

ICONIC GAMES

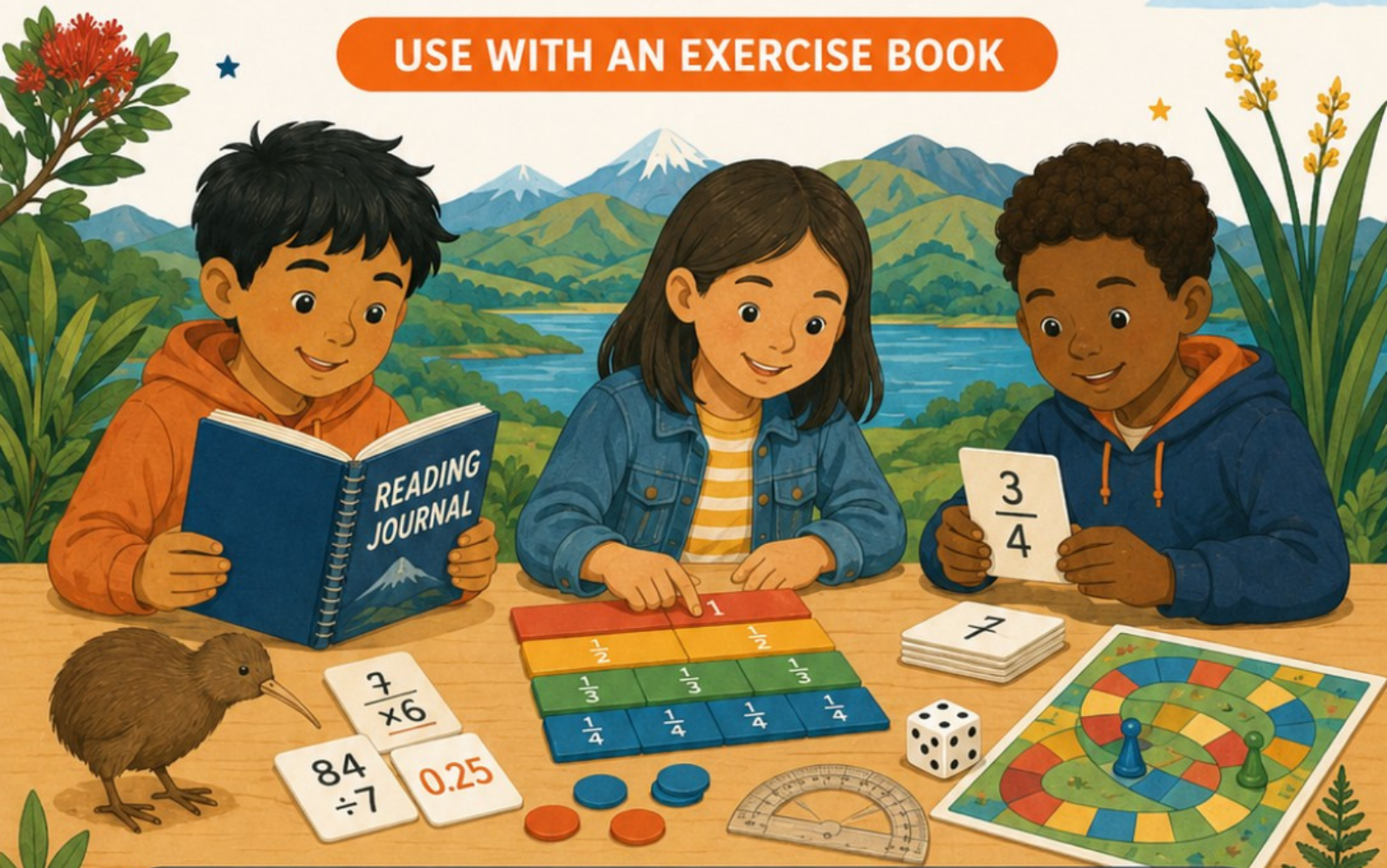
YEAR 5

HOMEWORK BOOK

English • Mathematics and Statistics

A complete year of after-school learning

USE WITH AN EXERCISE BOOK



My name:



My school:



My class:



Year:

WELCOME TO HOMEWORK CLUB

This book belongs to your Year 5 learning adventure.

You'll practise English and maths, solve challenges, explore ideas and discover how much you can do.

You don't need to finish everything at once. Little bits of practice add up.



HERE'S HOW WE LEARN TOGETHER:

1



AKO • LEARN

Understand the idea.



2



MAHI • PRACTISE

Give it a go.



3



WHAKAMĀTAU • CHALLENGE

Use what you know.



4



WHAKAARO • REFLECT

Think about your learning.



You'll sometimes need your exercise book for extra working space.



Ready? Let's go.



MY YEAR 5 MISSION

Before you begin, think about what you want to achieve this year.



READING & WRITING

This year I want to get better at...



MATHEMATICS & STATISTICS

This year I want to get better at...



ME AS A LEARNER

Something I want to work on is...

★ HOW DO I FEEL ABOUT YEAR 5? ★



Not sure yet

☐


A little nervous

☐


Feeling okay

☐


Pretty confident

☐


Ready for a challenge!

☐


MY FIRST STEP

One thing I can do this week to get started:



Every effort you make helps you grow.
You've got this!



FINDING THE MAIN IDEA



I can identify the main idea and the details that support it.



AKO • LEARN

The main idea is what a text is mostly about. Supporting details give us more information about that main idea.



The Clever Pīwakawaka

Pīwakawaka, also called fantails, are small birds that live in forests, gardens and bush all around Aotearoa. They are easy to spot because they flick their long tails up and down as they move.

Pīwakawaka are excellent insect hunters. They fly out from a branch, catch insects in the air, and return quickly. Then they do it again! They can change direction in a flash, which helps them catch tiny insects.

These clever birds are also curious and friendly. They often follow people around, especially when you are outside. Scientists think they do this because they have learned that people might disturb insects that the fantails can then catch and eat.

Pīwakawaka build small cup-shaped nests in trees or shrubs. Both parents build the nest and feed their chicks. Fantail chicks grow quickly and soon fledge, which means they learn to fly.

Watching a pīwakawaka is a real treat!



MAHI • PRACTISE

1. What is the text mostly about?

2. Write two details from the text that support the main idea.

a.

b.

3. Which detail is interesting but NOT essential to the main idea? Explain why.



WHAKAMĀTAU • CHALLENGE

Write a one-sentence summary of the whole text.



WHAKAARO • REFLECT

What helped you find the main idea?

- ☐ I looked for what the text was mostly about.
- ☐ I looked for details that were repeated.
- ☐ I used both clues and my own knowledge.

Explain your choice.



TIP: The main idea is usually in the first sentence, the last sentence or in sentences that are repeated.



PLACE VALUE POWER

I can read, partition, compare and order whole numbers.



AKO • LEARN

We can build numbers using place value.

TEN THOUSANDS	THOUSANDS	HUNDREDS	TENS	ONES
4	8	3	7	2
40,000	8,000	300	70	2



TIP:

The left side shows the biggest values.



MAHI • PRACTISE

1 Partition these numbers.

a. 63,451 = _____

b. 27,906 = _____

2 What is the value of the underlined digit?

a. 54,281 = _____

b. 71,639 = _____

3 Order these numbers from smallest to largest.

34,209 • 34,920 • 30,429 • 39,204

_____ < _____ < _____ < _____

4 Insert < , > or = to make each number sentence true.

a. 45,210 _____ 45,201

b. 68,999 _____ 69,001



WHAKAMĀTAU • CHALLENGE

A wildlife centre recorded 28,450 visitors last year and 31,205 visitors this year. Which year had more visitors and by how many?

My working

My answer

_____ visited

more in the _____.

The difference is _____.



WHAKAARO • REFLECT

Which place value skill felt easiest today?

Tick one.

- | | |
|--|---|
| ☐ Reading numbers | ☐ Comparing numbers |
| ☐ Writing numbers | ☐ Partitioning numbers |

Write or draw one thing you are still working on.





READ BETWEEN THE LINES

I can make an inference using clues from a text.



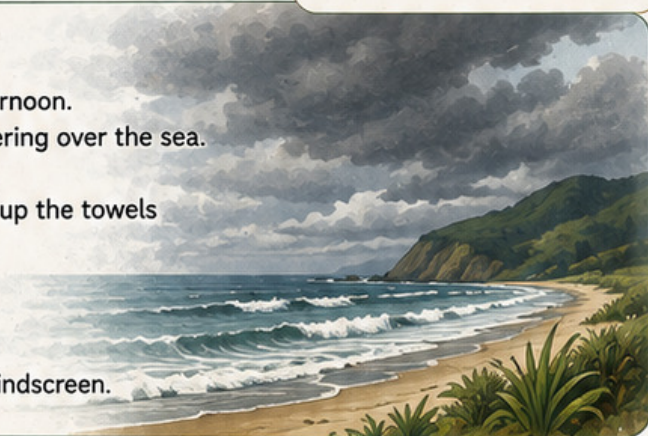
REMEMBER

An inference is something the author does not tell us directly.

We combine text clues with what we already know.

A Day at the Coast

Matiu and Hana arrived at the coast with their whānau late in the afternoon. The sky had been clear that morning, but now dark clouds were gathering over the sea. The wind began to pick up and the waves crashed louder than before. Seagulls flew low and called loudly. Hana's mum told everyone to pack up the towels and close the sandcastle bucket. Matiu zipped up his jacket, even though it was still warm. Uncle Wiremu looked out over the water for a long time. Soon, everyone headed back to the car. By the time they drove away, the first drops of rain were hitting the windscreen.



MAHI • PRACTISE

Answer these questions. Use evidence from the text.

- 1 What weather is probably approaching?
Which two clues helped you decide?

Clue 1: _____

Clue 2: _____

- 2 Why did Hana's mum tell everyone to pack up the towels and close the sandcastle bucket?

- 3 Why did Matiu zip up his jacket?

- 4 What can you infer about how Uncle Wiremu was feeling? Explain why.



WHAKAMĀTAU • CHALLENGE

What do you think the family will do next?
Explain your idea using clues from the text.



WHAKAARO • REFLECT

Did you use a clue, your own knowledge, or both?
Tick one and explain.

- ☐ I used a clue.
☐ I used my own knowledge.
☐ I used both.

Explain your choice.





SMART ADDITION & SUBTRACTION

I can choose efficient strategies and check whether my answer makes sense.

AKO • LEARN

We can solve addition and subtraction problems in different ways. Choosing a smart strategy helps us work quickly and accurately.

TWO SMART STRATEGIES

PARTITIONING

Break the numbers into parts that are easy to add.

$$\begin{aligned} 3,486 + 2,357 &= (3,000 + 400 + 80 + 6) \\ &\quad + (2,000 + 300 + 50 + 7) \\ &= 5,000 + 700 + 130 + 13 \\ &= 5,830 \end{aligned}$$

COMPENSATION

Adjust one number to make a friendly number, then adjust the answer.

$$\begin{aligned} 3,486 + 2,357 &= 3,486 + 2,400 - 43 \\ &= 5,886 - 43 \\ &= 5,843 \end{aligned}$$

TIP:

Estimate first to see if your answer is reasonable.



MAHI • PRACTISE

Calculate using a strategy that works for you.

1 $3,486 + 2,357 =$ _____

2 $7,004 - 2,768 =$ _____

3 $5,925 + 3,086 =$ _____

4 $10,000 - 4,673 =$ _____

5 **ESTIMATE FIRST.** Then calculate.

Round to the nearest hundred.

$6,498 + 2,327 \approx$ _____

$6,498 + 2,327 =$ _____

6 Insert $<$, $>$ or $=$ to make each statement true.

a. $4,215 + 2,300$ _____ $4,215 + 2,030$

b. $6,700 - 2,400$ _____ $6,700 - 2,040$

c. $8,515 + 1,485$ _____ $10,000$

d. $9,000 - 3,250$ _____ $5,700$



WHAKAMĀTAU • CHALLENGE

A community project raised \$3,475 in one month and \$2,860 the next. It spent \$1,925 on materials.

How much money remained?

My equation

My working

My answer

\$ _____



WHAKAARO • REFLECT

Which strategy did you choose most today? Why?

✓ CHECK IT!

Use the inverse operation to check one of your answers.

Choose question number: _____

Show your check here:



Words can be tricky,
but we have clues!
Look at word parts
and the sentences
around the word.

VOCABULARY DETECTIVE

I can use word parts and context
to work out unfamiliar words.



WORD PARTS HELP!

We can break words
into parts to help us.

un + predictable
= unpredictable

un = not
predictable = able to be
predicted

Read the passage. Then solve the clues.

Exploring the Ngahere

Yesterday, our class went on an adventure into the **ngahere**. Our guide taught us to be **unpredictable** and quiet. We had to move **cautiously** so we didn't startle the birds.

We made careful **observation** as we walked. We noticed tiny details, like how the leaves glistened with raindrops and how the ground was covered in soft moss.

As we walked deeper into the forest, the path began to **disappear**. The trees stood close together, making it feel like we were in a secret world. Our guide told us that this was a **remarkable** place because so many living things rely on this habitat to survive.



MAHI • PRACTISE

- 1 Use clues from the passage to work out the meanings of these words.

WORD	MY MEANING	CLUE I USED
unpredictable		
cautiously		
observation		
disappear		
remarkable		

- 2 Use one of the words in a new sentence that shows you understand its meaning.

Word I choose: _____



TIP: If a word has a prefix like **un-**, think about what it usually means.



WHAKAMĀTAU • CHALLENGE

Choose one of the words from the passage and write a short explanation of what it means.



WHAKAARO • REFLECT

Which strategy helped you most today?

Tick one and explain why.

- ☐ Using word parts
- ☐ Reading around the word
- ☐ Putting it in a new sentence
- ☐ Not sure yet

Why? _____



All living things have certain characteristics that help them survive.

LIVING THINGS IN AOTEAROA

I can identify the characteristics of living things and sort examples from our environment.



KEY IDEAS

All living things:



Need food and water



Breathe



Grow



Reproduce (have young)



Respond to changes



Eventually die



MAHI • PRACTISE

- 1 Look at the pictures. Sort them into Living or Non-living. Write the name of each one in the correct column.



Living Things

Non-living Things

- 2 Choose one living thing from above. Describe how it shows each characteristic of life.

My living thing: _____

Needs food and water	
Breathes	
Grows	
Reproduces (have young)	
Responds to changes	
Eventually dies	

- 3 Why do you think it's important to look after living things in Aotearoa?



TIP:

Think about how living things are connected to each other and to our environment.



WHAKAMĀTAU • CHALLENGE

Choose a local place (forest, beach, river, park or your own backyard). List four living things and four non-living things you might find there.

4 living things

1. _____
2. _____
3. _____
4. _____

4 non-living things

1. _____
2. _____
3. _____
4. _____



WHAKAARO • REFLECT

What is one thing you can do to help look after the living things in your local area?

Small Actions
Make a
Big Difference



MAPS AND OUR PLACES

Maps help us understand our world and the places in it.

I can read simple maps and use directions to find places and describe locations.



KEY IDEAS

- A map is a bird's-eye view (viewed from above) of a place.
- Maps use symbols, a key and directions (north, south, east, west).
- We can use maps to find locations and plan our journeys.



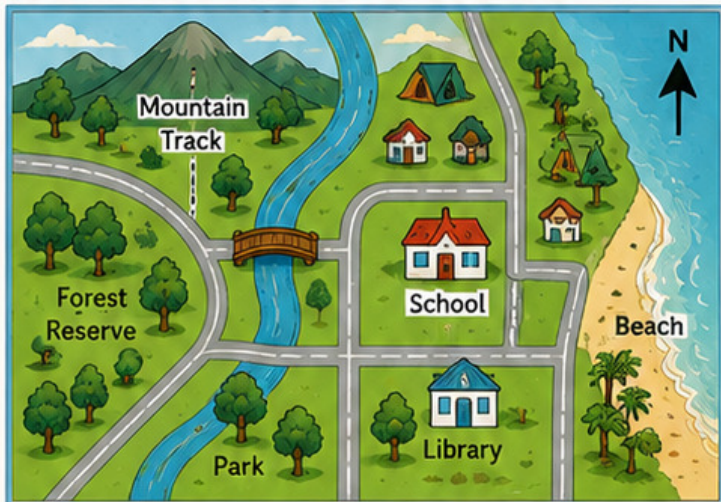
REMEMBER

You can use a map key to find out what the symbols mean.



MAHI • PRACTISE

- 1 Use the map and key to answer the questions.



Map Key

- Building
- Trees
- Road
- Track
- River
- Bridge
- Campsite
- Park
- Beach

- What is north of the school?
- What is south of the school?
- What is east of the park?
- What could you follow to get from the school to the beach?
- Name one other place you can see on the map.

- 2 Write the correct direction (north, south, east or west).

- The beach is _____ of the campsite.
- The forest reserve is _____ of the school.
- The library is _____ of the park.
- The mountain track is _____ of the river.

- 3 Imagine you are at the school. Write directions to get to the mountain track.



WHAKAMĀTAU • CHALLENGE

Plan a journey on the map.
Choose two places and write clear directions to get from one to the other. Use direction words and landmarks.

My journey: from _____ to _____



WHAKAARO • REFLECT

How do maps help people in their everyday lives?
Tick the answers you agree with (you can tick more than one).

- ☐ They help us find places.
- ☐ They help us stay safe.
- ☐ They help us plan trips.
- ☐ They help us learn about our environment.
- ☐ They are only useful for tourists.

DIFFERENT
PATHS
BRIGHTER
FUTURES



Good descriptions help the reader create a picture in their mind.

WRITING DESCRIPTIONS

I can use interesting adjectives and senses to write clear and detailed descriptions.



KEY IDEAS

- Use adjectives to add detail (e.g. tall, shiny, rough).
- Use your senses (see, hear, smell, taste, feel).
- Good descriptions help the reader imagine what you are describing.
- You can describe a person, place, animal, object or event.



TIP:

Use stronger, more interesting words instead of basic ones.
For example: big → enormous
nice → beautiful



MAHI • PRACTISE

1 Add adjectives to make these sentences more interesting.

- The dog was _____ and _____.
- The beach looked _____ and _____.
- The tree had _____ green leaves.
- The kai smelled _____.
- The sky was _____ and _____.

2 Use the picture to help you write a detailed description. Try to include adjectives and at least two of your senses (see, hear, smell, taste or feel).



3 Choose the best adjective to complete each sentence.

- The mountain was _____.
A. tall B. tiny C. wet D. loud
- The water looked _____.
A. rough B. smooth C. angry D. noisy
- The forest was _____.
A. quiet B. yellow C. sweet D. sharp
- The boy felt _____ after the long walk.
A. tired B. delicious C. heavy D. broken



CHALLENGE YOUR WORDS!

Can you think of a stronger adjective?
Replace the basic word with a more interesting one.

Basic Word	My Stronger Word
big	
good	
nice	
small	
happy	



WHAKAMĀTAU • CHALLENGE

Choose one of the following and write a short paragraph (4–6 sentences) to describe it in detail.

- A place you love
- A special person in your life
- Your favourite animal
- An exciting event

Success checklist:

- ☐ I used adjectives
- ☐ I included at least two senses
- ☐ I wrote in full sentences
- ☐ I checked my spelling and punctuation



WHAKAARO • REFLECT

Which part was easiest for you? Which part was most challenging? Why?

Better Words
Brighter
Stories



Reading helps us learn new things and see different perspectives.

READING FOR MEANING

I can read a text, find key information and think more deeply about what it means.



PĀNUI • READING

A Special Bird

The kiwi is one of Aotearoa New Zealand's most treasured birds. It cannot fly, but it is an amazing survivor. Kiwi have strong legs, a long beak and very good hearing. They mostly come out at night and use their beak to search for food in the soil, like insects and worms.

Kiwi are special because they are found only in Aotearoa. They are an important part of our unique environment and our culture. For Māori, the kiwi is a taonga and a symbol of strength, resilience and a connection to the land.

Sadly, kiwi face many threats. Introduced predators such as stoats, rats and ferrets can be dangerous, especially to chicks. Habitat loss also makes it harder for kiwi to survive. Many people and organisations are working hard to protect kiwi. They set traps to keep predators away, restore native forests and educate people about how to help.

We can all play a part. By caring for our environment, we help make sure kiwi can continue to live in Aotearoa for future generations.



NEW WORDS

treasured = greatly valued

survivor = something that continues to live

predators = animals that hunt other animals

habitat = the natural home of a plant or animal

resilient = able to recover and keep going

organisation = a group of people working together



WHAKAUTU • ANSWER

Use the reading to answer the questions.

- 1 What makes the kiwi special?

- 2 When do kiwi mostly come out, and what do they eat?

- 3 Name two threats kiwi face.

- 4 What are some ways people help protect kiwi?

- 5 Why do you think it is important to look after kiwi? Give your own opinion.



WHAKAMĀTAU • CHALLENGE

Imagine you are a conservation ranger. Write a short poster to encourage people to help protect kiwi.

My Poster:

KIWI NEEDS YOU!



WHAKAARO • REFLECT

What is one thing you can do to help protect Aotearoa's native wildlife?

SMALL ACTIONS MAKE A BIG DIFFERENCE



Good stories have interesting characters, a setting, a problem and a resolution.

STORY PLANNING

I can plan a story using characters, a setting, a problem and a resolution.



KEY IDEAS



Characters

Who is in your story?



Setting

Where does it happen?



Problem

What goes wrong?



Resolution

How is it solved?



TIP:

Good stories take the reader on a journey. Try to be creative and use interesting details!



MAHI • PRACTISE

1 Look at the picture. Answer the questions to plan a story.



- Possible characters: _____
- Possible setting: _____
- What could be the problem? _____
- How could it be solved? _____

2 Use your ideas from activity 1 to complete the story plan.



Characters



Setting



Problem



Resolution

3 Write a short summary of your story (3–5 sentences).



WHAKAMĀTAU • CHALLENGE

Choose one of the story starters below or write your own. Then plan your story using the boxes above.

- A mysterious map washes up on the beach...
- A new student arrives at school with a secret...
- A kea leads you to something amazing...
- One day, everything in town goes quiet...
- I found a strange object in the forest...
- Your own idea: _____

BIG
IDEAS
START
SOMEWHERE



WHAKAARO • REFLECT

What do you enjoy most about writing stories?
What makes a story interesting to you?

OUR
STORIES
OUR
AOTEAROA



Verbs are action words. They tell us what someone or something is doing.

ACTION WORDS (VERBS)

I can identify verbs and use them to make interesting sentences.



KEY IDEAS



Verbs are action words.



Verbs show what is happening.



Verbs can show action, thinking or feeling.



We use verbs to make our writing more interesting.



TIP:

Try using stronger, more interesting verbs instead of 'is', 'has' or 'goes'.
For example: ran, shouted, discovered, created, explored.



MAHI • PRACTISE

1 Circle the verbs (action words) in each sentence.

- The kea flew over the mountains.
- My whānau went to the beach.
- I am learning to play the guitar.
- The dog chased the ball.
- We walked through the forest.
- Naya is cooking dinner.



2 Choose the best verb to complete each sentence.

- The waves _____ on the beach. (crash / crashes / crashing)
- I _____ my homework after school. (do / does / did)
- Coast _____ his bike to the park. (ride / rides / riding)
- We _____ a huge tree in the forest. (see / saw / seen)
- The sun _____ behind the hills. (set / sets / setting)

3 Write a verb to match each picture.



a. _____



b. _____



c. _____



d. _____

4 Write your own sentence using each verb.

- explore _____
- create _____
- discover _____
- help _____
- imagine _____



WHAKAMĀTAU • CHALLENGE

Rewrite these sentences using a more interesting verb.

- The boy went to the river.

- The girl saw a bird.

- We made a sandcastle.

- The dog ran in the park.



WHAKAARO • REFLECT

Which verb was the most fun to use today?
Why? How can using strong verbs make your writing better?

BETTER
WRITERS
BRIGHTER
FUTURES



Time words help us put events in the right order so our writing is clear and easy to follow.

WRITING IN ORDER

I can use time words to write clear and organised instructions, stories and recounts.



FIRST

NEXT

THEN

FINALLY

SMALL STEPS
BIG RESULTS

KEY IDEAS

First

happens at the beginning.

Next

happens after that.

Then

happens after that.

Finally

happens at the end.



TIP:

Time words help the reader understand the order of events. You can also use: after that, later, meanwhile, at last.



MAHI • PRACTISE

- 1 Number the sentences below from 1–4 to put them in the correct order.

