

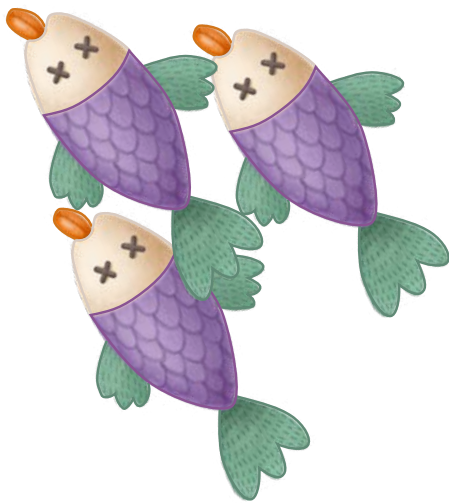
BEACH

WATER SKILLS FOR LIFE

SUSTAINABLE FISHING PRACTISES

MODULE

12



6 LESSONS

LEVEL 3

SUSTAINABLE FISHING PRACTISES

DESCRIPTION

When it comes to catching fish, we have numerous options including nets, rods, trawling and even our bare hands. Fishing sustainably ensures we respect our fishing habitats and guarantee we leave enough fish in the ocean for future generations. In many indigenous cultures, people have fished sustainably for thousands of years. Today's sustainable fishing practices reflect some lessons learned from these cultures.

ACHIEVEMENT OBJECTIVES

Science

Living World:

Ecology: Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.

Planet Earth & Beyond

Earth systems: Appreciate that water, air, rocks and soil, and life forms make up our planet and recognise that these are also Earth's resources.

Health & Physical Education

Personal Health and Physical Development

Safety and Risk Management: Students will identify risk and their causes and describe safe practice to manage these.

Healthy Communities and Environment

Rights, responsibilities, and law: Students will research and describe current health and safety guidelines and practices in their school and take action to enhance their effectiveness (ie sun smart policies, water safety rules, how to recognise a rip or hypothermia).

LEARNING INTENTION

- Understand safety procedures around fishing off rocks
- Describe different fishing skills and practices

SUCCESS CRITERIA

- Students will learn about the rules and regulations around NZ waters and marine life
- Students will learn about the importance of sustainable fishing and protecting the marine environment

KEY COMPETENCIES

Participating and Contributing:

- Actively participate in all classroom activities
- Share ideas with others

Managing Self:

- Complete all tasks and activities in a timely manner

Thinking:

- Connect prior experiences with new knowledge

Using language, symbols and texts:

- Transfer and re-organise information into more reader friendly content
- Organise information into logical groups

Relating to others:

- Respect the ideas and opinions of others

RESOURCES

Internet, tv/ active board, youtube videos, sustainable and unsustainable fishing practices task cards, MPI website, students devices, poster paper and drawing equipment

ASSESSMENT ACTIVITIES

- Classroom discussions
- Create an infographic highlighting recreational fishing methods and fish size rules
- Create a poster identifying rock fishing safety measures

LESSON

1

Introduction

Introduce the students to the topic of sustainable fishing practices. **Ask the students:** Have you ever been fishing before or seen someone catch fish? What are the different methods/practices people use to catch fish? What do you think sustainable fishing means? Do you know of any rules or restrictions for fishing and collecting shellfish?

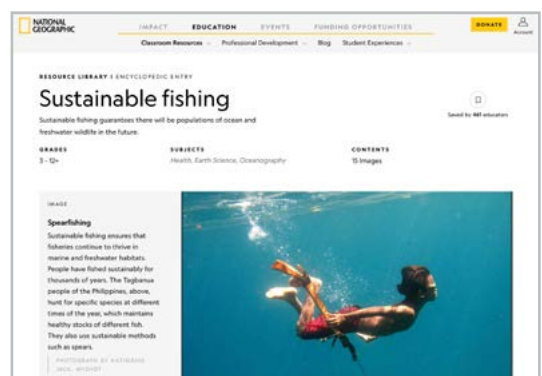
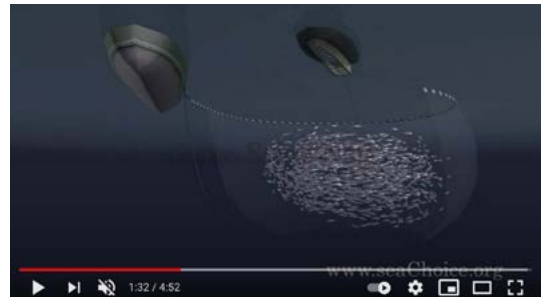
Watch the [Common fishing methods video](#) to show the students the different fishing methods used to catch fish by commercial fisherman. **Discuss** the terms sustainable and unsustainable. **Ask the students** which methods they think are sustainable and unsustainable from the video. **Read the article Sustainable fishing** from national geographic to the students to help them gain a deeper understanding of why sustainable fishing is essential for our future.






