



SCHOOL JOURNAL

OCTOBER 2015



TITLE	READING YEAR LEVEL
Kurī	4
Cool Facts about a Hot Place	4
The Sons of Ma'afu	4
A Work of Art	4
My "What If" Planet	4

This Journal supports learning across the New Zealand Curriculum at level 2. It supports literacy learning by providing opportunities for students to develop the knowledge and skills they need to meet the reading demands of the curriculum at this level. Each text has been carefully levelled in relation to these demands; its reading year level is indicated above.

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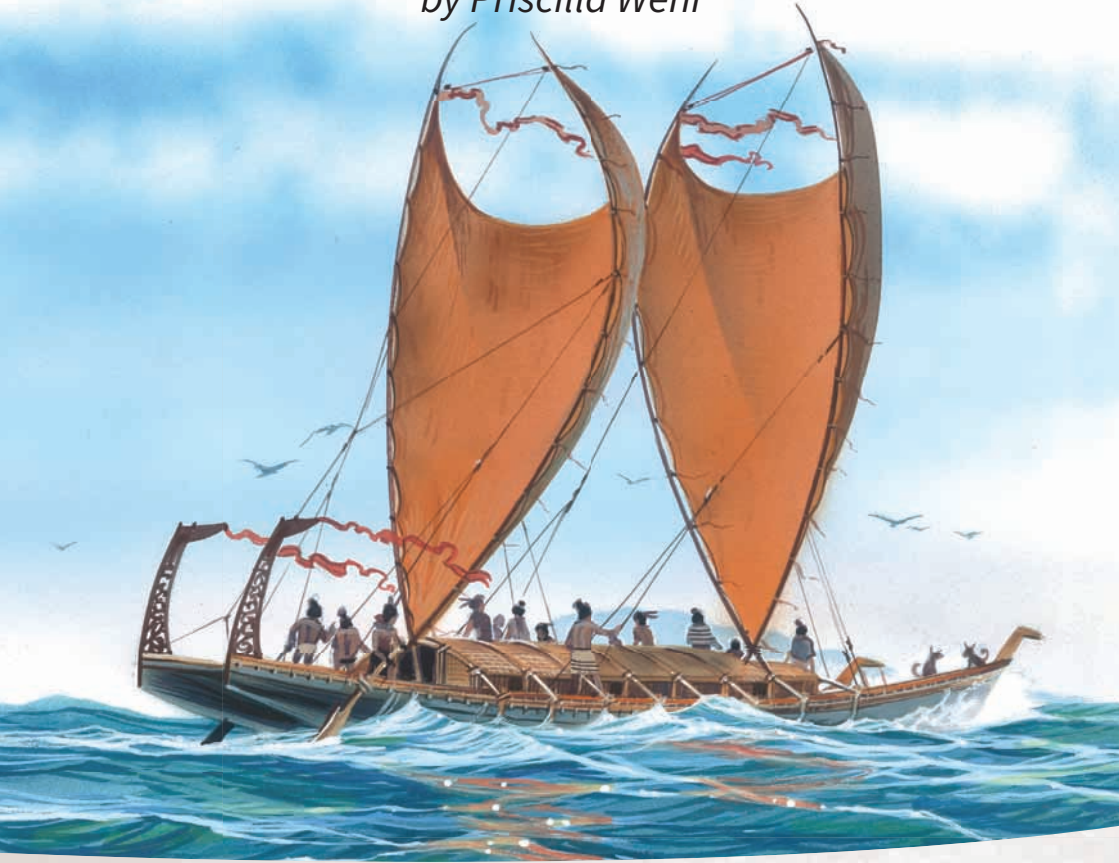
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Kuri

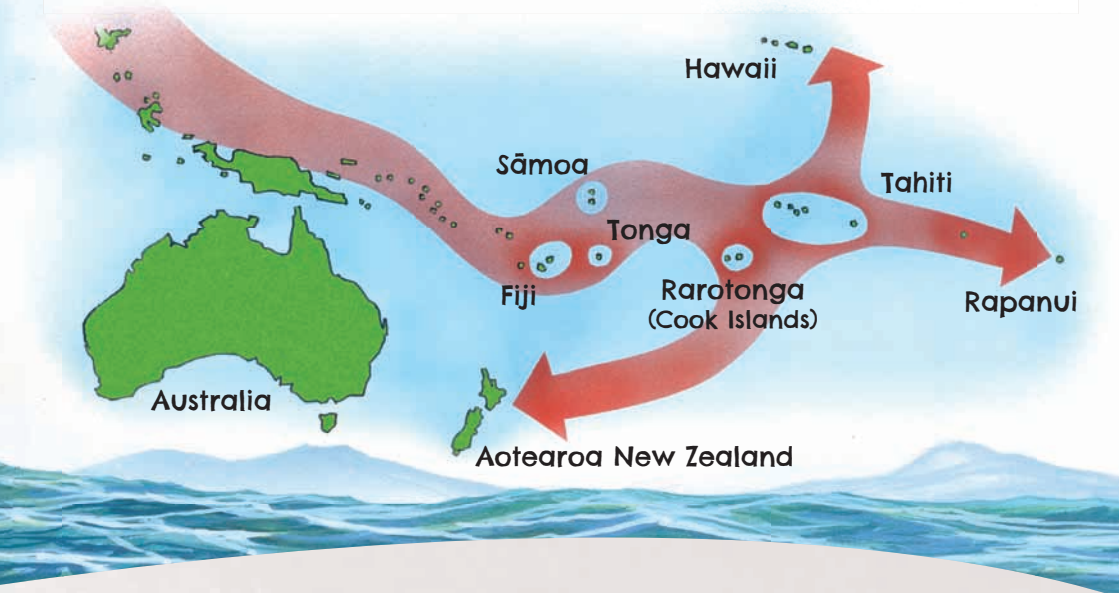
by Priscilla Wehi



Over two thousand years ago, the early Polynesians began sailing across the Pacific Ocean looking for new lands. Their journeys were long and difficult, and they didn't know how long they might be travelling. But these groups of people were not always alone in their waka. Sometimes Polynesian dogs (kuri) were on the waka, too. These dogs were well loved and cared for by their owners.

