

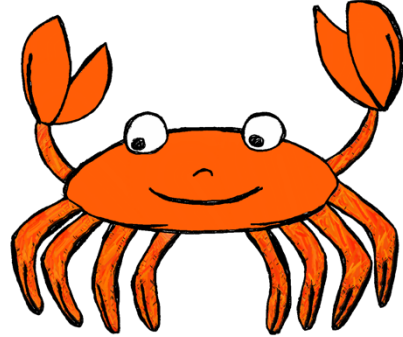
It's a Crab's Life

He Whakataki

"Ko te moana te puna whakaora."

The ocean is the source of health.

Nā Komene Kururangi



The health of the ocean is important for the animals and living things within it, but also humans. Even if you do not live on the coast and benefit from the oceans abundance such as kai, you are breathing in the oxygen of which 70% is made by the organisms in the ocean. We depend on the ocean being healthy in order to survive.

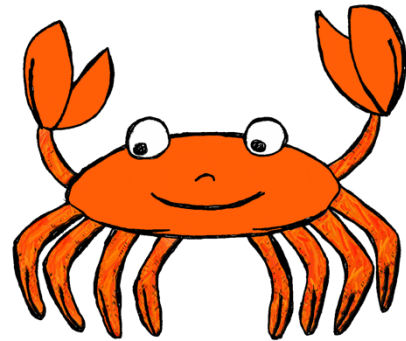
Mātauranga Māori provides centuries of information about the health of of the Taiao (environment) and coastal areas. Traditional knowledge helps us to understand the changes over time and predict what the future might look like. We can use these observations to help manage our practices and ensure that we are looking after a vital source of health for ourselves and our future – our moana!

Looking through the eyes of another animal that lives on the coast we can get an idea of the day-to-day pressures that they are facing. In this mini booklet we explore life through the eyes of a crab living in Aotearoa.

True or false?

Test your knowledge of the NZ coast and one of the animals that is commonly found on the shore.

Perhaps you might want to test yourself again after completing some of the activities suggested in this booklet.

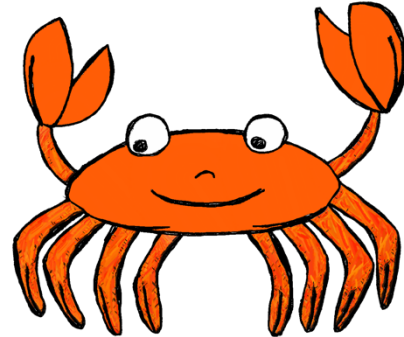


1. Pāpaka is the kupu Māori (Māori word) for crab	Āe	Kao
2. New Zealand has 15,000 kilometres of coastline	Āe	Kao
3. A crab can fight off a seagull	Āe	Kao
4. Our moana is the healthiest it has ever been!	Āe	Kao
5. Crabs are the top predator in the ocean	Āe	Kao
6. A tribe from Tauranga Moana are famous for their combat style that they adapted from a crab	Āe	Kao
7. A crab's eyes are made of hundreds of little lenses	Āe	Kao
8. Crabs can eat rubbish	Āe	Kao
9. Crabs lay only a couple of eggs at a time	Āe	Kao
10. If one of its legs are lost in a fight, crabs will not be able to grow it back	Āe	Kao
11. Crabs lay eggs under rocks	Āe	Kao
12. Finding no crabs in an estuary is a good thing!	Āe	Kao

Crabby Facts

Lifecycle

Thousands of fertilised eggs are carried under the tail flap of the female crab. Zoea larvae hatch from the eggs and become part of the plankton community. These go through several stages of development until they become juvenile crabs and sink to the ocean floor.



Anatomy

The crab body is protected by a tough outer shell called an exoskeleton. Crabs have four pairs of walking legs and one pair of nippers called chelipeds. The mouth has many moving parts. Crabs have two sets of antennae used to sense their environment.

Moulting

Crabs grow by moulting. The exoskeleton is shed and a new larger one is formed. It takes a few days for their shell to harden. During this time crabs are very vulnerable to predators.

Diet

Crab larvae eat phytoplankton and smaller plankton than themselves. Juvenile and adult crabs will eat anything from seaweed to dead animals!

Protection

Larval crabs are transparent and have spikes on their body for protection from predators. Juvenile and mature crabs have an exoskeleton and large nippers called chelipeds for protection. Their colour is similar to their habitat for camouflage. Their behaviour also aids survival. When the tide is out crabs will hide under rocks for protection from predators and in order to stay cool and moist.

Habitat

Juvenile and mature shore crabs are able live on the rocky shore because they can survive for short periods out of water and can tolerate changes in salinity and temperature.

Locomotion

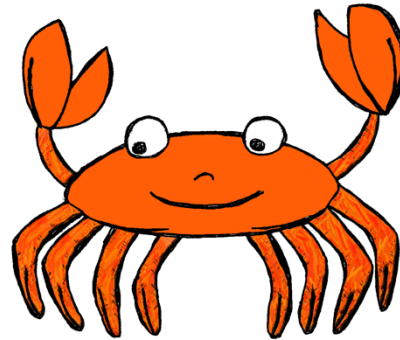
Larval crabs drift with the water current, they are able to swim but are too small to swim against the current. Juvenile and adult crabs are bottom dwelling, they usually crawl sideways.

