Junior Journal 54

The New Zealand Curriculum
LEVEL 2

Published 2017 by the Ministry of Education,
PO Box 1666, Wellington 6140, New Zealand.
www.education.govt.nz

Publishing services: Lift Education E Tū

ISBN 978 0 478 16859 4 (print)
ISBN 978 0 478 16866 2 (online PDF)
ISSN 0112 5745

Replacement copies may be ordered from Ministry of Education Customer Services,
online at www.thechair.minedu.govt.nz
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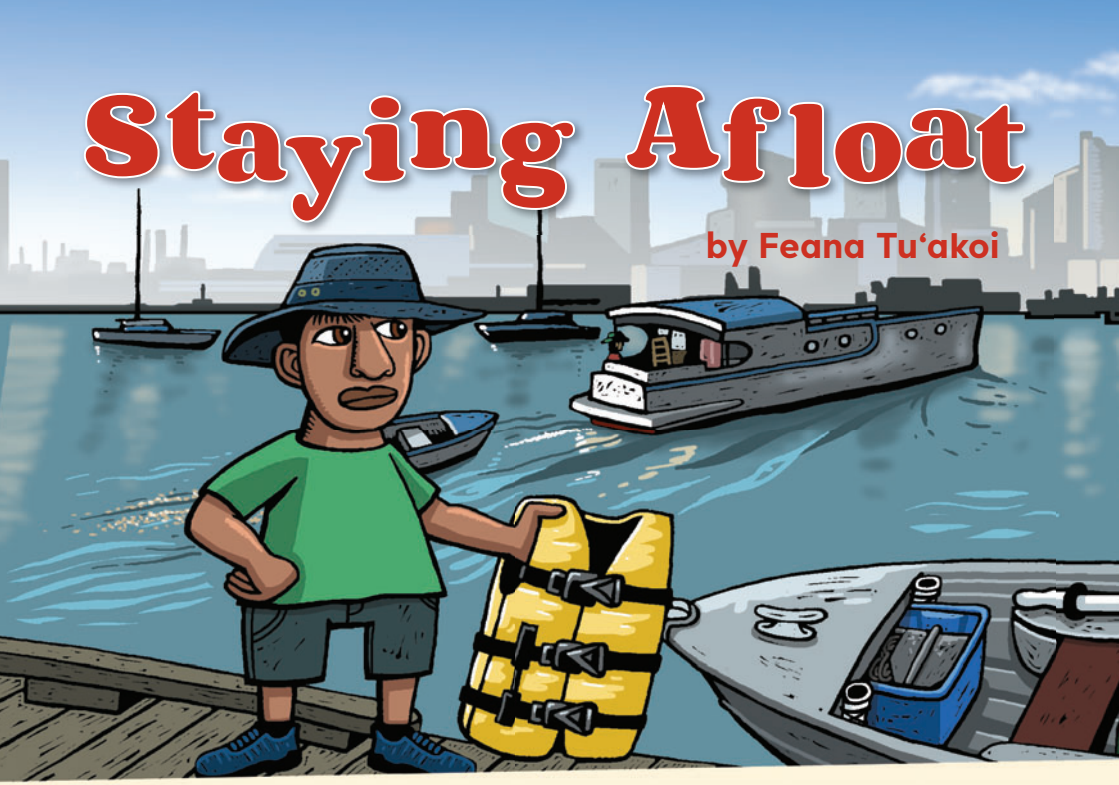
Staying Afloat

by Feana Tu'akoi



"Are you two ready yet?" called Grandad as he put the last of the gear into the boat.

Vika gave Kele a smug look. "*I'm* ready, Grandad," she said, "but Kele hasn't got his life jacket on."

Kele glared at her. "I don't need one. I can swim!"

"You can swim in the swimming pool," scoffed Vika. "It's not the same as swimming in the sea."

Grandad joined in. "The sea's a bit deeper than the swimming pool," he said. "Vika's right. Put your life jacket on."

Kele made a face. "We're not going *in* the sea," he said. "We're going in a boat *on* the sea."

"Sorry, buddy," said Grandad. "When I'm the captain, everyone has to wear a life jacket."

Kele shoved his arms into the life jacket and did it up. Then he climbed into the boat. "I bet you didn't wear one when you were a kid in Tonga," he grumbled.

"Wrong!" laughed Grandad as he started the motor. "I did wear one – and I wasn't in deep water or even on a boat. I *walked* into the water to catch fish."

Vika thought for a moment. "I don't get it," she said. "Fish won't stay still while you walk up to them."

"It wasn't just me," he said. "All the men in the village helped. We used a kupenga – a long fishing net."

Grandad grinned and steered the boat into deeper water. After a while, he checked his GPS and then turned off the motor. "This is it!" he said. "My secret fishing spot!" He lowered the anchor over the side and handed out the rods.

