

# Junior Journal 60



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# Junior Journal 60

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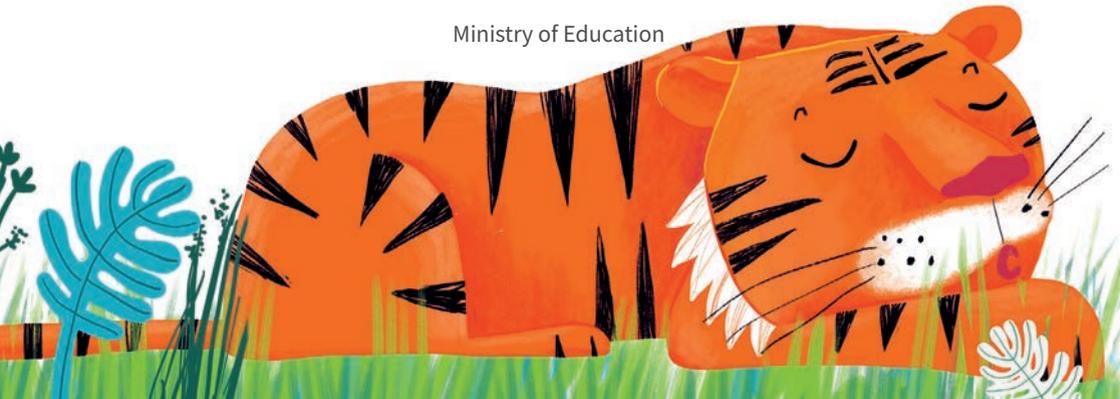
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Ministry of Education





# 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

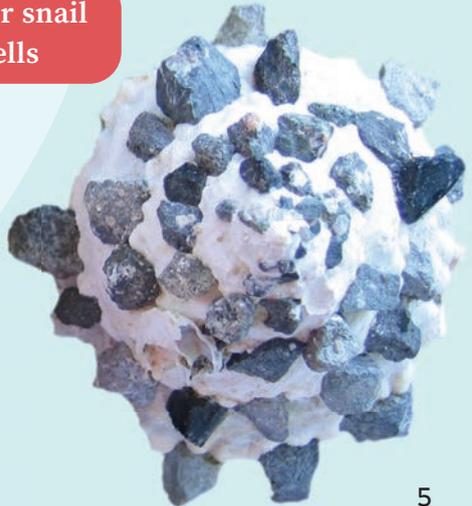


Shipworm

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.



Pāua shell

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



## 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

# Super Shells

by Feana Tu'akoi

Shells are important for the creatures that live in them, but once those creatures have finished with them, shells can be very important for people too. For thousands of years, people have used shells for many different purposes, for example, for jewellery and decorations or as tools, musical instruments, or even as money. Some people also like to collect shells.



Shell necklaces



Shell spoon



Shell trumpet

# Jewellery and decoration

People have used the shapes and colours of shells to make jewellery, such as necklaces, earrings, and rings.



Cowrie shell ring



Shell earrings



Shell necklace

Pāua shell and mother of pearl (from oyster shells) have beautiful colours that shine in the light. They are often used to decorate objects.



Hei tiki with pāua shell eyes



War canoe figurehead with mother of pearl decoration



Shell card case

People also decorate furniture, boxes, and even their gardens with shells. (On page 16, you can read about a whole house decorated with pāua shells!)



Shell box



Shell garden

# Tools

Long ago in Aotearoa, Māori used shells to make fish-hooks. They also used shiny pieces of pāua shell as lures to attract fish.

Mussel shells made perfect tools for scraping harakeke (flax). Today, some people still choose to use them for this.



Māori fishing lure



Using a mussel shell to scrape harakeke

The Aboriginal people of Australia used the shells of a large sea snail for storing water. They also used them to bail out water from their canoes, so the shells became known as bailer shells.

Bailer shell



# Musical instruments

For thousands of years, people have made rattles, shakers, horns, flutes, and wind chimes from shells.

