

LET'S MAKE A DEAL WITH THE OCEAN!

OVERVIEW

IT ALL STARTS HERE...

There are many challenges facing the Ocean. But the momentum to solve them is growing. We all have a part to play in this. Over a third of global fish stocks are exploited at an unsustainable rate. We need to change this. Our individual actions can add up to a bigger change.

World Ocean Day is a chance to shine a spotlight on how we can make a deal to protect the Ocean.

These activities are adaptable for learners (Year 7+) across science and social science. The final activity encourages students through art and creative writing to 'Make a Deal with the Ocean' leading to action for ocean sustainability.

FOCUS QUESTIONS

- *Why do we need the Ocean?*
- *What are the economic, social and environmental ways that we use the Ocean's resources?*
- *What challenges is the Ocean facing?*
- *What action can we take in the spirit of kaitiakitanga to protect the Ocean?*
- *What is my viewpoint?*

LEARNING OUTCOMES

- Discuss the role of the Ocean in our lives, and the different ways we use it
- Explore environmental, economic or social themes of Ocean sustainability
- Explore and express what we can do to protect the Ocean

LOCATION

Indoors

DURATION

50 mins +

LEVEL

Level 3 - 8

CURRICULUM

Science, Social Science, Tikanga-ā-iwi, Geography, Pūtaiao, Hauora.

Key competencies: Thinking; Managing Self; Relating to others; Participating & contributing.

NEXT STEPS

- [Kaitiakitanga: Caring for the ocean](#)
- [Taking action: Consumer choice](#)
- [Whakapuāwai: Collaborative action project](#)
- [Business of fishing today](#)
- [Sustainable fishing: Orange roughy case study](#)



MATERIALS

- Slide set [Te ra te moana o tea o / World Ocean Day](#)
- [Teacher Outline](#) (this)
- Paper, paint and pens and [multimedia files](#) (for the final activity)
- [For the Social Path](#): Printed sheets of the Diamond Ranking Activity worksheet (one for each group)
- [For the Environmental Path](#): Printed copy of the String Game
- [For the Economic Path](#): Access to internet

PROCEDURE

PART ONE: STARTER: Why do we need the Ocean? (10 mins)

1. Use slide 3 to display the question – *Why do we need the Ocean?* Learners work in pairs or small groups to discuss their view and share with the class.
2. Record learners' answers and then show slide 4 which helps categorise ideas into what's often referred to as the 'three pillars' of sustainability - 'social', 'environmental' and 'economic'. You could ask learners what these terms mean, or explain that all are important for us and the world we live in. Some ideas may fall into two or more categories. You could use a Venn diagram to illustrate this. Here are some examples:

Social (might include ideas about people, and what we need for our wellbeing):

- We are connected to the ocean through whakapapa, for many of us therefore, the ocean is related to us
- People use the Ocean for sports, like surfing, swimming and sailing People catch fish for their families or for fun
- Fish is an important part of our global diet and food culture People visit the Ocean to have fun and relax
- Many people find spending time by the Ocean is good for their mental health
- For many people the ocean is a taonga, it is treasured and loved the ocean and people feel a strong connection with Tangaroa / the Ocean
- People travel on the Ocean to visit other places and see family and friends



Environmental (might include ideas about nature, plants, animals and our resources like air, water and land):

- The Ocean helps regulate the earth's temperature through Ocean currents transporting warm water to colder parts of the world
- The Ocean absorbs carbon dioxide which would otherwise heat up the earth
- The Ocean is home to a huge number of different species of animals and plants
- The Ocean produces half the oxygen we breathe

Economic (might include ideas about the economic value of the ocean and how some people get their livelihood from working on, in and around the ocean):


- Our global fishing industry provides hundreds of millions of people with their livelihoods
 - Tourism companies make money offering cruises and ocean related activities
 - We transport many of the foods and products we use by ship across the world
 - We are consumers of kai moana including fish, seafood and seaweed
 - Many other people have jobs that have something to do with the Ocean, such as marine scientists, sports people, government workers and more
3. After the starter activity, select one path for the rest of the lesson or skip straight to the final 'make a deal' activity.