"I still don't get it," said Vika. "How did you catch fish with the kupenga?"

"We dragged it out into the sea and made a huge circle in the water," Grandad said. "Then we walked towards the shore. Lots of fish were trapped inside the circle. When we got the kupenga into shallow water, we could catch the fish easily."

He smiled as he chopped up the bait. "We got enough fish to feed the whole village!" he said.

"Awesome!" said Kele. He pushed some bait onto his hook. Then he looked up. "You wore a life jacket for *that*?" he said, shaking his head. "Everyone would have laughed at you."

"Wrong again," said Grandad. He cast his line out into the sea. "I was a kid, so I had to stay in the shallow water, but my cousin Saia was in the water up to his chest. He was the biggest, strongest man in the village, but he got washed off his feet and swept away."

Kele's eyes grew wide. "What happened to him? Couldn't he swim?" he asked.

"He could swim all right," said Grandad. "But the wave was huge, and he didn't see it coming. He swallowed lots of water. We thought he was going to drown, for sure."

"Was he OK?" gasped Vika.

Grandad nodded. "He was lucky," he said. "Three of my uncles swam out and got him, but it was a close call."

"Woah!" said Kele. "And after that, you always wore a life jacket?"

Grandad nodded. "My auntie sent me one from New Zealand. I thought I was so flash – all the other kids wanted one as well!"

Kele puffed out his chest and struck a pose. "I'm flash, too," he said.

At that moment, Vika's fishing line went tight. "Not as flash as me!" she cried. She leaned back, winding her reel furiously. Her rod bent over and her face went scarlet, but finally, she pulled in the fish.

"A snapper!" said Grandad, as he unhooked it. "A big one too!"

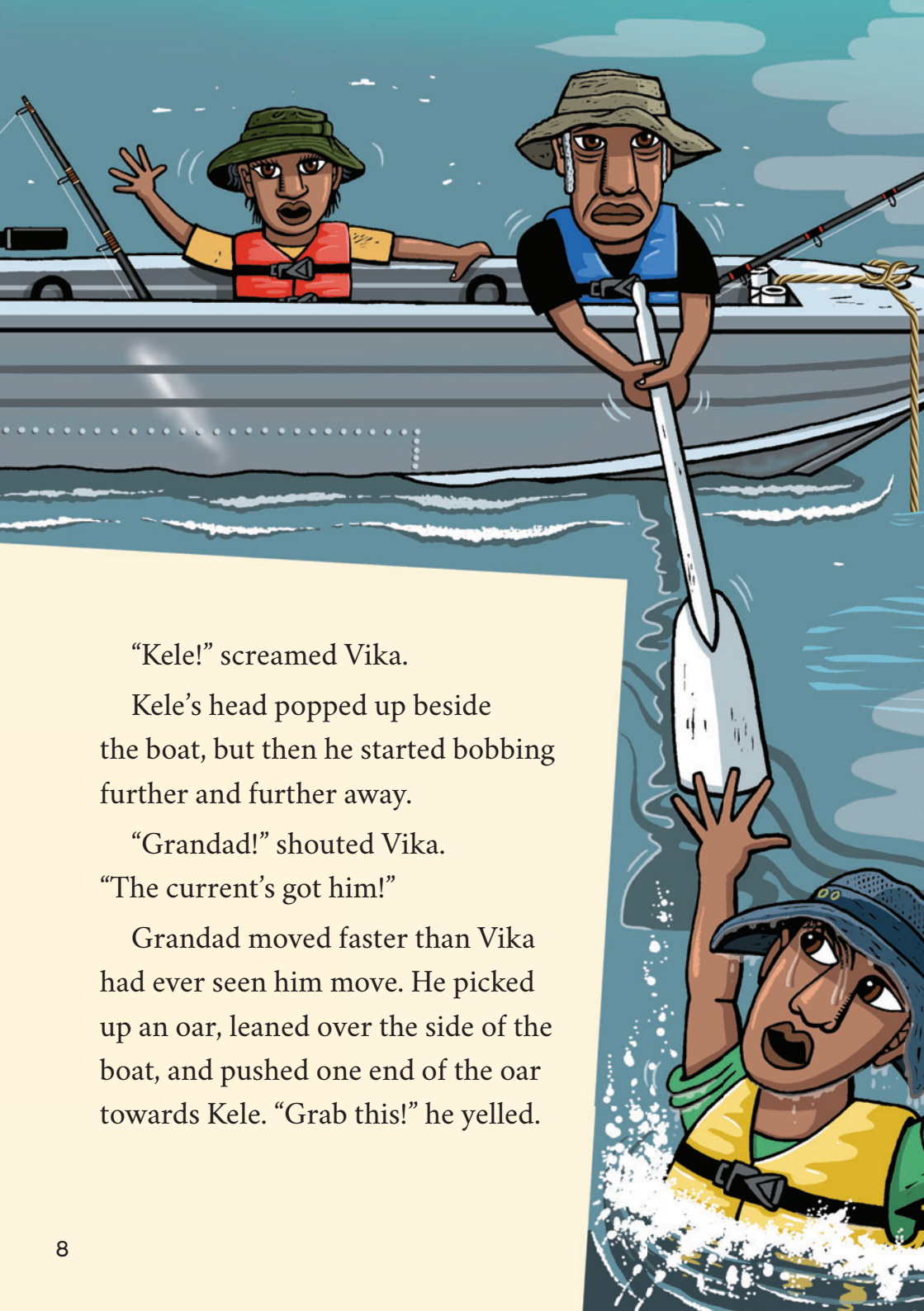
Vika let out a whoop. "Beat this, Kele!" she crowed. "I'm the best fisher in the family."