How Did Kuri Come to Aotearoa?

In Hawaii, the Cook Islands, and Aotearoa New Zealand, people have found dog bones that are hundreds or even thousands of years old. Scientists have studied these bones. They have worked out that the bones came from dogs that were all related to one another. Scientists agree that the ancestors of kuri probably came from east Asia and travelled from island to island with their owners.

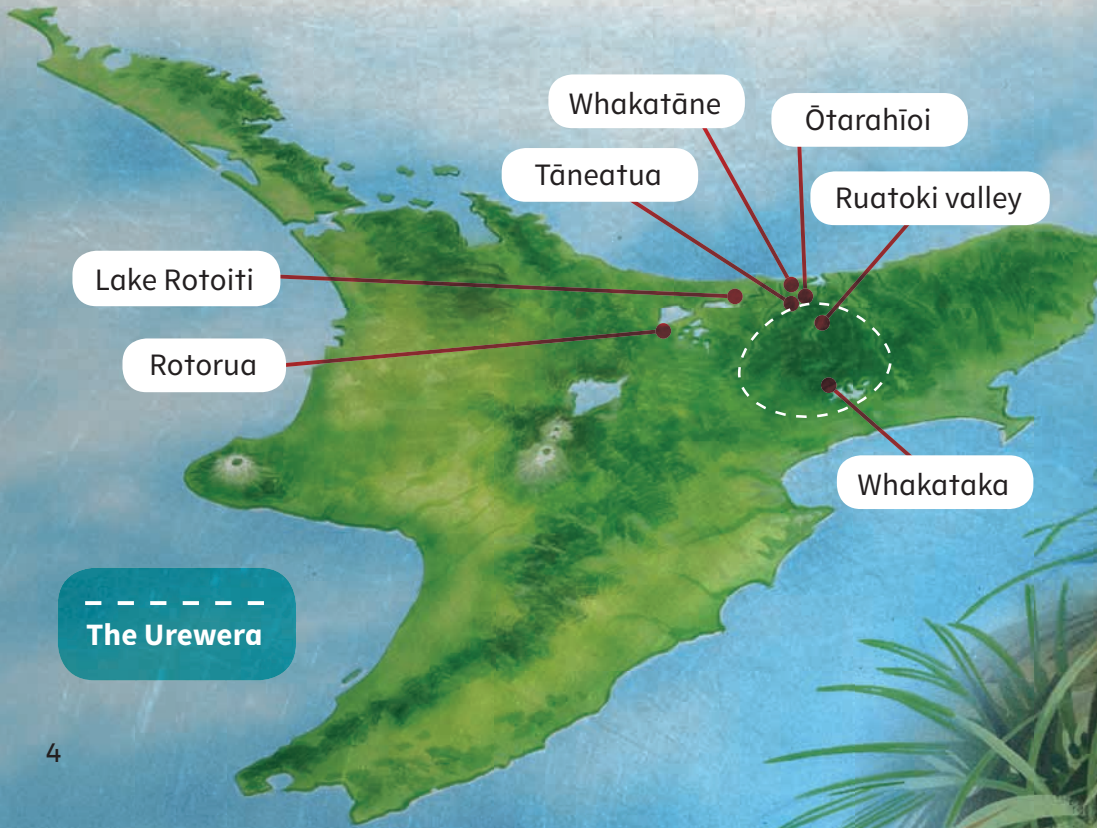


Kuri arrived in Aotearoa New Zealand with the early Polynesian voyagers. Scientists think that the dogs were brought here because people knew kuri would help them to stay alive in the new land. Dogs were good hunters – they could help find and catch birds like kiwi – and they could also be eaten if their owner was starving. Kuri were good companions as well, and sometimes, chiefs kept them as pets. All iwi of Aotearoa have interesting stories about their kuri.

Two Explorers and Their Kuri

Tāneatua was a well-known explorer. Stories passed down by Māori tell us that he was in charge of kuri on *Mataatua*, the waka that landed at Whakatāne. When Tāneatua arrived in Aotearoa, he began exploring the forests and hills of the Urewera. He took his kuri with him.

Tāneatua and his dogs are famous in the Urewera and eastern Bay of Plenty. There is a small town named after him, and there are many place names that tell the story of his journey. The stories say that Tāneatua lost some of his dogs. When he started off, he left one of his kuri behind – people say the dog is still there, in the shape of a hill called Ōtarahīoi. (The hill is also known as Te Kuri-a-Tāneatua.)



Tāneatua left another of his dogs in the Ruatoki valley. That dog was called Ōkiwa. The very cold, misty wind that blows down the valley is called “the breath of Ōkiwa”. Another of his dogs died, so he threw its body off a cliff. The place where this happened is called Whakataka (which means “to throw off”).