PART TWO: CHOOSE A PATH

The Ocean is really important to us and it is important we look after it sustainably. But what does Ocean sustainability really mean?

SOCIAL PATH (20-30mins)

1. Use slide 6 to spark paired, group or class discussion about the term 'sustainable'. Each pair or group could choose one question to discuss and feed back to the class. Use this to support learners in their discussion of the term 'sustainable'.
2. Further discuss the idea of 'sustainable' in the context of the ocean using the United Nations' definition of sustainability – *"meeting the needs of the present without compromising the ability of future generations to meet their own needs"*.
3. Other resources useful to further describe global perspectives and definitions on sustainability include:
 - www.un.org/
 - <https://www.bbc.com/future/tags/>

- 
- <https://education.nationalgeographic.org/resource/sustainability/>
- Resources useful to learn about sustainable fisheries and Ocean from the Marine Stewardship Council
 - [Oceans at risk](#)
 - [Ending overfishing](#)
 - [Sustainable fishing](#)
 - [Eliminating bycatch](#)
 - [Marine biodiversity](#)
 - [Climate change and fishing](#)
 - Aotearoa New Zealand sustainability stories:
 - [“The net impact: New Zealand’s sustainable fishing initiatives”](#)
 - [Sustainable Development Goals and what they mean for Aotearoa New Zealand](#)
 - [Ministry for the Environment Report “Our Marine Environment 2022”](#)
 - Next, ask learners to look at the set of photos (slides 7-12). They could start by choosing their favourite using slide 13 and sharing their reason.
 - Then consider the image and brainstorm:
 - Why? What? Where? Who? And How?*
 - How does the image show things that are ‘sustainable’ or ‘unsustainable’ for the ocean?*
 - During the discussion prompt learners to bring up challenges facing our Ocean, or aspects of Ocean sustainability they have come across before. To recap or expand this, use slide 14 to ask if learners came up with any of the terms in the word cloud.
 - Write down some words that are important when discussing sustainability of the Ocean and create a class word cloud?
 - Now that learners have discussed what ‘Ocean sustainability’ means to them, ask them to focus on what we can do to help protect the Ocean. Work in pairs or small groups to complete the Diamond Ranking Worksheet (final page). Groups rank different actions, discussing aspects such as how easy, realistic or meaningful they might be, relative to each other. Use the Worksheet to arrange actions into a diamond shape, with preferred actions at the top, and others ranked below it in a diamond shape, with the least preferred right at the bottom. Each group shares their top action and the reasons why they think it would be effective.
 - Go on to the final activity ... or explore more through the environmental and economic paths.



ENVIRONMENTAL PATH (25-30mins)

1. Use slides 16-22 to introduce the concepts of energy transfer, food chains and food webs to learners.
2. Watch the Science Learning Hub short film on [Understanding Food Webs](#).
3. Then use one or both of the Marine Stewardship Council's [String Game](#) or the [Kahoot Marine Food Webs and Overfishing](#) [<https://bit.ly/3Lvns6s>] which both examine energy transfer, food webs, and the impact that humans can have on marine food webs through overfishing.
4. Take a virtual or real-life lesson to deepen understanding of food webs with [National Aquarium on New Zealand](#).
5. Go on to the final activity.

ECONOMIC PATH (25-30mins)