Shaker

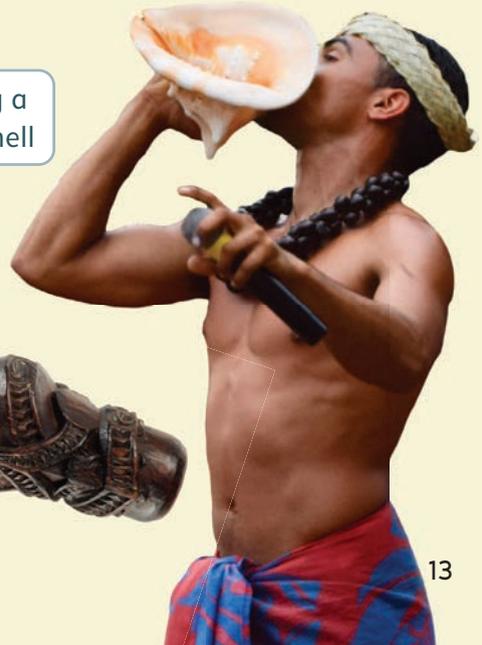


People of the Pacific made trumpets from conch shells. Māori called these trumpets pūtātara. The beautiful “voice” of the pūtātara can be heard a long way away. It was used for calling people together, sending messages, sounding warnings, and playing music.

Blowing a conch shell



Pūtātara



# Money

Shells have been used as money all over the world. They are small and light, so they are easy to carry around. Shells are quite strong too, so they don't break easily.

Strings of shell money

Cowrie shell money



# Collecting shells

Some people find shells so interesting that they collect them. They get together with other collectors to show, identify, and talk about their shells.



Shell collection



## **Fred and Myrtle's pāua shell house**

Fred and Myrtle Flutey were shell collectors. They lived in Bluff in the South Island. Fred liked to collect pāua shells from the beach and polish them up. Then Fred and Myrtle began using the shells to decorate their walls. They ended up with more than 1,170 pāua shells in their house! Their pāua shell house became a famous tourist attraction. Over a million people from all over the world came to see it.

Fred and Myrtle died several years ago, but people can still see their shell collection in the Canterbury Museum, in Christchurch.



# Beach Buddy

*by Fifi Colston*

Shells come in all shapes and sizes. Next time you're on the beach, pick some up and look at them closely. What do you notice? What do they make you think of? Do they look like part of an animal? You could use shells to make a beach buddy, a crazy creature from the seashore.

## You will need:

- modelling clay
- clean, dry seashells
- scissors
- a piece of card to sit your creature on
- odds and ends for decorating your creature (things like buttons, pipe cleaners, toothpicks, scraps of fabric, or pieces of cardboard)





## What to do:

1. Roll a piece of modelling clay into an egg-sized ball.



2. Sit it on the card.



3. Add more balls of clay to build up your creature's body.

4. Push seashells into the clay to make humps, ridges, wings, ears, or fins. You could make a tail from clay and add some small shells.



5. Use odds and ends to add details. For example, you could cut up pipe cleaners to make legs and spikes.



6. Think of a name for your beach buddy. Here are some ideas: Shelly, Crabby, Pipi, Sandy.



# Mariri, the Flying Man



a traditional story  
from the Cook Islands,  
retold by Maria Samuela

Long, long ago, there lived a great explorer whose name was Mariri. He was brave and clever and good at making things. Mariri lived in ‘Avaiki, where his people had lived for many generations.

One day, Mariri said to his wife, “We need to find a new place to live. ‘Avaiki is too crowded now. There is not enough land or food for everyone.”

Mariri gathered his warriors. They agreed that it was time to find somewhere new – a place with more land and more food.

Mariri and his warriors spent months building a vaka – a huge vaka that could sail across the ocean. Finally it was ready.

“I will return,” Mariri promised his wife, “once we have found another home for our people.”



For many months, Mariri and his warriors sailed the ocean and, at last, they came to an island in the middle of the sea. They found no people living on the island.

Instead, it was alive with white-tailed rakoā birds and potipoti (flying insects).

Mariri named the island Enuamanu, which means

“island of birds and creatures”.



Enuamanu was a fine place to live.