- ☐ Coast put the cheese and tomato on the bread.
- ☐ Coast took a slice of bread.
- ☐ Coast enjoyed his sandwich.
- ☐ Coast closed the sandwich and put it on a plate.



- 2 Choose the best time word to complete each sentence.

first next then finally

- a. _____ I got my bag, I checked my lunchbox.
- b. _____ we walked to the bus stop.
- c. _____ the bus arrived and we got on.
- d. _____ we arrived at school.
- e. _____ I hung up my bag and went to class.

- 3 Look at the pictures. Write 4–6 sentences to tell the story in order. Use time words.



1 Wake up



2 Eat breakfast



3 Go to school



4 Start learning



WHAKAMĀTAU • CHALLENGE

Choose one of the topics below and write clear instructions in order (4–6 steps). Use time words.

- How to make a paper plane
- How to care for a pet
- How to get ready for school
- How to plant a seed
- Your own idea: _____

Clear steps
lead to
big results!



WHAKAARO • REFLECT

Why do you think time words are important in writing?
How do they help the reader?

GOOD
IDEAS
HAPPEN
STEP BY
STEP



We can use adjectives, verbs and time words together to write interesting sentences.

PUT IT TOGETHER

I can use adjectives, verbs and time words to write detailed and interesting sentences.



KEY IDEAS



Adjectives

add detail
(e.g. shiny, new, exciting).



Verbs

show what is happening
(e.g. ran, discovered, built).



Time words

put events in order
(e.g. first, next, then, finally).



TIP:

Use all three to make your writing more interesting!
For example:
First, the excited boy ran to the shiny beach and discovered a hidden cave.



MAHI • PRACTISE

- 1 Colour the adjectives, underline the verbs and circle the time words in each sentence.

- First, we walked along the rocky path.
- The quiet bird flew into the tall tree.
- Next, I found a small, shiny shell.
- Then, we built a giant sandcastle.
- Finally, we watched the beautiful sunset.



- 2 Complete the sentences using a word from each box.

Adjectives

bright cold happy
huge excited

Verbs

climbed found met
saw explored

Time words

first next then
finally later

- _____, we _____ a _____ waterfall.
- _____, I _____ a _____ bird.
- _____, we _____ a _____ track.
- _____, we _____ to the top.
- _____, we were _____ and tired.

3

Write a sentence about each picture. Use an adjective, a verb and a time word.



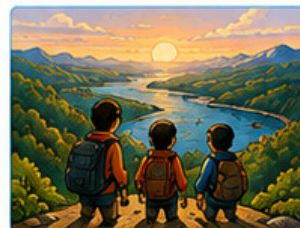
a. _____



b. _____



c. _____



d. _____



WHAKAMĀTAU • CHALLENGE

Write a short paragraph (5–6 sentences) about a day out.
Use at least:

- 2 adjectives
- 3 different verbs
- 3 time words

Make your
writing come
alive!



WHAKAARO • REFLECT

Which part was easiest for you to use (adjectives, verbs or time words)? Which part was most challenging?
What will you do to keep improving?

SMALL
STEPS
BRIGHTER
WRITERS



Punctuation helps us make sense of our writing. It shows when to pause, when to ask a question and when a sentence ends.

PUNCTUATION POWER

I can use capital letters, full stops, commas and question marks to make my writing clear.



KEY IDEAS

Aa

Capital letters
Start a sentence.
Names and places.



Full stop
Shows the end of a sentence.



Comma
Helps us make a pause in a list or a longer sentence.



Question mark
Used at the end of a question.



TIP:

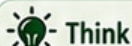
Read your sentence out loud. Does it sound right? If you pause, there might be a comma. If it's a question, use a question mark!



MAHI • PRACTISE

- 1 Add the correct punctuation to each sentence. (Capital letter, full stop or question mark.)

- ☐ what is your favourite subject
- ☐ my dog is called ruru
- ☐ we went to taupō last weekend
- ☐ i love playing basketball
- ☐ are you coming to the game
- ☐ naia and cian are my siblings
- ☐ the weather is sunny today
- ☐ can we have ice cream later



Think

Does this sentence need a capital letter, full stop or question mark?

Read it out loud!



- 2 Add commas in the right places.

- I brought my lunch book and water bottle.
- We saw a kea a tūi and a kererū in the forest.
- At the beach we swam played games and built a sandcastle.
- My favourite places are Taupō Rotorua and Taranaki.
- On Saturday we went to the market had lunch and visited the lake.

- 3 Rewrite the sentences correctly.

- we are going to auckland tomorrow
- do you like rugby
- this is my best friend riley
- i have a cat a dog and a fish
- can we go to the movies later

- 4 Write your own sentences.

- A sentence about something you did this week.
- A question you would like to ask a friend.
- A sentence with a list (use commas).



WHAKAMĀTAU • CHALLENGE

Fix the punctuation in this paragraph.

last weekend my family and i went to the beach
we swam built a sandcastle and had fish and chips
it was so much fun do you like the beach



WHAKAARO • REFLECT

Why is punctuation important?
How does it change the meaning of a sentence?
What is one thing you will focus on in your writing next time?

CLEAR
WRITING
BUILDS
BIG IDEAS



Descriptive writing helps the reader see, hear, feel and imagine what you are writing about.

DESCRIBE IT!

I can use descriptive language to create a clear picture in the reader's mind.



KEY IDEAS



Look

What can you see?
(colours, shapes, size)



Listen

What can you hear?
(loud, quiet, distant)



Feel

What does it feel like?
(hot, cold, rough, soft)



Smell

What can you smell?
(fresh, salty, sweet)



Imagine

What does it make you think or feel?



TIP:

Use interesting adjectives and details. Instead of "nice", try words like amazing, peaceful, wild or breathtaking.



MAHI • PRACTISE

- 1 Look at the picture. Write at least five things you can see.



1. _____
2. _____
3. _____
4. _____
5. _____

- 2 Choose a more interesting word to replace the underlined word.

- a. The beach was nice. (nice / beautiful / boring)
- b. The water was blue. (blue / sparkling / plain)
- c. The wind was strong. (strong / weak / loud)
- d. The trees were big. (big / huge / small)
- e. It was a hot day. (hot / freezing / warm)

- 3 Use the word bank to complete the sentences.

sparkling tall colourful peaceful salty
rugged excited fresh bright calm

- a. The ocean looked _____ in the sunlight.
- b. We felt _____ as we reached the lookout.
- c. The air smelled _____ and clean.
- d. The mountains were _____ and covered in native bush.
- e. It was a _____ and quiet place.

- 4 Write 3–4 sentences to describe the picture in Activity 1. Try to use at least three interesting adjectives.



WHAKAMĀTAU • CHALLENGE

Choose one of the places below or your own idea. Write a short paragraph (5–6 sentences) to describe it. Try to include:

- at least 5 adjectives
- 2 different senses (e.g. what you can see and hear)
- how it makes you feel

- A forest walk
- A rugby game
- Your bedroom
- A favourite place in Aotearoa
- Your own idea: _____



WHAKAARO • REFLECT

Which words helped you create a clear picture? How did using more descriptive language change your writing? What is one new word you would like to use more often?

SEE MORE WRITE BRIGHTER



Stories help us share ideas, show creativity and take others on an adventure in our imagination.

WRITE A SHORT STORY

I can plan, write and check a short story with a clear beginning, middle and end.



KEY IDEAS



Plan

Think about your characters, setting and what happens.



Write

Use interesting words and clear sentences.



Check

Read it again. Does it make sense? Have you used punctuation?



Share

Be proud of your story! You can share it with a friend or whānau.



TIP:

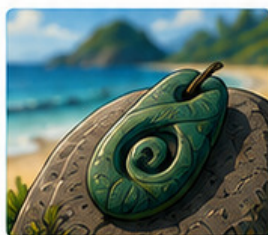
Good stories have:

- interesting characters
- a clear setting
- a problem or challenge
- a solution
- descriptive language



MAHI • PRACTISE

1 Look at the pictures. Answer the questions.



a. Where do you think this story might be set?

b. Who do you think might find the taonga?

c. What do you think might happen?

2 Choose a character, a setting and a problem from each box.

Characters

- a curious kid
- two friends
- a kea
- a grandparents
- a mysterious stranger

Settings

- a beach
- a forest
- a small town
- a marae
- a mountain

Problems

- a hidden taonga
- a lost pet
- a strange noise
- a broken map
- a big storm

3 Plan your story. Use the boxes to jot down your ideas.

Beginning

Introduce your characters and setting. What is happening at the start?

Middle

What is the problem or challenge? What happens next?

End

How is the problem solved? How does the story end?

4 Now write your story. Use your plan to help you.



WHAKAMĀTAU • CHALLENGE

Add one of these to your story to make it more interesting:

- dialogue (speech between characters)
- a surprise or twist
- a descriptive moment (use the five senses)
- a lesson the character learns

Brave
Ideas
Make
Great
Stories



WHAKAARO • REFLECT

What was the most enjoyable part of this activity?
What was challenging?
How did planning help you?
What will you do next time to make your writing even better?

STORIES
CONNECT US
PEOPLE
PLACES
IDEAS



You've done a lot of great learning this week! Use your skills to complete these activities.

SHOW WHAT YOU KNOW

I can use what I have learned to read, think and write with confidence.



KEY IDEAS



Read

Understand the task.



Think

Use what you know.



Write

Plan and put your ideas on paper.



Check

Look for capital letters, full stops, commas and clear sentences.



TIP:

Take your time, read each question carefully and show what you've learned this week.



MAHI • PRACTISE

- 1 Read the short passage. Then answer the questions.

A Day to Remember

On Saturday, Tama and his whānau went to a quiet beach. The sun was shining, the water was sparkling and the wind was warm. Tama found a strange-looking shell on the sand. It was bigger than any he had seen before! He carefully put it in his bag to show his nana. It was a special day full of laughs, good kai and beautiful memories.



- Where did Tama go on Saturday?

- What was the weather like?

- What did Tama find?

- Who did he want to show it to?

- How do you think Tama felt? Give a reason for your answer.

- 2 Circle the correct word to complete each sentence.

- The sand was (soft / loud / tall) beneath my feet.
- I could (hear / taste / see) the waves crashing.
- The shell was (small / quiet / amazing).
- We (walked / ate / swam) along the beach.
- It was a (happy / bumpy / cold) day.

- 3 Add the correct punctuation.
(Capital letter, full stop, comma or question mark.)

- what a beautiful day _____
- i found a shell on the beach _____
- we had fish and chips ice cream and kiwifruit _____
- do you like going to the beach _____
- tamas nana was so proud _____

- 4 Write 3–4 sentences about a special day you have had.
Use at least:

- 2 adjectives
- 1 time word (first, next, then, finally)
- correct punctuation



WHAKAMĀTAU • CHALLENGE

Choose one of the options below and write a short paragraph (5–6 sentences).

- A day at the beach
- A school trip
- A special family day
- An adventure in the forest
- Your own idea

Good Writers Create Bright Futures



WHAKAARO • REFLECT

What did you enjoy most about this week's learning?
What do you feel more confident with now?
What is one goal you have for your writing?

LEARNING TODAY
A BRIGHTER TOMORROW



Numbers are everywhere! We use them to count, compare, solve problems and make sense of the world around us.

WORKING WITH NUMBERS

I can read, write, order and compare numbers to at least 10,000.



KEY IDEAS

123

Read & write

I can read and write numbers up to 10,000 (in digits and words).

< > =

Compare

I can use <, > and = to compare numbers.



Order

I can put numbers in order from smallest to largest (and largest to smallest).



Find & solve

I can use number skills to solve real-life problems.



TIP:

Look at the number of digits first. If they have the same number of digits, compare the digits from left to right.

For example:
5,274 is bigger than 5,132 because $2 > 1$ in the hundreds place.



MAHI • PRACTISE

1 Write these numbers in words.

- 1,208 _____
- 3,450 _____
- 9,006 _____
- 10,000 _____

Same numbers.
Different ways to say them!

2 Write these numbers in digits.

- two thousand and thirty-seven _____
- five thousand, six hundred and eight _____
- nine thousand and nine _____
- four thousand, one hundred and seventy-five _____

3 Use <, > or = to compare the numbers.

- | | |
|----------------------|----------------------|
| a. 2,347 _____ 2,374 | d. 4,832 _____ 4,823 |
| b. 6,109 _____ 6,091 | e. 7,006 _____ 7,060 |
| c. 9,500 _____ 9,500 | f. 3,999 _____ 4,001 |

4 Put these numbers in order.

a. Smallest to largest:

5,231	5,123	5,312	5,213
_____	_____	_____	_____

b. Largest to smallest:

8,400	8,040	8,004	8,440
_____	_____	_____	_____

5 Solve the problems.

- A school has 3,276 books. They buy 1,524 more. How many books do they have now?

- A hike is 5,860 metres long. Kai has walked 2,340 metres. How many metres does he have left?

- Ria saved \$4,750. Her goal is \$10,000. How much more does she need to save?



WHAKAMĀTAU • CHALLENGE

Using the digits 2, 4, 7 and 9, make:

- the largest 4-digit number _____
- the smallest 4-digit number _____
- a number between 4,000 and 5,000 _____
- a number closer to 9,000 than 8,000 _____

MĀ TE MĀTAURANGA
KA HŌRAMA TE HUARAHI
KNOWLEDGE LIGHTS
THE WAY



WHAKAARO • REFLECT

What part of this page was easiest for you?
What part was most challenging?
How can you use number skills in your everyday life?
Set yourself a goal for next time.

PRACTISE
PROGRESS
CONFIDENCE



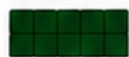
Each digit in a number has a place and a value. Understanding place value helps us read, write and work with bigger numbers.

PLACE VALUE IN ACTION

I can identify, read, write and partition numbers to 10,000.



KEY IDEAS



Thousands
1,000
(1 thousand)



Hundreds
100
(1 hundred)



Tens
10
(1 ten)



Ones
1
(1 one)



TIP:

You can partition a number into thousands, hundreds, tens and ones.

For example:
 $4,372 = 4,000 + 300 + 70 + 2$



MAHI • PRACTISE

1 Complete the place value table.

	Thousands (1,000)	Hundreds (100)	Tens (10)	Ones (1)
a. 3,726				
b. 9,104				
c. 5,830				
d. 4,009				
e. 7,615				

2 Partition these numbers (expand them).

- $6,248 =$ _____
- $9,007 =$ _____
- $3,560 =$ _____
- $8,314 =$ _____
- $2,905 =$ _____

A number can be written in different ways!

3 Write the number.

- $4,000 + 300 + 90 + 7 =$ _____
- $7,000 + 20 + 5 =$ _____
- $9,000 + 600 + 4 =$ _____
- $2,000 + 800 + 30 =$ _____
- $5,000 + 70 + 1 =$ _____

4 Which digit is in the highlighted place?

- In 8,472, what is the value of the 8? _____
- In 3,609, what is the value of the 0? _____
- In 5,271, what is the value of the 2? _____
- In 9,048, what is the value of the 4? _____
- In 6,395, what is the value of the 5? _____

5 Order the numbers from smallest to largest.

- | | | | |
|-------|-------|-------|-------|
| 2,731 | 2,713 | 2,317 | 3,127 |
|-------|-------|-------|-------|

_____ < _____ < _____ < _____
- | | | | |
|-------|-------|-------|-------|
| 8,406 | 8,064 | 8,640 | 8,046 |
|-------|-------|-------|-------|

_____ < _____ < _____ < _____



WHAKAMĀTAU • CHALLENGE

Use the digits 2, 4, 5 and 9 to make:

- the largest 4-digit number _____
- the smallest 4-digit number _____
- a number between 4,000 and 6,000 _____
- a number with 9 in the tens place _____
- a number with 5 in the hundreds place _____

THINK BIG
START SMALL
KEEP GOING



WHAKAARO • REFLECT

What did you find easy on this page?
What was more challenging?
How can understanding place value help you in real life?
What is one goal you have for next time?

KNOW
YOUR
NUMBERS
GROW YOUR
POSSIBILITIES



Addition and subtraction help us solve real life problems. I can use different strategies to solve problems accurately.

ADD AND SUBTRACT

I can use a range of strategies to add and subtract numbers up to 10,000.



KEY IDEAS



Addition

Combining amounts to find a total.



Subtraction

Finding the difference or what is left.



Strategies

Use place value, split numbers, repeated addition or friendly numbers.



Check

Estimate and check your answer makes sense.



TIP:

You can use mental strategies, jottings or written methods. Choose the strategy that works best for you.



MAHI • PRACTISE

1 Solve these additions.

- $2,345 + 1,678 =$ _____
- $4,806 + 3,127 =$ _____
- $6,520 + 789 =$ _____
- $1,999 + 2,345 =$ _____
- $7,463 + 2,508 =$ _____

Adding brings new possibilities!

2 Solve these subtractions.

- $5,732 - 1,486 =$ _____
- $8,400 - 3,275 =$ _____
- $7,000 - 698 =$ _____
- $4,521 - 2,389 =$ _____
- $9,003 - 4,567 =$ _____

3 Use a strategy to solve these. Show your working (jottings).

- $3,499 + 2,876 =$ _____
- $6,250 - 1,795 =$ _____
- $4,807 + 3,188 =$ _____
- $9,000 - 2,346 =$ _____

4 Fill in the missing number.

- $2,456 + \underline{\hspace{2cm}} = 5,000$
- $7,200 - \underline{\hspace{2cm}} = 3,845$
- $\underline{\hspace{2cm}} + 1,678 = 4,000$
- $9,305 - \underline{\hspace{2cm}} = 6,000$
- $\underline{\hspace{2cm}} + 2,495 = 7,495$

Use what you know. You can do it!

5 Solve these word problems.

- A school ordered 2,348 pencils. They ordered 1,576 more. How many pencils did they order in total?

- A hiker walked 6,750 metres. She still had 2,480 metres to go. How far was the full track?

- There were 8,600 people at a concert. 3,725 people left. How many people were still there?

6 Estimate, then solve. Which strategy did you use?

- $2,891 + 3,276$ Estimate: _____ Answer: _____
- $7,405 - 2,998$ Estimate: _____ Answer: _____
- $4,563 + 1,987$ Estimate: _____ Answer: _____



WHAKAMĀTAU • CHALLENGE

Choose one of the challenges below (or create your own).

- Find three different ways to make 5,000 using addition and subtraction.
- Create a word problem with an answer of 3,276.
- A bus had 6,480 km on the clock. It travelled another 1,795 km. Then it was serviced and 2,350 km were taken off the clock. What is the new reading?
- Your own challenge: _____

REAL
MATHS
REAL LIFE
BRIGHTER
FUTURES



WHAKAARO • REFLECT

Which strategy did you find easiest to use?
Which question was the most challenging?
How did you check your answers?
Where might you use addition and subtraction in everyday life?



SMALL
STEPS
LEAD TO
BIG THINGS



We can solve problems in different ways. It's important to choose the best strategy and explain our thinking.

PROBLEM SOLVING

I can solve multi-step problems using addition and subtraction, and explain my thinking.



KEY IDEAS



Understand

Read the problem carefully.



Plan

Choose a strategy and make a plan.



Solve

Use your strategy to find the answer.



Check

Does your answer make sense?



Explain

Share how you solved it.



TIP:

You can:

- draw a diagram
- use a number line
- break it into smaller steps
- look for a pattern
- estimate to check



MAHI • PRACTISE

1 Solve the problems. Show your working (jottings).

- a. A school fundraiser made \$2,475 on Friday and \$3,680 on Saturday. How much did they make in total?

Answer: _____

- b. A shop had 8,500 stickers. They sold 2,735 stickers. How many stickers do they have left?

Answer: _____

- c. A bus carried 3,248 people in the morning and 2,976 people in the afternoon. How many people travelled in total?

Answer: _____

- d. A farmer had 6,750 plants. He planted 2,480 more. Then 1,325 plants didn't survive. How many plants does he have now?

Answer: _____

2 Solve using the strategy shown.

- a. Use a number line.

$$3,296 + 1,407 = \underline{\hspace{2cm}}$$



- b. Use split numbers.

$$7,435 - 2,678 = \underline{\hspace{2cm}}$$

- c. Use estimation first, then solve.

A concert had 9,124 tickets. 6,879 were sold.

About how many were left? _____ (estimate)

Exact answer: _____

3 Create and solve your own problem.

Write an addition or subtraction word problem using numbers between 1,000 and 10,000.

Real problems happen every day!



WHAKAMĀTAU • CHALLENGE

A group of Year 5 students are planning a trip. The bus costs \$4,850. They have already saved \$2,375. They hold a car wash and raise \$1,690. They still need \$500 for other costs.

Do they have enough money? How much do they have left or how much more do they need?

Show your working and explain your answer.



WHAKAARO • REFLECT

Which problem was the most challenging?

What strategy worked best for you?

How did you check your answer?

How could you use these strategies in real life?

What is one goal you have for next time?

PROBLEM SOLVERS CREATE A BRIGHTER AOTEAROA



Data helps us notice patterns, make predictions and solve problems in the real world. We can collect, organise and display data in different ways.

DATA DETECTIVES

I can collect, organise and interpret data to find information and make decisions.



KEY IDEAS



Collect

Gather information by asking, observing or investigating.



Organise

Use tables, tally marks and graphs to display data clearly.



Interpret

Look for patterns, find the most/least and compare.



Draw conclusions

Use the data to answer questions or make a decision.



TIP:

Look at your data carefully. What do you notice? What might be a good question to ask?



MAHI • PRACTISE

1

The Homework Club asked 30 tamariki what their favourite lunch item is. The results are shown in the tally chart.

Lunch item	Tally	Total
Sandwich	I	5
Fruit		8
Sushi		4
Wrap	II	7
Other		4



- Which lunch item was the most popular? _____
- Which lunch item was the least popular? _____
- How many tamariki chose fruit or a wrap? _____
- How many tamariki were surveyed in total? _____
- If 5 more tamariki chose sushi, what would the new total be? _____

2

Complete the bar graph using the data from the tally chart above.



3

Answer the questions using the bar graph.

- Which two lunch items have the smallest difference in total? _____
- How many more tamariki chose a wrap than sushi? _____
- What fraction of tamariki chose a sandwich? _____
- What percentage of tamariki chose fruit? _____
- What do you notice about the data? _____

4

The table shows how many books were borrowed from the school library over a week.

Day	Mon	Tue	Wed	Thu	Fri
Books borrowed	12	18	15	20	25

- On which day were the most books borrowed? _____
- On which day were the fewest books borrowed? _____
- How many books were borrowed in total? _____
- What is the difference between the highest and lowest day? _____
- If this pattern continues, how many books might be borrowed next Monday? Explain your thinking. _____

5

Create your own question and survey 5 people (at home or school). Record the results in a table or tally chart, then write one interesting finding from your data.

My question: _____
My finding: _____



WHAKAMĀTAU • CHALLENGE

A group of 40 people were asked about their favourite way to get to school. The results are: 16 walk, 8 cycle, 10 drive and the rest take the bus.

- How many take the bus? _____
- What fraction take the bus? _____
- What percentage walk to school? _____
- Create a bar graph to show the results.



WHAKAARO • REFLECT

What did you find interesting about the data today?
How could data help you in everyday life?
What questions would you like to investigate next?

LOOK CLOSER
THINK DEEPER
SEE MORE



Graphs help us see information quickly. We use graphs in everyday life to compare, spot trends and make decisions.

GRAPHS IN REAL LIFE

I can read and create graphs to show information and help make decisions in real-world situations.



KEY IDEAS



Bar graphs

Use bars to compare amounts or counts.



Picture graphs

Use pictures to show information.



Answer questions

Read the graph carefully to find information.



Use the information

Think about what the data tells you and what you could do with it.



TIP:

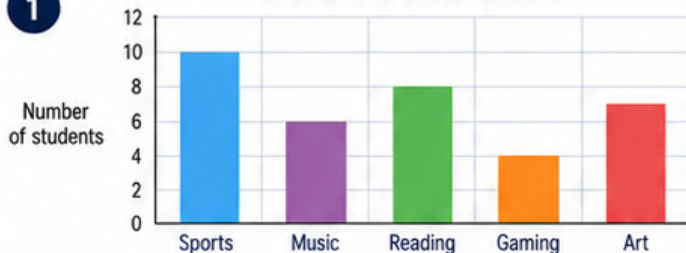
Look at the title, labels and numbers. Always read the question carefully and check what the graph is showing.