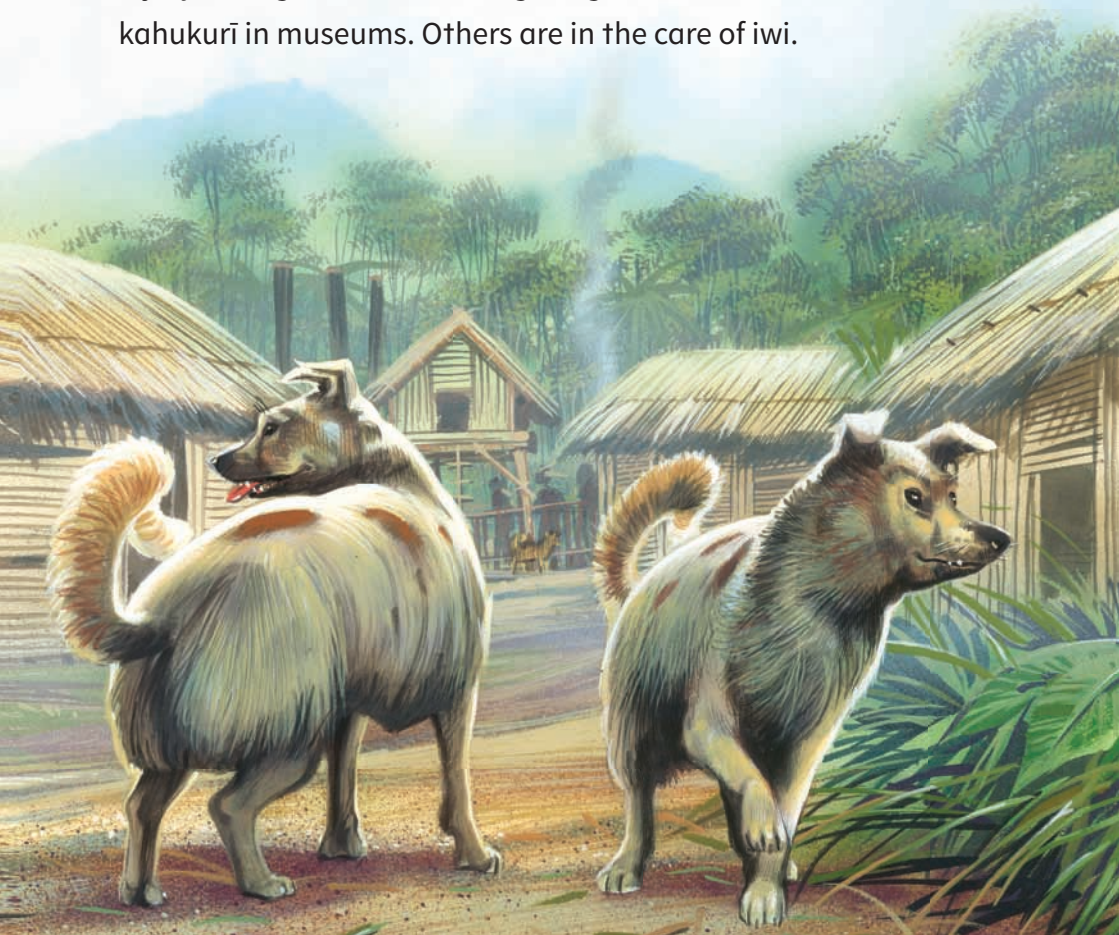
Īhenga was another great explorer who always had a dog by his side. He was one of the first people to live in the Rotorua district. Īhenga found Te Rotoiti-kite-a-Īhenga (the small lake found by Īhenga) when his dog Pōtakatawhiti ran ahead to look for food. It came back with a wet coat and some fish in its mouth, so Īhenga knew that there was a lake nearby.



What Were Kurī Like?

When Captain Cook arrived in Aotearoa New Zealand, artists on his ship painted what they saw. Some of their pictures show kurī sitting on waka with Māori. This is one of the ways we know what kurī looked like.

Kurī were small dogs with long hair, pointed ears, and strong jaws. The hair on their tails was very long. People often shaved off this hair and used it to make cloaks or kahukurī. Sometimes they also used the skins of kurī to make cloaks. These cloaks were very thick and strong and would help to protect the wearer from injury during hand-to-hand fighting. You can see some of these kahukurī in museums. Others are in the care of iwi.



Te Urewera Cloak

This kurī cloak belongs to Te Urewera hapū that came from Ruatāhuna to Ruatoki. It has been handed down through many generations. The hair came from the dogs of an important chief. The cloak is worn on special occasions, for example, it was worn by Tūhoe chief negotiator Tamati Kruger at the signing of the Tūhoe Treaty settlement.



Why Did Kurī Disappear?

After Pākehā arrived in Aotearoa New Zealand, kurī disappeared. We don't know why this happened. One reason could be that kurī bred with the dogs that Pākehā **settlers** brought with them. Many of their puppies became wild. Farmers didn't like dogs running wild and attacking their sheep, so these dogs were often shot and killed.

It's also possible that kurī were dying out before Pākehā arrived. Kurī bones have been found in **middens**. People threw away the bones when they finished eating.

Some middens are many hundreds of years old. Other middens are newer – only two or three hundred years old. The bones found in the older middens were mostly the bones from young dogs. In the newer middens, the bones were mostly of adult dogs. This tells us that by the time Pākehā arrived, there may not have been many young dogs left.

Looking for an Answer

Scientists are trying to find out why kurī disappeared. It's possible to tell what the kurī were eating by studying the **chemicals** in their bones, teeth, and hair.

It's likely that kurī ate the same kinds of food as the people who looked after them. Kurī that lived a long time ago probably ate a lot of birds. Early on, there were still plenty of **moa**. Later, we think they ate more fish. When kurī ate lots of fish or lots of plants, it changed the chemicals in their hair and bones.

By studying kurī hair and bones, we can find out what they ate.



By putting together clues about what the dogs ate, and when people started eating them, we can find out more about kurī. We can also learn more about what people ate and where their food came from. These things help us to understand how traditional Māori **society** was changing over time.



Glossary

chemicals: solids, liquids, or gases that make up the world (in fact, anything we can touch is made of different chemicals – even us)

moa: a large, flightless bird that is no longer living

middens: very old rubbish dumps, mainly containing shells and bones, in places where people used to live

natural resources: things a country has that people can use, such as land, water, forests, fish, and coal

settlers: people who come to live in a country

society: a group of people living together

“Kuri”: About the Author

Dr Priscilla Wehi is a scientist with Manaaki Whenua (Landcare Research). The company works for the government to protect the environment and to make sure our **natural resources** are used wisely. Dr Wehi is studying the way Māori have used and looked after the environment over time. She is hoping that what she learns can be used to help look after our environment today and in the future.



THE SONS OF MA'AFU

a traditional story from Tonga, retold by Feana Tu'akoi



Long ago, there lived a great Tongan chief named Ma'afu. He had two sons named Ma'afutoka and Ma'afulele. They grew up to be handsome and strong, but they were always getting into trouble.

The brothers loved to practise throwing their spears but were never careful about where they threw them. Sometimes their spears landed close to people and frightened them. Sometimes they hit fale and made holes in the walls. And once, a spear hit a man's leg and broke it. The man could never walk properly after that.

The people were very angry about the boys' behaviour, but Ma'afu loved his sons, and he made excuses for them. Then the boys started using *him* for target practice.

“You boys have no respect!” the people cried. “You’re throwing spears at your father!”