Kele scowled and looked down into the water, but no fish came. They were just about to pack up for the day when he finally felt a tug on his rod.

"I've got one!" Kele shouted, leaping to his feet and yanking the line.

"Sit down," warned Grandad, but it was too late. The boat rocked suddenly, and Kele toppled over the side.


SEA SAFE



"Kele!" screamed Vika.

Kele's head popped up beside the boat, but then he started bobbing further and further away.

"Grandad!" shouted Vika. "The current's got him!"

Grandad moved faster than Vika had ever seen him move. He picked up an oar, leaned over the side of the boat, and pushed one end of the oar towards Kele. "Grab this!" he yelled.

Kele stretched out an arm and caught hold of the oar. Then Grandad pulled him towards the boat. Once, Kele lost his grip and fell back into the water, but the life jacket stopped him from going under and he managed to catch hold of the oar again.

At last, Grandad grabbed Kele by the life jacket and heaved him back into the boat. Kele was coughing so much that he couldn't talk.

Grandad was breathing hard. "Lucky you were wearing that life jacket," he panted.

"I know," said Kele. Then, suddenly, he started grinning.

"What's so funny?" yelled Vika. "You nearly drowned!"

"Look!" said Kele. "There's my rod stuck under the seat. I've still got the fish, and I bet it's *way* bigger than yours, Vika!"

He reeled in the line until the fish flopped into the boat. Then he flung his arms into the air. "Now who's the best fisher in the family?" he laughed.

illustrations by
Fraser Williamson

Life Jackets

by Katy Jordan

A lot of people like to spend time on the water in boats, but every year, about twenty people drown in boating accidents in New Zealand. Many of these people might have been saved if they had been wearing life jackets.

The history of life jackets

For thousands of years, people have used things to help them float in water. Long ago, they filled animal skins with air to help them cross deep rivers. People also saw that wood floated, so if they held on to a piece of wood, they would float, too. Many sailors saved themselves by doing this when their ships sank. Then some sailors started wearing blocks of **cork** to help them keep safe if they fell into the sea.

Cork life jackets

In 1854, Captain John Ward invented a life jacket using small pieces of cork sewn together. The cork life jacket was good at keeping people afloat, but it was not very comfortable to wear. Also, cork is very hard, so people wearing cork life jackets sometimes broke bones when they fell or jumped into the sea.

A man wearing a cork life jacket

Cork

Cork is the very light bark from a type of oak tree. These days, it is most often used to put in the top of bottles or to make mats and floor tiles.

Kapok life jackets

To solve the problems with cork life jackets, people tried making life jackets filled with **kapok**.

Kapok

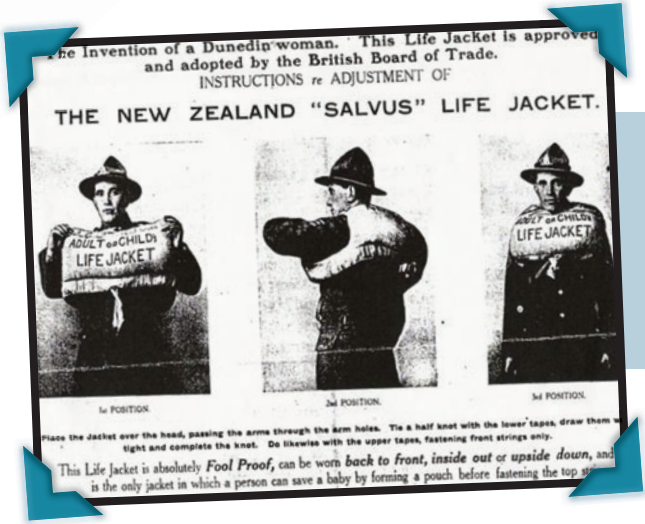
Kapok is a soft material from around the seeds of the kapok tree, which grows in tropical rainforests. Kapok is also used as a filling for things such as pillows, mattresses, and soft toys.