MAHI • PRACTISE

1

Favourite After-School Activities



- Which activity was the most popular? _____
- Which activity was the least popular? _____
- How many more students chose sports than gaming? _____
- How many students were surveyed in total? _____
- If 4 more students chose art, what would the total be? _____

2

The picture graph shows the number of trees planted in four different areas.

Area	Number of trees (each = 10 trees)
School	
Park	
Beach	
Community garden	

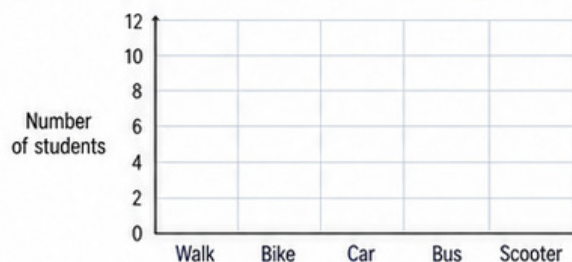
- Which area had the most trees planted? _____
- Which area had the fewest? _____
- How many more trees were planted at the community garden than at the school? _____
- How many trees were planted in total? _____

3

Create a bar graph using the data below.

Ways Students Travel to School

Method	Number of students
Walk	8
Bike	6
Car	10
Bus	12
Scooter	4



You can use a ruler to make your graph neat!

4

Answer the questions about your graph.

- Which method is the most popular? _____
- Which method is the least popular? _____
- How many more students catch the bus than bike? _____
- What fraction of students walk to school? _____
- What percentage of students travel by car? _____



WHAKAMĀTAU • CHALLENGE

20 students were asked about their favourite type of fruit. The results are: 6 like apples, 4 like bananas, 5 like berries, 3 like oranges and 2 like kiwifruit.

- Create a bar graph to show this information.
- Which fruit is the most popular?
- What fraction like oranges?
- If 5 more students liked kiwifruit, how many would there be?

DATA CAN HELP US MAKE POSITIVE CHANGE



WHAKAARO • REFLECT

What did you learn from the graphs on this page? How could graphs help you in your everyday life? What kind of information would you like to collect and graph yourself?

SMALL QUESTIONS CAN LEAD TO BIG IDEAS



We can compare data using graphs and tables. Comparing helps us see what is similar, what is different and what it might mean.

COMPARE THE DATA

I can compare different sets of data using graphs and tables to find patterns and make conclusions.



KEY IDEAS



Compare

Look for similarities and differences.



Look for patterns

What stands out?



Ask questions

What might explain the data?



Use evidence

Use the data to support your ideas.



TIP:

Don't just look at the biggest or smallest number. Think about the difference, the pattern and what the data might mean.



MAHI • PRACTISE

1

The graphs show how many books were read by two classes in a month.

Room 5 Book Choices



Room 6 Book Choices



- Which type of book was most popular in Room 5? _____
- Which type of book was most popular in Room 6? _____
- Which type of book had the biggest difference between the two classes? _____
- Which class read more non-fiction books? _____
- How many more manga books did Room 6 read than Room 5? _____

2

The table shows how many tamariki take part in different sports at two schools.

Sport	Turaki School	Maunga School
Rippa rugby	32	28
Netball	18	24
Football	26	20
Basketball	14	18
Hockey	10	12

Tables help us compare information clearly.

- Which sport is most popular at Turaki School? _____
- Which sport is most popular at Maunga School? _____
- Which sport has the biggest difference between the two schools? _____
- What might explain the differences? _____

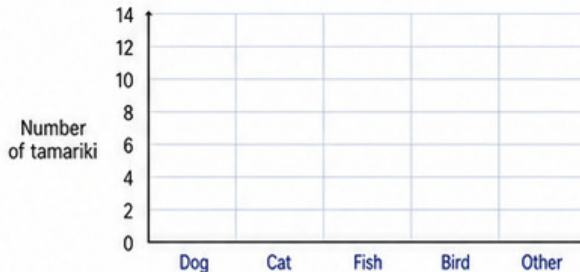
3

Complete the bar graph using the table.

Favourite Pets

Pet	Number of tamariki
Dog	12
Cat	8
Fish	6
Bird	4
Other	10

Use the data to make a neat bar graph.



4

Answer the questions about the data.

- Which pet is most popular? _____
- Which pet is least popular? _____
- How many more tamariki chose dog than bird? _____
- What fraction of tamariki chose cat? _____
- If 4 more tamariki chose fish, how many would that be? _____



WHAKAMĀTAU • CHALLENGE

The graphs on this page show what two classes read and the sports they play. Write a short response (3–5 sentences) to compare the data. Include at least:

- one similarity
- one difference
- one possible reason for the difference
- a conclusion (what you think the data tells us)

NUMBERS
PEOPLE
PLACES
REAL IMPACT



WHAKAARO • REFLECT

What did you notice when you compared the data? Which graph or table was most interesting? Why? How can data help us make better decisions in real life? What other questions could you ask about this data?

DATA
HELPS US
SEE MORE
OF THE STORY



We can use data to answer questions, find patterns and make predictions. Data helps us understand our world and make decisions.

USE THE DATA

I can read data in tables, graphs and diagrams, and use it to solve problems and make predictions.

EXPLORE
ANALYSE
PREDICT
SOLVE
TAKE ACTION

DATA
TODAY FOR
A BRIGHTER
TOMORROW

KEY IDEAS



Read data

Look carefully at tables, graphs and diagrams.



Find information

Answer questions using the data.



Make predictions

Use patterns to predict what might happen next.



Explain

Tell how you know and use the data to justify your answer.



TIP:

Look for the title, labels and numbers. Think about what the data is telling you and whether there are any patterns.



MAHI • PRACTISE

The table shows the number of hours of physical activity some Year 5 students did in one week.

1

Student	Hours of physical activity
Cian	5
Aroha	7
Liam	3
Mia	6
Tane	4
Zoe	8

Data can help us make healthy choices!

- Who did the most hours of physical activity? _____
- Who did the least hours? _____
- How many more hours did Zoe do than Liam? _____
- What is the total number of hours for all 6 students? _____
- If Cian does 2 more hours next week, how many hours will he do? _____

2

The line graph shows the average temperature in a town over a week.

Average Daily Temperature



Graphs show us changes over time.

- On which day was it the warmest? _____
- On which day was it the coolest? _____
- What was the temperature on Thursday? _____ °C
- What is the difference between the highest and lowest temperature? _____ °C

3

The pictograph shows how many rubbish bags were collected during a school clean-up.

Area	Number of bags (1 bag = 2 bags)
Playground	5 bags
Field	4 bags
Gardens	3 bags
Car park	2 bags
Around buildings	5 bags

Small actions make a big difference!

- Which area had the most rubbish bags? _____
- Which area had the least? _____
- How many bags were collected in total? _____
- If 2 more bags were collected from the car park, how many would that be? _____

4

Use the data to solve these problems.

- A class collected 48 cans for recycling. Another class collected 35 cans. How many cans did they collect altogether? _____
- Last week 62 people joined the school fun run. This week 78 people joined. How many more people joined this week? _____
- A tree belongs to a restoration group. They planted 125 native trees last month and 160 trees this month. How many trees have they planted in total? _____
- A fundraiser goal is \$500. They have already raised \$328. How much more do they need to reach their goal? _____



WHAKAMĀTAU • CHALLENGE

The table shows the number of native trees planted in a local area.

Month	Jan	Feb	Mar	Apr	May	Jun
Trees planted	20	35	50	65	80	?

- What pattern do you notice? _____
- How many trees do you predict will be planted in June? _____
- If the pattern continues, how many trees might be planted in July? _____
- Explain how you worked this out. _____

PATTERNS
HELP US
PREDICT
A BRIGHTER
FUTURE



WHAKAARO • REFLECT

What did you enjoy about working with data today?
What was the most challenging question? Why?
How could data like this be useful in your own life?
What questions would you like to explore next?

CURIOUS
PEOPLE
DISCOVER
MORE



We can read and compare different types of graphs (bar graphs, line graphs, pie charts and tables) and choose the best one to show information.

TYPES OF GRAPHS

I can recognise different types of graphs, understand what they show, and choose the best graph to display information.



DIFFERENT GRAPHS
DIFFERENT PURPOSES
SAME DATA
NEW IDEAS

MATHS HELPS US SEE THE BIGGER PICTURE

KEY IDEAS



Bar graphs

Compare amounts or counts.



Line graphs

Show changes over time.



Pie charts

Show parts of a whole.



Tables

Show exact numbers.



TIP:

Think about what information you want to show. Some graphs are better for showing changes over time, others are better for comparing amounts or showing parts of a whole.

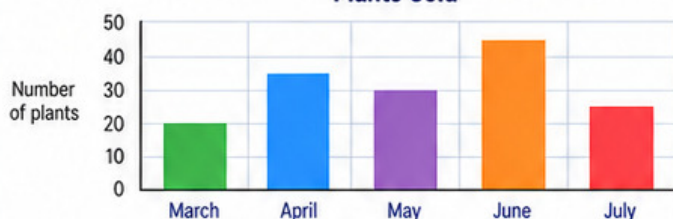


MAHI • PRACTISE

1

Look at the graph below. It shows the number of plants sold by the school garden over five months.

Plants Sold

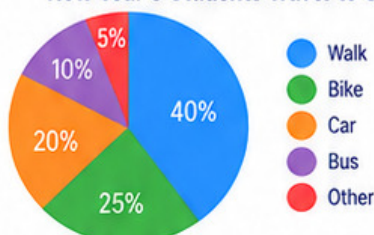


- Which month had the most plants sold? _____
- Which month had the least plants sold? _____
- How many more plants were sold in June than in March? _____
- What is the total number of plants sold over the five months? _____

2

Look at the pie chart. It shows how Year 5 students travel to school.

How Year 5 Students Travel to School



Pie charts show parts of a whole.

- Which method do most students use? _____
- Which method do the fewest students use? _____
- What fraction of students travel by car? _____
- What percentage of students travel by bike or walk? _____

3

Look at the table below. It shows the average number of hours of screen time per week for different age groups.

Age group	Average hours per week
8–9 years	7
10–11 years	10
12–13 years	14
14–15 years	18

Tables show exact numbers so we can compare clearly.

- Which age group has the highest average screen time? _____
- Which age group has the lowest average screen time? _____
- How many more hours do 14–15 year olds have than 8–9 year olds? _____
- What pattern do you notice as the age increases? _____

4

Choose the best type of graph for each situation.

- Showing the favourite fruit of a class. _____
- Showing the number of rainy days each month. _____
- Showing how a pizza is divided into slices. _____
- Comparing the height of different trees. _____
- Showing the number of books read over a year. _____

5

Create your own data set. Choose a topic (for example favourite subject, pets, or ways to relax). Collect or make up data for at least 5 categories and display it in a graph of your choice.

My topic: _____

I chose a _____ graph because: _____



WHAKAMĀTAU • CHALLENGE

Choose two different types of graphs (for example, a bar graph and a pie chart) to show the same data. What do you notice? Write a short explanation (3–5 sentences) about which graph you think is easier to read and why.

SAME INFORMATION DIFFERENT VIEWS!



WHAKAARO • REFLECT

What did you learn about different types of graphs today? Which graph do you find easiest to read? Why? When might you use each type of graph in real life? How could graphs help you make better decisions?

DATA LEADS TO BETTER CHOICES



We can interpret information from graphs and tables, solve problems using the data and explain our thinking.

INTERPRET AND SOLVE

I can read and interpret graphs and tables, use the information to solve problems and explain my reasoning.

READ DATA
FIND PATTERNS
SOLVE PROBLEMS
EXPLAIN THINKING
REAL-WORLD MATHS

DATA TURNS INFORMATION INTO SOLUTIONS

KEY IDEAS



Interpret

Read and understand what the data shows.



Look for patterns

What do you notice?
What might happen next?



Solve problems

Use the data to work things out.



Explain

Show your thinking and give reasons.



TIP:

Don't just look at the biggest number. Look at the whole graph or table. What is increasing? Decreasing? Why do you think that?



MAHI • PRACTISE

The bar graph shows how many visitors went to a local museum each day during one week.

1

Museum Visitors



- Which day had the most visitors? _____
- Which day had the least visitors? _____
- How many more visitors were there on Friday than Wednesday? _____
- Which two days had a similar number of visitors? _____
- What might be a reason for more people visiting on the weekend? _____

2

The line graph shows the average number of hours of daylight in a town over six months.

Average Daylight Hours



Line graphs are useful for showing changes over time.

- Which month had the most daylight hours? _____
- Which month had the least? _____
- How many fewer hours of daylight were there in June compared to January? _____
- What pattern do you notice? _____

3

The table shows the amount of rubbish collected (in kilograms) from a beach clean-up at four different beaches.

Beach	Rubbish collected (kg)
Piha	48
Muriwai	36
Bethells	52
Karekare	44

Tables help us compare data quickly and see patterns.

- Which beach had the most rubbish collected? _____
- Which beach had the least? _____
- How many more kilograms were collected at Bethells than Muriwai? _____
- What is the total amount of rubbish collected from all four beaches? _____
- If 10 more kilograms were collected at Piha next time, what would the new total be? _____

4

Use the information to solve these problems.

- A school collected 315 cans for recycling in Term 1 and 428 cans in Term 2. How many cans did they collect in total? _____
- A library had 1,260 books. They bought 340 more books. How many books do they have now? _____
- A class ran a sausage sizzle and made \$286. If they need \$500 for a school trip, how much more money do they need to raise? _____
- A bus can hold 48 students. If 3 buses are needed for a trip, how many students can go? _____
- Last year a garden produced 120 kg of kūmara. This year it produced 150 kg. How many more kilograms were produced this year? _____



WHAKAMĀTAU • CHALLENGE

Choose one of the graphs or tables on this page and write a short paragraph (4–6 sentences) to explain what the data shows, what you notice and one possible reason for the pattern. You could also suggest what might happen next.

ANALYSE
APPLY
SOLVE
EXPLAIN
GROW



WHAKAARO • REFLECT

What was the most interesting graph or table on this page? Why?
How did the data help you solve a problem?
Where might you see graphs and tables in real life?
What would you like to learn more about?



CURIOSITY TURNS DATA INTO NEW IDEAS



We can compare data from different graphs and tables, look for similarities and differences, and choose the most useful graph to show information.

COMPARE AND CHOOSE

I can compare information from different graphs and tables, and choose the best way to display data for a purpose.

COMPARE
CHOOSE
JUSTIFY
THINK CRITICALLY
REAL-WORLD DECISIONS

SAME DATA
DIFFERENT WAYS
A BRIGHTER
UNDERSTANDING

KEY IDEAS



Compare

Look for similarities and differences.



Choose

Pick the best graph for the purpose.



Justify

Explain why you made that choice.



Think critically

Consider what the data is telling you and what might be missing.



TIP:

There isn't one right way to show data. Different graphs are useful for different purposes. Always think about your audience and what you want to show.



MAHI • PRACTISE

The same data about the number of ice creams sold is shown in a table and a bar graph.

1

Ice Creams Sold	
Day	Number sold
Mon	12
Tue	18
Wed	15
Thu	22
Fri	20



- Which day were the most ice creams sold? _____
- Which day were the least ice creams sold? _____
- How many more ice creams were sold on Thursday than Monday? _____
- Which way of showing the data (table or bar graph) is easier to read? Explain your answer. _____

2

The line graph shows the number of people at a swimming pool during one day.

Swimming Pool Visitors



Line graphs are great for showing changes over time.

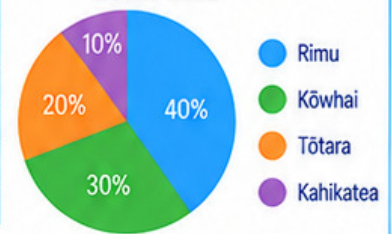
- What time had the most visitors? _____
- What time had the fewest visitors? _____
- How many more people were there at 12pm than 8am? _____
- What do you notice about the number of visitors after 12pm? _____

3

The table shows the number of books read by four classes in one month. A pie chart shows the same data.

Books Read	
Class	Number of books
Rimu	40
Kōwhai	30
Tōtara	20
Kahikatea	10

Books Read



- Which class read the most books? _____
- Which class read the least books? _____
- What percentage of the books were read by Tōtara? _____
- Which graph (table or pie chart) is better for showing the part of the whole? Explain why. _____

4

The information below shows the number of students who walk, ride, or get dropped off at school.

How Students Get to School	
Method	Number of students
Walk	36
Bike	24
Car	48

Choose the best graph to show this data (bar graph, pie chart or line graph). Explain your choice.

- Which type of graph would be best for this data? _____
- Why did you choose that type of graph? _____
- If 12 more students started walking next month, how many would walk? How might this change the graph? _____



WHAKAMĀTAU • CHALLENGE

You are planning a school event and want to show how many students prefer different activities: sports, art, music or tech.

- Create a data set with your own numbers (at least 4 categories).
- Choose the most appropriate graph to display your data.
- Explain why you chose that graph and what the data shows.
- What could you do with this information?

DIFFERENT
GRAPHS
SAME DATA
BETTER
DECISIONS



WHAKAARO • REFLECT

What did you find easiest about working with graphs and tables? What was the most challenging part? Why? How can comparing data help you in real life? What questions would you like to explore next?

DATA
HELPS US
UNDERSTAND
OUR WORLD



We can use two-way tables to organise data with two categories, compare information, find totals and answer questions.

TWO-WAY TABLES

I can read and use two-way tables to compare information, find totals and answer questions.

ORGANISE
COMPARE
FIND TOTALS
SOLVE
REAL-LIFE DATA

INFORMATION
HELPS US MAKE
BETTER
CHOICES

KEY IDEAS



Two-way tables

Show information for two categories.



Find information

Look for rows, columns or totals.



Calculate totals

Add across or down to find totals.



Compare

Look for similarities and differences.



Solve problems

Use the information to answer questions.



TIP:

Look at the question first. Decide what information you need. Check the row totals, column totals and the grand total.



MAHI • PRACTISE

The two-way table shows the number of students in each sports team at a school.

Sports Teams

Year level	Netball	Rugby	Football	Total
Year 4	12	15	8	
Year 5	14	10	12	
Year 6	10	12	16	
Total				

Two-way tables help us compare information quickly!

- How many Year 5 students are in the netball team? _____
- Which year level has the most students in the rugby team? _____
- How many Year 6 students are in total? _____
- What is the total number of students in the football team? _____
- How many students are in the school sports teams altogether? _____

2

The bar graph shows the number of hours some students spent on different activities in one week.

Weekly Activity Hours



Bar graphs make it easy to compare amounts!

- Which activity took the most time? _____
- Which activity took the least time? _____
- How many more hours were spent on gaming than music? _____
- What is the total number of hours spent on all activities? _____

3

The two-way table shows the number of pets owned by students in two classes.

Pets Owned

Pet	Room 5	Room 6	Total
Dog	8	6	
Cat	5	9	
Fish	4	3	
Other	2	5	
Total			

You can add across, down or both to find totals!

- How many students in Room 6 have a cat? _____
- How many students have a dog altogether? _____
- Which pet is the most common? _____
- How many more students in Room 6 have pets than Room 5? _____
- What is the total number of pets? _____

4

The line graph shows the average monthly rainfall in a town over six months.

Average Monthly Rainfall



Line graphs show how data changes over time!

- Which month had the highest rainfall? _____
- Which month had the lowest rainfall? _____
- How much higher was the rainfall in March than in January? _____ mm
- What was the total rainfall over the six months? _____ mm
- What pattern do you notice about the rainfall from March to June? _____



WHAKAMĀTAU • CHALLENGE

Create your own two-way table using a topic of your choice (for example: favourite kai, ways to get to school, or types of books). Collect or make up some data, and then write 3 questions for a partner to answer.

COLLECT
ORGANISE
ANALYSE
SHARE
LEARN



WHAKAARO • REFLECT

What did you learn about two-way tables today?
Why are they useful?
When might you use a two-way table in real life?
What other types of graphs could you use with the same data?

DATA
HELPS US
UNDERSTAND
OUR WORLD



We can use graphs and tables to solve real-world problems, compare information and explain our thinking.

GRAPHS, TABLES AND PROBLEM SOLVING

I can read and use graphs and tables to solve multi-step problems, compare information and explain my reasoning.



LOOK
THINK
SOLVE
EXPLAIN
REAL-WORLD SKILLS

MATHS HELPS US
EXPLORE A
BRIGHTER
FUTURE

KEY IDEAS



Use data

Read graphs and tables carefully.



Compare

Look for similarities and differences.



Solve problems

Use more than one step if needed.



Explain

Tell how you know and justify your answer.



TIP:

Sometimes you need to use information from more than one graph or table. Take your time, break the problem into steps and check your answer.



MAHI • PRACTISE

The table shows the number of items sold at the school fundraiser over four days.

Fundraiser Sales

Item	Monday	Tuesday	Wednesday	Thursday	Total
Sausage sizzle	45	60	55	70	
Baking	30	25	40	35	
Drinks	20	28	25	30	
Total					

- Which item had the highest total sales? _____
- Which day had the highest total number of items sold? _____
- How many baking items were sold altogether? _____
- How many more sausage sizzles were sold than drinks? _____
- If each drink cost \$2, how much money was made from drinks in total? _____



The line graph shows the temperature in a town over one week.

Daily Temperature



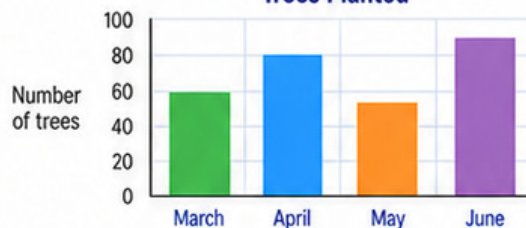
Line graphs help us see how data changes over time.

- What was the highest temperature and on which day? _____
- What was the lowest temperature and on which day? _____
- How many degrees warmer was it on Thursday than on Monday? _____ °C
- On how many days was the temperature 20°C or higher? _____



The bar graph shows the number of trees planted in a local restoration project over four months.

Trees Planted



Graphs can help us see changes and find trends.

- Which month had the most trees planted? _____
- Which month had the fewest trees planted? _____
- How many more trees were planted in June than in May? _____
- What is the total number of trees planted over the four months? _____
- If the goal is to plant 300 trees, how many more trees are needed? _____



The table shows the distances (in kilometres) travelled by four students during a sponsored walk.

Sponsored Walk Distances

Student	Week 1	Week 2	Week 3	Total
Aroha	5	7	8	
Cian	6	6	7	
Liam	4	8	10	
Zoe	7	5	6	

Tables help us organise information so we can solve real problems.

- Which student walked the furthest in total? _____
- How many kilometres did Liam walk altogether? _____
- In which week did the students walk the most kilometres in total? _____
- What is the total distance walked by all four students over three weeks? _____
- If the goal was 100 km, how many more kilometres do they need? _____



WHAKAMĀTAU • CHALLENGE

Plan a school event (for example, a fun run, bake sale or sports day). Create a table or graph with some example data, then write 4 questions for a partner to answer. Include at least one question that requires more than one step to solve.

DATA
IDEAS
SOLUTIONS
STRONGER
TOGETHER



WHAKAARO • REFLECT

What did you find easy about using graphs and tables today?
What was more challenging?
How did breaking a problem into smaller steps help you?
Where else in real life could you use these skills?
What would you like to learn next?

CURIOUS
MINDS
BUILD
BRIGHTER
TOMORROWS



We can use real-world data to make sense of our world, compare information, solve problems and make informed decisions.

REAL-WORLD DATA

I can read and use real-world data from graphs and tables, compare information, solve problems and explain my reasoning.



KEY IDEAS



Real-world data

Comes from everyday situations.



Analyse

Look closely at the information.



Compare

Look for similarities and differences.



Solve problems

Use the data to find solutions.



Make decisions

Use evidence to support your ideas.



TIP:

Always read the title, labels and units carefully. Think about what the data tells you, what might be missing, and what questions you need to answer.

- 1 The bar graph shows the number of people who visited a national park over six months.

Park Visitors



Bar graphs help us compare amounts over time.

- Which month had the most visitors?
- Which month had the fewest visitors?
- How many more people visited in April than in January?
- What is the total number of visitors over the six months?
- What do you notice about the pattern? What might explain it?

- 2 The line graph shows the average number of hours of sunshine in a city over a week.

Hours of Sunshine



Line graphs help us see how data changes over time.

- Which day had the most sunshine?
- Which day had the least sunshine?
- How many more hours of sunshine were there on Wednesday than on Saturday?
- What is the total number of hours of sunshine over the week?
- What might be a reason for the change in sunshine during the week?