The brothers were shocked. “We weren’t trying to hit him!” they said. “We were trying to land the spears as close as we could *without* hitting him!”

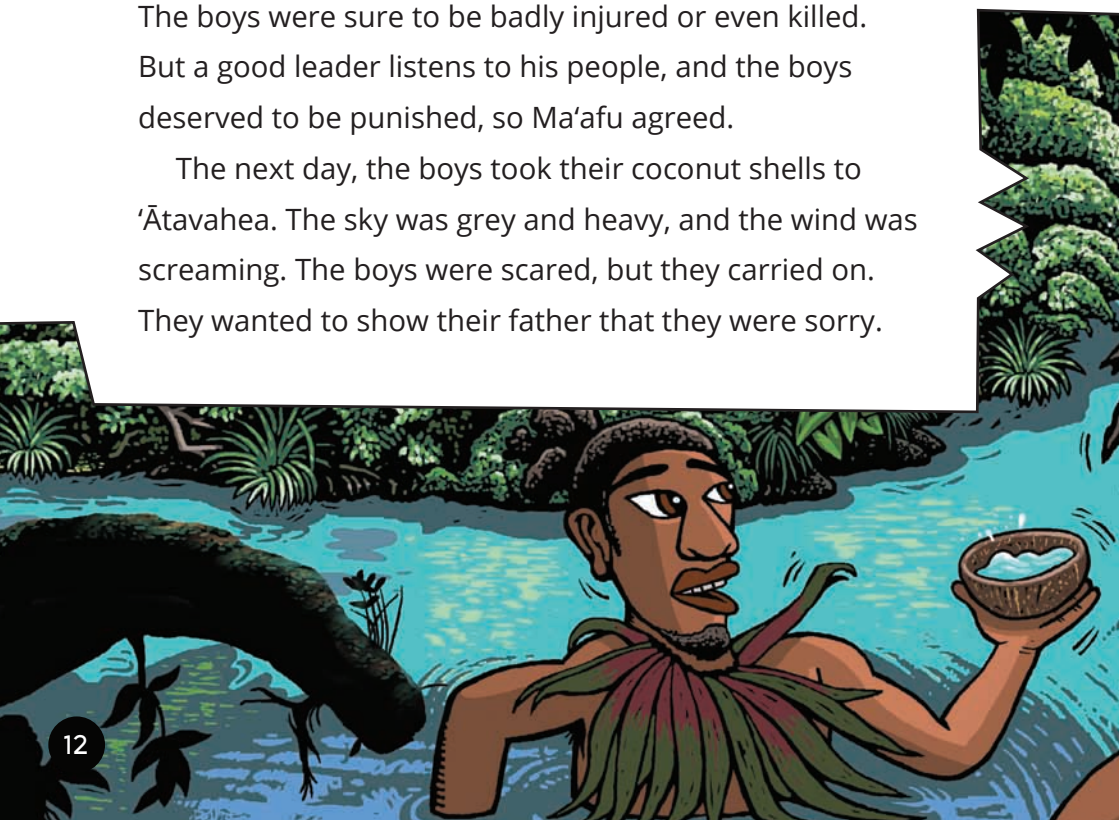
“But what if you missed?” the people cried. “You could have killed our chief!”

The boys hadn’t thought of that. They were very sorry, but it was too late. The people decided they’d had enough.

“Send them to get water from ‘Ātavahea!” the people shouted. “That should teach them a lesson.”

Ma’afu didn’t want to send his sons there. He knew that a fierce, giant duck lived in the waterhole at ‘Ātavahea. The boys were sure to be badly injured or even killed. But a good leader listens to his people, and the boys deserved to be punished, so Ma’afu agreed.

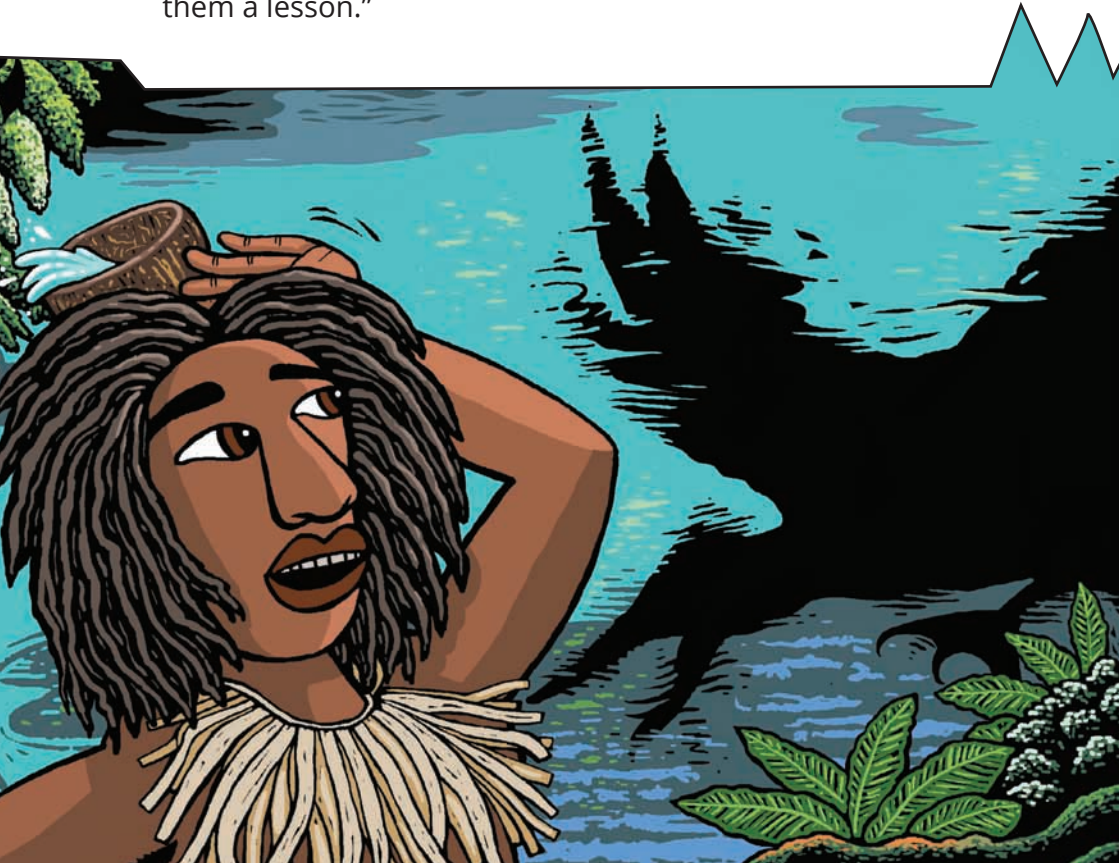
The next day, the boys took their coconut shells to ‘Ātavahea. The sky was grey and heavy, and the wind was screaming. The boys were scared, but they carried on. They wanted to show their father that they were sorry.