Kapok filling

One type of kapok life jacket was invented by a New Zealand woman, Orpheus Newman.

In 1912, Orpheus Newman's brother drowned at sea. The same year, over 1,500 people died when a huge passenger ship called *Titanic* sank. These two events made Orpheus want to invent a better life jacket.

In 1918, the British navy began using the life jacket that she invented, and it became popular around the world. However, if a kapok life jacket was in the water for a long time, the kapok could get wet and heavy.



An advertisement for the life jacket invented by Orpheus Newman

Orpheus Newman's great-granddaughter wearing one of her great-grandmother's life jackets

Inflatable life jackets

During the 1920s, an American named Peter Markus invented a better life jacket that could be inflated (puffed up with gas). Inflatable life jackets saved many lives during the Second World War.

New Zealand soldiers wearing inflatable life jackets

Synthetic foam life jackets

In the 1960s, people began using **synthetic foam** to make life jackets. These new life jackets were lighter, stronger, and more waterproof.

Synthetic foam

Synthetic foam is made using chemicals. ("Synthetic" means that it isn't found in nature.) Synthetic foam is often used for packaging. The foam is full of small bubbles of air, so it floats easily.

Modern life jackets

People have continued to find ways to improve life jackets and make them safer and more reliable. Today there are two main types of life jackets:

- inflatable life jackets
- life jackets made from synthetic foam.

Most modern life jackets are yellow or bright orange so they are easy to see in the water. They are much more comfortable than the older life jackets because they are made from very light materials. When you are wearing a modern life jacket, you can still move easily.

How a life jacket can save you

A life jacket:

- helps you float and keeps your head above the water
- helps keep you warm in cold water
- makes you easier to see.

Keeping safe in a life jacket

Life jackets aren't all the same size. You need one that fits well and won't come off. Life jackets for children have extra buckles and straps to make sure that they stay on.

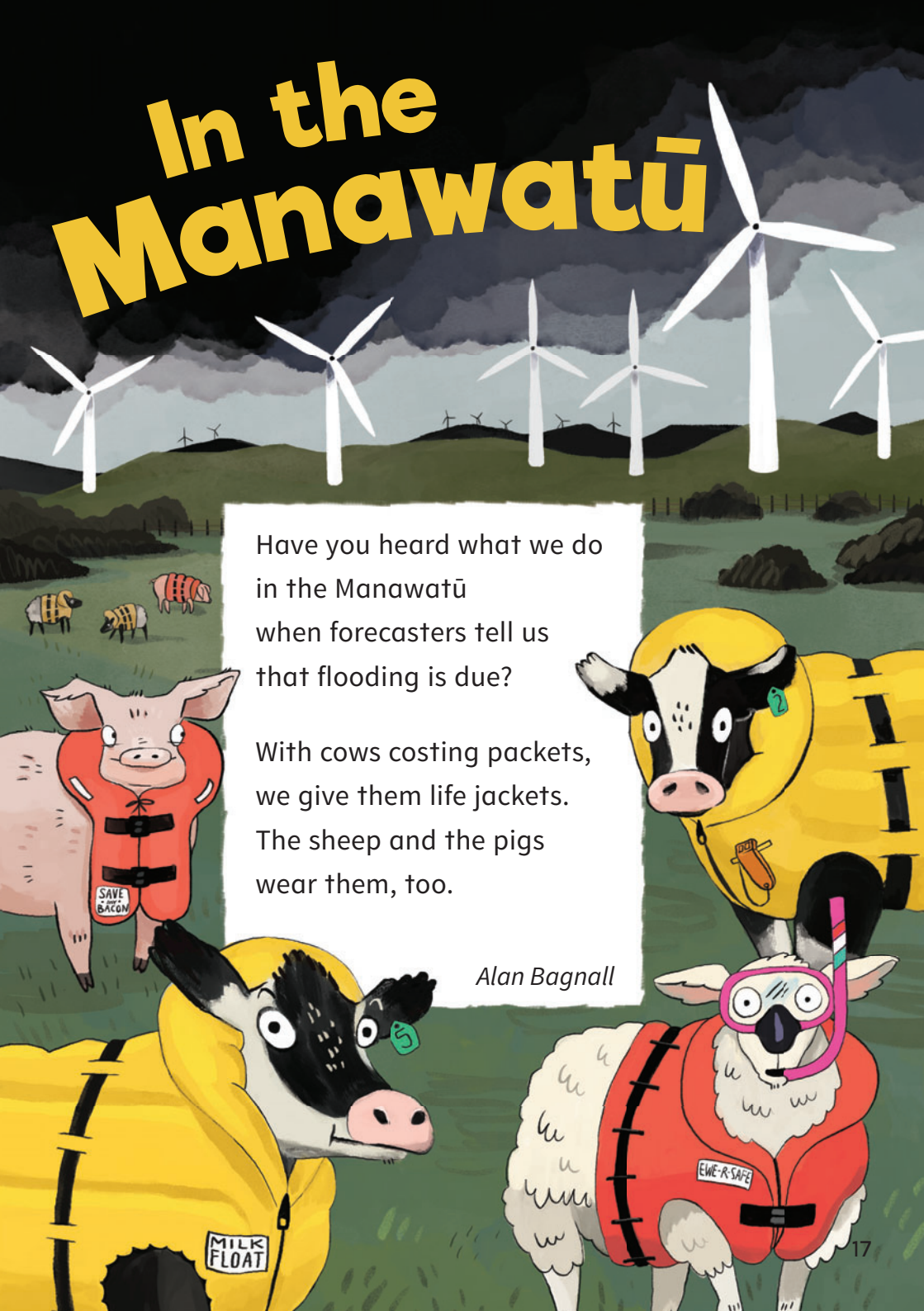
Some people think, "I'm OK because I have a life jacket on my boat. I'll put it on later if I need it." But most boat accidents happen suddenly. You can't grab a life jacket once you're in the water!

