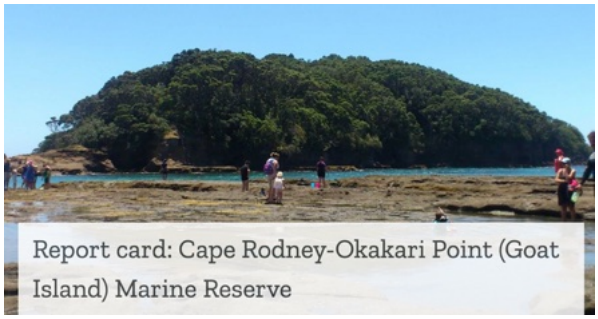
BACKGROUND INFORMATION FOR TEACHERS:
All about Marine Protection from Department of Conservation DOC

Marine protected areas are an important tool in ensuring that our marine biodiversity is maintained in a healthy state.

There are three levels of marine protection in New Zealand:

- Type 1 Marine Protected Areas: Marine reserves. Generally known as marine reserves, these are our highest level of marine protection established under the Marine Reserves Act 1971.
- Type 2 Marine Protected Areas. These marine protected areas are protected under legislation and provide protection from the negative effects of fishing.
- Other marine protection tools. Similar to Type 1 and 2, but don't protect as much biodiversity as Type 1 and Type 2 areas.

Report from Te Hawere-a-maki / Goat Island Marine Reserve on marine health over 5 years.
The ecosystems within Cape Rodney-Okakari Point Marine Reserve are healthier and in a more natural state than those outside its boundaries. The reserve is, however, influenced by the health of the marine environment outside its boundaries – it has no walls.



Kaitiakitanga - **benefits of marine protected areas**

NZ CURRICULUM LINKS:

Learning areas:	Achievement objectives:
Te Ao Māori *te reo (language), tikanga (customs and traditional values)*	Te reo Māori is indigenous to Aotearoa New Zealand. It is a taonga recognised under the Treaty of Waitangi, a primary source of our nation's self-knowledge and identity, and an official language. By understanding and using te reo Māori, New Zealanders become more aware of the role played by the indigenous language and culture in defining and asserting our point of difference in the wider world.
Aotearoa NZ Histories *Tūrangawaewae me te kaitiakitanga - place and environment*	Think about how people use and affect the environment.
Literacy	Communication, listening, Reading, Viewing
Science	Participating and contributing • Students will explore and act on issues and questions that link their science learning to their daily living. • use their growing science knowledge when considering issues of concern to them • explore various aspects of an issue and make decisions about possible actions. Life processes • Students will recognise that all living things have certain requirements so they can stay alive.

Slides of lesson plans

Slides of lesson plans found HERE

This is an option for teachers to teach and learn with the class on a screen to follow along together.

Whakatauki

Whakatauki source : Marine Stewardship Council

Toitu te marae a Tane, Toitu te marae a Tangaroa, Toitu te iwi
If the land is well and the sea is well, the people will thrive.

He tai moana, he tai ika,
He tai timu, he ika nunumi
A sea that is healthy, is a sea that flourishes with life
A sea in decline, becomes void of sea life

Fun facts:

- Goat Island was one of the first Marine Reserves in the world. It was the first marine reserve in NZ, it was created in 1975.
- 70% of the earth's surface is covered by ocean.
- 95% of New Zealanders think "The ocean is important to me" (from LiveOcean.org)
- Over 50% of our oxygen comes from the ocean.
- New Zealand has the 5th largest ocean space on the planet.

Overview

Start to think about ways to care for our environment.

Learning intention

Tamariki are learning to understand the importance of the ocean in their lives, and ways we can care for it.

Success criteria

Students can:

- Explain how people affect the environment
- Take part in a positive action to care for the environment.

LEARNING SEQUENCE

Based on the Inquiry model

Inspire
Provoke curiosity and wonder

Explore/Educate
Gather information
Use / apply learning

Activate
Reflect and act

LESSON PLAN

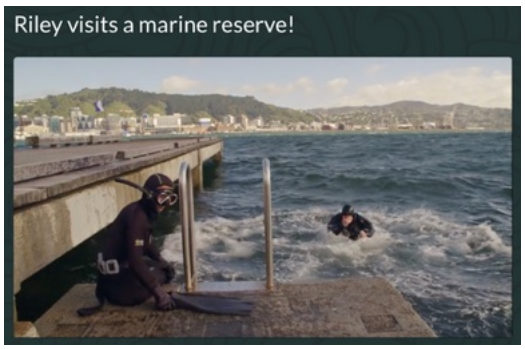
Teachers are encouraged to choose and adjust activities to suit the learning needs and interests of their tamariki.

Inspire

Allow approximately 25 mins

Watch - Riley visits a marine reserve. What was the difference between the marine reserve and the unprotected ocean?

Video is 6.48mins



Then **watch** this video - Riley explores a Marine Park. Why did Kevin want to set up a marine park?