Activity:

Sustainable & Unsustainable Fishing Practices

Give students a pile of cards that contain a range of fishing practices containing the name of the practice, a picture of it and its meaning.

Ask the students to sort these cards into piles of sustainable and unsustainable fishing practices. Discuss results as a class.



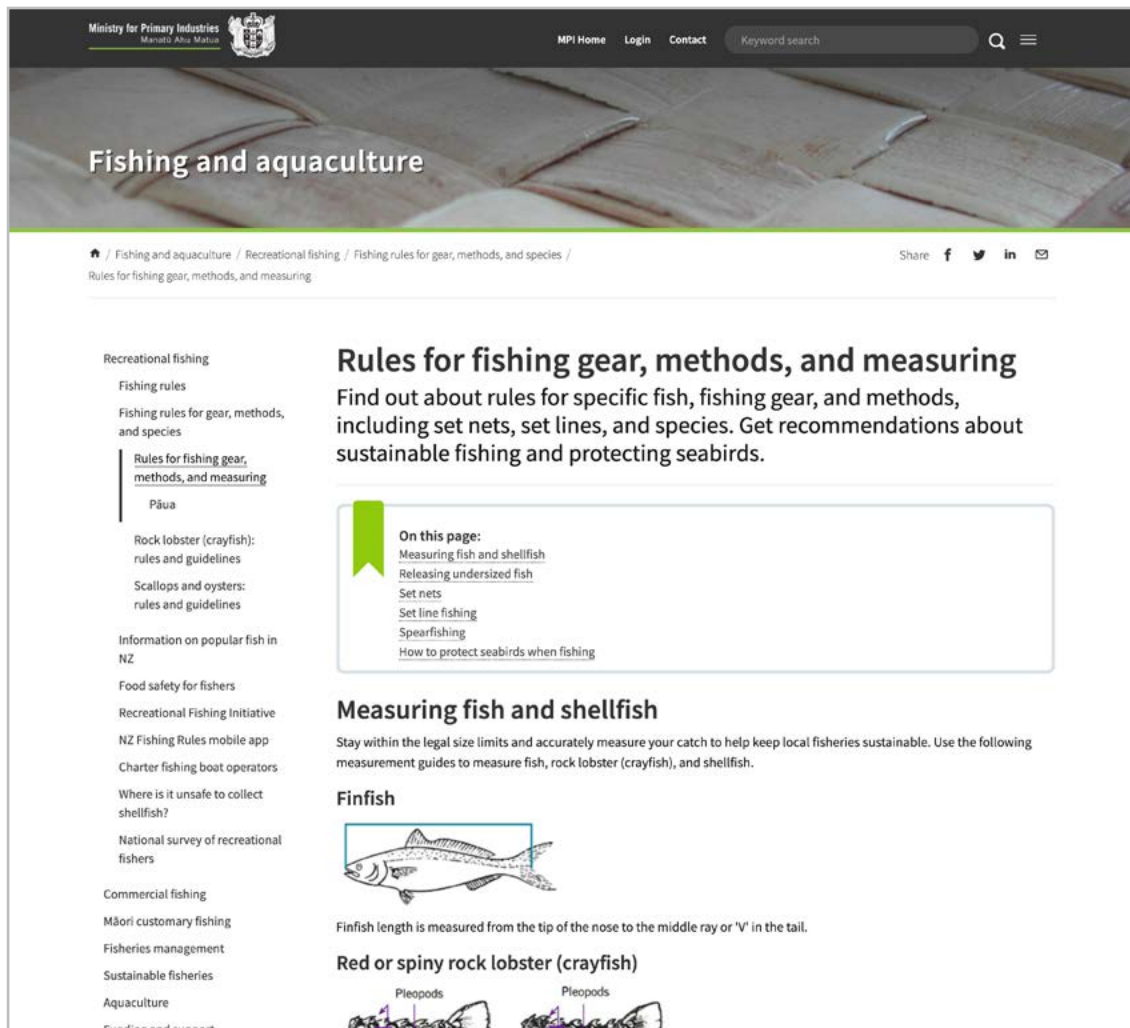
Fishing practices		
Bottom trawling		Bottom trawling is classified as an active gear that consists of a large weighted net, which trawls or 'drags' along the seafloor, acting as a destructive mechanism that removes coral and other marine species
Cyanide fishing		The blast radius of an explosive device being set off underwater to obtain fish (dynamite fishing). Cyanide fishing is used as a method to capture live fish to supply the international aquarium trade, and more recently, to supply the demand for live reef fish by restaurants. This method involves the spraying of sodium cyanide into the targeted fish's habitat as a means of stunning the fish without killing them. For each fish captured using sodium cyanide, a square metre of coral reef is destroyed.
Dynamite fishing		Dynamite fishing or blast fishing is a technique that detonates explosives underwater in order to easily kill schools of fish and maximize yield. The dead or stunned fish then floats to the surface of the water where they can be easily harvested. Along with the fish, the entire ecosystem, such as coral reefs, and other marine organisms within the blast radius can be destroyed; which in the coral reef's case, can take hundreds of years to rebuild.
Ghost fishing		Ghost fishing is classified as passive gear that occurs when fishing gear has been left or lost in the ocean. The gear can potentially continue to catch or entangle any species of marine life as it drifts through the water or snags on rocky reef, eventually killing the entangled organism through laceration, suffocation or starvation.
By-catch		By-catch is an inevitable aspect of fishing where unwanted fish or other marine organisms including turtles, dolphins and juveniles are caught. This is a by-product of the unselective nature of modern fishing gear, such as bottom trawling which captures everything in the path of the net. Consumer-grade gear such as

