

# EEZ & LAW OF THE SEA (5.4) & REVIEW (5.5)

## OVERVIEW

The United Nations Convention on the Law of the Sea (UNCLOS) established the right for countries to manage fisheries out to 200 nautical miles from land. This area is known as the Exclusive Economic Zone (EEZ). The advent of this was especially significant for Aotearoa New Zealand as we have the fourth largest EEZ in the world!

These activities look at boundaries and rights that exist in different maritime zones and how our EEZ compares to those allocated to other countries. The final activities are designed to review learning from the entire topic.

See slide sets [EEZ & the law of the sea](#) and [Reviewing key concepts](#)

## FOCUS QUESTIONS

- *What is the EEZ and how is this relevant to fisheries management?*
- *What new words and concepts have we learnt?*

## LEARNING OBJECTIVES

- Investigate the concept of EEZ (Exclusive Economic Zone) and its relevance to fisheries management
- Use scientific and fishery management related vocabulary

## LOCATION

Indoors

## DURATION

50 mins +

## LEVEL

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

Other topics:

- Topic 6

Prior learning:

- Topic 1 & Topic 3



# MATERIALS

- Slide set [EEZ and Law of the Sea](#)
- Slide set [Reviewing key concepts](#)
- This [Teacher Outline](#)
- Access to internet (for film clips)
- Paper or card to create a map
- Something to write and draw with
- Fisheries Management game (including chopsticks, plastic hand spades, lollies, shells etc – see page 5)

# PROCEDURE

## 5.4 EEZ & LAW OF THE SEA

1. CONSIDER how far out to sea we can catch fish? And the boundaries associated with 12 and 200 nautical miles [slides 33 & 34]
2. CREATE your own MAP of Aotearoa New Zealand showing what rights we have in each zone [slide 34]
3. EXPLORE the [interactive map](#) and look at different EEZs [slide 35] Complete the mahi on Slide 35

## 5.5 REVIEW

4. INVESTIGATE the MSC [website](#) and review the different parts of the MSC story [slide 36]
5. PLAY the fisheries management game (an open ended game designed to reinforce key learning about well managed fisheries and fisheries management [slide37] [see page 5])
6. Make and then take a QUIZ. Learners write two questions and answers. Select questions and conduct a quiz [slide 37]

# KEY WORDS

EEZ (Exclusive Economic Zone)  
Continental shelf  
Territorial sea

UNCLOS (United Nations Convention on the Law of the Sea)



# 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+)

#### **Tikanga-ā-iwi (Level 3-5)**

- *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



# FISHERY MANAGEMENT GAME

The game encourages thinking about fisheries management, including the economic and environmental sustainability of fishing. Use the game as is, create your own rounds or have learners create their own game.

The game requires one person (teacher) to be the fishery manager. The fishery manager starts, stops and times the fishing seasons [rounds] and determines the nature of the next season. You will also need fishing groups or syndicates of 3 (two fishers, one recorder / spokesperson).

## Materials:

- 3 x fish species [types of lollies / stones / crystals (about 20 of each per player). Each fish species has a different value (\$1, \$2, \$3) and reproductive rate 1:1; 1:2; 1:6].
- Trawling gear [Plastic shovels] x 2 per group
- Pole & line gear [Chopsticks] x 2 sets per group
- Bycatch species [shells or shell fragments]
- Timer
- Recording sheets and something to write with

## To start:

Spread all fish and bycatch species on the ground or a large table

Allow time for fishing syndicates to allocate roles– one recorder/spokesperson and two fishers

## ROUND ONE – FREE FOR ALL - TRAWLING ONLY

Start the fishing season (timer)

Learners trawl [shovel up] as many fish as they want

The fishing manager lets the season run for as long as the fishers want.

## Each syndicate [group] records (see data sheet):

- Method used
- Number of each species caught
- Number of bycatch
- Time taken
- Money earned

## Stop! Discuss what happened.

- How many fish are left – is this level of fishing sustainable?
- Did some groups catch more fish than others? Why?

- What would happen if this is how we fished in real life?
- Is this level of fishing economically and environmentally sustainable?
- How much money did you make?
- Explain different reproductive rates of the four different species and work out how many fish would now be in the fishery? Will there be enough to go fishing next season?

### **ROUND TWO – POLE AND LINE – FREE FOR ALL**

Start the fishing season again (start the timer)

Learners have to pole and line [chopstick] as many fish as they want

The fishing manager lets the season run for as long as the fishers want.

#### **Each syndicate [group] records (see data sheet):**

- Method used
- Number of each species caught
- Number of bycatch
- Time taken
- Money earned

#### **Stop! Discuss what happened.**


- How many fish are left – is this level of fishing sustainable?
- Did some groups catch more fish than others? Why?
- What would happen if this is how we fished in real life?
- Is this level of fishing economically and environmentally sustainable?
- How much money did you make?
- Explain different reproductive rates of the four different species and work out how many fish would now be in the fishery? Will there be enough to go fishing next season?

AND

- Compare the time taken to catch xx number of fish using each method (trawl / shovel v pole and line/ chopsticks)
- Compare the bycatch associated with each method – which one has less bycatch?
- If each minute of fishing costs the fishing company \$100 then compare the cost of catching 20 fish using each method.

Get the syndicate spokespeople to try and agree on a fishery plan OR allow fishery managers to decide on measures to make fishing sustainable?

- Reduce the length of fishing season
- Restrict the times that fishing occurs (limited days, time of day etc)
- Adapt or change the fishing method

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- Adapt the gear
  - Reduce the number of fishers
  - Limit the catch size
  - Introduce rāhui
  - Use protected areas
  - Use observers

Make adaptations and try more rounds...

### Learning / Discussion

- If all the fish are gone, what happens? It means no future fishing seasons! You have fished to the point of extinction!
- If most of the fish are gone? It will become harder and harder to get a full catch. Catch will exceed reproduction. Fishery will crash. And that this in reality is what sometimes happens and has happened – fishers have gone out and fished and fished until the fishery collapses.
- How much money did you make? Is the fishing economically sustainable? Are some fishing methods more sustainable economically? But do these have a greater environmental impact?
- Review slide 14 and the qualities of a well managed fishery. Does your fishery meet the MSC picture of a well managed fishery? What other measures could you put in place to manage your fishery well?