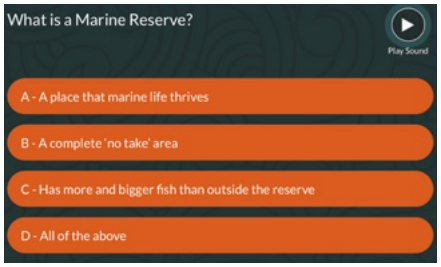
Video is 4.47mins

Educate

Allow approximately 15 mins

Teachers - you can choose to do all or some of these activities.

QUICK QUIZ - What is a marine reserve? *1 min video with question*



Research - Locate marine reserves near you. How far away is the closest one that your school could visit? Here is a list of marine reserves in NZ. Think about a piece of coastline near you that could make a good marine reserve. Imagine if your school could visit that reserve often!

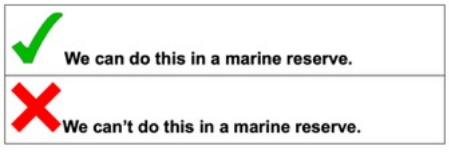
Discuss - your experiences in a marine reserve. As a class, in a group, or as an individual share your ideas. This can be done in one of these ways...

- Bus stop activity
- Class brainstorm on the whiteboard
- Use padlet to share your ideas
- Fill in this worksheet (can do it online, or teacher to print if needed)

Compare - Look at these 360 videos. What shows you that they are healthy or unhealthy ecosystems? (these videos can be used in VR headsets if your school has any.) They are 360 videos so you can move your mouse to look all around.

- Firstly, under a wharf in Tīkapa Moana. Look all around. What do you notice? NZ Geographic 360 dumped.
- Then Off balance. Listen - what do you hear? What do you see? Does it look like a healthy ecosystem?
- Now compare it to footage from inside a marine reserve. NZ Geographic 360 snapper city.

SORTING ACTIVITY - what we can / can't do in a marine reserve. Cut and sort these activities. Teacher to print 1 per group



Educate

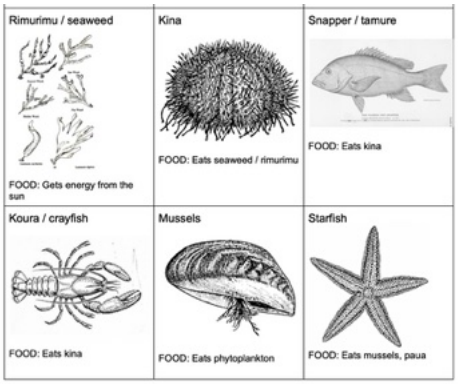
Allow approximately 30 mins

RESEARCH - What lives in a marine reserve?

- **Watch** YOE videos - What is a kelp forest? *Video is 1:24 minutes*
- **Watch** - Riley searches for crayfish. *Video is 3:27 minutes*
- **Watch** - Meet the bravest fish in the ocean. *Video is 4:20 minutes*

- Find out more about creatures of your choice. For example tāmure / snapper, whai repo / eagle rays, red moki, leatherjacket / kōkiri, stingray /oru, blue maomao, kina, kōura / crayfish, parore, spotties / paketi. What does it look like? What does it eat? Where does it like to live? What are its predators? What are some special features?

FOOD WEB ACTIVITY - how are living things in the moana connected? What happens when something is out of balance? You will need pieces of string and these sea life pictures (teacher print). Here's a great video from Young Ocean Explorers - what is a food chain?



PROBLEM ALERT - what happens when a food web is out of balance? Watch Young Ocean Explorers 'Where did all the kelp go?'

Activate

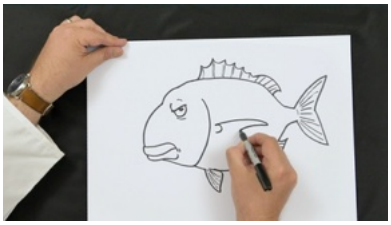
Timing will vary

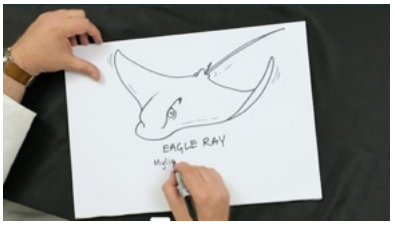
DAILY ACTION

MAKE A DIFFERENCE for our moana - pick up at least 1 piece of kirihou / plastic each day. Log how many pieces your class picks up on the Young Ocean Explorers website.

CREATE a class marine reserve/ healthy ocean mural. Each student draws a creature that could live in a marine reserve in NZ. You might like to try some of these Young Ocean Explorer learn to draw videos to help you. Don't forget to add kelp / seaweed, rocks, sponges etc to your mural. Send Young Ocean Explorers a photo (add it as a digital upload on the 'my classroom' tab on the YOE website) - we'd love to see your work!

- Learn to draw tāmure / snapper
- Learn to draw kōura / crayfish
- Learn to draw whai repo / eagle ray





Reminder!

Send in your letters before the 8th of September to: PO Box 228, Warkworth 0941. Then we can take them to Parliament!! We want our collective voices heard about why we need to protect our moana and why it is so important to us! More info in the intro lesson plan.
If your whole class sends in letters, you'll go into the draw to have Riley visit your class and do an awesome presentation to your school!

EXTRA LEARNING AND RESOURCES

Read
Marine Reserves - School Journal level 3