- 3 The table shows the number of different types of waste collected during a community clean-up.

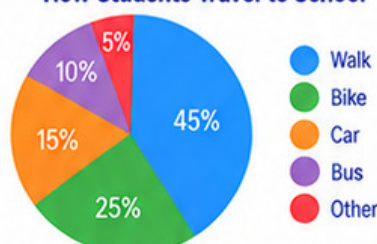
Type of waste	Amount collected (kg)
Rubbish	48
Recycling	62
Green waste	35
E-waste	12
Total	

Tables help us organise data so we can compare and calculate.

- What type of waste was collected the most?
- What type of waste was collected the least?
- How many more kilograms of recycling were collected than e-waste?
- What is the total amount of waste collected?
- Why do you think community clean-ups are important?

- 4 The pie chart shows how students at a school travel to get to school.

How Students Travel to School



Pie charts show parts of a whole. The total is always 100%.

- What is the most common way students travel to school?
- What percentage of students travel by bus?
- What percentage of students travel by bike or walk?
- If there are 400 students at the school, how many travel by car?
- What are some benefits of using active travel (walking or biking)?



WHAKAMĀTAU • CHALLENGE

Use information from at least two of the graphs or tables on this page to solve a real-life problem. For example, you could plan a school event, compare patterns, or work out how to reduce waste. Write 4–6 sentences to explain your problem, show your working and explain your answer.

REAL DATA
REAL PEOPLE
REAL PROBLEMS
BRIGHTER
SOLUTIONS



WHAKAARO • REFLECT

What did you enjoy about working with real-world data? What was the most challenging part? Why? How can data help you make better choices in your everyday life? Where might you see graphs and tables in the real world? What would you like to learn more about?

SMALL
QUESTIONS
CAN LEAD TO
BIG CHANGE



We can use information from graphs and tables to plan, compare options, solve problems and make informed decisions.

PLAN, COMPARE AND SOLVE

I can use information from graphs and tables to plan, compare options, solve multi-step problems and explain my reasoning.

PLAN AHEAD
COMPARE OPTIONS
SOLVE PROBLEMS
THINK CRITICALLY
REAL-WORLD DECISIONS

GOOD DATA LEADS TO BETTER CHOICES

KEY IDEAS



Plan

Use the data to explore options.



Compare

Look at similarities and differences.



Solve problems

Use the information to work out the best solution.



Explain

Tell how you know and justify your answer.

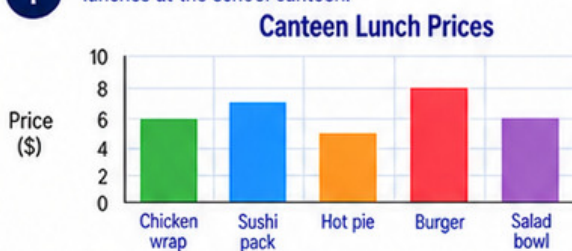


TIP:

Think about what the data is telling you. Consider the best option for the situation and explain why. There can be more than one good answer!

MAHI • PRACTISE

1 The bar graph shows the cost of different types of school lunches at the school canteen.



Bar graphs help us compare amounts quickly.

- Which lunch costs the most? _____
- Which lunch costs the least? _____
- How much more does the burger cost than the hot pie? \$ _____
- If you have \$15, which two lunches could you buy? _____
- Which lunch do you think is the best value for money? Explain why. _____

2 The line graph shows the number of weeks a school saved cans for recycling during a 10-week challenge.



Line graphs help us see how data changes over time.

- In which week were the most cans collected? _____
- In which week were the fewest cans collected? _____
- How many more cans were collected in Week 10 than in Week 1? _____
- Between which two weeks was the biggest increase? _____
- What do you think might have caused the increase in cans collected? _____

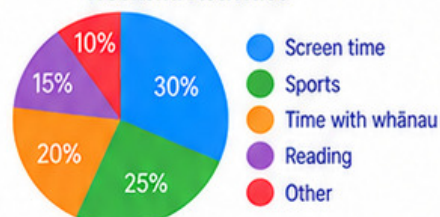
3 The table shows the travel times (in minutes) from four towns to the regional sports centre.

Town	Car	Bus	Train	Total distance (km)
Te Aroha	45	60	50	60
Matamata	30	45	40	40
Cambridge	25	35	35	35
Hamilton	20	30	25	25

- Which town has the shortest travel time by car? _____
- Which town has the longest travel time by bus? _____
- How many minutes faster is the train than the bus from Te Aroha? _____
- If a team is coming from Matamata, which option (car, bus or train) is the fastest? _____
- The team needs to arrive in under 40 minutes. Which towns can make it in time by train? _____

4 The pie chart shows how a group of Year 5 students spent their weekend time.

Weekend Activities



Pie charts show parts of a whole. The total is always 100%.

- What activity did the students spend the most time on? _____
- What percentage of time was spent reading? _____
- How many times more time was spent on screen time than on other? _____
- If the group spent 8 hours on screen time, how many total hours is that for the whole weekend? _____
- Would you like to see a different result? What would you change and why? _____

WHAKAMĀTAU • CHALLENGE

Plan a day trip for your class using the information on this page. Choose a destination, a way to travel, a lunch option and an activity. Use the data to **explain your choices**. Write 4–6 sentences (or create a simple plan) to show your thinking.

PLAN
COMPARE
SOLVE
EXPLAIN
TAKE ACTION

WHAKAARO • REFLECT

How did using graphs and tables help you solve problems today? What was the most interesting piece of information? What did you find challenging? How could this learning help you in real life? What would you like to learn more about?

BETTER QUESTIONS LEAD TO FUTURES



We can interpret information from graphs and tables and use it to answer questions, make predictions and solve problems in everyday situations.

INTERPRET AND USE DATA

I can interpret information from graphs and tables, use the data to answer questions, and apply it to real-world situations.

OBSERVE
INTERPRET
PREDICT
APPLY
SOLVE
IN REAL LIFE

DATA
AROUND US
HELPS US MAKE
BETTER
CHOICES

KEY IDEAS



Read data

Interpret information from graphs and tables.



Find patterns

Look for trends and changes.



Make predictions

Use the data to think ahead.



Solve problems

Apply your thinking to real-world situations.



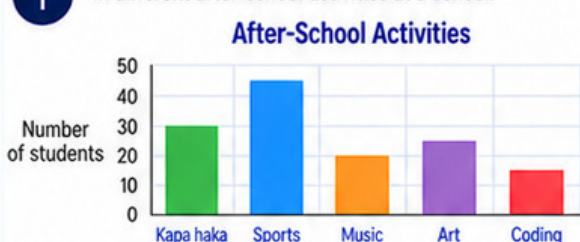
TIP:

Don't just read the numbers – think about what they mean. Ask yourself: What is happening? Why might this be? What could happen next?



MAHI • PRACTISE

The bar graph shows the number of students who take part in different after-school activities at a school.



Bar graphs help us compare how many.

- Which activity has the most students? _____
- Which activity has the least students? _____
- How many more students do sports than music? _____
- What is the total number of students in art and coding? _____
- Which activity would you like to join? Why? _____

The line graph shows the number of library books borrowed each month at a school.



Line graphs help us see changes over time.

- Which month had the most books borrowed? _____
- Which month had the fewest books borrowed? _____
- How many more books were borrowed in April than in January? _____
- What do you notice about the trend from March to June? _____
- What might be a reason for the drop in June? _____

3

The table shows the average daily temperature in four different towns over one week.

Average Daily Temperature (°C)

Day	Auckland	Wellington	Christchurch	Dunedin
Mon	18	14	12	10
Tue	19	15	11	9
Wed	20	13	10	8
Thu	18	12	11	9
Fri	17	13	12	7

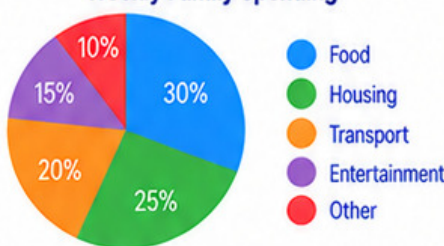
Tables help us compare information across categories.

- Which town had the highest temperature on Wednesday? _____
- Which town had the lowest temperature on Friday? _____
- What was the average temperature in Auckland over the five days? _____ °C
- Which town had the biggest change in temperature during the week? _____
- If you were planning a weekend trip, which town would you choose? Why? _____

4

The pie chart shows how a family spends their weekly budget.

Weekly Family Spending



Pie charts show parts of a whole. The total is always 100%.

- What is the largest expense? _____
- What percentage is spent on transport? _____
- If the family's total budget is \$1,000, how much is spent on housing? \$ _____
- How much is spent on entertainment and other combined? _____ %
- What could the family do if they wanted to spend less on transport? _____



WHAKAMĀTAU • CHALLENGE

Plan a school event (for example, a fun run, bake sale or cultural day). Create a graph or table with some example data, then answer these questions:

- What is your event and why is it important?
- What data will you collect?
- Create a graph or table with at least 5 pieces of data.
- Write 4–6 questions and answer them.
- What decisions could you make using this data?

COLLECT
ORGANISE
INTERPRET
PROBLEM SOLVE
TAKE ACTION



WHAKAARO • REFLECT

What did you learn about interpreting data today?
Which type of graph or table do you find most useful? Why?
How can data help you make better decisions in real life?
Where do you see graphs and data in your community?
What would you like to learn more about?

DATA
GIVES US
A CLEARER
VIEW OF
OUR WORLD



We can compare information from graphs and tables, look for patterns, and use the data to solve problems and make informed decisions.

COMPARE AND DECIDE

I can compare information from graphs and tables, identify patterns, solve problems and make informed decisions.

COMPARE
SPOT PATTERNS
MAKE DECISIONS
SOLVE
REAL-WORLD THINKING

GOOD INFORMATION
HELPS US MAKE
BETTER CHOICES

KEY IDEAS



Compare information
Look at similarities and differences.



Look for patterns
Find what is changing



Solve problems
Use the data to find solutions.



Make decisions
Choose the best option and explain why.

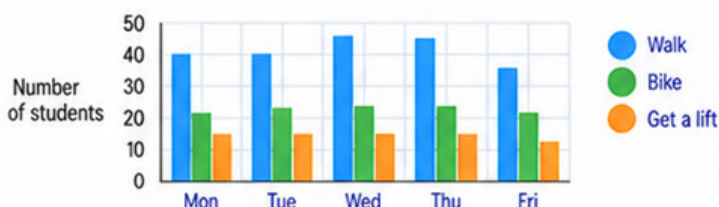


TIP:

Look at the title, labels and units. Think about what the data means. Use more than one piece of information before making a decision.

- 1 The bar graph shows the number of students who walk, bike or get a lift to school over five days.

How Students Travel to School



- On which day did the most students walk to school? _____
- On which day did the fewest students get a lift? _____
- How many more students walked than biked on Thursday? _____
- Which day had the highest total number of students? _____
- What could be a reason for the change in travel choices during the week? _____

- 2 The line graph shows the amount of water used at a school over six months.

Water Usage at School



- Which month had the highest water usage? _____
- Which month had the lowest water usage? _____
- How many more litres were used in March than in January? _____
- What is the total water usage over the six months? _____
- What might explain the decrease in water usage after March? _____

- 3 The table shows the number of native trees planted by four classes during a school project.

Native Trees Planted

Class	Kōwhai	Kauri	Rimu	Total
Room 1	10	5	8	
Room 2	6	12	7	
Room 3	9	4	11	
Room 4	5	8	6	

- Which class planted the most Kauri trees? _____
- Which class planted the fewest Kōwhai trees? _____
- How many Rimu trees did Room 3 plant? _____
- Calculate the total number of trees planted by each class. _____
- Which class planted the most trees overall? _____
- If the school planted 100 trees in total, how many more trees are needed to reach the goal? _____

- 4 The table shows the amount of money raised by four houses during a food drive.

Food Drive Fundraising

House	Canned food (\$)	Baking (\$)	Sausage sizzle (\$)	Total (\$)
Tūi	120	80	150	
Kererū	90	110	120	
Kea	100	140	130	
Piwakawaka	110	95	145	

- Which house raised the most money from baking? _____
- Which house raised the least from canned food? _____
- Calculate the total amount raised by each house. _____
- Which house raised the most money overall? _____
- If the school needs to raise \$2,000, how much more money is needed after this food drive? _____



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to solve a real-life problem. For example:

- Plan a school event.
- Decide how to travel for a school trip.
- Work out how to reach a goal.
- Write 4-6 sentences to explain your plan, including the you used and why you chose that option.



WHAKAARO • REFLECT

What did you learn about comparing information?

Which graph or table was most helpful? Why?

How can data help you make better decisions in everyday life?

Where else might you use these skills?

What would you like to learn more about?

DATA
IDEAS
DECISIONS
BRIGHTER
TOGETHER

CURIOUS
MINDS
BUILD
BRIGHTER
TOMORROWS



We can use data from graphs and tables to solve real-world problems, make informed decisions and explain our reasoning.

USE DATA TO SOLVE REAL PROBLEMS

I can use information from graphs and tables to solve real-world problems and explain my thinking.



KEY IDEAS



Use data

Read graphs and tables carefully.



Find information

Look for key details.



Solve problems

Use the data to find solutions.



Explain

Tell how you know and justify your answer.



Make decisions

Choose the best option based on the information.

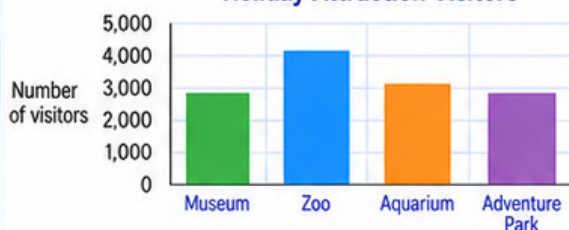


TIP:

In real life, data helps us make better choices. Think about what the data tells you and how it might affect people, places or the environment.

- 1 The bar graph shows the number of visitors to four attractions during the school holidays.

Holiday Attraction Visitors



Graphs help us compare information and see which is the most or least.

- Which attraction had the most visitors? _____
- Which attraction had the fewest visitors? _____
- How many more people visited the aquarium than the museum? _____
- What is the total number of visitors to all four attractions? _____
- If you could only visit one attraction, which would you choose? Why? _____

- 2 The line graph shows the amount of rubbish collected during a community clean-up over six months.

Rubbish Collected



Line graphs help us see how data changes over time.

- Which month had the most rubbish collected? _____
- Which month had the least rubbish collected? _____
- How many more kilograms were collected in April than in January? _____
- What is the total amount of rubbish collected over the six months? _____
- Why do you think the amount collected went down after April? _____

- 3 The table shows the number of students who walk, bike or get a bus to school at two different schools.

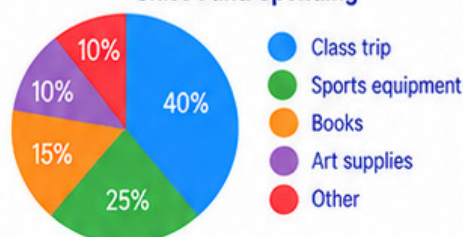
Travel method	Turaki School	Riverside School
Walk	52	38
Bike	30	45
Bus	18	25
Total	100	108

Tables help us organise data so we can compare and solve problems.

- Which school has more students who walk to school? _____
- Which school has more students who bike to school? _____
- How many more students get the bus at Riverside than Turaki? _____
- What is the total number of students across both schools? _____
- If your school wanted to increase active travel (walking or biking), what could you suggest? _____

- 4 The pie chart shows how a Year 5 class spent their class fund.

Class Fund Spending



Pie charts show parts of a whole. The total is always 100%.

- What was the largest expense? _____
- What percentage was spent on books? _____
- If the class fund was \$600, how much was spent on sports equipment? \$ _____
- How much was spent on art supplies and other combined? \$ _____
- Do you think the class made good choices with their fund? Why or why not? _____



WHAKAMĀTAU • CHALLENGE

Choose a real-world situation and use data (from a graph or table on this page, or your own) to solve a multi-step problem. Write 4–6 sentences to explain your thinking.

Try to include:

- at least two pieces of data
- a calculation
- your decision or solution
- an explanation of why you chose it



WHAKAARO • REFLECT

What did you learn about using data today?
Which graph or table was most helpful? Why?
How can data help you make better decisions in your everyday life?
Where might you see graphs, tables or charts outside of school?
What would you like to learn more about?

THINK
ANALYSE
SOLVE
EXPLAIN
TAKE ACTION

REAL
LEARNERS
REAL IDEAS
BRIGHTER
TOMORROWS



We can use data from graphs and tables to recognise patterns, compare options, make decisions and explain our reasoning.

DATA HELPS US MAKE BETTER DECISIONS

I can use information from graphs and tables to make informed decisions, justify my thinking and solve real-world problems.



KEY IDEAS



Use data

Read graphs and tables carefully.



Find patterns

Look for what is increasing or decreasing.



Compare options

Look at similarities and differences.



Make decisions

Use the data to choose the best option and explain why.



Explain

Justify your answer using evidence from the data.

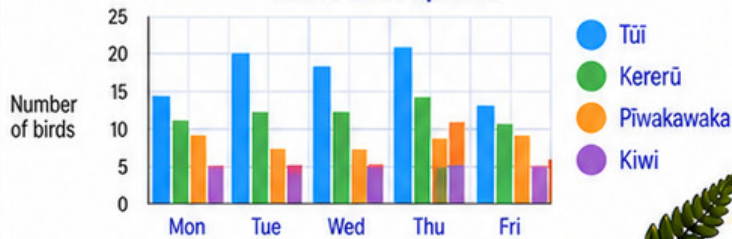


TIP:

Think about the big picture. What is the data telling you? How could it help you make a better choice for yourself, others or the environment?

- 1 The bar graph shows the number of native birds spotted at a local reserve over five days.

Native Birds Spotted



- Which bird was spotted the most overall?
- On which day were the fewest birds spotted in total?
- How many more Tūi were spotted on Thursday than Monday?
- Which two birds had a similar number of sightings over the five days?
- What might be a reason for the change in bird sightings during the week?

- 2 The line graph shows the average number of minutes spent reading per day by a Year 5 class over eight weeks.

Reading Time



Line graphs help us see how data changes over time.

- In which week did the class spend the most time reading?
- In which week did they spend the least time reading?
- How many more minutes were spent reading in Week 8 than Week 1?
- Between which two weeks did the biggest increase happen?
- What might explain the increase in reading time over the eight weeks?

- 3 The table shows the amount of rainfall (in millimetres) in four towns over one week.

Weekly Rainfall (mm)

Day	Auckland	Hamilton	Taupo	Wellington
Mon	12	5	0	8
Tue	18	12	5	20
Wed	30	8	12	25
Thu	22	15	18	10
Fri	10	6	4	12

Tables help us compare data and see which is more or less.

- Which town had the most rainfall on Wednesday?
- Which town had the least rainfall over the week?
- How much more rainfall did Wellington have on Tuesday than Auckland? ____ mm
- On which day was the total rainfall across all towns the highest?
- If you were planning an outdoor event, which day would be the best choice? Explain your reasoning.

- 4 The table shows the distance (in kilometres) for three possible routes from our town to a nearby beach.

Trip to the Beach

Route	Distance (km)	Estimated time (minutes)
Coast Road	48	60
River Route	62	75
Mountain Track	55	90

We can use data to compare options and choose the best one.

- Which route is the shortest?
- Which route would take the least time?
- If you wanted the quickest trip, which route would you choose?
- How many more kilometres is the River Route than the Coast Road? ____ km
- What other factors (besides distance and time) might you consider when choosing a route?



WHAKAMĀTAU • CHALLENGE

Use at least two of the graphs or tables on this page to plan a real-life situation. For example, plan a class trip, a school event, or a community project. Write 4–6 sentences to explain:

- what decision you will make
- which data you used
- why you chose that option
- how the data helped you.



WHAKAARO • REFLECT

What did you learn today about using data?

Which type of graph or table do you find easiest to understand? Why?

How can data help you make better decisions at home, at school or in your community?

Where might you see data in everyday life?

What would you like to learn more about?

DATA
IDEAS
ACTIONS
BRIGHTER
FUTURES

BETTER
PEOPLE
BRIGHTER
AOTEAROA



We can use data from graphs and tables to plan ahead, compare options, make predictions and solve real-world problems.

PLAN AHEAD WITH DATA

I can use information from graphs and tables to plan, compare options, make predictions and solve multi-step problems.

KEY IDEAS



Use data

Read graphs and tables carefully.



Compare

Look for similarities and differences.



Plan ahead

Use the data to think about what might happen next.



Solve problems

Use the information to find the best solution.



Explain

Tell how you know and justify your thinking.



TIP:

Look at the big picture. What does the data tell you? How can you use it to plan, predict and make the best decision?

- 1 The bar graph shows the number of students in each year level at Turaki School.

Students at Turaki School

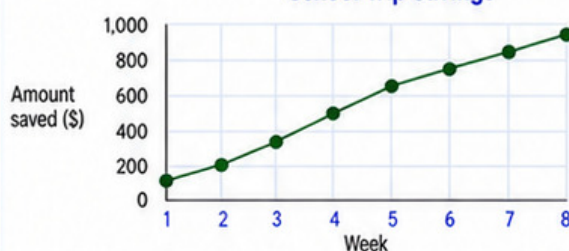


Graphs help us compare groups of data quickly.

- Which year level has the most students? _____
- Which year level has the fewest students? _____
- How many more students are in Year 5 than in Year 1? _____
- What is the total number of students at Turaki School? _____
- If another 10 students joined Year 6, how many would be in Year 6? _____

- 2 The line graph shows the amount of money saved for a school trip over eight weeks.

School Trip Savings



Line graphs help us see how data changes over time.

- In which week was \$500 first reached? _____
- How much was saved in Week 8? \$ _____
- How much more money was saved in Week 8 than in Week 1? \$ _____
- If the goal is \$1,000, how much more money is needed? \$ _____
- If the savings continue to increase by \$100 each week, in which week would the goal be reached? _____

- 3 The table shows the number of items sold at the school gala.

Gala Sales

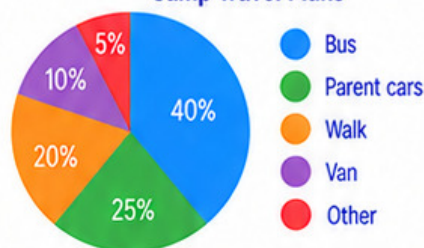
Item	Friday	Saturday	Total
Sausage sizzle	120	150	
Baking	85	110	
Drinks	60	90	
Plants	40	70	
Total			

Tables help us organise data and find totals.

- How many sausage sizzles were sold in total? _____
- Which item had the highest total sales? _____
- How many drinks were sold altogether? _____
- What was the total number of items sold on Saturday? _____
- If each drink was \$2, how much money was made from drinks over the two days? \$ _____

- 4 The pie chart shows how a group of students plan to travel to camp.

Camp Travel Plans



Pie charts show parts of a whole. The total is always 100%.

- What is the most popular way to travel to camp? _____
- What percentage of students plan to walk? _____%
- If 80 students are going to camp, how many are travelling by bus? _____
- How many more students are going by parent cars than van? _____
- Would you recommend changing the travel plan? Why or why not? _____



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to plan something for your class or school. For example:

- Plan a school trip budget
- Organise a fundraising goal
- Decide the best way to travel to an event
- Plan resources for a school activity

Write 4–6 sentences explaining your plan and how the data helped you.



WHAKAARO • REFLECT

What did you learn about using data to plan ahead? Which graph or table was most useful? Why? How can data help you make better decisions in everyday life? Where might you use data when planning something with your whānau or at school? What would you like to learn more about?

IDEAS
PLANS
DATA
ACTION
BRIGHTER
FUTURES

SMALL
IDEAS
BIG
CHANGES



We can interpret information from graphs and tables, compare data, look for patterns, and use it to solve real-world problems and make informed decisions.

INTERPRET, COMPARE, SOLVE

I can interpret information from graphs and tables, compare data, identify patterns and trends, and use the data to solve real-world problems.

KEY IDEAS



Interpret data

Read graphs and tables carefully.



Look for patterns

Find what is increasing, decreasing or staying the same.



Compare

Look at similarities and differences.



Make predictions

Use the data to think ahead.



Solve problems

Use the information to make good choices in real life.