As soon as the brothers got to the waterhole, the huge duck attacked. It battered them with its wings and tore at them with its huge beak. The boys fought with all their might, and finally, they overpowered the bird. They filled their coconut shells with water and started back to the village, taking the duck with them.

“This will show Ma’afu that we’re sorry,” they said, grinning to each other. “We can cook the duck in the ‘umu. There’ll be enough meat for the whole village.”

But the villagers weren’t happy. “Look at them grinning!” they cried. “They’re not even sorry. Send them to Muihātafa to get water from the bottom of the pool. That will teach them a lesson.”



Ma'afu shook his head. He knew that there was a vicious triggerfish at the waterhole. His boys wouldn't stand a chance. But he had to listen to his people, and the boys didn't look sorry, so he agreed.

When they got to Muihātafa, everything looked peaceful. The air was still. There were no insects screeching and no birds singing. It was way too quiet. The boys were terrified.

"Let's just fill our coconut shells from the edge of the waterhole," said Ma'afutoka. "The people will never know."

Ma'afulele shook his head. "We have to show we're really sorry," he said. "We have to get water from the bottom of the pool."

As soon as the boys dived into the waterhole, an enormous triggerfish rushed towards them, snapping its giant jaws. The boys fought as hard as they could, but they were running out of air. Just as they thought they might drown, Ma'afutoka thrust his arm through the fish's gills. After a few moments, the triggerfish stopped moving. The boys filled their coconut shells from the bottom of the pool, heaved the fish onto their backs, and headed back to the village.

The people weren't happy to see the boys again. They were scared. "Those boys have killed the two most dangerous creatures on the island," they cried. "We're not safe when they're around!"







Ma'afu tried to change their minds, but the people had spoken. "You'll have to move away," the chief told his sons sadly. "I'll give you a plantation each, on the other side of the island."

The boys hated to see their father so unhappy, but they didn't want to leave him.

"No," they said. "We'll move far away so that the villagers can feel safe. But it has to be a place where we can always see each other."

Ma'afu hugged his sons proudly. Then the boys took their duck and their fish and went to live in the sky.



illustrations by Fraser Williamson

On clear nights, we can still see the boys. They form two bright patches near the Milky Way that we call the Magellanic Clouds **1**. We can also see the triggerfish (Humu) and the duck (Toloa). Humu is a dark patch known as the Coal Sack **2**. We know Toloa as the Southern Cross **3**. Traditional navigators used the Magellanic Clouds to find north, and they used the Southern Cross to find south.

A Work of Art

by Simon Cooke



SAM



MIA



KAHU



EMMA



JENNY

(holiday programme supervisor)



ARTIST

Scene: *The local park. **SAM**, **EMMA**, **MIA**, and **KAHU** sit on a bench surrounded by rubbish. **JENNY** is busy texting. Just in front of the bench, there is a sign covered by a piece of newspaper.*

MIA. What a mess!

KAHU. Who dumped this rubbish in our park?

EMMA. Some people had a party here yesterday – they must have done it.

SAM. Dad said the party was something do with a famous artist.

MIA (*pointing*). Look over there. People are taking photos of all the rubbish, but no one's picking it up.

JENNY (*finishing her text*). That's where we come in, team. Does anyone know what today is?

KAHU. Friday.

JENNY. Apart from Friday.

SAM. Fish-and-chip day. At home, we always have fish and chips for dinner on Friday.

JENNY. Apart from it being Friday and fish-and-chip day?

EMMA. No idea.

JENNY. It's Environment Day. And we're going to take care of our environment.

MIA. She means we're going to pick up rubbish.

KAHU. Pick up rubbish? I'm supposed to be on holiday!

JENNY. It's important to look after our environment. Imagine if no one picked up their rubbish.

MIA. There'd be mountains of it.

EMMA. It would block roads.

SAM. It would cover houses.

KAHU. It would look like Sam's bedroom!

JENNY (*handing out gloves and sacks*). Exactly. So keeping our community tidy is very important.

JENNY. Right, I need to send a few important texts, so you start without me.

*She sits on the bench and starts texting.
The others start picking up the rubbish.*

KAHU. This might not be so bad. We might even end up on TV – reporters like stories about kids doing good stuff.

SAM. TV? You wish!

They carry on picking up rubbish until their sacks are full. No one notices the piece of newspaper covering the sign.

EMMA. We've finished.

SAM. I'm exhausted.

MIA. But look at our park – it's spotless!

JENNY (*looking up from her phone and pointing to the piece of newspaper covering the sign*). Good work, team, but you've missed a bit.

KAHU (*picking up the newspaper and looking at the sign*). This sign says there's installation art somewhere in our park. What's installation art, Jenny?

JENNY. No idea. I'll look on the Internet. (*She taps her phone a few times.*) It says that installation art is a three-dimensional artwork that transforms or changes the space it's in.

EMMA. Space ... like a park?

JENNY (*shrugs*). I guess.

Everyone looks around, trying to spot the artwork.

EMMA. I don't see anything.

KAHU. Looks like the same old park to me.

MIA. Same swings and climbing frames.

SAM. Same roundabout and seesaw.

JENNY (*reading the sign*). It must be here somewhere.

The sign says the installation shows what happens to communities when people don't help each other.

Everything falls into chaos.

SAM. What's chaos?

JENNY. A big mess.

KAHU. Like your bedroom, Sam.

