TEACHER OUTLINE:

SEA'S IMPORTANCE

OVERVIEW

Fishing features strongly in the history of Aotearoa New Zealand. The North Island was, as legend tells, fished up by Maui. Our inhabitancy of Maui's great fish comes with responsibility to act as kaitiaki or guardians of the land and sea and all that dwells there. The sea and the life that lives there are taonga tuku iho [treasures to be passed down from generation to generation].

Activities provided here investigate the importance of the sea to us.

See also slide sets Importance of the sea to us.

FOCUS QUESTIONS

- Why is the sea important for me? How am I connected with the sea?
- What new words and concepts have we learnt?

LEARNING OBJECTIVES

- Describe the importance (to me) of the sea and sea creatures
- Use scientific and fisheries related vocabulary

LOCATION Indoors

DURATION

45 mins +

LEVEL

CURRICULUM

Science Social Science Tikanga-ā-iwi Pūtaiao Hauora

NEXT STEPS

- Overfishing
- Blue fish tick label
- Sustainable fishing
- Our connection with Tangaroa





MATERIALS

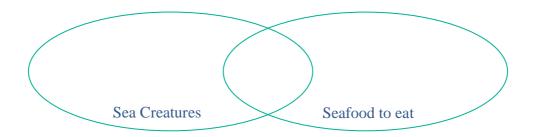
- Teacher Outline (this)
- Slide set: Importance of the sea
- Copies of Importance of the Sea: True False Cards (one per group) (pages 6 & 7)
- Copies of Ocean Connection Cards (one per group) (pages 8-12)
- Copies of Kararehe o te w ai / sea creature cards (pages 13-23)
- White board and Bluetack (Ocean Connections)
- Something to write with

PROCEDURE

- 1. DISCUSS interconnectedness and whakapapa and our connectedness to the sea according to te ao Māori [slide 9]
- 2. SHARE what kai moana you have eaten lately and what parts of the sea you have visited [slide 9]
- 3. EXPLORE the importance of the sea [slide 10]. Print the 'Importance of the Sea: True False cards' (one per group) [pages 7 and 8]. Work in groups to classify cards as true or false. Review and discuss as a class. What did we learn? What do we want to know more about? How might we find out this information? Identify and discuss new words.
- 4. In pairs, read National Geographic Resource Library: <u>'Ocean'</u>. Review vocabulary (under the vocabulary tab). Complete Kahoot quiz [<u>MSC Ocean Connections</u>]. Review and discuss. What did we learn? What do we want to know more about? How might we find it out? Identify and discuss new words.
- Print, cut and hand out one copy of Ocean Connection cards [page 9 13] per group. Groups match words (smaller cards with pictures) to either of the two headings (larger cards) (Note: some cards can go under more than one heading!) Put aside any new words for later discussion.
- Draw a Venn diagram on the board. Label one circle 'Sea Creatures' and the other circle 'Seafood to eat'. Learners stick Ocean Connection cards [pages 9 - 13] in one of the two circles. Some creatures will also be seafood to eat – put these in the overlapping section. Discuss.







- 7. For those unfamiliar with Māori names of sea creatures, use the Te Reo Māori sea creature cards [page 14 and 15] and match to English names. Reflect: What did we learn? What do we want to know more about? How might we find it out? Identify and discuss new words.
- 8. Handout small pieces of paper or use the Ocean Connections: Blank Cards provided [page 16]. Individually, learners write down names of three types of kai moana or seafood they most commonly eat! Use Bluetack or similar to stick them on the board. Create a table tallying up how many learners eat each type of kai moana (example follows).

Kai moana [name]	Number of students who commonly eat this
Kina	1111
Snapper	1111111
Pāua	1

- 9. GRAPH the results to visually represent types of kai moana most commonly eaten by the class. Reflect: What did we learn? What do we want to know more about? How might we find it out? Identify and discuss any new words. To extend learners could create their own sets of cards and / or their own Kahoot quiz (45+ minutes).
- DISCUSS the importance of the sea to us and our responsibility for kaitiakitanga [slide 11]. READ the story of <u>Whaitere – the enchanted stingray</u> or <u>Whaitere – te whai ātahu</u>. Complete the Kahoot QUIZ called Whaitere <u>Kahoot</u> [slide 11].