1. Start by using slide 24 to show learners the film clip “My Dad the Fisherman”, and follow this up by using slides 25-28 to show the significance of the Ocean for people’s jobs and livelihoods. Then ask learners, *what do they think could happen when so many people rely on fish and fishing?*
2. You could also explore Marine Stewardship Council Te Kawa o Tangaroa teacher resources around the [Business of Fishing Today](#)
3. The collapse of the Atlantic Cod fishery is probably the most dramatic and globally well-known example illustrating the consequences of overfishing. Read the first section of the online article “[Collapse to Conservation](#)” to learn more about the cod fishery in the Grand Banks, which collapsed in the 1980s after many years of overfishing. Discuss with learners that the significance of this event was that it inspired the creation of the Marine Stewardship Council, an organisation on a mission [to end overfishing](#). Play the [Atlantic Cod Collapse Kahoot Quiz](#).
4. Here in Aotearoa New Zealand, one of collapse of the orange roughy fishery in the early 1990s due to overfishing is a great illustration of the consequences of overfishing and the importance of good science in looking after fisheries.
5. To learn more about the orange roughy fishery use the links below (including a lesson plan and teaching resources available at the Marine Stewardship Council’s Te Kawa o Tangaroa).
 - [Sustainable Fishing Orange Roughy - Lesson plan and teacher resources](#)
 - [The Story of New Zealand Orange Roughy](#)
 - [Orange Roughy – The Extraordinary Turn Around](#)
6. Go to the final activity.

FINAL ACTIVITY

1. Use slides 29-30 to ask learners how they think they could help protect the Ocean. We can all make a deal with the Ocean - *What do learners think can be done?*
2. Two creative activities are offered to motivate students to pledge to protect the Ocean:
3. Finally, share your pledges with us on social media using the hashtags provided below.
 - a. **Arts:** Create a large mural in your classroom or school and invite students to make a fish handprint (download from the [Marine Stewardship Council multimedia library](#)) and to write their pledge on it. You can download a background photo from our [Multimedia library](#), print it and ask your students to sign it with their handprints or you can create your own mural with the help of your Arts teacher.
 - b. **Creative Writing:** Ask students to write a letter to the Ocean with their pledge on it. You could use the short template on slide 9 as a starter.
4. Finally, share your pledges with us on social media using the hashtags provided below.



Signed by:

#theOceanAndUs

Have you created a display of learners' pledges to help protect the Ocean? Take a photo and share it with us via your school, aquarium or other organisation social media account using the hashtags **#theOceanAndUs** and **#WorldOceanDay**

Tag us on social media **@MSCecolabel**



KEY WORDS

Sustainability

Sustainable

Overfishing

Social

Environmental

Economic

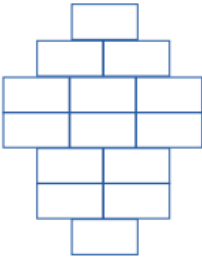


DIAMOND RANKING WORKSHEET

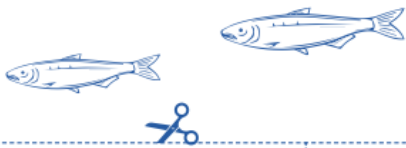


What can we do to protect the Ocean?

Cut out and arrange the ideas into a diamond, with the best ideas at the top and the one you like least at the bottom. You can also write your own ideas. Which is your favourite idea?



Your diamond could be shaped like this.



Stop dumping plastic pollution in our Ocean	Clean up our beaches	Invent new technology to help fishers that protect the Ocean: like inventions that scare away dolphins from fishing nets
Have more protected areas in the Ocean where no fishing is allowed	Encourage people to visit the seaside and learn about the Ocean	Make sure that people who catch our fish do it sustainably
Support fishers that protect the Ocean	Make sure everyone knows how important the Ocean is	Take action on climate change
Pass new laws to make harmful fishing illegal	Make sure people who rely on fish for their jobs can keep working	Help fishers catch just the fish they want, not other animals
Choose sustainable fish to eat	YOUR IDEA	YOUR IDEA





CURRICULUM LINKS

Nature of Science (Level 3-8)

- Participating and contributing

Social Science (Level 3-8)

- Understand how people view and use places differently (Level 3)
- Understand how people pass on and sustain culture and heritage for different reasons and that this has consequences for people (Level 4)
- Understand how people participate individually and collectively in response to community challenges (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

Tikanga-ā-iwi (Level 3-8)

- *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 ākonga 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

Pūtaiao (Level 3-8)

- The Natural World
- Philosophy and history of science

Hauora (Level 3-8)

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