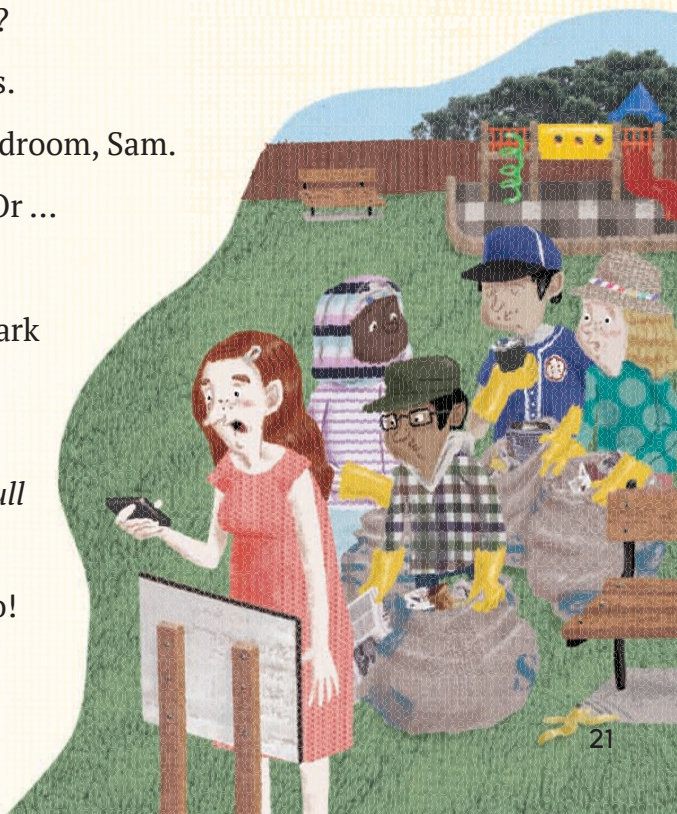
JENNY (*worried*). Or ...

MIA. Or ...?

JENNY. Or like a park full of rubbish.

They all look at their sacks full of rubbish.

EVERYONE. Oh no!





The **ARTIST** enters and walks around.

ARTIST (*confused*). Where's it gone? Where's my installation?

JENNY. Um ... about that.

ARTIST (*sitting down on the park bench and holding his head in his hands*). It took me all yesterday afternoon to install. I've got a TV interview in a few minutes, and now I have nothing to show them. This is a disaster!

SAM (*apologetically*). We cleaned it up.

JENNY. We didn't see the sign until it was too late.

ARTIST (*looking thoughtful*). You cleaned it up?

KAHU. We didn't realise it was art.

EMMA. We thought it was rubbish.

MIA. It's all here in our sacks.

SAM. We can help you put it back.

JENNY. I'm sorry. It's my fault. I should have noticed.

ARTIST (*starting to smile*). Don't be sorry. I made the artwork because I was afraid people had stopped caring about their community.

JENNY. So you're not going to tell anyone what we did?

ARTIST. I'm going to tell the TV people.

JENNY. Oh no, please ...

ARTIST. But not because I'm angry. You haven't ruined my installation. You've made it better. Your sacks of rubbish are the new installation – they represent hope for the future. It's easy to see that you all care about the environment.

KAHU. You haven't seen Sam's bedroom. It's a rubbish dump!

SAM. It's not a rubbish dump.

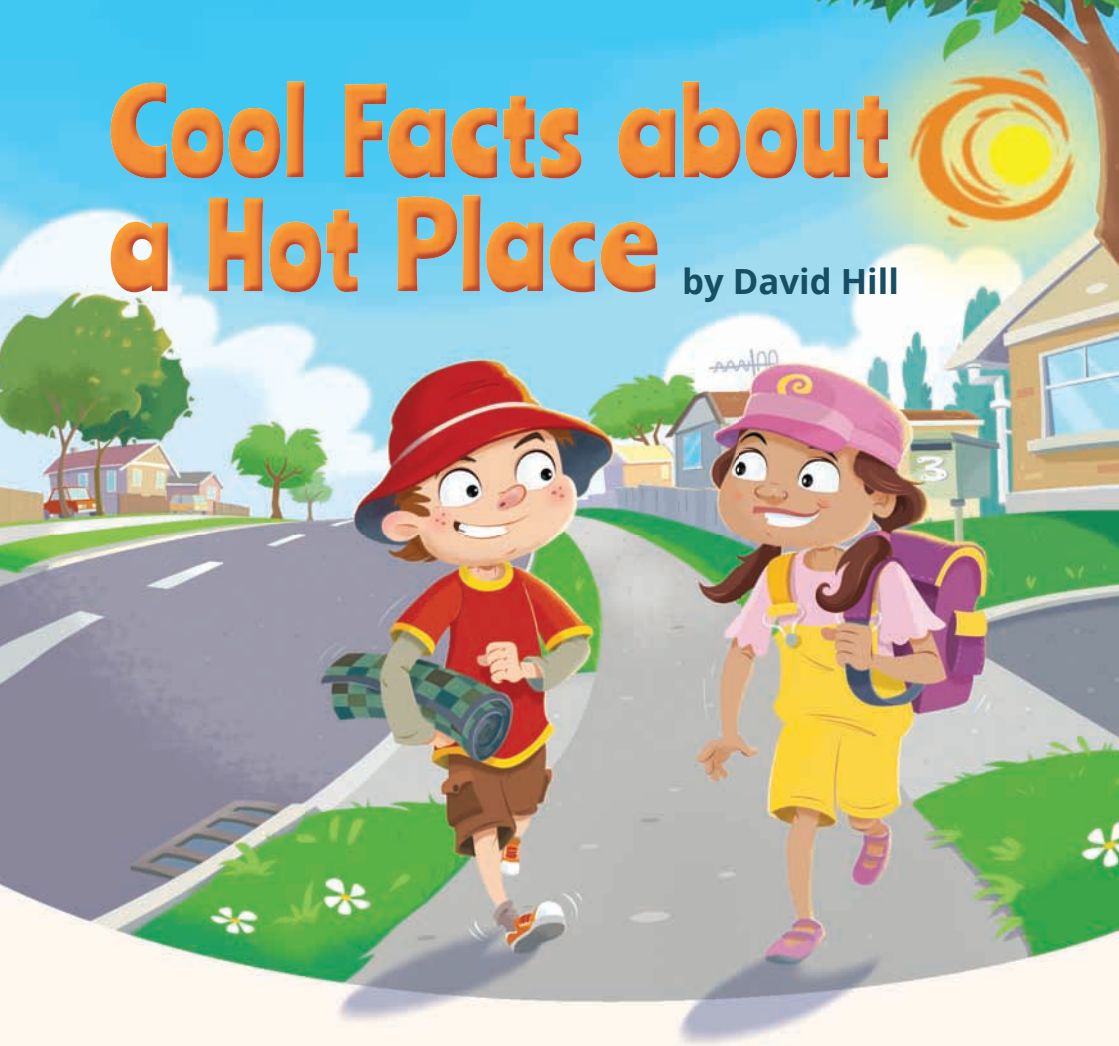
KAHU. Then what is it?