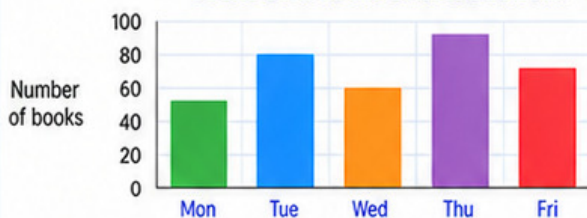


TIP:

Look at the title, labels and units. Ask yourself: What does the data tell me? What might happen next? How could I use this information?

- 1 The bar graph shows the number of books sold at the school book fair over five days.

Books Sold at the School Book Fair

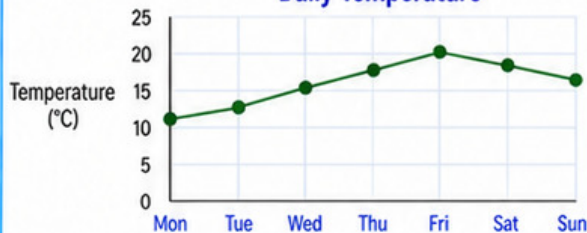


Bar graphs help us compare amounts quickly.

- Which day were the most books sold? _____
- Which day were the fewest books sold? _____
- How many more books were sold on Thursday than on Monday? _____
- What is the total number of books sold over the five days? _____
- If the same number of books were sold on Saturday as Friday, how many books would be sold in total? _____

- 2 The line graph shows the average daily temperature over one week in a New Zealand town.

Daily Temperature



Line graphs help us see changes over time.

- What was the highest temperature and on which day? _____
- What was the lowest temperature and on which day? _____
- How many degrees warmer was it on Friday than on Monday? _____ °C
- What was the average temperature for the week? _____ °C
- Based on the trend, what do you think the temperature might be on next Monday? Explain your answer. _____

- 3 The table shows the number of students who chose different lunch options at school.

Lunch Orders

Lunch option	Number of students
Sushi	28
Chicken wrap	46
Ham sandwich	32
Vegetarian roll	24
Hot food	40

Tables help us organise data so we can compare and find information.

- Which lunch option was the most popular? _____
- Which lunch option was the least popular? _____
- How many more students chose a chicken wrap than a vegetarian roll? _____
- What is the total number of lunch orders? _____
- If 10 more students choose sushi next week, how many students would choose sushi? _____

- 4 The pictograph shows how many students travel to school each day.

How Students Travel to School

Method	Number of students
Walk	50
Bike	20
Car	30
Bus	10

Key:

= 10 students

Pictographs use pictures to show data in a simple way.

- Which method do the most students use? _____
- Which method do the fewest students use? _____
- How many more students walk to school than take the bus? _____
- How many students travel to school by car? _____
- If 10 more students start biking to school, how many students would bike to school? _____



WHAKAMĀTAU • CHALLENGE

Use the information from one of the graphs or tables on this page to solve a real-life problem. Write 4–6 sentences to explain your thinking. You could:

- plan a school event
- decide what to order
- choose the best option
- make a prediction
- explain your reasoning



WHAKAARO • REFLECT

What did you learn today about interpreting data? Which graph or table was the most useful? Why? How can data help you make better decisions in everyday life? Where might you see graphs, tables or pictographs outside of school? What would you like to learn more about?

DATA
THINKING
BETTER
CHOICES
BRIGHTER
FUTURES

SAME
INFORMATION
DIFFERENT
PERSPECTIVES
BRIGHTER
SOLUTIONS



We can compare information shown in different ways to find patterns, spot trends and make informed decisions.

COMPARE REPRESENTATIONS

I can compare information shown in different ways (graphs, tables, diagrams and pictographs), look for patterns and trends, and use the information to solve problems.

KEY IDEAS



Compare representations
Look at graphs, tables, pictographs and diagrams.



Find patterns
Look for what is increasing, decreasing or staying the same.



Spot trends
Look at the big picture over time.



Solve problems
Use the information to find the best solution.



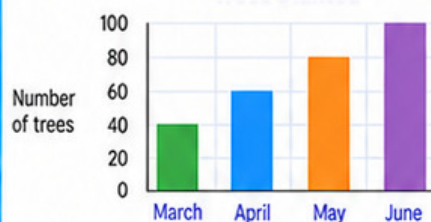
Explain
Tell how you know and justify your answer.



TIP:
The same information can be shown in different ways. Compare them carefully. What new information can you see?

- 1 The bar graph and table show the number of trees planted in a local restoration project over four months.

Trees Planted



Month	Number of trees
March	40
April	60
May	80
June	100

- Which month had the most trees planted?
- Which month had the fewest trees planted?
- How many more trees were planted in June than in March?
- What pattern can you see in the number of trees planted each month?
- If the pattern continues, how many trees might be planted in July?

- 2 The line graph and table show the number of students who walked to school over five days.

Students Who Walked to School



Day	Number of students
Mon	20
Tue	35
Wed	30
Thu	40
Fri	45

- On which day did the most students walk to school?
- On which day did the fewest students walk?
- How many more students walked on Friday than on Monday?
- What was the total number of students who walked to school over the five days?
- What do you think might be a reason for the change in numbers during the week?

- 3 The table and pictograph show how many cans were collected by four classes in a recycling challenge.

Cans Collected

Class	Number of cans
Room 1	40
Room 2	60
Room 3	50
Room 4	70



- Which class collected the most cans?
- Which class collected the fewest cans?
- How many more cans did Room 4 collect than Room 1?
- What is the total number of cans collected by all four classes?
- If each can is recycled and saves about 0.02 kg of rubbish, how many kilograms of rubbish were saved in total?

- 4 The pie chart and table show the results of a survey about favourite ways to spend the weekend.

Favourite Weekend Activities



Activity	Number of students
Sports	30
Gaming	25
Whānau	20
Reading	15
Other	10
Total	100

- What was the most popular weekend activity?
- What was the least popular weekend activity?
- How many more students chose sports than reading?
- What percentage of students chose gaming?
- If 200 students were surveyed instead of 100, how many students might choose hanging out with whānau?



WHAKAMĀTAU • CHALLENGE

Choose information from at least two different representations on this page to solve a real-life problem. For example:

- Plan a school event.
- Decide which project to support.
- Predict what might happen next.
- Compare two different sets of data.
- Explain your reasoning in 4–6 sentences.



WHAKAARO • REFLECT

What did you learn today about comparing information? Which representation (graph, table, pictograph or pie chart) was most helpful? Why?

How can looking at the same data in different ways help you make better decisions in everyday life? Where might you see this type of information outside of school? What would you like to learn more about?

DATA
IDEAS
PEOPLE
SOLUTIONS
BRIGHTER
TOGETHER

SAME
DATA
NEW IDEAS
BRIGHTER
FUTURES



We can use data from graphs and tables to compare, identify trends, make predictions and solve real-world problems.

REAL DATA REAL IMPACT

I can use information from graphs and tables to solve real-world problems, make predictions and explain how data can help our communities.



DATA
HELPS US
CREATE A
BRIGHTER
AOTEAROA

EXPLORE
ANALYSE
SOLVE
ACT
TOGETHER

SMALL
ACTIONS
MAKE A
BIG
DIFFERENCE

KEY IDEAS



Use data
Read graphs and tables carefully.



Find information
Look for key details and patterns.



Identify trends
What is increasing, decreasing or staying the same?



Make predictions
Use the data to think about what might happen next.



Solve problems
Use the information to find the best solution.

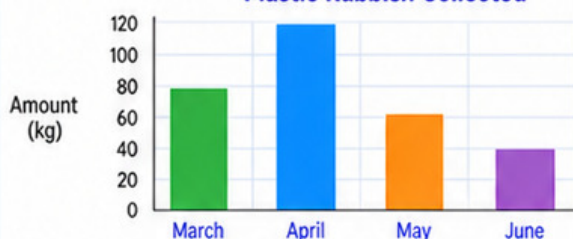


TIP:

Think about what the data means in real life. How could it help people, places or the environment? Use the data to support your ideas and explain your thinking.

- 1 The bar graph shows the amount of plastic rubbish collected from a local beach over four months.

Plastic Rubbish Collected



Graphs help us see changes and compare amounts over time.

- Which month had the most plastic rubbish collected?
- Which month had the least?
- How many more kilograms were collected in April than in June?
- What do you notice about the trend?
- Why is it important to collect rubbish from beaches?

- 2 The line graph shows the number of people who visited a local national park over six months.

Park Visitors



Line graphs help us see trends over time.

- In which month did the park have the most visitors?
- In which month did it have the fewest visitors?
- How many more visitors were there in May than in January?
- What do you think might be a reason for the drop in June?
- If this trend continued, what might you expect to happen in July? Explain your reasoning.

- 3 The table shows the amount of water used at school over five days.

Water Usage at School

Day	Water used (litres)
Monday	320
Tuesday	280
Wednesday	350
Thursday	300
Friday	260

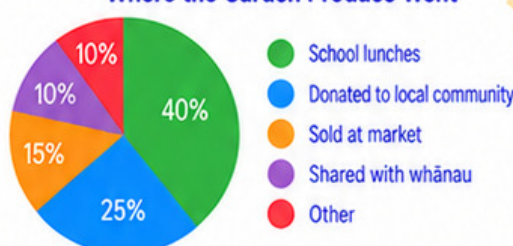


Data helps us make better choices for a more sustainable future.

- Which day used the most water?
- Which day used the least water?
- How many more litres were used on Wednesday than on Friday?
- What is the total amount of water used over the five days?
- What are some ways the school could reduce water use?

- 4 The pie chart shows how a school garden's produce was used last month.

Where the Garden Produce Went



Pie charts show parts of a whole. The total is always 100%.

- What was the most common use for the produce?
- What was the least common use?
- What percentage was donated to the local community?
- If 60 kg of produce was harvested, how many kilograms were sold at market?
- How does a school garden help the local community?



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to solve a real-life problem. For example:

- Plan a school clean-up or garden project
- Decide when to hold a community event
- Predict what might happen next
- Make a recommendation using the data

Write 4–6 sentences explaining your solution and why you chose it, using evidence from the data.



WHAKAARO • REFLECT

What did you learn today about using data? Which graph or table was most helpful? Why? How can data help you make a positive difference in your school or community? Where might you see data being used in everyday life? What would you like to learn more about?

PEOPLE
PLACES
IDEAS
A BRIGHTER
TOMORROW

DATA
IDEAS
A CLEANER
GREENER
BRIGHTER
AOTEAROA



USE DATA TO SOLVE PROBLEMS

We can use data to solve problems, make comparisons, choose the best option and explain our thinking in real-life situations.

I can use information from graphs and tables to solve real-world problems, compare options, make decisions and explain my reasoning.



KEY IDEAS



Use data
Read graphs and tables carefully.



Find information
Look for important details.



Compare options
Look at similarities and differences.



Make decisions
Use the data to choose the best option.



Solve problems
Use the information to find a solution.

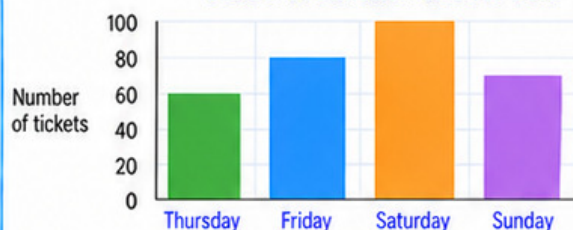


TIP:

Think about what the data tells you. What is the question asking? Do you need to compare, add, subtract, find the difference or look for a trend?

- 1 The bar graph shows the number of tickets sold for a school production over four days.

School Production Tickets Sold



Graphs help us compare amounts and find the most popular option.

- Which day had the most tickets sold?
- Which day had the fewest tickets sold?
- How many more tickets were sold on Saturday than on Thursday?
- What is the total number of tickets sold over the four days?
- If each ticket cost \$12, how much money was made in total?

- 2 The line graph shows the average number of hours of sunshine per day in a New Zealand town over a week.

Hours of Sunshine



Line graphs help us see changes and trends over time.

- On which day was there the most sunshine?
- On which day was there the least sunshine?
- How many more hours of sunshine were there on Saturday than on Monday?
- What is the average number of hours of sunshine over the seven days?
- If the trend continued, do you think there would be more or less sunshine the following Monday? Explain your reasoning.

- 3 The table shows the cost of different items at the school canteen.

Canteen Prices

Item	Price
Muffin	\$4
Fruit salad	\$3
Chicken roll	\$6
Juice	\$3
Cookie	\$2

GOOD FOOD BRIGHTER LEARNERS

- Which item is the most expensive?
- Which item is the cheapest?
- How much would a chicken roll and a juice cost? \$
- If you had \$10, which two items could you buy?
- The canteen sold 35 muffins in a day. How much money did they make from muffins? \$

- 4 The table shows the distances (in kilometres) from our town to four popular places in the region.

Trip to Explore

Place	Distance (km)
Lake Taupō	80
Whangārei Falls	120
Waitomo Caves	95
Raglan	110

TAUPO
WAITOMO
RAGLAN
EXPLORE MORE

- Which place is the closest to our town?
- Which place is the furthest from our town?
- How many more kilometres is Raglan than Lake Taupō? km
- If you travelled to Waitomo Caves and back in one day, how many kilometres would you travel in total? km
- Which place would you most like to visit? Use the data and your own reasoning to explain why.



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to solve a real-life problem. For example:

- Plan a weekend trip.
- Work out a budget for a school event.
- Compare two options and decide which is better.
- Make a recommendation using the data.
- Write 4–6 sentences explaining your thinking and how the data helped you.



WHAKAARO • REFLECT

What did you learn today about using data to solve problems? Which graph or table was the most useful? Why? How can data help you make better decisions in everyday life? Where else might you see data around you? What would you like to learn more about?

DATA
IDEAS
SOLUTIONS
STRONGER
COMMUNITIES

SMALL
DATA
BIG
POSSIBILITIES



We can use data from graphs and tables to compare, make predictions, identify the best options and solve real-world problems.

CHOOSE THE BEST OPTION

I can use information from graphs and tables to compare options, weigh up the pros and cons, and make informed decisions to solve real-world problems.



HE ITI
HE POUNAMU
EVERY CHOICE
COUNTS

EXPLORE
COMPARE
CONSIDER
DECIDE
TAKE ACTION

PLAN
COMPARE
DECIDE
TAKE ACTION

GOOD
CHOICES
BRIGHTER
FUTURES

KEY IDEAS



Use data
Read graphs and tables carefully.



Compare options
Look at similarities and differences.



Consider pros and cons
Think about what might be good or not so good.



Make a decision
Use the information to choose the best option.



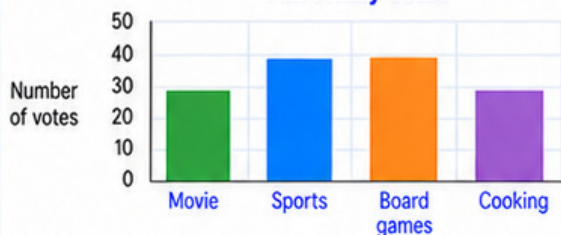
Explain
Tell how you know and justify your answer.



TIP:
There isn't always one right answer. Use the data to support your choice. Think about what is most important and explain your reasoning.

- 1 The bar graph shows how many votes each activity received when Room 5 was choosing an activity for Fun Friday.

Fun Friday Votes



Graphs help us compare options and see which is most popular.

- Which activity received the most votes? _____
- Which activity received the fewest votes? _____
- How many more votes did Sports get than Cooking? _____
- If two more people voted for Cooking, how many votes would it have? _____
- Which activity would you choose? Explain your reasoning using the data.

- 2 The line graph shows the cost of a 2 kg bag of apples over six weeks at a local supermarket.

Price of Apples (2 kg)



Line graphs help us see how data changes over time.

- In which week were apples the most expensive? _____
- In which week were they the cheapest? _____
- How much did the price decrease from Week 3 to Week 6? \$ _____
- If the trend continues, what do you think the price might be in Week 7? \$ _____
- Would this be a good time to buy apples? Explain your answer.

- 3 The table shows three mobile data plans.

Mobile Data Plans

Plan	Data (GB)	Cost per month
Plan A	10 GB	\$20
Plan B	20 GB	\$35
Plan C	40 GB	\$50

COMPARE
FIND VALUE
MAKE
SMART
CHOICES

- Which plan gives the most data? _____
- Which plan is the cheapest? _____
- How much more does Plan C cost than Plan A? \$ _____
- Which plan do you think is the best value for money? Explain why.
- If you used 15 GB of data each month, which plan would you choose? Explain your reasoning.

- 4 The table shows the results of a survey about how students travel to school.

Ways Students Travel to School

Method	Number of students
Walk	28
Bike	16
Car	24
Bus	32

Use the data to think about what might be the best choice for our environment.

- Which method is the most popular? _____
- Which method is the least popular? _____
- How many more students take the bus than the bike? _____
- What percentage of students travel by car? _____ %
- If our school wanted to be more environmentally friendly, what could we do? Use the data to support your idea.



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to make a real-life decision. For example:

- Plan a class event
- Choose the best buy
- Decide how to travel
- Suggest a way to save money or help the environment

Write 4–6 sentences explaining your decision and how the data helped you.

DATA
CHOICES
A BRIGHTER
AOTEAROA
TOGETHER



WHAKAARO • REFLECT

What did you learn about using data to make decisions? Which graph or table was most helpful? Why? How can data help you in everyday life? What was challenging about this page? What else might you need to compare options using data? What would you like to learn more about?

GOOD
PEOPLE
BRIGHTER
COMMUNITIES



We can summarise information from graphs and tables, explain what it means, and use it to make informed decisions in everyday life.

SUMMARISE AND EXPLAIN

I can summarise information from graphs and tables, explain what it means, and use the information to make informed decisions and solve real-world problems.

He iti te kōpara
e kōrero ana
i te mātauranga
Big ideas come
from shared knowledge

SUMMARISE
EXPLAIN
MAKE DECISIONS
USE INFORMATION
REAL-WORLD
BRIGHTER
AOTEAROA

SMALL
STEPS
BIG
SOLUTIONS

KEY IDEAS



Summarise information

Look at the big picture and say what the data shows.



Explain meaning

Tell what the information means in your own words.



Make decisions

Use the information to choose the best option.



Solve real-world

Use what you know to find solutions.



Communicate clearly

Write or speak about your findings and reasoning.

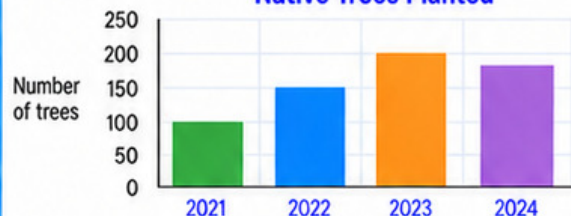


TIP:

When you summarise data, include the most important points. Think: What does it show? What does it mean? What might happen next? What could we do?

- 1 The bar graph shows the number of native trees planted by a school over four years.

Native Trees Planted



Graphs help us see the big picture over time.

- Which year were the most trees planted?
- Which year were the fewest trees planted?
- How many more trees were planted in 2023 than in 2021?
- What might be a reason for the increase in tree planting?
- If the school plants 50 more trees in 2025 than in 2024, how many trees would they plant?

- 2 The line graph shows the average monthly rainfall in a New Zealand town over six months.

Average Monthly Rainfall



Line graphs help us see how information changes over time.

- Which month had the highest rainfall?
- Which month had the lowest rainfall?
- How much more rainfall was there in June than in January? _____ mm
- What pattern can you see in the rainfall over the six months?
- Based on this data, what might you predict about the rainfall in July? Explain your reasoning.

- 3 The table shows the results from a survey about how students get to school.

How Students Get to School

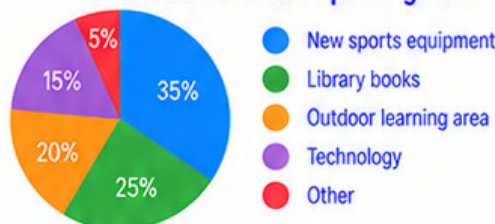
Method	Number of students	Percentage
Walk	30	25%
Bike	24	20%
Car	48	40%
Bus	12	10%
Other	6	5%
Total	120	100%

Tables help us organise data so we can find important information.

- Which method is the most common?
- Which method is the least common?
- How many more students come by car than by bus?
- What percentage of students walk or bike to school?
- What could the school do to encourage more students to use environmentally friendly ways to get to school?

- 4 The pie chart shows how a class plans to spend money from a \$1,000 fundraiser.

Class Fundraiser Spending Plan



Pie charts show us parts of a whole. The total is always 100%.

- Which item will get the most money?
- How much money will be spent on technology? \$ _____
- Which item will get the least money?
- If the class decided to spend \$100 more on the outdoor learning area, what would the new amount be? \$ _____
- Do you think this is a good way to spend the money? Explain your answer.



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to write a short paragraph that:

- summarises the most important information
- explains what the data might mean
- suggests a real-world action or decision based on the data

Write 4–6 sentences.

DATA
IDEAS
A BRIGHTER
AOTEAROA
TOGETHER



WHAKAARO • REFLECT

What did you learn about summarising and explaining data? Which graph or table was most interesting? Why? How can data help you make better decisions in everyday life? What real-world problems could you use data to help solve? What would you like to learn more about?

SAME
DATA
BRIGHTER
FUTURES



We can use data from graphs and tables to make decisions, justify our ideas and solve real-world problems.

MAKE DECISIONS WITH DATA

I can use information from graphs and tables to make decisions, compare options, explain my reasoning and choose the best solution.

He iti te kōpara
e kōrero ana
i te mātauranga
Small steps lead
to big knowledge

EXPLORE
COMPARE
DECIDE
JUSTIFY
TAKE ACTION
BRIGHTER
AOTEAROA

DATA
ANSWERS
ACTION
CHANGE

KEY IDEAS



Look for evidence

Use data to support your idea.



Compare options

Look at the pros and cons.



Justify your decision

Explain why you think it's the best choice.



Think ahead

Consider the possible outcomes.



Make a difference

Use data to help people, places and communities.



TIP:

There can be more than one good answer. Use the data, explain your thinking and choose the option that best meets the needs of the situation.

1

The bar graph shows the number of books borrowed from the school library over four months.

Books Borrowed



Graphs help us compare data and see what is popular.

- Which month had the most books borrowed? _____
- Which month had the fewest books borrowed? _____
- How many more books were borrowed in April than in March? _____
- What might explain the change from March to April? _____
- If the trend continued, how many books might be borrowed in July? _____
Explain your reasoning. _____

2

The line graph shows the average daily temperature in a New Zealand town over a week.

Average Daily Temperature



Line graphs help us see how data changes over time.

- On which day was the temperature the highest? _____
- On which day was the temperature the lowest? _____
- How many degrees warmer was it on Thursday than on Sunday? _____ °C
- What might be a good activity to do on the warmest day? _____
- If the temperature on Monday next week is 2 °C higher than this Monday, what will it be? _____ °C

3

The table shows the results of a survey about how students travel to school.

How Students Travel to School

Method	Number of students	Percentage
Walk	28	28%
Bike	18	18%
Car	32	32%
Bus	16	16%
Other	6	6%
Total	100	100%

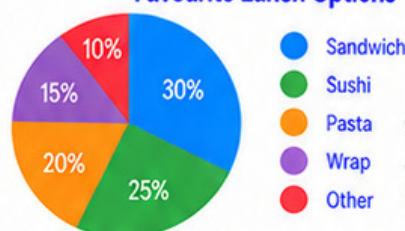
Tables help us organise data so we can compare and make decisions.

- Which method is the most common? _____
- Which method is the least common? _____
- How many more students come by car than by bus? _____
- What percentage of students walk or bike to school? _____
- What could the school do to encourage more students to use environmentally friendly ways to travel? _____

4

The pie chart shows the results of a survey about students' favourite lunch options.

Favourite Lunch Options



- Sandwich
- Sushi
- Pasta
- Wrap
- Other

GOOD FOOD
FUELS
BRIGHTER
MINDS

- What is the most popular lunch option? _____
- What is the least popular lunch option? _____
- How many more students chose sandwiches than wraps? _____
- If 200 students were surveyed, how many might choose pasta? _____
- What could the school do with this information? _____



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to solve a real-life problem. For example:

- Plan a healthy and sustainable school lunch menu.
- Decide the best day for a school sports event.
- Suggest ways to reduce car use at your school.
- Predict what might happen next and explain your reasoning.

Write 4-6 sentences explaining your solution.

DATA
IDEAS
PEOPLE
BRIGHTER
AOTEAROA



WHAKAARO • REFLECT

What did you learn today about using data to make decisions?

Which graph or table was most interesting? Why?