So remember, if you're on a boat, wear a life jacket at all times and make sure your friends and family do, too.

Life jackets for dogs

Some people like to take their pets with them when they go out on a boat. Although most dogs can swim well, they still get tired if they are in the water for a long time. Some shops sell special life jackets for dogs.

In the Manawatū



Have you heard what we do
in the Manawatū
when forecasters tell us
that flooding is due?

With cows costing packets,
we give them life jackets.
The sheep and the pigs
wear them, too.

Alan Bagnall

Fingerprints

by Iona McNaughton

Imagine that someone breaks into the school office and steals a laptop. What if no one sees it happen? How can the police find the thief?

Looking for evidence

The office is now a crime scene (a place where a crime has been committed). When police go to a crime scene, they look for evidence (clues that will help them solve the crime). That evidence might be footprints, hair, or something that the thief has dropped, or it might be fingerprints.

Julian Atkins is a fingerprint expert. He works for the New Zealand Police. Julian says that thieves often leave fingerprints behind. "When someone enters a building through a window, they might leave fingerprints around the window or on the glass. Sometimes they might touch a wall or a door and leave their fingerprints on those."

Julian Atkins

Ridges on a finger

What are fingerprints?

If you look very closely at the palms of your hands and the tips of your fingers, you will see a lot of very thin lines. These lines are called ridges. We all have a small amount of sweat and natural oil on our skin. Whenever we touch something with our fingers, the sweat and oil leaves impressions (marks showing the ridges). These impressions are called fingerprints.

Even though there are more than 7 billion people in the world, no two people have the same fingerprints. Not even twins! Every pattern of ridges on every finger and thumb is different.

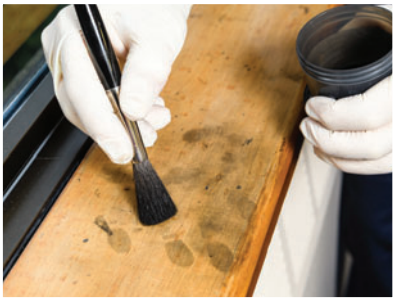
There is another amazing thing about fingerprints, too. The ridges are formed on your hands before you are born, and they never change. Whether you are seven, seventeen, or seventy-seven years old, your fingerprints stay the same.

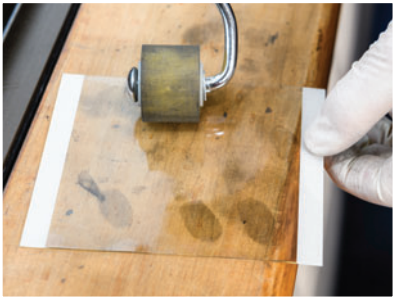
How do the police find fingerprints?

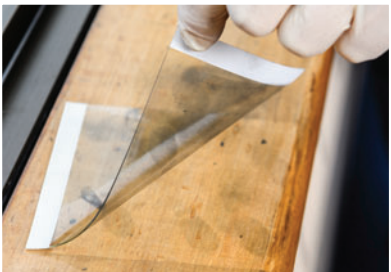
"Fingerprints can be hard to find," Julian says.

One way police find fingerprints is by using a very fine powder. They put the powder on surfaces at the crime scene with a special brush. The powder sticks to the sweat and oil that is left behind when someone touches a surface.

If they find a fingerprint, police cover it with a transparent (see-through) sticky sheet. When they lift off the sheet, it lifts the fingerprint too.