KEY Ocean	W	0	R	D	S	
Tūpuna						
Kaitiaki	tang	a				
Kai moa	ina					

Whakapapa Kaitiaki Taonga

CURRICULUM LINKS

Nature of Science (Level 3-5)

- Investigating in science
- Communicating in science
- Participating and contributing

Living World (Level 3-5)

• Ecology

Social Science (Level 3-5)

- Understand how cultural practices vary but reflect similar purposes (Level 3)
- Understand how people use and view places differently (Level 3)
- Understand how people seek and have sought economic growth through business, enterprise, and innovation (Level 5)

<u> Tikanga-ā-iwi (Level 3-5)</u>

- 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 ākona 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 3-5)







4

- The Natural World
- Philosophy and history of science

Hauora (Level 3-5)

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





IMPORTANCE OF THE SEA: TRUE FALSE CARDS (FALSE)

The ocean is a huge body of fresh water

We know everything there is to know about the sea

All of the ocean has been explored

Oceans cover a tiny bit of earths surface

We think we have discovered almost all of the worlds ocean creatures

Currently we know that in the sea there live hardly any different types of living things

The average depth of the entire ocean is 10 meters (33 feet)





IMPORTANCE OF THE SEA: TRUE FALSE CARDS (TRUE) The ocean is a huge body of salt water

We know very little about the ocean

Much (nearly 80%) of the ocean has never been explored

Oceans cover almost three quarters (71%) of earths surface

We think we have discovered less than half of the worlds ocean creatures

Currently we know that in the sea there live 226,000 different types of living things

The average depth of the entire ocean is 3,720 meters (12,200 feet)



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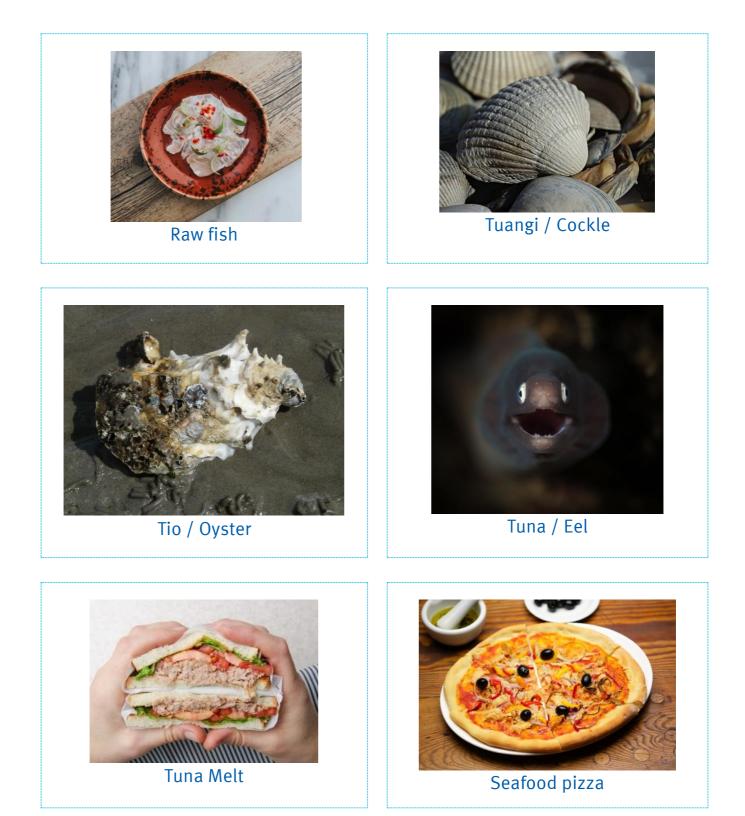
OCEAN CONNECTION CARDS