SAM (*grinning*). It's a work of art!



Cool Facts about a Hot Place

by David Hill



We see the sun every day, except when the sky is cloudy. We're so used to it that it might seem pretty ordinary. But really, the sun's very special. Here's why.

It's big!

The sun is a **million** times bigger than Earth. If you dropped one Earth into the sun every second, it would take nearly twelve days to fill it.

It's a star!

Not a movie star – a real star. The sun is a huge ball of white-hot gas, just like the other stars you see at night. It looks different from them because it's so much closer.

The nearest star to us after the sun is one of the two Pointers, which are near the **Southern Cross**. This star is called Alpha Centauri*, and it's more than (are you ready?) 250,000 times further away from us than the sun. If the sun were that far away, it would look like an ordinary star, too. And it wouldn't be hot enough to warm Earth, so there would be no life on our planet.

* Although Alpha Centauri looks like one star, it's really a system of three stars. We can see these stars by looking through a strong telescope.

Alpha Centauri is the bright star just above the tree.





It keeps us alive!

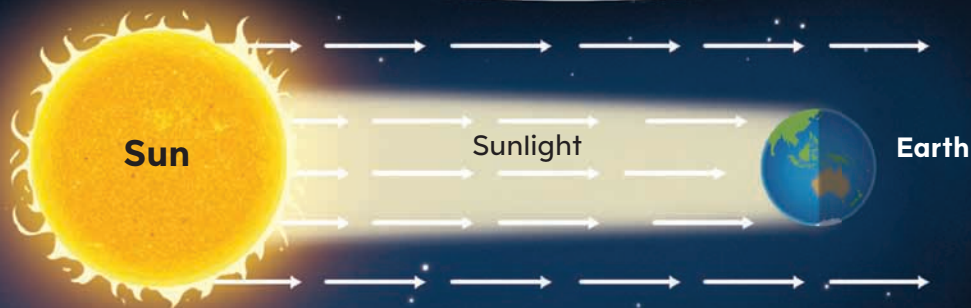
All the plants on Earth grow because they get light and heat from the sun. Light and heat give plants energy to make food and grow. If the Earth had no plants, we'd soon have nothing to eat.

Could we eat meat instead? No. Animals like sheep and cows would have no grass to eat, so they would die. And many fish eat tiny plants that live in the sea. They would also die if those plants didn't get sunlight.

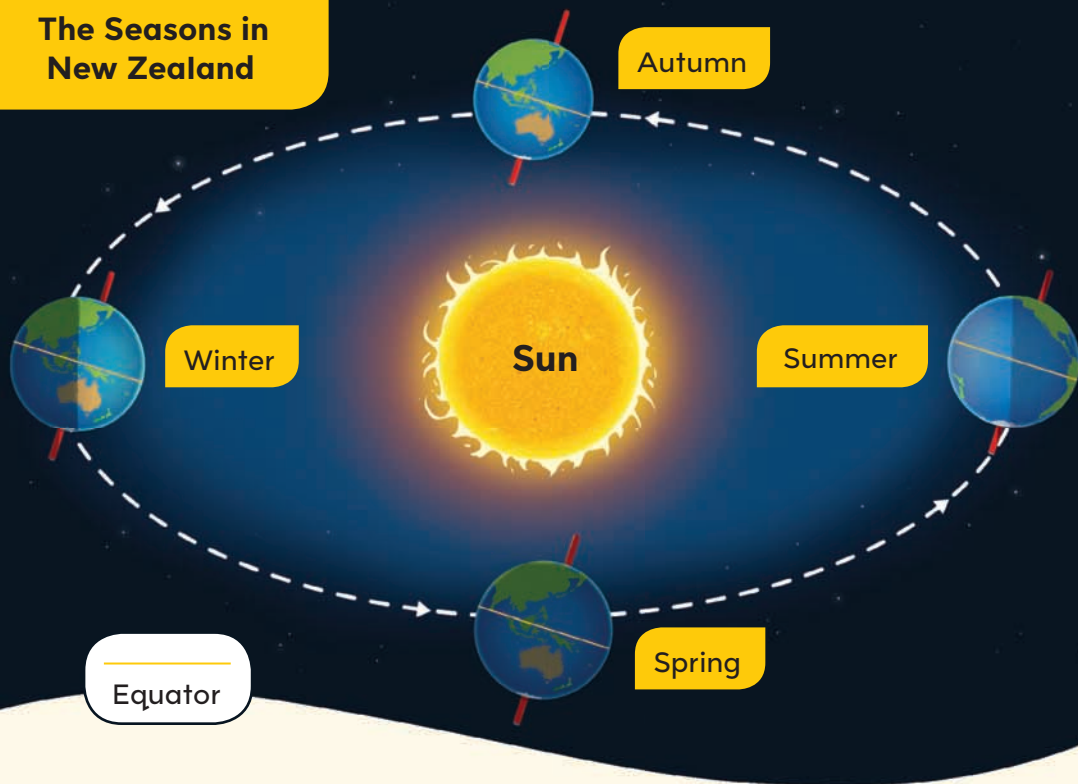
It brings day and night!

The sun seems to rise in the east, cross the sky, and set in the west. But it's not the sun that's moving. It's Earth that's turning. Like a huge, spinning ball, Earth turns around once every twenty-four hours. That's one day.