Matching a fingerprint

The police take a photograph of the fingerprint they have lifted from the crime scene. Then they scan the photograph and put it into a computer database. This database is a huge collection of fingerprints taken from people who have committed crimes.

The fingerprints in the database are sorted into groups, based on their patterns. The three most common patterns are loops, whorls, and arches. When Julian puts a fingerprint into the computer, the database searches for fingerprints that have a similar ridge pattern.

loop **whorl** **arch**

"The database might find twenty fingerprints that are almost the same as the one from the crime scene," Julian says. "This usually takes just a few minutes. Then it's my job to try to find an identical match – a fingerprint that's *exactly* the same."

Julian magnifies the fingerprint from the crime scene to make it bigger, and then he compares it with each similar fingerprint from the database. He compares every pattern and every ridge in those patterns. It's a long, careful job. If he finds a match, it has to be double-checked by another fingerprint officer. "We have to be certain there are no mistakes," he says.

Julian says he has studied "hundreds of thousands" of fingerprints. "If we can match fingerprints from the crime scene with the fingerprints of someone on our database, we can help solve the crime."

How to take a fingerprint

The easiest way to take your fingerprint is to use a stamp pad and a white sheet of paper. Press your finger on the stamp pad and then press it lightly on the paper. Lift your finger up without wiggling it.

You can also take a fingerprint the way that fingerprint experts do. You will need:

- a soft paintbrush
- some talcum powder
- some transparent sticky tape.

1. Rub your fingers over your scalp or skin to collect some sweat or oil.

2. Press your fingers lightly on a clean, dark surface and then gently lift them off again.

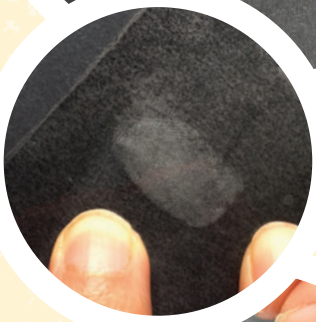
3. Put a small amount of talcum powder on the paintbrush.

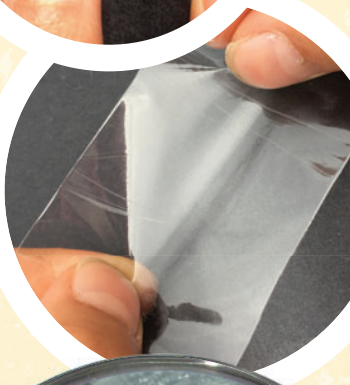
4. Brush it lightly over the surface until you see white fingerprint ridges appear.