There was plenty of land, food, and fresh water.

“My wife will be happy here,” thought Mariri, and then he felt sad. He and his men had been away for a long time, and he missed his wife very much. He wondered how he could fetch her. Sailing back to ‘Avaiki by vaka would take many months.

As Mariri stood thinking, he saw a flock of rakoa circling above him. The wings of the rakoa were big, and they flapped slowly and gracefully. Then a swarm of potipoti zoomed past his face. Their wings were tiny, and they flapped very quickly. The wings of the birds and insects gave him an idea.

“I will build wings of my own,” he shouted.  
“I will *fly* back to ‘Avaiki!”





Mariri took some branches from the tutu tree and carefully bent them into wing shapes. Then he filled the wing shapes with feathers, plucked from the rakoa. His wings looked magnificent. Proudly, he tied them onto his arms.

But his pride didn't last long. He ran along the beach flapping his new wings and then launched himself into the air. For a moment, he rose up, but then he felt himself dropping back down again. "Au-ē!" he cried as he crashed onto the sand.

The potipoti and rakoa laughed. "Silly man, with your imitation wings!"

Mariri felt shamed, but he didn't give up. He straightened his wings and tried again. He ran and flapped his wings as hard as he could, but he stayed on the ground. Soon he was puffed. His arms were sore, and he felt sorry for himself. He lifted his face to the sky and wept.

But as he looked upwards, he saw a towering hill, now known as Te Kurikuri (The Seabird). The hill reached up into the sky. Mariri picked up his wings and began climbing. When he reached the top, he looked out over the island. “Yes,” he thought again, “my wife will be happy here.” He tied his wings back on.

“Silly man!” squawked the potipoti and rakoa. For a moment, Mariri was worried they were right. He felt panic. “This hill is so high. Auē!” Then he remembered his wife, and he took a deep breath, spread his wings wide, and stepped forward off the side of the hill.

“Aaarrggghhh!” He fell like a stone towards the ground far below. Down, down, down ... but then, a gust of wind collected beneath his wings, lifting Mariri high into the sky. He flapped his rakoa wings and soared through the air. “I’m flying!” he cried. He circled the island once and then turned towards ‘Avaiki.

For part of his flight, the potipoti and rakoa flew along beside him, no longer laughing at his imitation wings.







Mariri's wife was standing on the beach when she saw something far away on the horizon. It looked like a huge bird. As it got closer, she realised that it was a man flying across the ocean towards her. She couldn't believe her eyes. At last, Mariri landed beside her on the beach.

"My husband?" she cried. "Is it really you?" She stared at his wings, and then they embraced. They had never been apart for so long. "You flew?" she asked. "But how can you fly?"

Mariri smiled. "Let me show you," he said. Mariri walked with his wife to the top of a nearby hill and helped her to climb onto his back. "Hold on," he said, and he jumped off the side of the hill. The wind caught his wings and lifted them high into the air. Together, Mariri and his wife flew away through the skies, back towards Enuamanu.

Mariri and his wife lived very happily in Enuamano. They had a son, and when he grew into a man, the couple returned to 'Avaiki one last time.

Can you guess how they got there?