When the sun is on the other side of Earth from us, there's no light, so it's night where we live. Meanwhile, it's daytime on the far side of our planet, for places such as Europe and Africa.



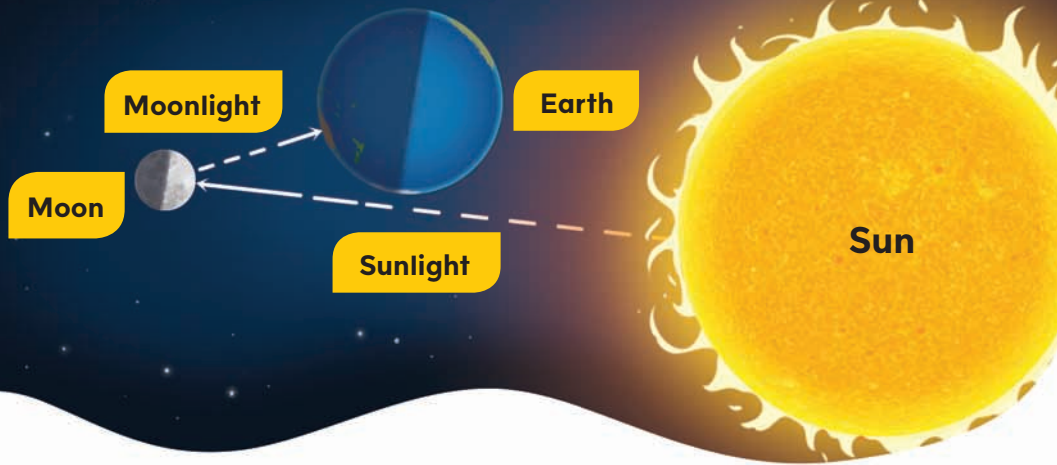
The Seasons in New Zealand



It brings summer and winter!

As well as turning, Earth also travels around the sun. This journey takes 365 days (365 days, 6 hours, and 14 minutes, if you want to be *really* fussy). That's one year.

As it travels, Earth tilts slightly. This means that for half the year, the sun appears higher in the sky and the sun's rays are stronger in the Southern Hemisphere (the "bottom" half of our planet). This is when New Zealand has its longer, warmer days. For the other half of the year, the Northern Hemisphere has longer, warmer days and we have shorter, cooler ones.



It makes the moon shine!

The moon doesn't shine by itself. The moon's surface reflects light from the sun. That's what makes it seem to shine.

We can't always see all of the moon's surface that is reflecting the sun's light. Sometimes we only see part of it. As a result, every month the moon seems to change shape from a new moon to a full moon and back again.

It's small!

OK, the sun is huge compared with Earth. But some stars are much bigger than our sun. Some are more than 1,000 times bigger. If you put one of those stars where our sun is, its surface would reach all the way to Earth. We'd be toast!



It's far away!

The sun is 150 million kilometres away, four hundred times further than the moon. If you rode a skateboard towards the sun at 100 kilometres an hour (that's a seriously fast skateboard), it would take you 170 years to get there.



It's old!

The sun has been shining for about 4.5 **billion** years. That's longer than Earth has existed. Scientists say it will probably keep shining for another 4.5 billion years. Then it will get much bigger for a few million years before slowly fading away.

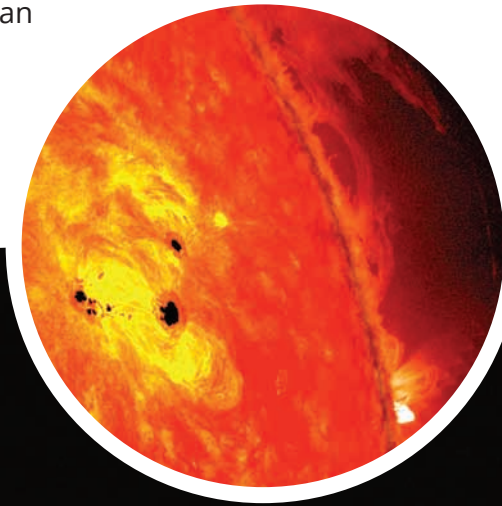
It's light!

An average handful of the Earth weighs three times as much as an average handful of the sun. That's because the sun is mostly blazing **hydrogen gas**. (WARNING: Do *not* pick up handfuls of the sun without very thick gloves!)

It's hot!

On the sun's surface, the temperature is almost 6,000 degrees Celsius. That's hot enough to melt steel. In the middle of the sun (called the core), the temperature is 15 *million* degrees. That's hot enough to turn steel into a puff of smoke.

Sunspots – the dark patches you can see in some photos of the sun – are only 4,500 degrees. They're caused by huge magnetic storms on the surface of the sun.



It's very special!

We have life on Earth because we have just the right sort of star at just the right distance. Some stars are too hot to have life on their planets. Some are too cool. Some stars have no planets at all.

So next time you see the sun, maybe you should say "thank you".



illustrations by Scott Pearson

Glossary

billion: one thousand times one million (or 1,000,000,000)

hydrogen gas: a gas that burns very hot and very easily

million: one thousand times one thousand (or 1,000,000)

Southern Cross: a group of bright stars shaped like a cross (The stars of the Southern Cross are part of the current New Zealand flag.)

My "What If" Planet

On clear nights, I stare at the stars.
My Space Facts book says they are suns,
some a thousand times bigger than ours,
some with planets orbiting them.

And what if one of those planets is
just the right distance from its sun?
Not too cold and not too hot,
its surface might be fine to live on.

It could be springy, so things bounce
and hover – shimmering – everywhere.
Feathery things might flick and pounce
as if to catch and eat the air.

Water could float in silent bubbles.
Those purple wobbles might be trees –
or maybe groves of giant eyeballs
staring back at our sun ... and me!

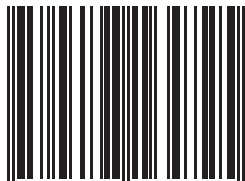
James Brown ★



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	TSM	Audio
Kurī	✓	✓
Cool Facts about a Hot Place	✓	
The Sons of Ma'afu	✓	✓



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