How can data help you make a positive difference in your school or community?

Where might you see and use data in everyday life?

What would you like to learn more about?

KŌ
TĀTOU
NGĀ MAHI
KA WHAKAMĀIA
TE ĀPOPO



USE DATA TO HELP OUR ENVIRONMENT

We can use data from graphs and tables to understand environmental issues, make decisions and find solutions for a cleaner, greener Aotearoa.

I can use information from graphs and tables to understand environmental issues, make decisions, explain my thinking and suggest solutions for a better Aotearoa.

Mā te mōhio
e tiaki ai
By understanding,
we can protect.

CLEANER
GREENER
BRIGHTER
AOTEAROA
SMALL ACTIONS
BIG CHANGE

KIA
TIAKI
TŌ TĀTOU
TAIAO

KEY IDEAS



Use data

Read graphs and tables carefully.



Find information

Look for important details.



Look for patterns

What is increasing or decreasing?



Make decisions

Use the data to choose the best option.



Solve problems

Use the information to find solutions.



TIP:

Data can help us make better choices for our environment. Think about what the data shows, what it means, and what we could do next.

- 1 The bar graph shows the amount of rubbish collected during a local beach clean-up over five months.

Rubbish Collected at the Beach



Graphs help us see changes over time.

- Which month had the most rubbish collected?
- Which month had the least rubbish collected?
- How much less rubbish was collected in May than in January? _____ kg
- What is the overall trend from January to May?
- Why do you think the amount of rubbish collected decreased? Give a possible reason.

- 2 The line graph shows the monthly water usage at a local school over six months.

School Water Usage



Line graphs help us see trends over time.

- Which month used the most water?
- Which month used the least water?
- How much less water was used in June than in January? _____ litres
- What might be a reason for the decrease in water usage?
- What is one way the school could reduce water usage even more? Explain your idea.

- 3 The table shows the results of a survey about how students get to school.

How Students Travel to School

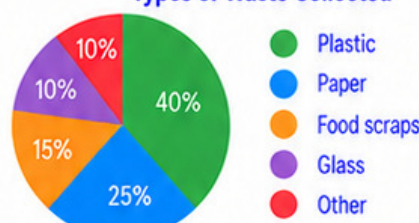
Method	Number of students	Percentage
Walk	45	30%
Bike	30	20%
Car	50	33%
Bus	20	13%
Other	7	4%
Total	152	100%

Tables help us organise data so we can compare and make decisions.

- Which method is the most common?
- Which method is the least common?
- How many more students come by car than by bus?
- What percentage of students walk or bike to school?
- What are some ways the school could encourage more students to walk or bike to school?

- 4 The pie chart shows the types of waste collected during a school recycling week.

Types of Waste Collected



- Plastic
- Paper
- Food scraps
- Glass
- Other

- Which type of waste was collected the most?
- Which type of waste was collected the least?
- What percentage of the waste was paper?
- If 200 kg of waste was collected in total, how many kilograms was plastic? _____ kg
- What could the school do to reduce the amount of food scraps? Give one suggestion.



WHAKAMĀTAU • CHALLENGE

Use the information from at least two different graphs or tables on this page to solve a real-life problem. For example:

- Plan a campaign to reduce rubbish at school.
- Decide the best way to save water.
- Suggest how to get more students walking or biking.
- Make a recommendation and explain your reasoning using the data.

Write 4–6 sentences explaining your solution.

DATA
PEOPLE
PLACES
BRIGHTER
FUTURES



WHAKAARO • REFLECT

What did you learn about using data to help our environment? Which graph or table was most useful? Why? How can data help us make better choices in everyday life? What small actions could we take to make a big difference? Where else might you see data in your community? What would you like to learn more about?

HE ITI
HE POUNAMU
SMALL STEPS.
BIG CHANGE



We can use data to find information, spot patterns, and make evidence-based statements. Data helps us describe, explain and make better decisions.

WHAT DOES THE DATA SAY?

I can make evidence-based statements from data.



KEY IDEAS



Look at the data
Read graphs and tables carefully.



Find information
Identify what the data shows.



Observe and infer
Distinguish between what is shown and what it might mean.



Use evidence
Support your ideas with data from the chart or table.



Make a statement
Be clear and accurate.



TIP:

Not all statements are true, even if they sound reasonable. Always check if there is evidence in the data.



Travel to School

The table shows how 120 students at Pāhiri Intermediate travel to school.

Method	Number of students	Percentage
Walk	36	30%
Bike	24	20%
Car (with family)	30	25%
Bus	18	15%
Scooter	6	5%
Other (skateboard, etc.)	6	5%
Total	120	100%



Answer the Questions

1

RETRIEVAL

How many students travel to school by bus?

2

COMPARISON

Which method is used by more students: walking or biking? How many more students use that method?

3

OBSERVATION

What is the least common way for students to travel to school?

4

INFERENCE

Why do you think 25% of students travel by car with family? Give a possible reason based on the data.

5

UNSUPPORTED CLAIM

True or false? More than half of the students walk or bike to school. Explain how you know.

6

YOUR STATEMENT

Write one accurate statement about the data. Use a number or percentage from the table to support your statement.



WHAKAMĀTAU • CHALLENGE

Look back at the data. Can you think of two ideas to encourage more students to travel to school in a way that is better for the environment?

Write 2–3 sentences for each idea, explaining how it might help.



WHAKAARO • REFLECT

- What did you learn from the data?
- How did the data help you make a point?
- Was it easy or hard to tell the difference between an observation and an inference? Why?
- How could data be used to make positive changes in your school or community?

ASK. COLLECT. DISCOVER.

I can plan a statistical investigation.



What is an investigative question?

An investigative question is a question that can be answered by collecting and looking at data. It usually asks about a group of people, things or events, and there can be more than one possible answer.

Example: What is the most common way for students in our class to get to school?



Types of data

Data can be different types. Here are three common types:



Categorical data

- Describes a category or group (not a number).
- Examples: favourite colour, type of pet, way of travelling to school.

Example: What is your favourite sport?



Discrete numerical data

- Whole numbers that you count.
- Examples: number of siblings, number of books, number of goals scored.

Example: How many people are in your household?



Continuous numerical data

- Numbers that can have decimals.
- Measured, not counted.
- Examples: height, time, distance, temperature.

Example: How tall are you (in cm)?



Which type is it?

Read each question. Tick the type of data it would give.

Question	Categorical	Discrete numerical	Continuous numerical
What is your eye colour?	☐	☐	☐
How many hours of sleep did you get last night?	☐	☐	☐
What is your shoe size?	☐	☐	☐
How many pets do you have?	☐	☐	☐
How long does it take you to get to school?	☐	☐	☐



Plan your own investigation

Choose something you could investigate among people in your household, class or community.

1. MY QUESTION

Write your investigative question below.

2. WHO/WHAT WILL I ASK OR MEASURE?

Who will you collect data from?
What will you ask or measure?

3. WHAT DATA WILL I COLLECT?

What type of data will you collect?
(categorical, discrete numerical or continuous numerical)

4. HOW WILL I RECORD IT?

How will you record your data?
(e.g. tally table, table, chart)



Tally table

Use the table below to record your data. You can change the headings to match your question.

Category / Item	Tally	Total



THINK ABOUT ...

- Will your question give useful information?
- Is it fair and respectful to ask?
- Will it be easy to collect the data?
- How many people will you include?
- What could you do with the results?

Small steps
Big discoveries



SHARE

Tell a partner about your question and plan.
Do they have any suggestions to make it even better?

READ, COMPARE, MAKE SENSE

I can read and interpret graphs to find information and make conclusions.

Data helps us see the bigger picture.

He iti he pounamu
Small steps lead to big futures

TĀTAI

TŪHURA

WHAKAARO

WHAKAMAHI

WHAKAMUA

A
BRIGHTER
AOTEAROA
TOGETHER



Different types of graphs

Graphs help us organise data so we can see patterns, compare information and make conclusions.

Bar graph



Good for comparing different groups or categories.

Line graph



Good for showing how something changes over time.

Pie graph

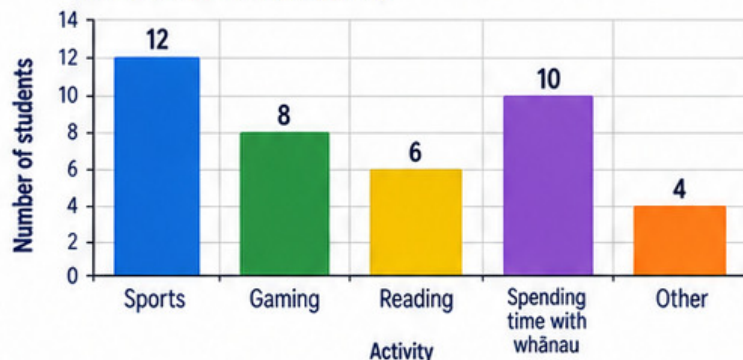


Good for showing parts of a whole (percentage)



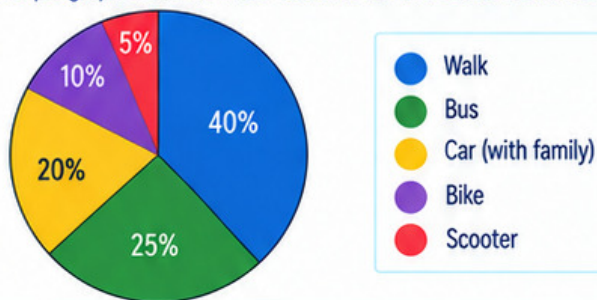
Favourite Weekend Activities

The bar graph shows the results of a survey of 40 students about their favourite weekend activity.



Modes of Travel to School

The pie graph shows how 120 students at Kāhu School travel to school.



True or false?

Look at the pie graph. Tick True or False for each statement.

Statement	True	False
1. Half of the students walk to school.	☐	☐
2. More students use the bus than the car.	☐	☐
3. 24 students travel by car (with family).	☐	☐
4. Fewer students use a scooter than a bike.	☐	☐



Answer the questions

- How many students were surveyed?

- Which activity was the most popular?

- How many more students chose sports than reading?

- Which two activities had a total of 18 students?

- What percentage of students chose gaming?
(Hint: 8 out of 40)

- What can you conclude about this group of students based on the data? Write one sentence.



CHALLENGE

Think about the data from the bar graph or pie graph.

- What is one positive thing about the results?
 - What is one question you would like to investigate further?
- Write 2–3 sentences.
- _____



REAL WORLD CONNECTION

How could this data be useful for your school or community?
Give one example.

JOB'S FOR DATA

READ IT. SHOW IT. USE IT.

I can read, display and interpret data using tables, tally charts, bar graphs and line graphs.

Data helps us see the big picture.

TĀTAI
PĀNUI
WHĀNAU
AOTEAROA
TŪ MAIA

Same numbers. Brighter futures.



Different ways to show data

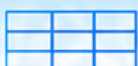
The same information can be shown in different ways.

Tally chart



Good for quickly counting and recording data.

Table



Shows the numbers clearly.

Bar graph



Makes it easy to compare different groups.

Line graph



Shows how data changes over time.



Remember to...

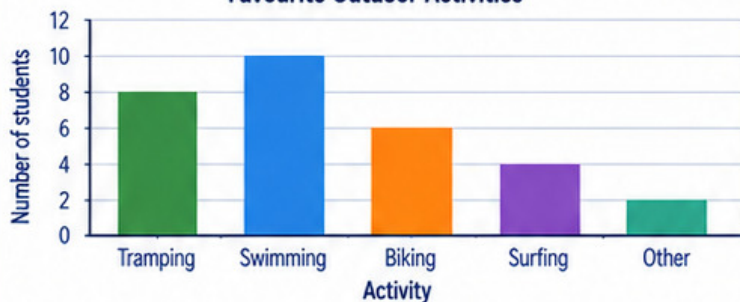
- ✓ Read the title and labels.
- ✓ Check what the graph or table is showing.
- ✓ Use the information to answer the question.
- ✓ Be clear and include numbers in your answers.



1. Reading a bar graph

The graph shows the favourite outdoor activities of 30 students at Rānui School.

Favourite Outdoor Activities

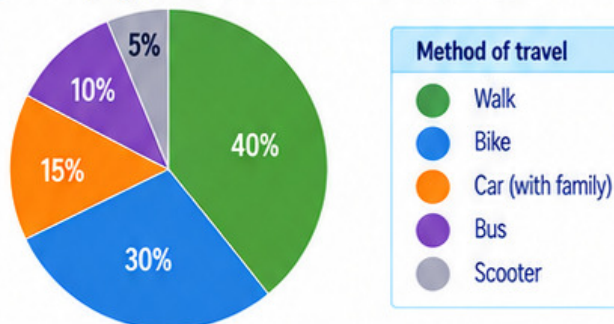


- Which activity is the most popular? _____
- How many students like biking? _____
- Which two activities have a total of 14 students? _____
- How many more students like swimming than surfing? _____



2. Reading a pie graph

The pie graph shows how 40 students travel to school.



- Which method of travel is the most common? _____
- What percentage of students travel by bus? _____
- How many students travel by bike? _____
- Is walking more or less common than travelling by car? _____



3. Reading a line graph

The graph shows the number of books borrowed from the school library over five weeks.

Library Books Borrowed



- In which week were the most books borrowed? _____
- How many books were borrowed in Week 3? _____
- Did the number of books increase or decrease from Week 2 to Week 3? _____
- How many more books were borrowed in Week 5 than in Week 1? _____



4. Your turn

The table shows the types of trees planted by a group of students during a tree planting day.

Tree type	Number planted
Kōwhai	14
Kānuka	9
Pōhutukawa	11
Mānuka	6

- Which tree was planted the most? _____
- Which tree was planted the least? _____
- How many trees were planted in total? _____
- Draw a bar graph to show this data on the next page or on a separate sheet.

YOUR VOICE. YOUR EVIDENCE.

I can create and present
a convincing argument.

Ideas
today.
Brighter
tomorrows.

KŌRERO
WHAKAARO
TUHITUHI
WHAKAMANA
PANONI

KĀ TĀTOU
KĀ ORA



When we use a clear argument and evidence, we can share our ideas, influence others and help make positive change.



A convincing argument:

- states a clear opinion (claim)
- gives reasons and evidence
- considers other viewpoints
- uses respectful and persuasive language

"Small voices
can make
big change."



Choose a topic

Pick one of the prompts below, or choose your own idea.



A change that would improve my school or community

Examples:

- more trees and green spaces
- healthier food options at school
- safer roads or crossings



Something worth protecting

Examples:

- our local environment (rivers, beaches, bush)
- native animals and plants
- our Māori culture, language or heritage



Something children should have more opportunity to do

Examples:

- spend time outdoors
- be creative (art, music, drama)
- learn practical life skills (cooking, gardening, financial skills)



Plan your argument

Use the table below to plan your ideas. Jot down key points, facts or examples.

MY CLAIM (What I think)

State your main argument. What do you think should happen?

REASON 1 + EVIDENCE

Give your first reason. What evidence or example supports it?

REASON 2 + EVIDENCE

Give your second reason. What evidence or example supports it?

OTHER VIEWPOINT

What might someone who disagrees say? (Think about a different point of view.)

MY RESPONSE

How will you respond to this other viewpoint? Why is your argument still stronger?



Write your full response

- Use your plan to write a full paragraph or short speech in your exercise book.
- Aim for at least 3–5 well-structured paragraphs or a 1–2 minute speech.
- Use persuasive language and include evidence.
- Check your spelling, punctuation and that your ideas are clear.
- You can also add a title!

Good
ideas lead
to brighter
futures.



30-SECOND PITCH CHECKLIST

Use this checklist to practise your oral presentation.

- ☐ I state my claim clearly.
- ☐ I give at least two reasons with evidence.
- ☐ I acknowledge another viewpoint.
- ☐ I explain why my argument is stronger.
- ☐ I speak clearly and confidently.
- ☐ I keep it to about 30 seconds.
- ☐ I make eye contact and use a positive, respectful tone.
- ☐ I finish with a strong closing statement.



We can read a text from different points of view to understand how people see a situation differently and why.

DIFFERENT PERSPECTIVES

I can identify different points of view in a text and understand how the writer's choices influence the reader.



READ
THINK
EXPLORE
RESPECT
PERSPECTIVES
LEAD TO
BETTER
SOLUTIONS

A
BRIGHTER
AOTEAROA
TOGETHER

KEY IDEAS



Look for clues

Read the text carefully and look for words and phrases.



Identify perspective

Whose point of view is being shared?



Compare views

Look for similarities and differences.



Think deeply

Why might each person see it this way?



Be open-minded

Different perspectives can help us understand the bigger picture.



TIP:

There is often more than one side to a story. Try to understand before you decide.



Read the text

Read the different perspectives below about a proposal to build a skate park in the local town.



Tama – keen local student

"A skate park would be awesome! It would give young people somewhere safe to hang out, be active and make friends. Right now, many of us end up on the streets with nothing to do. A skate park could bring the community together and keep kids out of trouble."



Mrs Lee – local business owner

"I think a skate park could be good for the town. It might attract more visitors, which could help local businesses. However, I'm also concerned about noise and whether it will be looked after. If it's done well, it could be a great addition to our community."



Matua Hemi – concerned resident

"I'm not sure a skate park is the best use of money. There are other things our town needs, like better footpaths and a community centre. I worry it might be noisy and cause problems. I think we should focus on the basics before spending on something we don't really need."



Answer the questions

1

RETRIEVAL

What is Tama's main reason for supporting the skate park?

2

INFERENCE

Why do you think Mrs Lee mentions visitors to the town?

3

COMPARE

What is one similarity between Tama's and Mrs Lee's perspectives?

4

AUTHOR'S PURPOSE

How do the writer's word choices show Matua Hemi's concerns?

5

THINK

Whose perspective do you find most convincing? Explain why.



WHAKAMĀTAU • CHALLENGE

Imagine you are a member of the local council. Write a short paragraph explaining what you would decide and why. Use evidence from at least two of the perspectives in the text.

DIFFERENT
PEOPLE
DIFFERENT IDEAS
A STRONGER
COMMUNITY



WHAKAARO • REFLECT

- How did reading different perspectives help you understand the issue better?
- What did you notice about the language each person used?
- Can you think of a time when two people had different opinions about something you cared about?
- Why is it important to listen to different perspectives in a community?

POLISH YOUR WRITING

I can revise and edit my writing to make it clear, accurate and effective.

Good writers make brighter ideas.

PLAN
DRAFT
REVISE
EDIT
PROOFREAD
SHARE

BETTER WRITING
BRIGHTER FUTURES

Edit today.
Brighter writing tomorrow.



Why edit?

Editing helps us make our writing easier to understand, more interesting to read, and more convincing. Good writers check their work and make changes to improve it.



Good writing is...

- ✓ clear and focused
- ✓ correct in spelling, grammar and punctuation
- ✓ interesting and varied
- ✓ appropriate for the reader and purpose

1

Read and improve

Read the paragraph below. It needs some improvements. Use the checklist on the right to help you find and fix the mistakes.

our school should have a bigger garden. it would be good for students because we could learn how to grow food and it would be healthy. Lots of schools already have gardens. it might cost money but i think it would be worth it. everyone would enjoy it and it would make our school a better place.



Editing checklist

Tick each item as you check your writing.

- ☐ I have used a capital letter at the start of sentences.
- ☐ I have used full stops, question marks or exclamation marks.
- ☐ My spelling is correct.
- ☐ My sentences are clear and make sense.
- ☐ I have used interesting vocabulary (not the same words).
- ☐ I have included linking words (e.g. because, also, however).
- ☐ My ideas are in a logical order.
- ☐ I have checked for any missing words or repeated words.

2

Rewrite the paragraph

Use your checklist to rewrite and improve the paragraph below.



Useful linking words

These can help make your writing stronger.

- because
- also
- for example
- in addition
- however
- although
- therefore
- as a result
- on the other hand
- meanwhile
- in conclusion
- for these reasons



Challenge

Can you make your writing even stronger?

- ☐ Add a powerful opening sentence.
- ☐ Include a rhetorical question.
- ☐ Use a persuasive phrase.
- ☐ Finish with a strong closing sentence.

3

Reflect

Answer the questions below.

1. What changes did you make to improve the paragraph?

2. Which change made the biggest difference?

3. How does editing help you become a better writer?



Success criteria

My writing is:

- ☐ clear
- ☐ correct
- ☐ interesting
- ☐ and ready to share!

Small changes make a big difference.

PERSUASIVE WRITING

I can plan, write and edit a persuasive piece to share my ideas.

Ideas create change.



KŌRERO
WHAKAPONO
WHAKAUTE
WHAKAARO
PANONI



BETTER IDEAS
BRIGHTER FUTURES



A persuasive text tries to convince the reader to think, feel or do something. We use facts, reasons and powerful language to make our argument strong.



Remember to...

- ✓ state your opinion clearly
- ✓ give strong reasons with evidence
- ✓ use persuasive language and techniques
- ✓ consider the other viewpoint
- ✓ finish with a strong conclusion



1 Read the model text

Read the persuasive text below. Highlight the persuasive techniques used.

Let's Keep Our Beaches Clean

Our beaches are special. They are places to play, relax and connect with whānau and friends. But too much rubbish is ending up on our shores. This is harming our marine life and making our beaches less enjoyable for everyone.

We can make a change. If we all take our rubbish home, use reusable items and pick up litter when we see it, we can keep our beaches clean and safe for future generations. Cleaner beaches mean happier communities, healthier oceans and a brighter Aotearoa for everyone.



Small actions make a big difference!



Answer the questions

Use the model text to help you.

1. What is the writer's main opinion (claim)? _____
2. Give two reasons the writer gives.
 - a) _____
 - b) _____
3. What evidence or examples are used? _____
4. Find an example of persuasive language. _____
5. How does the writer end the text? _____
6. Why do you think this is an effective persuasive text? _____

3



Plan your own persuasive text

Use the planning box to organise your ideas.

My claim
(What I think)

State your opinion clearly.

Reason 1 + evidence

Give your first reason and evidence.

Reason 2 + evidence

Give your second reason and evidence.

Other viewpoint

What might someone who disagrees say?

My response

How will you respond to this viewpoint?



Write your final piece

Use your plan to write a persuasive text in your exercise book. Aim for at least half a page. Use a title and paragraphs.



Edit and check

Check your writing using the checklist.

- ☐ I stated my opinion clearly.
- ☐ I gave at least two strong reasons with evidence.
- ☐ I used persuasive language (e.g. emotive words, facts, rhetorical questions, strong adjectives).
- ☐ I considered the other viewpoint and gave a response.
- ☐ I used correct spelling, punctuation and paragraphing.
- ☐ I finished with a strong conclusion.



Challenge

Publish your persuasive text as a poster, letter, speech or class newsletter article.

Your voice matters.



TEXT TYPE DETECTIVE

I can identify how different texts work.

Different texts.
Different purposes.
Same bigger story.

KŌRERO
WHAKAARO
WHAKAPONO
WHAKAUTE
PANONI

EXPLORE
READ
THINK
DISCOVER
GROW



Different text types are written for different purposes. By looking at clues like the structure and language, we can work out what type of text we are reading.



Remember to...

- ✓ read the whole text
- ✓ look for clues in the structure and language
- ✓ think about the purpose
- ✓ use evidence from the text to explain your thinking



1

Read the texts

Read the four short texts below. Identify the text type and write down the clues that helped you.

1 The Lost Kākā

Tama followed the sound of flapping wings through the trees. A young kākā was sitting on a branch, looking scared. He stayed very still and whispered softly until it flew back to its whānau. Tama smiled. He felt proud to have helped.



Text type: _____

Clues: _____

2 How a Volcano Works

A volcano is a mountain that can erupt. Inside the earth, hot rock called magma builds up. When the pressure becomes too great, the magma is forced out through cracks in the earth's surface. This is called an eruption. Over time, the cooled lava builds up and forms the shape of the mountain.



Text type: _____

Clues: _____

3 Kiwi Facts

The kiwi is a native bird found only in Aotearoa New Zealand. It is flightless, nocturnal and has a long, sensitive beak. Kiwi have brown, hair-like feathers and excellent sense of smell. There are five different species of kiwi. They are considered taonga and are protected.



Text type: _____

Clues: _____

4 Let's Protect Our Kiwi

Our kiwi are in danger, and they need our help. We can all make a difference by keeping our dogs under control, supporting pest control and looking after the places where kiwi live. Aotearoa is special because of its unique wildlife. Let's work together to protect our kiwi for future generations.

Small actions
make a big difference!