5. Place the sticky tape over the white fingerprint ridges.

6. Carefully lift the tape (and fingerprint) off the surface.

7. Look through a magnifying glass at the evidence you have found.



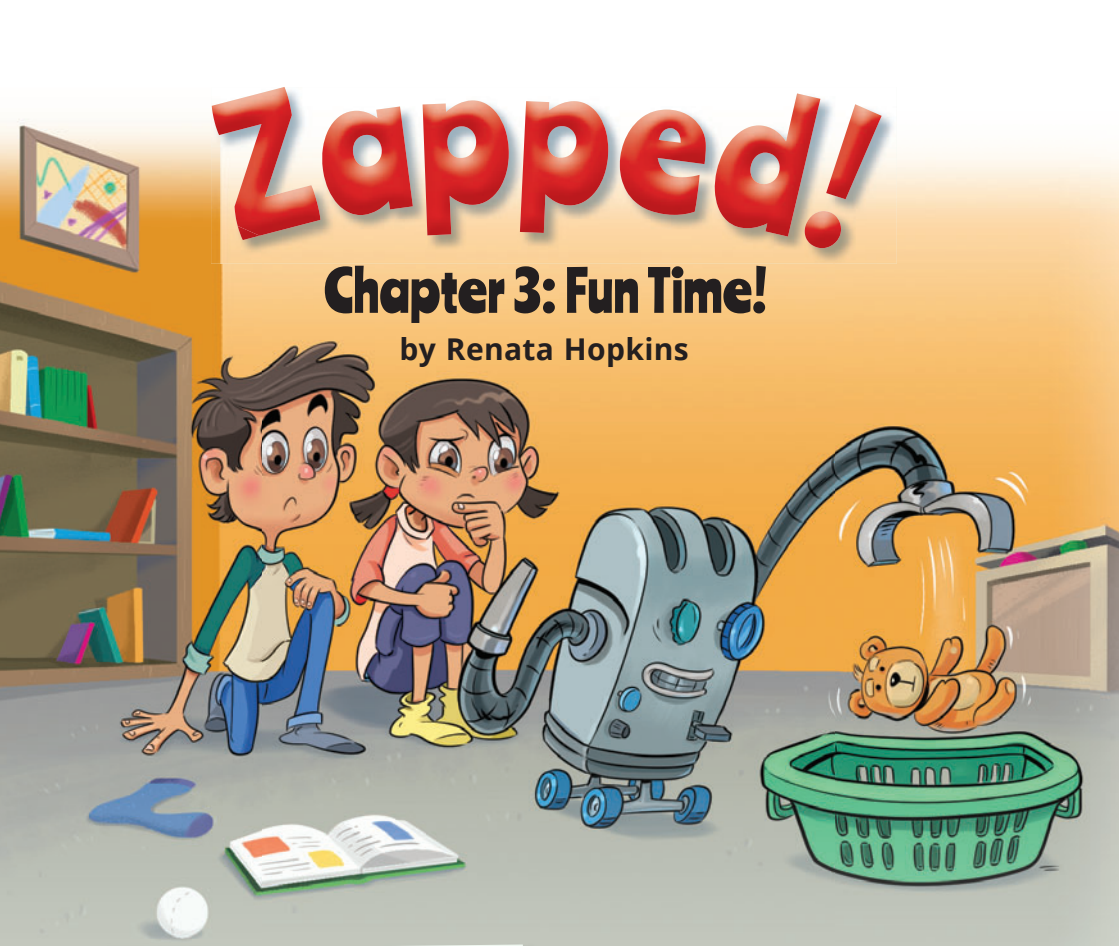


Which pattern do you have? Is it a loop, a whorl, or an arch?

Zapped!

Chapter 3: Fun Time!

by Renata Hopkins



The story so far:

Tai and Ana made a robot for a school project. They called it "Tidy-Bot". When the robot was hit by lightning, it came alive! Unfortunately Tidy-Bot wasn't good at following instructions. The twins had to hide the robot after it caused big trouble, first at home and then at school. Later, when they got home, the twins learnt that other machines had also been behaving strangely ...

It was Saturday. Dad was out jogging, and Mum was planting tomatoes. Tai and Ana were giving Tidy-Bot a lesson in following instructions.

"It's simple," said Tai, looking around the messy floor. "The toys go in the toy box. The books go on the shelf. The clothes go in the washing basket."

"Now, tidy them up," said Ana.

Tidy-Bot picked up a soft toy and put it in the washing basket.

"Sort of," said Ana. "Try again."

Tidy-Bot picked up a smelly sock and tried to put it into Tai's mouth. Ana giggled. Tai didn't.

"We'll never win a prize at the science fair if Tidy-Bot can't actually follow instructions," he said.

"Can, can, can!" said Tidy-Bot. "Bleep, bloop!" The robot picked up a book and slid it onto the bookcase. The twins cheered.

"See?" said Ana. "All it takes is practice."

Tidy-Bot and the twins kept practising until they heard Dad arrive back from his run.

"Hey, kids," he called. "We'll be off as soon as I've had a shower." The family was going to the mall. Mum and Dad wanted to buy a new vacuum cleaner.

“Tidy could do some other jobs while we’re out,” Tai whispered.

“Good idea,” Ana agreed. They asked the little robot to make their beds and put the dirty dishes into the dishwasher.

“Beds. Dishes,” said Tidy-Bot. “Bleep, bloop.”

Tai and Ana grinned. Mum and Dad were going to get such a surprise!

On the way to the mall, Dad said, “You guys have been acting strangely lately. I want you on your best behaviour today.”

“You can look around,” warned Mum. “Just don’t touch things, OK?”

“Pinky promise,” said Tai and Ana. They linked fingers and shook on it.

While their parents looked at vacuum cleaners, Tai and Ana watched the giant TV screens. The movie that was showing had dancing penguins that made the twins laugh.

But then a strange thing happened. The screens went blank. Next, a message appeared, in big red letters: “IT’S FUN TIME!”

“Weird,” said Tai.

Just then, there was a loud whizzing sound. The twins spun round. All the blenders in the kitchen section had switched on at once.