*illustrations by Samuel Sakaria*

# Cook Islands

Northern  
group

Southern  
group

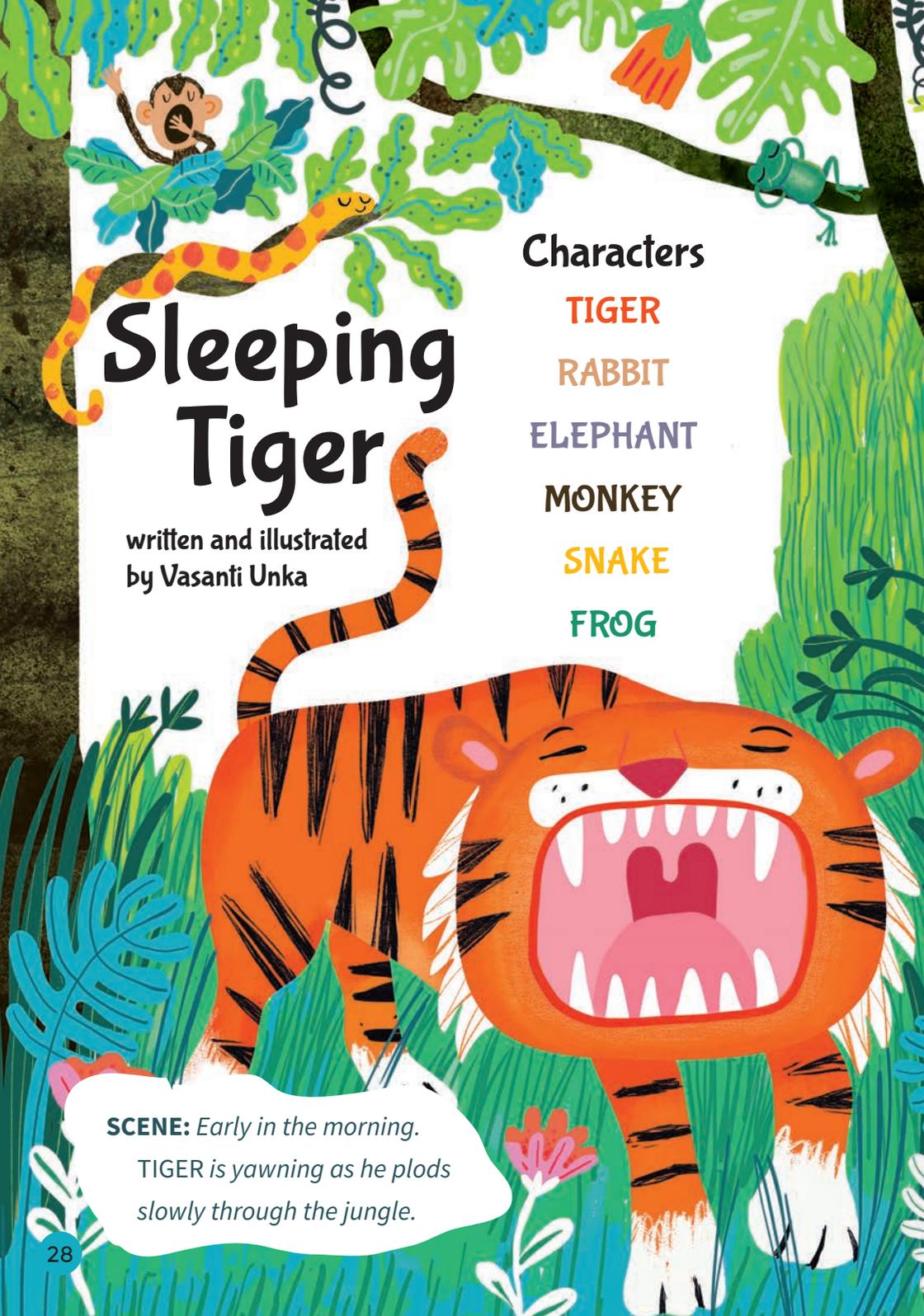
Rarotonga

Atiu



## More about Enuamano

Enuamano is now part of the Cook Islands. Today, the island is called Atiu (the name of one of the ancestors of the Cook Islands people).