Kai moana / Sea food

Sea Creatures

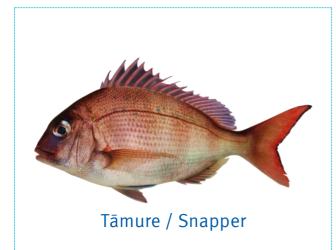






MARINE STEWARDSHIP COUNCIL © 2020 TE KAWA O TANGA

















Pātangatanga / Pātanga / Pekapeka / Starfish







Whai / Sting ray



Whēke / Octopus





Calamari or squid rings



Kina / Sea urchin



Pāua / Abalone







Manaia / Sea horse



Seafood pancake







Seafood salad





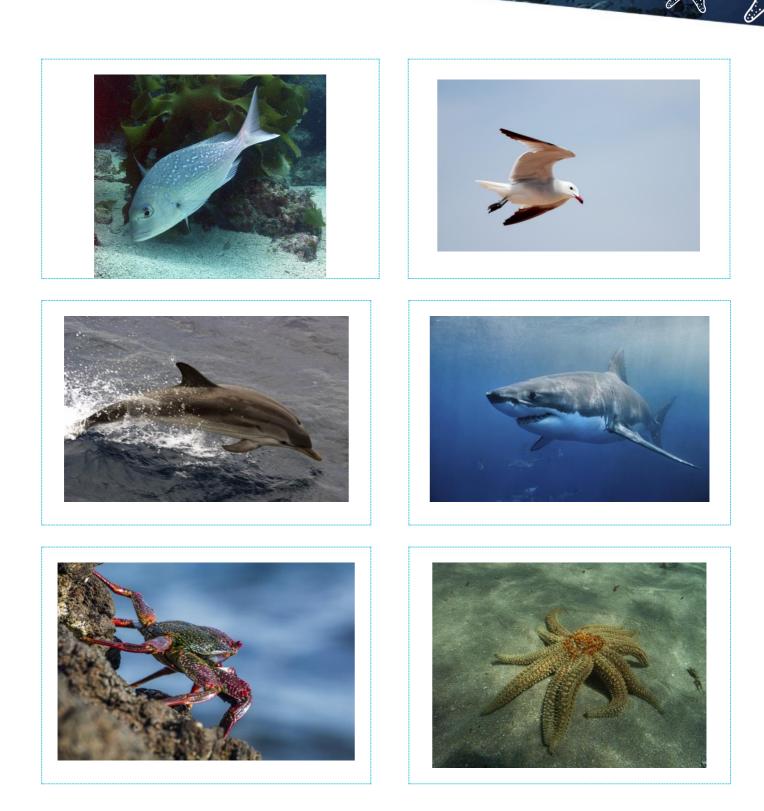


KARAREHE O TE WAI / SEA CREATURES - CARDS

- Copy and cut out these cards to test and develop ability to identify and name ngā kararehe o te wai / sea creatures using common Māori and English names.
- Complete the Kahoot QUIZ called <u>Kararehe o te wai / Sea</u> <u>creatures.</u>
- DISCUSS the importance of the sea to us and our responsibility for kaitiakitanga [slide 11]. READ the story of <u>Whaitere – the</u> <u>enchanted stingray</u> or <u>Whaitere – te whai ātahu</u>.
- Complete the Kahoot QUIZ called Whaitere <u>Kahoot</u>.
- Reflect: What did we learn? What do we want to know more about? How might we find it out? Identify and discuss new words.