NZ Fishing Rules

Reflect on learning from the previous lesson. **Introduce** the students to the MPI website and go over the fishing rules for fishing [methods and fish sizes](#). **Explain** to the students that these rules were developed by the government to help manage and protect marine life so there is enough for future generations.

Activity: Create an Infographic

Ask the students to turn the information on the recreational [fishing methods and fish sizes](#) web page into an infographic that is engaging for people to read. Students need to make sure all of the necessary information is included on the infographic as well as pictures, eye catching colours, and easy to read layout and font. Hang infographics around the classroom or wider school.



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Keeping ourselves safe while fishing

Discuss the different safety practices the students know for when they go recreational fishing. **Read** the [How to stay safe while fishing guide](#) and discuss the different safety measures people should follow and why.

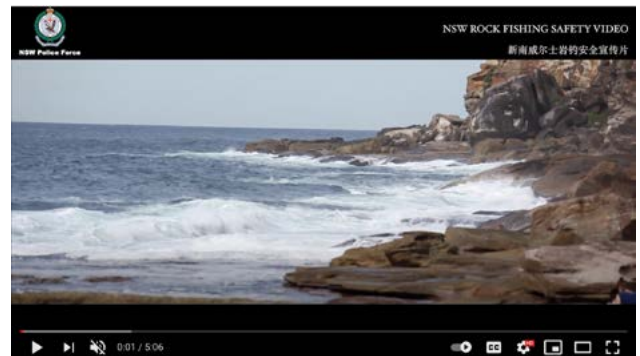
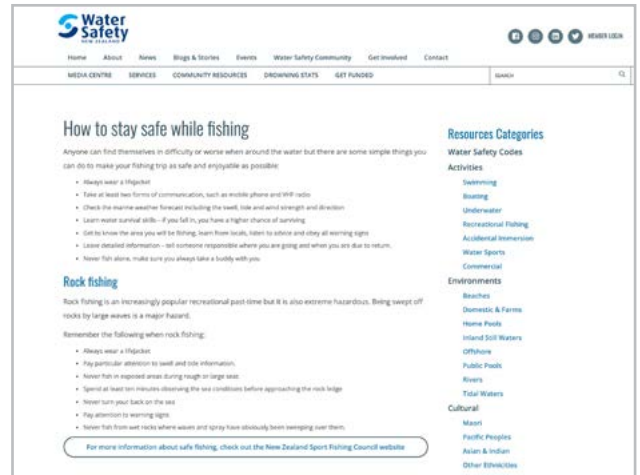
Watch the [Rock fishing safety video](#).

Allow the students to take notes of the different safety measures recommended by the video. **Ask** students to compare their notes with the how to stay safe while fishing – rock fishing guide they read earlier.

Activity: Rock Fishing Poster

Ask the students to create a poster that provides people with key rock fishing safety messages. **Allow** students to create the poster either by hand or digitally.

Ask a few students to share their posters with the class and arrange for these posters to be hung up in the classroom or around the school to share the messages to others.



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Reflection

Discuss the overall learning achieved from the module. **Ask** the students to write a reflection about what they have learnt from both the sustainable fishing practices and safety measures aspects of the modules – including how they can use this information to educate their whanau and other community members.