# Sleeping Tiger

written and illustrated  
by Vasanti Unka

Characters

**TIGER**

**RABBIT**

**ELEPHANT**

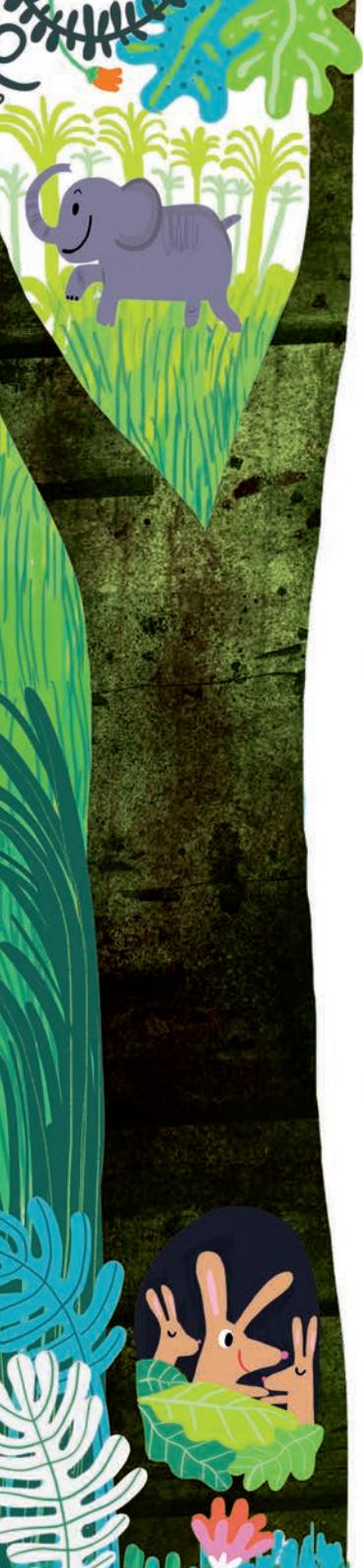
**MONKEY**

**SNAKE**

**FROG**

**SCENE:** *Early in the morning.*

*TIGER is yawning as he plods slowly through the jungle.*



**TIGER** (*yawning*). I'm so tired and hungry! I've been hunting all night, but I haven't found a thing to eat. I need to get some rest before I go hunting again. Ahh, here's the perfect spot. I'll just curl up in this long, soft grass. Yawn!

*TIGER snuggles down in the grass and falls asleep. A moment later, RABBIT comes hopping along.*

**RABBIT.** Hop, hop, hoppity hop. I'm off to find some breakfast berries. My babies are very hungry. Hop, hop, hoppity ... oops! A tiger! I need to get out of here before I become someone's breakfast! Hippity, hoppity, hop – I'm off!

*A moment later, ELEPHANT comes stomping along, shaking the ground with every stomp.*

**ELEPHANT.** Stomp, stomp, thump, thump! How I love to shake the ground! I'm so big, and I'm so loud! Stomp, stomp, thump ... uh-oh! A tiger! Maybe I should not be so loud – or so big. Maybe I should just disappear. Tip-toe, tip-toe, tippity-toe – away I go!

*ELEPHANT tiptoes away.*



*A moment later, MONKEY comes swinging down on a vine.*

**MONKEY.** La, la, lay, lay, la. It's a perfect day for singing while I'm swinging on a vine. La, la, lay, lay ... laah! A tiger! Time to go. The singing can wait till lay, lay ... later. I'm swinging far away from here. Bye, bye. Time to go. Bye, bye.

*MONKEY swings back into the trees.  
A moment later, SNAKE comes sliding along.*

**SNAKE.** Hiss-s-s, hiss-s-s, s-s-slither, s-s-slither. I'm s-s-starving. I need s-s-something s-s-sweet to eat. S-s-something that's-s-s eas-s-sy to s-s-swallow. Hiss-s-s, hiss-s-s, s-s-slither ... eek! A tiger! I need to s-s-sneak away, before I'm the one who gets-s-s s-s-swallowed! S-s-slither, s-s-slither – I'm off!

*SNAKE slithers away up a tree. A moment later, FROG comes jumping along.*



**FROG.** Flip, flop, flippity flop. Hip, hop, hippity, hop.  
I'm looking for some fun today. Flip, flop, flip, flop ...  
Aha! A tiger! A **sleeping** tiger. A scruffy, **old**  
sleeping tiger. That tiger is so old and tired  
he won't wake up. Let the fun begin!

*FROG prances and dances round the sleeping  
tiger. SNAKE is watching FROG from high up  
in the tree.*

**SNAKE.** S-s-silly Frog. What is-s-s he doing?

**FROG** (*standing in front of TIGER and pulling funny  
faces*). Ha, ha, hee, hee! Sleeping tiger can't see me!  
Tired old tiger, you're fast asleep!