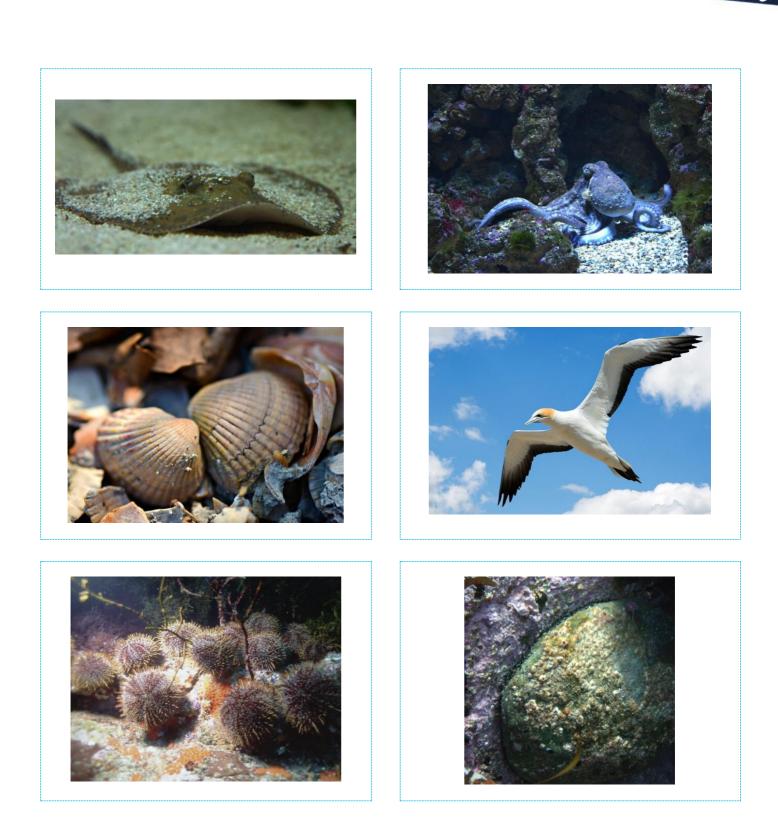






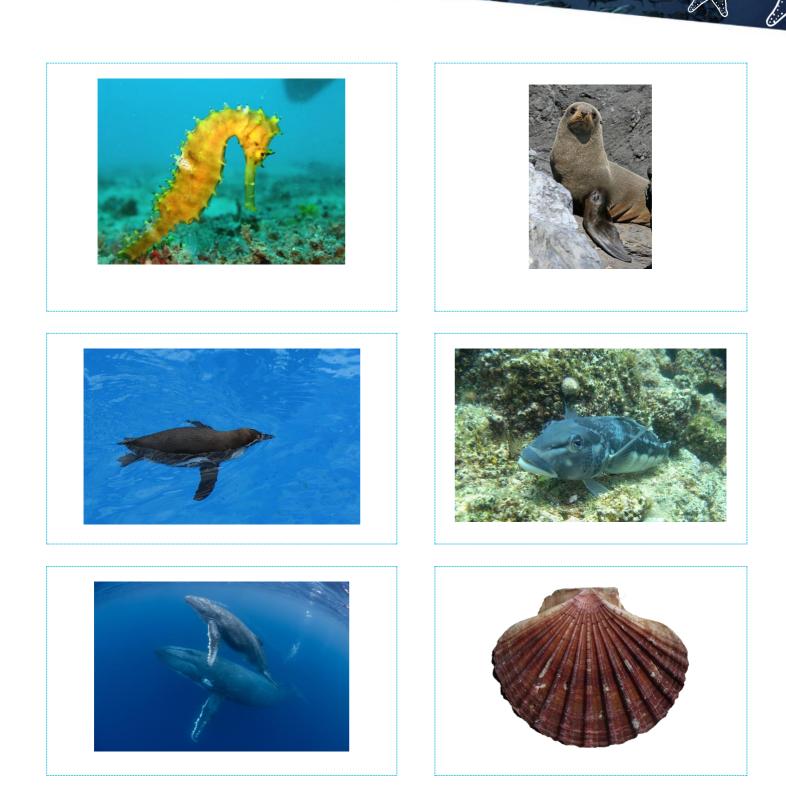






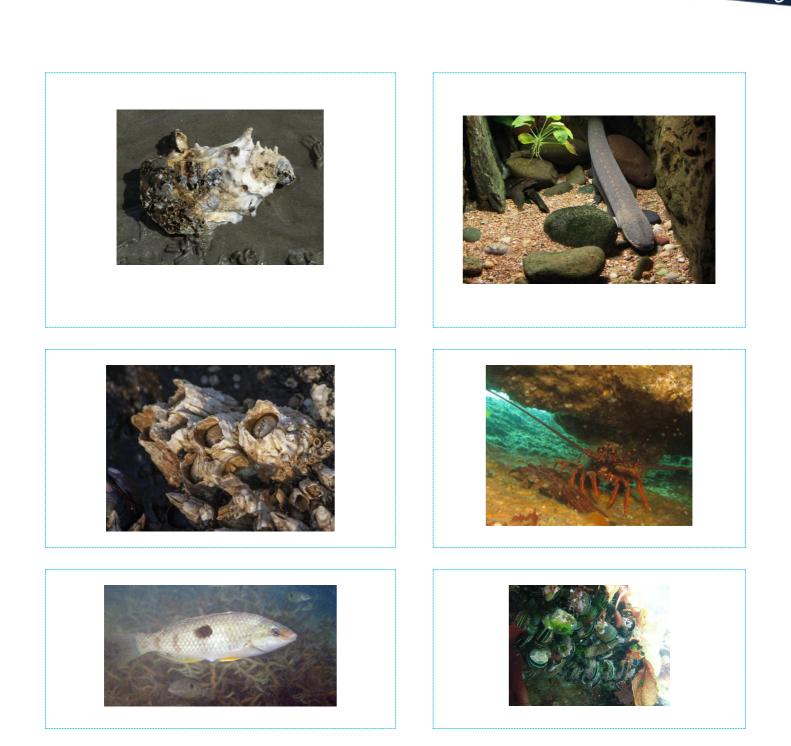
















Octopus	Sea urchin	Seahorse
Shark	Crab	Starfish
Stingray	Dolphin	Snapper
Blue Cod	Seagull	Whale
Gannet	Little Blue Penguin	Abalone
Seal / Sealion	Cockle	Scallop
Oyster	Eel	Barnacle
Crayfish	Spotty	Green Lipped Mussel





Wheke	Kina	Manaia
Mangō	Pāpaka	Pātangatanga / pātanga / pekapeka
Whai	Pāpahu	Ika tāmure
Rāwaru	Karoro	Tohorā
Tākapu	Karorā	Pāua
Kekeno	Tuangi	Tipa / Tupa
Tio	Tuna	Werewere
Koura	Paketi / Pakirikiri	Kuku





TEACHER ANSWERS







Pāpahu / Dolphin



Mangō / Shark



Pāpaka / Crab



Pātangatanga / Pātanga / Pekapeka / Starfish







Whai / Sting ray



Tuangi / Cockle



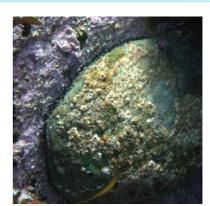
Whēke / Octopus



Tākapu / Gannet



Kina / Sea urchin



Pāua / Abalone







Manaia / Sea horse





Karorā / Little Blue Penguin



Rāwaru / Blue cod



Tohorā / Whale





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Tio / Oyster



Tuna / Eel



Werewere / Barnacle



Koura / Crayfish



Spotty / Paketi / Pakirikiri



Kuku / Green lipped mussel



