



Seashells

by Feana Tu'akoi

Many of New Zealand's beaches are covered in shells – little shells, big shells, smooth shells, flat shells, and curly shells. Some shells are plain, and some have patterns. Have you ever wondered where all these shells come from?

Empty homes

Almost all seashells were once homes for sea creatures. When the creatures inside the shells die or are eaten by **predators**, their shells are left behind. Many of the empty shells get washed up onto the beach.

What shell is this?

Many of the shells you see on the beach were once two shells joined together. These shells are called bivalves. Sometimes you will find them still joined, but mostly they have broken away from the other shell. Bivalves are the most common seashells washed up on our beaches. They include the shells of pipi, tuatua, oysters, mussels, and scallops.

Some shells, such as limpets and pāua, are single shells. They might have small holes in the top. Other single shells, such as the Cook's Turban shell, are shaped like a spiral.



Mussel shell



Pipi shell



Cook's Turban shell



Limpet shell

Molluscs

We often call the creatures that live in shells “shellfish” – but they are not really fish. They are part of a group of creatures called molluscs.

A mollusc has a soft body and no bones, but many molluscs have a hard shell. The shell helps to keep the mollusc safe from predators such as seagulls, crabs, fish, and other, bigger, molluscs. It also stops the mollusc from drying out in the sun at **low tide** and protects its soft body from being damaged when it’s tossed around by ocean currents and waves.



A mollusc in its shell

More about molluscs

Not all molluscs have shells. Octopuses, squid, and slugs are also part of the mollusc family.

And not all molluscs live in the sea. Land snails are molluscs. They grow shells for protection, too.



Land snail

Shell science

Hamish Spencer is a shell scientist. He studies shells and shellfish, and he finds them fascinating.

Hamish has seen some unusual shellfish. “A shipworm has a body that looks like a worm, but with two small shells at one end. It uses these to drill holes in driftwood,” he says.

“The carrier snail is also unusual. It uses camouflage to protect itself from predators. The snail glues other shells or stones onto its own shell. This tricks predators into thinking it’s just a pile of old shells – not juicy snail meat!”



Hamish Spencer

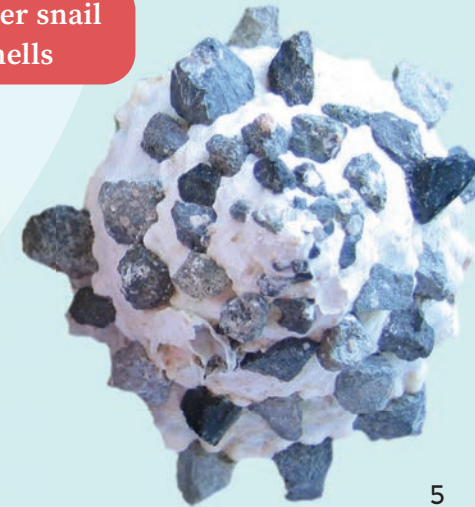


Shipworm

Two small shells



Carrier snail shells



Shell colours

The colours of their shells can also help to protect shellfish from predators. Hamish says that their shells are often the same colour as the seaweed and rocks they live near, which makes it hard for predators to see them.

The shells of most New Zealand molluscs are plain and dark because New Zealand seaweed and rocks are mostly plain, dark colours. Molluscs that live in warm tropical waters often have brightly coloured shells.

Mussel shells are plain and dark.



Hidden treasure

A New Zealand pāua shell looks quite plain on the outside, but the inside of the shell is a colourful mix of blue, green, and purple. When a pāua shell is polished, it shines brightly. Hamish thinks that it's one of the most beautiful shells he has seen.

An oyster shell looks very different on the inside, too. Some oyster shells can also have hidden treasure. Sometimes, a grain of sand gets stuck inside an oyster's shell. To stop it hurting its soft body, the oyster covers the sand with a shiny substance called nacre. The oyster keeps adding nacre until it can't feel the sand any more. The layers of nacre make a round, shiny object we call a pearl. Pearls are very valuable and are used to make jewellery.

A pearl in an oyster shell



Pāua shell

Shellfish safety

Shellfish are important for many reasons:

- They provide food for fish, birds, and other shellfish – and for us!
- They **filter** the water as they feed. This makes the water cleaner for all the creatures that live in it.
- Their shells help to stop the sand on the beach from being washed away by waves.
- Their shells can be homes for small fish and hermit crabs.

Hamish says we need to look after our shells and shellfish.

Here are some ways we can do this:

- Make sure we don't take too many shellfish for food. (Some New Zealand shellfish are in danger of dying out because people have been taking too many.)
- When we are collecting shells, check that there is nothing living in or under them.
- When we are looking in rocky pools, always turn back rocks we have turned over so that the shellfish don't dry out and die.

Glossary

filter: to take out things that are floating in the water

low tide: when the sea goes out and the seawater is at its lowest point on the beach

predator: an animal that hunts other animals

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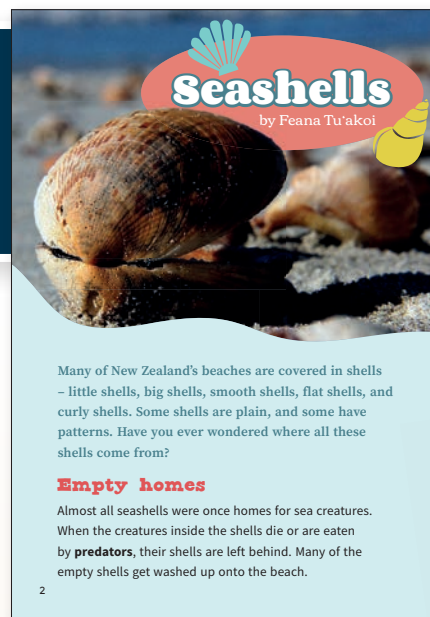
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