

# TOGETHER FOR OUR MOANA - WE'RE SHAPING OUR FUTURE

## MĀNGO / SHARKS

### Overview

Find out about the different types of sharks that live in Aotearoa.

## NZ CURRICULUM LINKS:

Learning areas:	Achievement objectives:
<b>Science</b>	Identification and classification.
<b>Te Ao Māori</b> Te reo (language), tikanga (customs and traditional values)	By learning te reo Māori, students are able to participate with understanding and confidence in situations where te reo and tikanga Māori predominate and to integrate language and cultural understandings into their lives ; strengthen Aotearoa New Zealand's identity in the world.
<b>English</b>	Listening, Reading, Viewing

# LEARNING SEQUENCE

Based on the Inquiry model



## Inspire

Provoke curiosity  
and wonder



## Explore/Educate

Gather information  
Use / apply  
learning



## Activate

Reflect and act

### Learning intention

Tamariki are learning to understand about the different types of sharks in  
Tīkapa Moana / the Hauraki Gulf.

### Success criteria

Children can name at least one type of shark that is found in Tīkapa Moana /  
the Hauraki Gulf.

## Background information for teachers:

Source: Auckland Whale and dolphin safari

Around 73 species of shark can be found in New Zealand. In the Hauraki Gulf we most commonly see smooth hammerheads, blues, mako, bronze whalers and thresher sharks.

Sharks pose very little threat to humans. Up and down most of our New Zealand surf beaches there are bronze whalers all over the place, but we don't let that stop us from going swimming. Despite the millions of times humans in NZ enter the ocean each year, only 1-2 people are bitten by sharks in New Zealand annually.

There are other things you should be more scared of than sharks, like taking a selfie! More people are killed posing for selfies every year - or by drink vending machines falling on them - than by sharks.

On the other hand, humans have overfished sharks to the point that a quarter of shark (and rays - their close relatives) species are threatened with extinction and require action now. Sadly, many are killed for their fins, which is an absolute waste of these beautiful creatures.

Source: DOC

Baby sharks live in the Hauraki Gulf Marine Park/Ko te Pātaka kai o Tīkapa - some 'pup' there, and some spend their juvenile life in its sheltered and abundant waters.

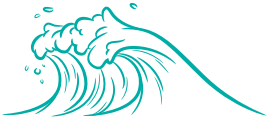
What makes the Gulf, and in particular the inner Gulf and Firth of Thames, so ideal as a shark nursery? The Gulf is a large, shallow, sheltered sea with numerous harbours and inlets surrounding it, providing gentle conditions for young sharks to grow. Light easily penetrates to the seabed throughout most of the inner Gulf, warming the water and promoting plant growth during spring and summer. Furthermore, nutrient inputs from the rivers that feed into the Gulf, as well as the 'seasonal upwelling' of nutrients along the edge of the continental shelf (that stimulate phytoplankton growth), make it biologically highly productive. These conditions support a diversity of habitats in the Gulf including large populations of bony fishes, providing prey for young sharks.

Baby sharks are called 'pups' and come into this world in three different ways - egg laying (oviparity), eggs developing and hatching inside the womb (ovoviviparity) or developing within the womb nourished via a placenta/whenua, like mammals (viviparity). Sharks do not care for their babies after they are born, but they do search for a safe place where they can lay their eggs or give birth. These are known as 'pupping' or 'nursery grounds'.

# LESSON PLAN

## Māngo / Sharks

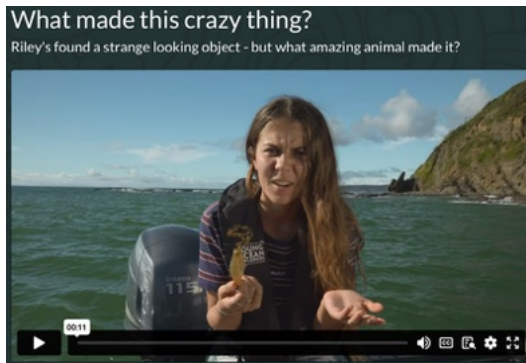
Teachers are encouraged to choose and adjust activities to suit the learning needs and interests of their tamariki.



### Inspire

 Allow approximately 10 mins

- **Watch** this Young Ocean Explorers video/quiz - [What made this crazy thing?](#) *Video is roughly 2 mins (2 part quiz)*



- **Discuss** - what do you know about sharks? Have you ever seen one?



### Educate

 Allow approximately 25 mins

- **Look** at this [slide show of some sharks found in the Hauraki gulf](#). Can you figure out their names?
- **Watch** this Young Ocean Explorers video - [māngo and mau rākau](#). If tikanga in your area allows you could try to learn this mangōpare mau rākau move.

*Video is 6 minutes*





## Activate

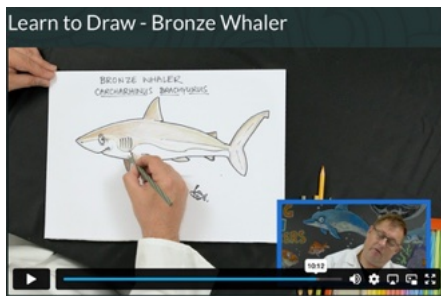
 *Timing will vary*

# 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.](#)

- Learn to draw a [bronze whaler](#) with Young Ocean Explorers.



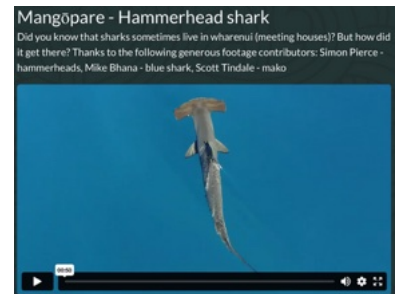
- [S.O.S - Save our sharks!](#) Video from [Young Ocean Explorers](#). What is a threat to sharks and what can be done about it?  
*Video is 1:20 minutes*



## EXTRA LEARNING IDEAS AND RESOURCES

- **Vocab** - find out what these big words mean. Viviparous, elasmobranch, cartilage
- **Explore** - [these videos about sharks from Young Ocean Explorers.](#)
- **Read** - [school journal level 3 2018 - Sharks - pg 34](#)
- **Explore** more te ao Māori with this YOE video - [mangōpare - hammerhead shark.](#)

*Video is 50 seconds*



- **Watch** - Learn who Rodney Fox is in this Q/A video with Young Ocean Explorers 'Live in the Lockdown' series.

*Video is 9:52 minutes*

Shark guru, Rodney Fox answers kids questions