Text type: _____

Clues: _____

2



Compare the text types

Use the information from the texts to complete the table.

Text type	Purpose	Structure	Language clues
Narrative			
Explanation			
Report			
Persuasive			



WHAKAMĀTAU • Same topic challenge

Write one sentence about a kiwi as a report and another as a narrative. Use different language in each.

Report sentence:

Narrative sentence:

Same topic.
Different text types.
Different purpose.

NUMBER MASTERY

I can use different number strategies to solve problems accurately and explain my thinking.

Big numbers. Brighter futures.

KŌRERO
WHAKAARO
WHAKAMAHI
WHAKATUTUKI
PĀNONI

PRACTICE BUILDS CONFIDENCE

1 Place value

Write the value of the underlined digit.

- 47,392 _____
- 503,216 _____
- 8,904 _____
- 120,658 _____

2 Expanded form

Write 6,307 in expanded form.

Write the number:

$$400,000 + 20,000 + 800 + 5 = \underline{\hspace{2cm}}$$

3 Compare and order

Use $>$, $<$ or $=$

- 56,789 _____ 56,897
- 302,450 _____ 299,999
- 7,306 _____ 7,360

4 Estimation

Estimate the answer (round to the nearest 100 or 1,000).

- $4,872 + 3,619 \approx$ _____
- $19,384 - 6,271 \approx$ _____

5 Addition and subtraction

Solve these.

- $6,482 + 3,795 =$ _____
- $12,006 - 4,378 =$ _____

6 Multiplication and division

Solve these.

- $7 \times 36 =$ _____
- $252 \div 6 =$ _____
- $8 \times 125 =$ _____
- $963 \div 3 =$ _____

7 Factors and multiples

- List all the factors of 24.

- Is 72 a multiple of 8? _____

How do you know? _____

8 Choose your strategy

Solve the problem and name the strategy you used (e.g. place value, rounding, compatible numbers, repeated addition, known facts).

- $298 + 476 =$ _____
Strategy: _____
- $864 \div 4 =$ _____
Strategy: _____

9 Which is greater value?

Which is the better buy? Show your working.

4 notebooks
for \$12

6 notebooks
for \$15

Explain: _____

10 Real-world problem

A school is organising a trip. There are 48 students and 6 adults. The cost is \$28 per person. The school has \$1,200 to spend.

- What is the total cost? _____
- Is \$1,200 enough? _____
- If not, how much more money is needed? _____



✓ CHECK

Is your answer reasonable?

Choose one of your answers from this page. Explain how you know it is reasonable.

Good mathematicians always check their answer.

RESEARCH WITHOUT COPYING

I can ask useful questions and take notes in my own words.

Curious minds
create
a brighter
Aotearoa.

KŌRERO
WHAKAARO
WHAKAPONO
WHAKAWĀTEA
PANONI

GOOD
QUESTIONS
LEAD TO
AMAZING
DISCOVERIES.



Copying vs note-taking



Copying

- Writing the text exactly as it appears.
- Does not use your own words.
- Is not a real summary.
- Can be plagiarism (not okay).



Note-taking

- Use your own words.
- Write only the key information.
- Keep it shorter.
- Helps you understand the information.
- Always include where you found it (the source).



Read the source

Read the paragraph below. Then look at the copied note and the good note.

The kiwi is a flightless bird that lives in Aotearoa New Zealand. It is mostly active at night and has very good hearing, which helps it find food in the dark. Kiwis use their long beaks to probe in the soil for insects, worms and other small invertebrates. There are five different species of kiwi, and they are all native to New Zealand. Kiwis are threatened by introduced predators such as possums, rats and stoats.



Taonga species



Copied note (not good)

"The kiwi is a flightless bird that lives in Aotearoa New Zealand. It is mostly active at night and has very good hearing, which helps it find food in the dark. Kiwis use their long beaks to probe in the soil for insects, worms and other small invertebrates. There are five different species of kiwi, and they are all native to New Zealand. Kiwis are threatened by introduced predators such as possums, rats and stoats."



Good note (much better)

- Kiwi – flightless, native to NZ
- Active at night, good hearing
- Uses long beak to find insects and worms
- Five species
- Threatened by predators (possums, rats, stoats)

Source: DOC (2023)



Your turn – ask better questions

Turn the broad topic "Aotearoa native wildlife" into three specific research questions.

1. _____
2. _____
3. _____

Good
questions
lead to
great
answers.



4

Note-taking organiser

Use your three questions to take notes. Add the source for each.

QUESTION	KEYWORDS / NOTES (in your own words)	SOURCE
1.		
2.		
3.		



WHAKAMĀTAU • Paraphrase the fact

Rewrite this fact in your own words. Keep the meaning the same but don't copy the exact words.

New Zealand has five different species of kiwi, and they are all native to Aotearoa.

Same numbers.
Different forms.
Real world results.

FRACTION • DECIMAL • PERCENT MASTERY

I can compare, convert and use fractions, decimals and percentages in different situations.

KŌRERO
WHAKAARO
WHAKAMAHI
WHAKATŪTUKI
PANONI

MĀ SMALL
STEPS
BIG
FUTURES

1

Equivalent fractions

Fill in the missing equivalent fraction.

- a) $\frac{1}{2} = \frac{\quad}{10}$
- b) $\frac{3}{4} = \frac{\quad}{12}$
- c) $\frac{5}{8} = \frac{\quad}{24}$

2

Convert between forms

Write each as a fraction, decimal and percentage.

- a) $0.7 = \frac{\quad}{\quad} = \frac{\quad}{\quad}\%$
- b) $25\% = \frac{\quad}{\quad} = \frac{\quad}{\quad}$
- c) $\frac{3}{5} = \frac{\quad}{\quad} = \frac{\quad}{\quad}\%$

3

Order from smallest to largest

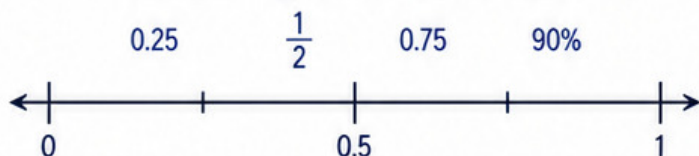
Write the numbers in order, starting with the smallest.

- a) 0.3 $\frac{1}{4}$ 35% 0.25
- b) $\frac{2}{5}$ 0.6 55% 0.4

4

Number line

Place the following numbers on the number line.

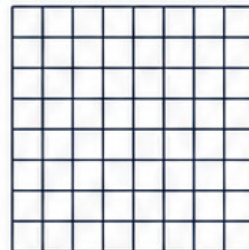


5

Hundred grid

Shade the grid to show:

- a) 35% (use one colour)
- b) 0.6 (use a different colour)



6

Find the percentage

What percentage is shaded?

- a) _____ %
- b) _____ %

7

Solve the problem

A recipe uses $\frac{3}{4}$ cup of flour.
What is this as a decimal and a percentage?

Decimal: _____

Percentage: _____

8

Real-world context

In a class of 40 students, 30% brought their lunch from home.
How many students is this?

_____ students

9

Reasoning

Aroha says 0.4 is greater than 45% because 4 is greater than 45. Is she correct?

Explain your reasoning.

0.4 is greater than 45% because 4 is greater than 45.



Aroha

10

Challenge – Plan a school event

You are organising a school fun day. $\frac{3}{5}$ of the students will take part in a game. 25% of those students will receive a prize.

If 120 students are at school, how many students will receive a prize?

Show your working.

Use what you know in real-life situations.

PAINT WITH WORDS

I can use imagery and figurative language deliberately.

Different words.
Brighter pictures.
Bigger ideas.

KŌRERO
WHAKAARO
WHAKAMAHI
WHAKATŪTUKI
PANONI

WORDS
CONNECT
PEOPLE
PLACES
AND
WHAKAARO



Figurative language

Figurative language helps us create a picture in the reader's mind. Here are some common techniques:



Simile

Compares two things using like or as.

Example:

The waves were as wild as a pack of horses.



Metaphor

Says one thing is another thing (not using like or as).

Example:

The sky was a blanket of gold.



Personification

Gives human qualities to a non-human thing.

Example:

The forest whispered its secrets.



Sound / Rhythm

Uses sound, rhyme or repetition to create a mood.

Example:

Crash, splash, whisper, roar – the waves keep calling me home.



Read the poem

Read the poem below. Tick the figurative language techniques you can find.



Home

The mountains stand like silent guardians,
Their arms wrapped in clouds.

The river sings as it winds through the valley,
Carrying stories to the sea.

The trees dance in the wind,
Their leaves laughing in sunlight.

Aotearoa, you are my home,
A place where my heart always returns.



Simile



Metaphor



Personification



Sound / Rhythm



Word collection

Use the image as inspiration. Write words or short phrases to help you describe this place.



What I see



What I hear



What I feel



What I notice



Whakaaro – Think about it

Answer the questions.

- Which line from the poem is your favourite? Why? _____
- How does figurative language make the poem more interesting? _____
- Can you think of another example of personification using something from nature? _____

Nature
gives us
endless
ideas.



WHAKAMĀTAU – Write your own poem

Write a short poem (4–8 lines) inspired by an Aotearoa place. Try to use at least two different figurative language techniques.



Our places.
Our stories.

Smart
choices
today.
Brighter
tomorrows.

MAKE YOUR MONEY WORK

I can calculate costs, compare options and make a simple budget.

KŌRERO
WHAKAARO
WHAKAMAHI
WHAKATŪTUKI
PANONI

GOOD PLANS
LEAD TO
GREAT
OPPORTUNITIES

1 The plan

You are organising a small Homework Club afternoon for your class. You have a budget of \$80 to spend. Choose items from the list to create a great afternoon.



Think about what you really need, what would be nice to have, and how to get the best value for money.

2 Options

Here are 8 items/activities you could choose from. The prices are for one afternoon.



Healthy snacks
\$12



Juice box drinks
\$8



Art supplies
\$15



Board games
\$10



Outdoor games
\$0



Movie time
\$20



Prizes
\$12



Extra seating
\$5

3 Calculate the cost

Choose at least 4 items. Write the name and price, then find the total.

Item	Price

Total cost: \$ _____

4 Will you stay within budget?

Your total budget is \$80.

- Is your total cost more or less than \$80? _____
- How much money will you have left (or how much over budget)?
\$ _____
- If you are over budget, which item could you remove to get under \$80?

5 Compare options

Look at the two options below. Which is the better choice? Explain your answer.

Option A

Snacks, drinks, art supplies,
board games

Total: \$45

Option B

Snacks, drinks, movie time,
prizes

Total: \$52

6 Need or want?

Look at the items below. Tick if each one is a NEED or a WANT for a Homework Club afternoon.

Item	Need	Want
Healthy snacks	☐	☐
Juice box drinks	☐	☐
Art supplies	☐	☐
Board games	☐	☐
Outdoor games	☐	☐
Movie time	☐	☐
Prizes	☐	☐
Extra seating	☐	☐

Needs
help us
learn.
Wants
make it
more fun.
Choose
wisely!



WHAKAMĀTAU – Create your own plan

Plan your own Homework Club afternoon using the \$80 budget.

Item	Price	Need or Want

Total cost: \$ _____

Explain one trade-off you made (something you didn't choose and why).

Sometimes
we can't
have
everything.
That's okay!
It's about
making the
best choices.

PUT THE PIECES TOGETHER

I can combine information from more than one source.

Different perspectives help us see the bigger picture.

KÖRERO
WHAKAARO
WHAKAMAHI
WHAKATŪTUKI
PANONI

PEOPLE
IDEAS
INFORMATION
A BRIGHTER
AOTEAROA



SOURCE A – Information

Caring for our coast

New Zealand's coastlines are special. They give us places to swim, fish, play and relax. However, many beaches are affected by litter, especially plastic. Plastic can harm marine life, take hundreds of years to break down, and make our beaches less enjoyable.

Local communities are working to keep our beaches clean. This includes beach clean-up events, better rubbish bins, and encouraging people to reduce single-use plastics. Small actions, like taking your rubbish home, can make a big difference.

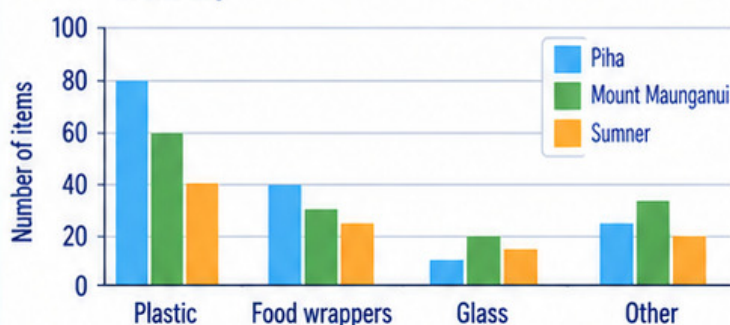


Clean coasts
brighter futures.



SOURCE B – Beach litter survey

Items collected at three New Zealand beaches in one day



1 Using Source A

- a) Why is plastic a problem for our beaches?
- _____
- _____
- b) What are two ways communities are helping to keep beaches clean?
1. _____
2. _____

2 Using Source B

- a) Which beach had the most plastic litter?
- _____
- b) Which type of litter was collected in the smallest total amount across all three beaches?
- _____

3 Using both sources

- a) How does the information in Source B support the ideas in Source A?
- _____
- _____
- b) What can we infer about the impact of litter on beach communities from both sources?
- _____
- _____



WHAKAMĀTAU – Using both sources, explain ...

Using both sources, explain why it is important for people to take action to reduce plastic waste on New Zealand's beaches.

Synthesis is not copying two answers. Combine ideas from both sources into one new explanation.



CHALLENGE

What is one more thing you could do to help keep our beaches clean? Explain your idea.



Small actions make big change. ♥

Same problems.
Bigger thinkers.
Brighter futures.

WHAT DO I NEED TO WORK OUT?

I can solve multistep problems and ignore irrelevant information.

KŌRERO

WHAKAARO

WHAKAMAHI

WHAKATŪTUKI

PANONI



MĀ SMALL
STEPS
BIG
FUTURES



Understand

Read the problem carefully.
What do I need to find?
What information is important?
What can I ignore?



Plan

Choose a strategy.
Which operations will I use?
Is there more than one step?



Solve

Show your working.
Take your time.



Check

Does your answer make sense?
Have I answered the question?
Can I explain my thinking?

1

Road trip to the lake



Our whānau is driving from Auckland to Taupō, a distance of 280 km. We stop after 2 hours and have travelled 160 km. We then continue at an average speed of 100 km/h. We also stop for a 20-minute lunch break. (The car uses 7 L of petrol per 100 km.)

How long will the rest of the trip take, and what will be the total travel time including the lunch break?

Understand

Plan

Solve

Check

2

School event planning



You are helping to organise a school fun day. You plan to sell sausages and drinks. You expect 120 people to come. Each sausage costs \$2.50 to make and you will sell it for \$5. You also buy 3 crates of drinks. Each crate has 24 drinks and costs \$18. You have a budget of \$300. (You also plan to make some decorations, which will cost \$25, but a parent offers to pay for these.)

How much profit will you make if you sell 100 sausages and all the drinks?

Understand

Plan

Solve

Check

3

Supplies for a project



You are building a raised garden bed for your school.

The bed is 2.4 m long and 1.2 m wide. You want to fill it with soil to a depth of 0.3 m. Soil is sold in 40 L bags for \$8 each.

How many bags of soil will you need, and what will it cost?

(The bag also says it covers 0.2 m^3 , but you can choose the best method to work it out.)

Understand

Plan

Solve

Check

4

Day out at the museum



A class of 28 students and 4 adults visits a museum. Student tickets cost \$12 each and adult tickets cost \$18 each. They also buy 6 souvenirs at \$7 each. They have a total of \$500 to spend.

After paying, they decide to have lunch at a café. They spend the rest of their money equally on 32 lunches. (One student is absent on the day, but the tickets have already been paid for.)

How much money can they spend on each lunch?

Understand

Plan

Solve

Check



WHAKAMĀTAU – Think about it

Choose one of the problems above. Explain one piece of information that was not needed to solve the problem. Why was it unnecessary?

Not all information in a problem is important. Good problem solvers can spot what to ignore!

Real skills for a brighter Aotearoa.

THE STORY STARTS HERE

I can plan and develop an engaging narrative.

Big ideas start with a single sentence.

IMAGINE
PLAN
WRITE
EDIT
SHARE

Story starter

Everyone had gone home when the light appeared in the upstairs window ...



Think about ...

- Who might be in the window?
- What could the light mean?
- What might happen next?
- Is it an adventure, a mystery, a problem to solve or something unexpected?
- Where could your story be set? (The Clubhouse, your town, the ngahere, the coast ...)
- What are some big questions your story could answer?



Plan your story

Use the boxes below to plan your ideas before you write.



1 Character

Who is your main character?
What are they like?
What do they want?



2 Setting

Where and when does your story happen?
What does it look, sound and feel like?



3 Problem

What is the main problem or challenge?
What makes it exciting?



4 3 Important events

What are three key things that happen in your story?

1. _____
2. _____
3. _____



5 Ending

How might your story end?
Will the problem be solved? Will something change?
Will it leave the reader with a question?



Writer challenge checklist

Tick the boxes when you have included these in your story.

- ☐ A strong opening that grabs the reader's attention
- ☐ Interesting and well-developed characters
- ☐ A clear setting with good descriptions (show, don't just tell)
- ☐ Different sentence types (short and long)
- ☐ Precise and powerful verbs and interesting word choices
- ☐ Some dialogue (speech)
- ☐ Well-organised paragraphs
- ☐ A satisfying or memorable ending

Plan
Write
Edit
Be proud!



Now it's time to write!

Write your story in your exercise book.
You can add a title and, if you like, a small illustration.



Different stories.
Brighter futures.

Good writers create brighter futures. ♥

DESIGN THE SPACE

I can combine geometry and measurement to solve a design problem.

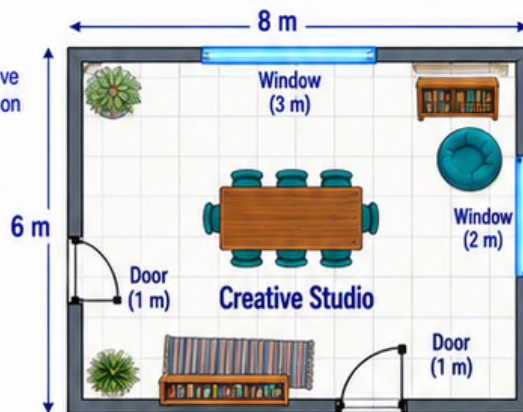
Measure
Plan
Solve
Create
a better
space.

CREATE
EXPLORE
SOLVE
GROW

SPACES
PEOPLE
IDEAS
A BRIGHTER
AOTEAROA

1 The Clubhouse room plan

Here is a plan of the Homework Club's Creative Studio. The room is a rectangle. Each square on the grid represents 1 metre (1 m).



Key

- = 1 m²
- = Wall
- = Window
- = Door

Good design starts with a plan.



2 Area and perimeter

- What is the area of the room?
_____ m²
- What is the perimeter of the room?
_____ m
- What is the area of the floor space available for furniture (total area minus doors and windows)?
_____ m²

3 Will it fit?

Use the measurements to decide if each item will fit in the room.



4 Shapes and angles

- What type of angle is each corner of the room? _____
- Name two other shapes you can see in the plan (for example, the door or table).
1. _____
2. _____
- What shape is the table top? _____

5 Remaining space

If the table and rug are added to the room, how many square metres of free space will be left? Show your working.

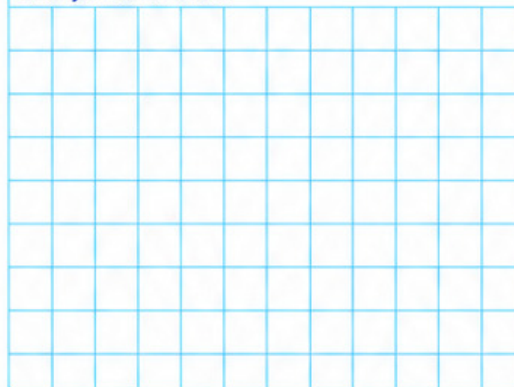
_____ m²

6 Design your own addition

Choose one more item to add to the room (for example, a whiteboard, plant area, reading corner or another table). Draw it on the grid to scale. Label the measurements.

Be creative.
Design a space
that helps
people learn
and feel good!

Draw your addition here:



7 Reasoning

Why did you choose this item?

How does it improve the space?

What measurements did you use?

Better
writers
make
brighter
futures. ♥

FROM DRAFT TO FINISHED

I can revise ideas and edit accuracy.

HOMESCHOOL
CLUB

IDEAS
PEOPLE
PLACES
STORIES
A BRIGHTER
AOTEAROA ♥



Revise = improve meaning

When we revise, we make our writing stronger. We can:

- add more detail
- improve the organisation
- choose better vocabulary
- make our ideas clearer and more interesting



Edit = correct errors

When we edit, we fix the technical details. We check for:

- spelling
- punctuation (capital letters, full stops, commas etc.)
- grammar (correct tense, subject-verb agreement)
- making sure our sentences make sense

Same
ideas.
Stronger
writing. ♥

1

Here is an original paragraph

This paragraph has some good ideas, but it needs both revising and editing.

last weekend i went to the beach with my family it was fun we swam and walked around there was lots of rubbish on the sand which was sad we picked up some of it and put it in a bin i think people should be more careful because the ocean is important.



2

Round 1 – Revise

Rewrite the paragraph to improve the ideas. Add more detail, use more interesting vocabulary, and make the organisation clearer. You can change the order, add extra sentences, or give more information.

3

Round 2 – Edit

Now edit your revised paragraph. Fix the spelling, punctuation and grammar. Write your final version here.

4

Check your writing

Use this checklist to make sure you have revised and edited.

Have you ... ?	Revised (meaning)	Edited (accuracy)
Added more detail?	☐	☐
Organised your ideas clearly?	☐	☐
Used interesting vocabulary?	☐	☐
Used a variety of sentence types?	☐	☐
Used precise and powerful verbs?	☐	☐
Used dialogue (if needed)?	☐	☐
Used correct punctuation?	☐	☐
Checked your spelling?	☐	☐
Made sure it all makes sense?	☐	☐



WHAKAMĀTAU – Your turn

Choose one piece of your own writing from this book. It could be a story, a description, a recount or an explanation. Revise it to make it stronger, then edit it to correct any errors. Write your polished final version in your exercise book.



Reflection

What did you change when you revised?
What did you find when you were editing?
How did your writing improve?

Good
writers
create
brighter
futures. ♥

Collect
Explore
Compare
Calculate
Think
Conclude

DATA & CHANCE MASTERY

I can read, interpret and compare data, and use probability to make conclusions.

NUMBERS
PATTERNS
PEOPLE
PLACES
BRIGHTER
AOTEAROA

Data helps us make better decisions.

1 Reading a table

The table shows the favourite activities of Homework Club students.

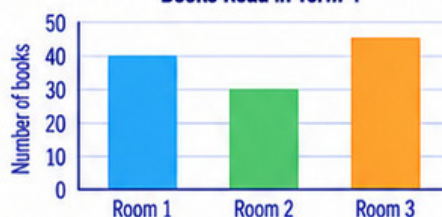
Activity	Number of students
Games	12
Reading	9
Sports	15
Art	6
Science	8

- a) Which activity is the most popular? _____
- b) How many more students chose Sports than Art? _____

2 Interpreting a graph

This graph shows the number of books read by three classes in Term 4.

Books Read in Term 4



- a) Which class read the most books? _____
- b) Which class read the fewest? _____
- c) How many more books did Room 3 read than Room 2? _____

3 Comparing groups

The table shows how students travel to school.

Travel method	Year 4	Year 5
Walk	8	10
Bike	4	8
Car	12	6
Bus	6	8

- a) Which year level has more students who ride a bike? _____
- b) Which travel method is most common for Year 4? _____

4 Mean, median and range

These are the scores from a mini-game:

6, 8, 10, 10, 12, 14, 16

- a) What is the mean (average)? _____
- b) What is the median? _____
- c) What is the range? _____

5 Probability line

A bag has 3 red, 2 blue and 5 green counters. Shade the probability line to show the chance of picking a red counter.



6 List the outcomes

A spinner has 4 equal sections: red, blue, yellow, green.

- a) List all the possible outcomes.

- b) What is the probability of landing on yellow? Write your answer as a fraction. _____

7 True or false?

Look at the graph in Question 2.