*TIGER snores.*

**FROG** (*clapping his hands together*). Ha, ha, hee, hee!  
You can't see me! You can't hear me! Silly old  
sleeping tiger! Silly old **snoring** tiger!



MONKEY *is also watching* FROG.

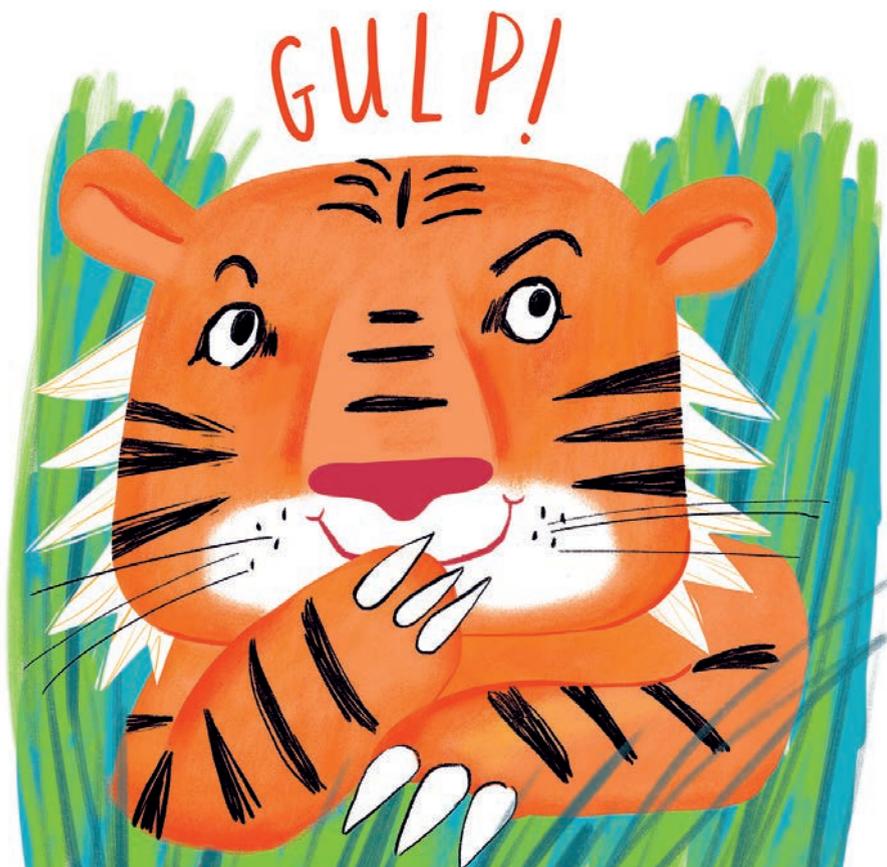
**MONKEY.** Frog, get away from there! Go and play your silly games somewhere else.

FROG *ignores* MONKEY *and jumps closer to* TIGER.

**FROG.** Ha, ha, hee, hee. Tired old tiger. I can touch your paw. I can tug your whisker. I can even tickle your nose!

FROG *reaches out to tickle* TIGER's nose.

**TIGER** (*gobbling up* FROG). **GULP!** That was a nice breakfast! Perfect for a tired old tiger like me! Yum-yum, yummy-yum – **ROAR!**



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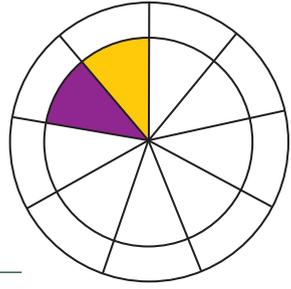
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Super Shells	Gold 1
Mariri, the Flying Man	Gold 1
Sleeping Tiger	Purple 1



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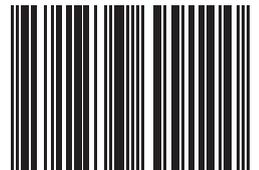
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Seashells	✓	✓
Super Shells	✓	✓
Mariri, the Flying Man	✓	✓
Sleeping Tiger	✓	✓



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TE TĀHUHU O TE MĀTAURANGA

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