Crabby Activities

Seashore Survivor

Time to use those beady eyes, prime those nippers and flex all those legs.

Imagine you are a crab – what will your reaction be to the situations you may be faced with on the shore?



Download the game, Seashore Survivor, gather your friends together and enact the scenarios to see if your reaction would enable you to survive the many hazards faced by a crab.

Seashore Scramble

What kind of crabs live on your local shore? That might depend on whether it is a rocky shore or a sandy or muddy one. See what you can find! Download the shore guides to identify the crabs you see.

On a rocky shore you are best looking under rocks. Lift the rocks carefully – and don't try lifting anything larger than your head! Replace rocks gently in the same place you found them.

On a muddy shore you might see some crabs scuttling across the mud, or in a shallow pool, but you can also do some detective work ... look at clues on the surface to see what might have burrowed into the substrate.

Crabby Research

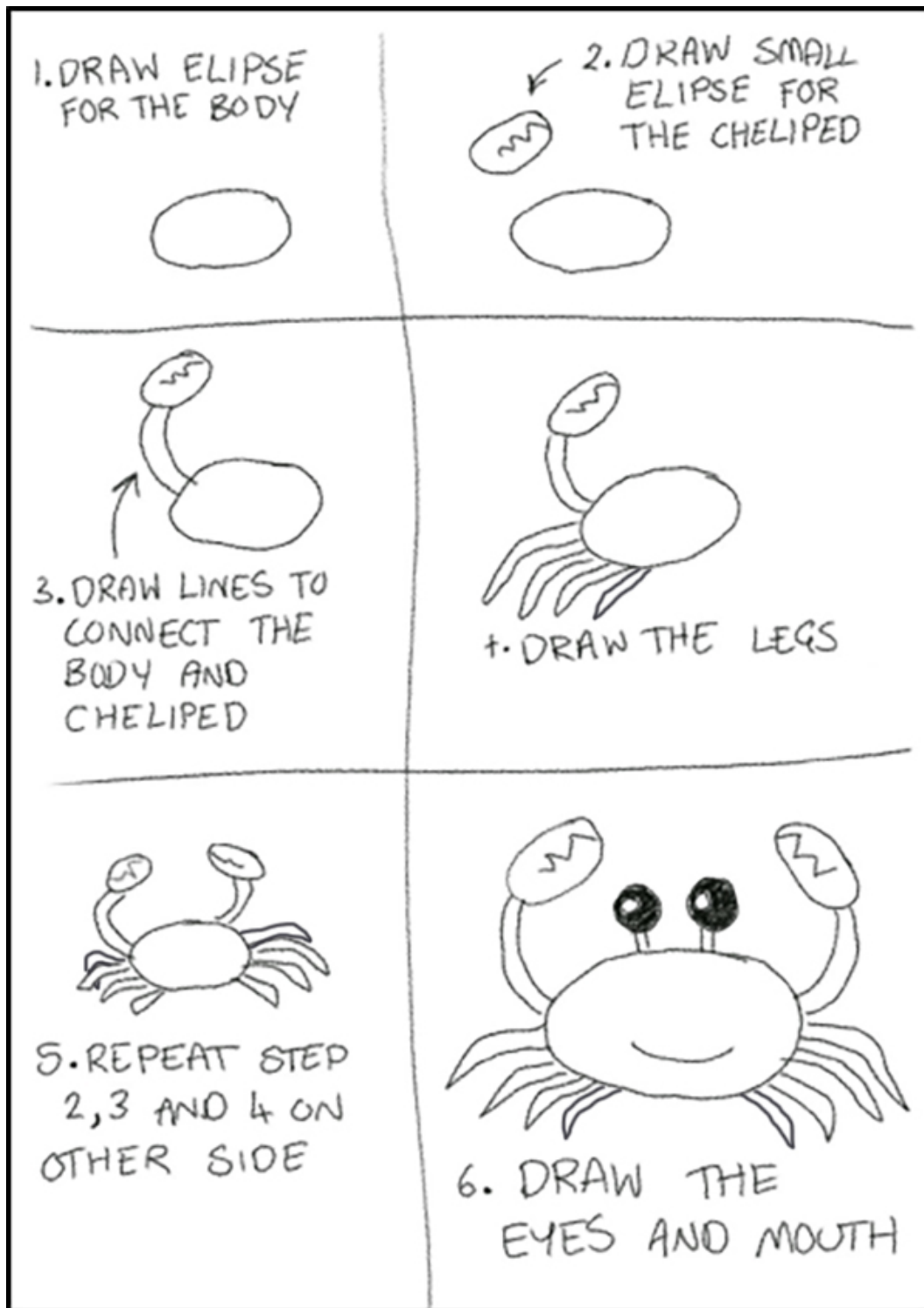
Whether you are by a shore or not, you can still find out about some different crabs using books or the internet. See what you can find out about these crabs. What makes them different?



- Hermit crab
- Camouflage crab
- Paddle crab
- Tunnelling mud crab

How to draw a crab

Grab some paper and practice drawing a crab using the instructions below:



A crab's view of the world

Now that you have some experience looking at life from a crab's view of the world, draw a crab comic strip and fill in the speech bubbles. Think about what your crab might say. Here are some suggestions:

- A day in the life of a crab
- The day a whale carcass washed ashore
- The day the crab stood up against pollution