- a) True or false: Room 1 read more books than Room 3. _____
- b) True or false: The difference between the most and least books read is 15. _____

8 Which is more likely?

A box has 6 orange balls and 4 purple balls.

- a) Is it more likely to pick an orange ball or a purple ball? _____
- b) What is the probability of picking a purple ball? Write your answer as a fraction. _____

9 Make a reasonable conclusion

The table shows the results of a survey about favourite fruit.

Fruit	Number of students
Apple	14
Banana	10
Orange	8
Other	4

What is a reasonable conclusion you can make from this data? _____

10 Does this data prove the claim?

A group of students at Homework Club collected data on how many hours of screen time they had each day.

Screen time (hours)	Number of students
0 – 1	6
2 – 3	12
4 – 5	8
6+	4

A student says, "Most Homework Club students have more than 2 hours of screen time each day."

Does this data prove the claim? Explain your answer.

Look at the data. Think carefully. What does the evidence tell you?

YEAR 5 READING MISSION

Read closely. Think deeply.
Discover more.

Good readers notice more and see a bigger picture.

EXPLORE
QUESTION
THINK
MAKE A DIFFERENCE

EXPLORE
LEARN
GROW
TOGETHER

PEOPLE
PLACES
IDEAS
A BRIGHTER
AOTEAROA

SMALL
ACTIONS
BIG
CHANGE



The Beach Clean-Up

A story about small actions making a big difference.

Mere pulled on her gloves and scanned the shoreline. The early morning sun glinted off the waves at Muriwai Beach, and the sand looked beautiful, but as she and her friends walked closer, they saw a different side. Plastic bottles, food wrappers, bits of fishing line and even an old jandal were scattered along the high tide mark.

"It's sad to see this," Mere said, picking up a crushed drink can. "But at least we're here to help."

Mere was part of the Kura Kaitiaki Crew, a group of Year 5 and 6 students from their local school. Every term, they chose a place in the community to care for. This time, they had organised a beach clean-up, and whānau, friends and even some younger tamariki had come along.

As they worked, they sorted the rubbish into bags: recycling, landfill and items that could be reused. Mere was surprised by how much plastic they found. "It's crazy," she said. "All of this probably came from people just like us."

After two hours, the beach looked so much cleaner. The piles of rubbish bags showed how much they had collected. They took a group photo and shared it on the school's social media page with the caption: Same beach. Brighter future.

On the way home, Mere felt tired but proud. She knew one clean-up wouldn't solve the whole problem, but it was a start. Small actions, she thought, can lead to big change — especially when people work together.

As she looked back at the ocean, Mere made a quiet promise to keep caring for Aotearoa, not just today, but every day.



1 Retrieval

- Where did Mere and her friends go for the clean-up?
- Name two items of rubbish they found on the beach.

2 Main idea

What is the main idea of this text?

- The beach was too dirty to enjoy.
- A group of students worked together to make a positive difference.
- Plastic is the only type of rubbish found at beaches.
- Mere wants to become a professional clean-up organiser.

3 Inference

How do you think Mere felt at the beginning of the clean-up? Use evidence from the text to support your answer.

4 Vocabulary in context

What does the word **scattered** mean in the sentence below?
"Plastic bottles, food wrappers, bits of fishing line and even an old jandal were scattered along the high tide mark."

- neatly placed
- spread out randomly
- hidden from view
- broken into pieces

5 Author's purpose

What is the main purpose of this text?

- To entertain with an exciting adventure
- To explain how to organise a beach clean-up
- To persuade readers to care for the environment
- To describe what a typical day at the beach is like

6 Text evidence

Find a sentence or short phrase from the text that shows the students were proud of their efforts.

7 Evaluation

Do you think the beach clean-up made a significant difference? Explain your answer, using information from the text.

★ 8

What is one idea the author wants the reader to think about after finishing the text? Use evidence from the text to support your answer.

Small actions.
Brighter futures.

YEAR 5 MATHS MISSION

Use what you know. Give it a go.
Solve real problems.

Different problems.
Brighter minds.
You've got this!

PLAN
SOLVE
CHECK
IMPROVE

NUMBERS
PATTERNS
MEASUREMENT
DATA
REAL WORLD

1 Number

Write these numbers in order from smallest to largest.

0.72 0.207 0.9 0.65

2 Fractions, decimals and percentages

Complete the equivalent values.

Fraction	Decimal	Percentage
$\frac{1}{2}$	_____	_____
_____	0.25	_____
$\frac{3}{4}$	_____	_____
_____	_____	20%

3 Algebra

Solve for the missing number.

- a) $x + 17 = 50$ _____
 b) $4 \times n = 36$ _____
 c) $m - 12 = 28$ _____

4 Measurement

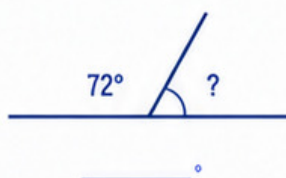
A rectangular garden is 6 m long and 4 m wide.

- a) What is the area? _____ m^2
 b) A fence goes around the garden. What is the perimeter? _____ m
 c) If the fence costs \$12 per metre, how much will it cost? \$ _____



5 Geometry

What is the size of the missing angle?
Angles on a straight line add to 180° .



6 Statistics

The table shows the number of trees planted by each class during a school project.

Class	Trees planted
Year 4	18
Year 5	24
Year 6	20
Year 7	28

- a) Which class planted the most trees? _____
 b) How many more trees did Year 7 plant than Year 4? _____

7 Probability

A bag has 6 red balls, 3 blue balls and 1 green ball.



- a) What is the probability of picking a red ball? _____
 b) What is the probability of picking a green ball? _____
 c) If a ball is picked and it is not red, what is the probability it is blue? _____

8 Reasoning

A school is organising buses for a trip. Each bus holds 24 students. There are 112 students going.

- a) How many buses are needed? _____
 b) If each bus costs \$180, what is the total cost? \$ _____
 c) If 8 more students decide to come, how many buses will be needed then? _____

9 Fractions problem

A recipe uses $\frac{3}{4}$ cup of honey. You want to make 3 batches.

- a) How much honey do you need in total? _____ cups
 b) If you only have $1\frac{1}{2}$ cups of honey, do you have enough? Explain. _____

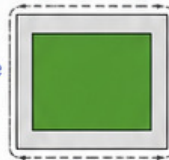
10 Decimals and money

Riley buys a hoodie for \$49.95, a water bottle for \$18.50 and a notebook for \$4.75.

- a) What is the total cost? \$ _____
 b) He pays with \$80. How much change does he get? \$ _____

11 Application

A playground is in the shape of a rectangle that is 12 m long and 8 m wide. A path 1 m wide goes all the way around the outside.



- a) What are the new dimensions (length and width) including the path?
 Length: _____ m Width: _____ m
 b) What is the total area including the path? _____ m^2

12 Pattern

Look at the number pattern below.

5, 10, 20, 40, 80, _____

- a) What is the next number? _____
 b) Write the rule for the pattern in words. _____

★ BOSS PROBLEM – Plan the School Fair

The school is organising a fair. They expect 150 people to attend.

Each person will get a drink and a snack. A box of 24 drinks costs \$18 and a box of 30 snacks costs \$22.

- a) How many boxes of drinks are needed? _____ b) How many boxes of snacks are needed? _____
 c) What is the total cost? _____ ? c) What is the total cost? _____ \$
 d) If the school has a budget of \$120, will they have enough money? Explain how you know. _____

Real maths
for real
futures!

PROBLEM
SOLVE
PROGRESS
YOU GOT THIS!

Curious
minds.
Brighter
futures.

MY VOICE

Your ideas. Your words.
A brighter Aotearoa. ♥

Stories
Ideas
Opinions
Knowledge
Change
It starts
with you.

EXPLORE
CREATE
WRITE
SHARE
MAKE A
DIFFERENCE

DIFFERENT
IDEAS
BRIGHTER
FUTURES

PEOPLE
PLACES
IDEAS
AOTEAROA

GOOD
IDEAS
BRIGHTER
TOMORROWS

There is no
one right story.
There is your
story. ♥



Learning intention:

I can make independent writing choices for purpose and audience.

1

Choose your purpose

What do you want to write? Tick one.



NARRATE

To tell a story
(real or imagined).



Hook your reader.
Show, don't just tell.
Use interesting details.



EXPLAIN

To give information
and explain how or why
something happens.



Be clear and organised.
Use facts and examples.
Use connecting words.



PERSUADE

To give your opinion
and convince others.



State your opinion clearly.
Give reasons and evidence.
Use strong, persuasive language.

2

Plan your writing

Use the boxes below to plan your ideas.



MY PURPOSE

Why am I writing this?



MY AUDIENCE

Who am I writing for?



MY MAIN IDEA

What is my big idea?



MY STRUCTURE

How will I organise
my writing?



WORDS/DETAILS I WANT TO USE

Interesting words,
examples or facts.

3

Genre reminders Use the checklist for the type of writing you chose.



NARRATIVE

- ☐ Interesting opening (hook)
- ☐ Characters and setting
- ☐ Problem or challenge
- ☐ Events in order
- ☐ Exciting details (show, don't tell)
- ☐ A strong ending

Take your
reader on
a journey. ♥



EXPLANATION

- ☐ Clear introduction
- ☐ Logical order (steps or causes)
- ☐ Facts and examples
- ☐ Technical or topic words
- ☐ Linking words (first, next, because...)
- ☐ A conclusion

Make it
clear.
Make it
make sense. ♥



PERSUASION

- ☐ Clear opinion (state it early)
- ☐ Reasons to support your opinion
- ☐ Evidence or examples
- ☐ Persuasive words (e.g. should, important)
- ☐ Consider another point of view
- ☐ A strong ending (call to action)

Convince
your reader.
Make your
voice count. ♥

4



Write

Write your best Year 5 piece in your exercise book.
Use your plan and the success criteria to help you.

Good
writers
make choices
and keep
going. ♥

5



Self-check

Read your writing and check:

- ☐ Does it achieve what I wanted it to do?
- ☐ Is it clear and well organised?
- ☐ Have I used interesting vocabulary?
- ☐ Would my audience understand it?
- ☐ Am I proud of my writing?

Be proud.
Your ideas
matter. ♥

REAL-LIFE MATHS

Same people. Brighter futures. ♥

Maths helps us plan a brighter Aotearoa. ♥

OUR IDEAS
OUR COMMUNITY
OUR FUTURE

COMMUNITY
PEOPLE
IDEAS
OPPORTUNITIES
TOGETHER

PLAN
CALCULATE
SOLVE
IMPROVE

GOOD PEOPLE
BRIGHTER
COMMUNITIES



Learning intention:

I can decide which mathematics I need.

Real maths for real lives. ♥

Scenario: Real fictional Homework Club Community Day!

You are helping to plan a Community Day at the Homework Club. Use the information below to answer the questions. You might need to use more than one type of maths. Show your thinking in your exercise book.

1 Event timetable

Here is the plan for the day.

Activity	Time
Set up	8:00 am – 9:00 am
Welcome & karakia	9:00 am – 9:20 am
Activity rotations	9:20 am – 12:00 pm
Lunch	12:00 pm – 12:45 pm
Guest speaker	12:45 pm – 1:30 pm
Games & challenges	1:30 pm – 3:00 pm
Pack up	3:00 pm – 4:00 pm

- How long do the activity rotations run for? _____
- What time will the Community Day finish? _____
- If 15 minutes is needed between each activity, is there enough time in the day? Explain.

2 Budget

Here is the planned budget.

Item	Cost (each)	Amount
Sausage sizzle (food pack)	\$3.50	100
Drinks	\$2.00	100
Activity materials	\$45.00	4
Decorations	\$30.00	1
Guest speaker koha	\$120.00	1
Miscellaneous	\$50.00	1

- What is the total cost for the sausage sizzle? _____
- What is the total cost for drinks? _____
- What is the total estimated cost for the event? _____
- If the school has \$800 to spend, will that be enough? How do you know? _____

3 Attendance

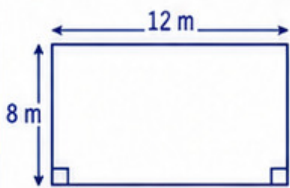
Here are the expected numbers.

Group	Number
Year 4 students	28
Year 5 students	32
Year 6 students	24
Whānau and visitors	36
Teachers and helpers	10

- How many people are expected in total? _____
- If each table seats 8 people, how many tables will be needed for lunch? _____
- If 10% more people arrive than expected, how many people might there be? _____

4 Room layout

The main hall is a rectangle 12 m long and 8 m wide.



Each activity station needs a space that is 3 m by 2 m.

- What is the total area of the hall? _____
- How many activity stations can fit in the hall? _____
- You need a walkway of 1 m around each station. Will 6 stations fit? Explain your thinking.

5 Survey results

Some students were asked what activity they are most looking forward to.

Activity	Tally	Total
Games		7
Creative arts		5
STEM challenges		9
Sports		4
Guest speaker		3

- Which activity was the most popular? _____
- Which activity was the least popular? _____
- How many students were asked altogether? _____
- What fraction of the students chose STEM challenges? _____
- If 40 more students are surveyed and the same pattern continues, how many might choose games? _____

6 Supplies and quantities

Each activity station needs the following:

- 12 paper sheets
- 6 markers
- 2 glue sticks
- 1 pair of scissors



- If you have 6 activity stations, how many paper sheets will you need in total? _____
- You have 50 markers. Will that be enough? Explain.

- Markers are sold in packs of 10 and cost \$4 per pack. How much will it cost to buy enough for 6 stations? \$ _____

7 Problem solving

You want to create activity groups with no more than 8 students in each group. There are 64 students (Years 4–6) attending.

- How many groups will you need? _____
- If each activity runs for 25 minutes and there are 4 different activities, how long will it take for each group to complete all activities? _____

8 Thinking about it

- What went well in your planning?
- What was tricky?
- What would you do differently next time?



9 Final question

Which mathematical skill was most useful for planning the Community Day and why? Give an example from this page to support your answer.



Curious
minds.
Brighter
futures.

THE HOMEWORK CLUB CHALLENGE

FINAL MISSION • PART 1

Four challenges. Four digits. Unlock what's inside!

Use your reading, maths, problem solving and investigation skills.
You've got this! ♥

EXPLORE
SOLVE
LEARN
GROW
TOGETHER

BIG
THINKERS
BRIGHTER
AOTEAROA

1 READING CLUE

Read the text and answer the question.
Your answer is the first digit.

A Small Act

Tama noticed the new student sitting alone at lunch. She looked around, unsure where to go. Without hesitation, Tama walked over, smiled and invited her to join his group. By the end of the week, she was laughing, joining in games, and had even made her own friends.

What can you infer about Tama from this text?

- A. He is new to the school.
- B. He is kind and inclusive.
- C. He prefers to work alone.
- D. He is good at sports.

DIGIT 1

2 NUMBER LOCK

Solve the problem.
Your answer is the second digit.

At the school fair, 6 boxes of cookies were sold. Each box had 24 cookies. The cookies were sold for \$3 each. After paying \$20 for supplies, how much money was left?



What is the value of the underlined digit in your answer?

Solution lives in you. ♥

DIGIT 2

3 MAP CLUE

Use the map to answer the question.
Your answer is the third digit.



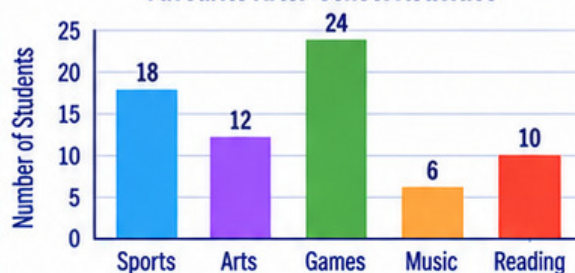
You are at the library. You walk 3 squares east and 2 squares south. What place do you arrive at?

DIGIT 3

4 DATA CLUE

Look at the chart and answer the question.
Your answer is the fourth digit.

Favourite After-School Activities



How many more students chose Games than Reading?

DIGIT 4

Play.
Learn.
Grow.

MY FOUR-DIGIT CODE:

Unlock
new possibilities.

PART 2 • SHOW WHAT YOU KNOW

You've found the code. Now use your skills to complete the final challenge!

**SAME
LEARNERS
BRIGHTER
FUTURES**



EXPLORE
SOLVE
CREATE
REFLECT
GROW
TOGETHER

1 The final clue

Inside the box you find a note...

"Great events don't just happen — they're planned. Use what you know to make it work. Think carefully, show your working, and make the best choices for your community."

- The Homework Club Crew

2 The planning challenge

The Homework Club is using the remaining money from the Community Day to create an outdoor chill space for students. Use the information below to plan and answer the questions. Show your working in the spaces provided.

Available budget

\$480

Space to cover

A rectangle
6 m long and
4 m wide

Artificial grass

\$35 per m²

Outdoor seats

\$45 each

Plants

\$25 each

Curious
minds.
Brighter
futures

3 Your tasks

- What is the area of the space to be covered with artificial grass? _____
- How much will the artificial grass cost? _____
- 25% of the remaining money will be used for plants.
How much money is that? _____
- How many seats can they buy with the money left after buying the grass and plants? _____
- They also want to leave \$30 for extra items. Will they have enough money? Show your working and explain.

4 Show your working

5 Written reflection

Explain how you solved the challenge. What did you try first? Did you change your strategy? What helped you?

Explain
your thinking.
That's where
the real
learning is.

6 Check your solution

- ☐ Have I answered all parts of the challenge?
- ☐ Does my solution make sense?
- ☐ Have I shown my working clearly?

ULTIMATE QUEST COMPLETE

You didn't just find answers.
You learned how to find them. ❤️

PLAY
LEARN
GROW
BELONG

BRIGHTER
LEARNERS
BRIGHTER
AOTEAROA



READING

- Reread.
- Find clues.
- Ask what the text is mostly saying.



Look for clues in the words, pictures and headings.



UNKNOWN WORDS

- Look at word parts (prefix, root, suffix).
- Read around the word.
- Try a possible meaning.



What might make sense here?



WRITING

- Plan the main idea.
- Write.
- Reread.
- Revise.
- Edit.



Good writers make choices and keep going.



MATHS PROBLEMS

- What do I know?
- What am I finding?
- Which maths could help? (e.g. addition, subtraction, multiplication, division, fractions, measurement, geometry, statistics)

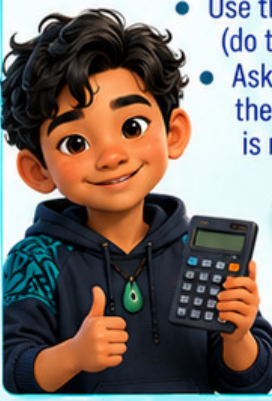


Start with what you know.



CHECKING MATHS

- Estimate.
- Use the inverse (do the opposite).
- Ask whether the answer is reasonable.

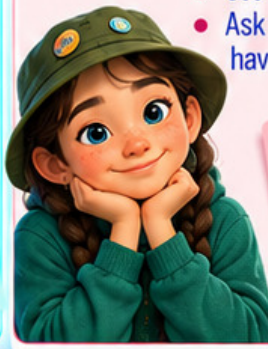


Does it make sense? Check it again.

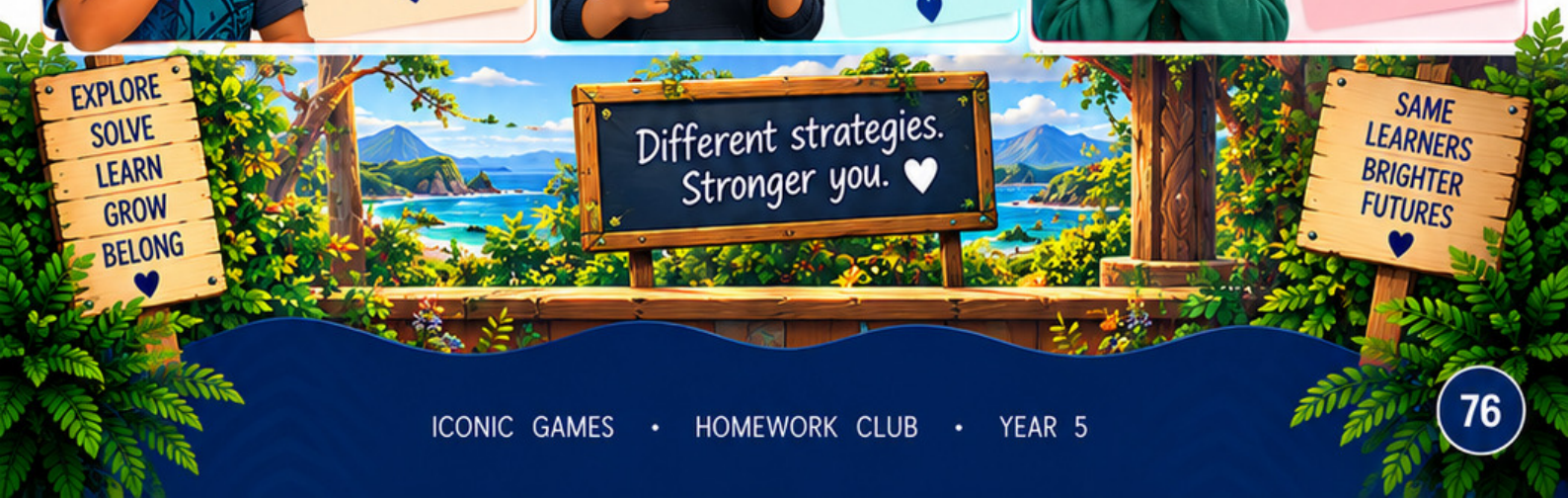


WHEN IT FEELS HARD

- Try a smaller step.
- Draw it.
- Use what you already know.
- Ask for help after you have had a go.



It's okay to find it tricky. That's how you grow.



Progress looks different for everyone and that's okay. ♥

LOOK HOW I'VE GROWN

Colour, tick or mark each skill as you grow.

✓ SMALL STEPS
✓ BIGGER SKILLS
✓ BRIGHTER FUTURES
♥

EXPLORE
SOLVE
LEARN
GROW
BELONG

Same learners. Brighter futures. ♥



ENGLISH

I am building my reading, writing and communication skills.

T1

T2

T3

T4



Find main ideas



Make inferences



Understand new vocabulary



Write clear paragraphs



Explain ideas



Use evidence



Edit my writing



Speak clearly



Practice today. Progress tomorrow. ♥



MATHS

I am building my problem solving and number skills.

T1

T2

T3

T4



Place value & operations



Multiplication & division



Fractions



Decimals & percentages



Measurement



Geometry



Patterns & equations



Statistics & probability



Solve multistep problems



Mistakes help me learn. ♥

Keep going! You're doing great. ♥

Progress isn't about being perfect. It's about trying, learning and growing. ♥

Small steps lead to big things. ♥

Take a moment to be proud of yourself. You've put in the effort and it shows. ♥

MY YEAR 5 REFLECTION

Look how far you've come! ♥

SAME LEARNERS BRIGHTER FUTURES ♥

EXPLORE

LEARN

GROW

BELONG

CURIOUS MINDS BRIGHTER FUTURES ♥



Something I can do now that was hard at the beginning...



A piece of learning I'm proud of...



A challenge I kept working at...



My favourite thing I learned...



A strategy that really helped me...



Something I discovered about myself as a learner...



MY YEAR 6 GOAL

Next year I want to...

Bigger challenges. Brighter me. ♥

You can do amazing things. ♥

EXPLORE
SOLVE
LEARN
GROW
BELONG

KIA MĀIA
KEEP GOING ♥

ICONIC
GAMES

SAME
LEARNERS
BRIGHTER
FUTURES

HOMESCHOOL CLUB

YEAR 5 HOMESCHOOL CLUB

CERTIFICATE OF COMPLETION

EXPLORE
SOLVE
LEARN
GROW
BELONG

This certificate is awarded to

for completing the Year 5 Homework Club learning journey
and showing effort, curiosity, persistence and growth.

Date: _____ Signed: _____

Curious
Minds
Brighter
Futures

You
Got
This

HE
AKO
HE TIPU
HE ORA

PLAY • LEARN • GROW

A BRIGHTER
AOTEAROA
TOGETHER



Same learners.
Brighter futures.



MY IDEAS & NOTES

A space for thoughts, workings, sketches, questions and big ideas.

EXPLORE
SOLVE
LEARN
GROW
BELONG



I wonder...



I noticed...



I want to remember...



An idea I want to try...



A brighter
Aotearoa
together. ♥

➤ Keep wondering. Keep trying. Keep growing. ➤