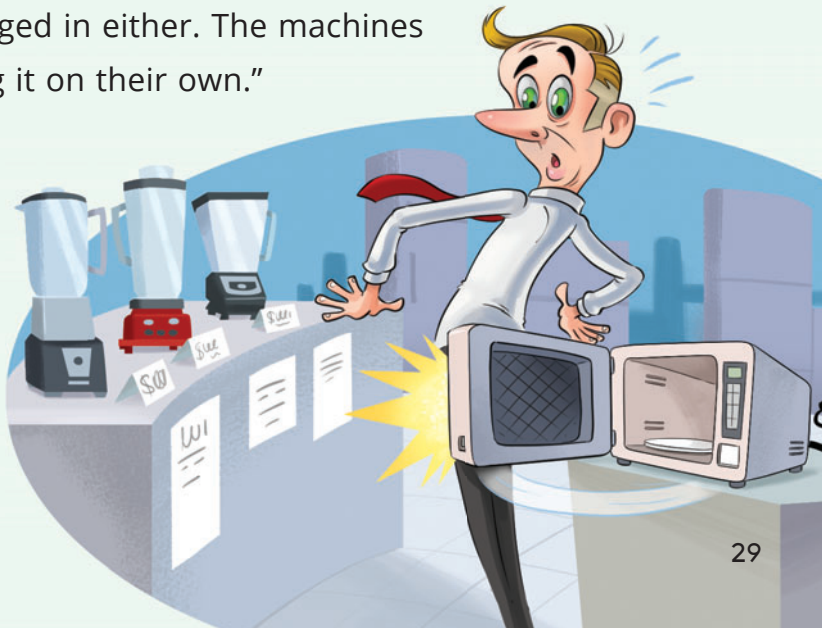
"Look, Tai!" Ana pointed to the power cords. The blenders weren't even plugged in.

"Crazy," whispered Tai.

A shop assistant came to see what was making all the noise. The blenders stopped whizzing.

"Did you kids touch something?" the man asked. The twins shook their heads. Just then, the door on a microwave popped open and smacked the man on the bottom. Tai and Ana tried not to giggle. The man's face went red. He slammed the microwave shut and stomped off.

"Ana," said Tai. "That microwave isn't plugged in either. The machines are doing it on their own."



All around the twins, machines started to move. The lid of a waffle maker went up and down like a hungry mouth, coffee machines puffed steam from their nozzles, and fridge doors opened and shut. But every time an adult turned round to see what was happening, the machines stopped.

Suddenly, a helicopter in the toy section took off and started whizzing around the shop. People pointed and laughed. Shop assistants came running. So did Ana and Tai's parents.

The family left without a vacuum cleaner.

"I don't know what's got into you," Dad grumbled, as they drove home. "Why can't you two behave?"

Tai and Ana didn't try to explain. They didn't know where to start. They just hoped Mum and Dad would forget to be mad once they saw Tidy-Bot's housework.

At home, the twins followed Mum into the kitchen. The bench was spotless. The dirty dishes had vanished. Mum beamed. So did the twins.

“Did you stack the dishwasher while I was getting ready?” she asked. Before Ana or Tai could answer, she opened the door to check.

“What on earth …?” she shrieked. The dishwasher was stuffed full of sheets and pillowcases.

“Yikes,” said Tai and Ana, at exactly the same time. If Tidy had put the bedclothes in the dishwasher, where had the robot put the dishes? … In their beds, of course!

After the fuss finally died down, Mum and Dad went to have a calming cup of tea in the garden. Tai and Ana cleaned up all the mess. Then they went to look for their robot. They found it under Ana’s bed. It seemed to be fast asleep.

"Look," said Tai. "It's all worn out."

"Poor Tidy," said Ana. "It wasn't trying to be naughty. It just gets muddled."

"What about all those other machines?" Tai wondered. "They seemed to like being naughty."

"They did stop," Ana pointed out.

But the twins were thinking. What if those unplugged machines hadn't had enough fun yet? What if they were just getting started? What might they do next?

"Whoa," said the twins at exactly the same time.

illustrations by Scott Pearson

To be continued ...

ACKNOWLEDGMENTS

The Ministry of Education and Lift Education would like to thank Julian Atkins and the New Zealand Police for their help with "Fingerprints" and Maritime New Zealand for checking the information in "Staying Afloat" and "Life Jackets".

Editor: David Chadwick
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The *Junior Journal* is for students who are working at early level 2 in the New Zealand Curriculum and reading Ready to Read texts at Purple and Gold. The *Junior Journal* supports students to make the transition from reading individual Ready to Read texts to reading the level 2 *School Journal*. This *Junior Journal* includes the third instalment of a serial story, "Zapped!", designed to help year 3 students into chapter book reading through developing "stamina" on a longer text. You can use this text for shared reading, guided reading, or independent reading, according to students' reading level.

TITLE	GUIDED READING LEVEL
Staying Afloat	**Gold 1**
Zapped! Chapter 3: Fun Time!	**Purple and Gold** (Use this as a shared reading text with year 3 students who are reading below Purple.)
Life Jackets	**Gold 1**
Fingerprints	**Gold 1**

The New Zealand Curriculum

LEVEL 2

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for PDFs of all the texts in this issue of the *Junior Journal* as well as teacher support materials (TSM) and audio for the following:

	TSM	Audio
Staying Afloat	✓	✓
Zapped! Chapter 3: Fun Time!	✓	✓
Life Jackets	✓	✓
Fingerprints	✓	✓

ISBN 978-0-478-16859-4

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MINISTRY OF EDUCATION
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New Zealand Government