Ready-Ed Publications

KiwiMaths Series

PHOTOCOPY MASTERS

Maths: Year 2

- number and algebra
- fractions, decimals and money
- patterns and algebra
- shapes and units of measurement
- location and transformation
- chance and data

2

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Teachers' Notes

Many of the questions and activities in the book are designed to be open-ended, however where appropriate answers or suggested answers are provided. The idea of keeping the questions and activities open-ended is to focus on processes and strategies and allow for greater differentiation. The activities enable all students of different abilities to be working on the same problem but allow students to tackle the problem at different levels. They can approach the task from their level and feel confident in being able to complete it.

To get the most out of these activities reflection time needs to be incorporated into each lesson. This doesn't need to be just at the end of the lesson but can be at various times throughout the lesson too. This gives the students time to share their strategies with the class and see how other students are solving the same problem. It's important for students to see that they all might have the right answer but there are many ways to get to that answer. Offering students this time means they can learn from each other and provides assistance to those students who might be struggling by giving them a strategy to try.

The book is divided into six sections:

Section 1: Number and Place Value
Section 2: Fractions, Decimals and Money
Section 3: Patterns and Algebra
Section 4: Shapes and units and Measurement
Section 5: Location and Transformation
Section 6: Chance and Data

As teachers, the questions we ask can help the students delve deeper and think more critically about their learning. Try using some of these questions in your lessons:

1. Is there another way you could work that out?
2. Have you found every possible answer?
3. What would happen if … ?
4. Is there a pattern?
5. You and … have different answers… who is right?
6. You and … have the same answer but different working out. Share with each other what you did.
7. Can you prove it?

With the help of this book you can ensure you are covering each area, and making maths fun and engaging for your students.

Stone collection

My Dad and I take a walk after dinner every night. I collect stones that I find on our walks. On Monday I collected 3 stones and then I collected 1 more stone every day for the rest of the week. Can you work out how many stones I have collected by Sunday?

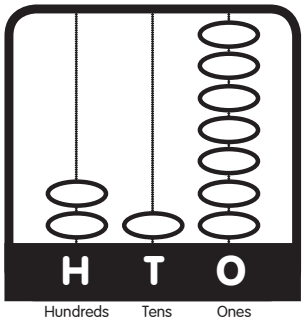
Day	Stones Collected	Total
Monday	3	3

How many stones do I have at the end of the week?

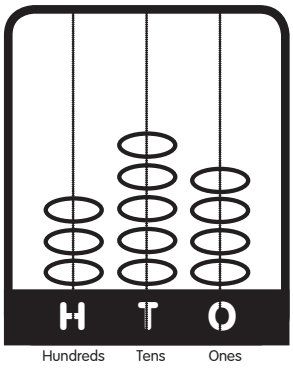
Extension: How many stones will I have at the end of 2 weeks?

Using an abacus

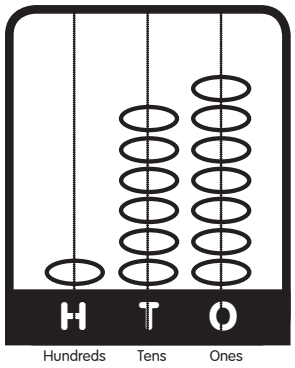
An abacus can be used to represent a number and show how many hundreds, tens and ones make up the number. For example, the abacus (right) represents the number 217. In this number, there are 2 hundreds, 1 ten and 7 ones.



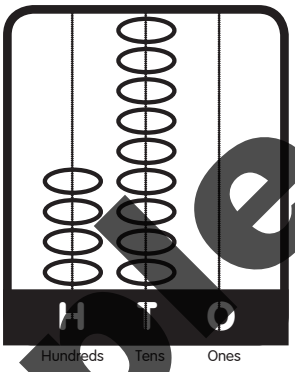
❑ What numbers are represented on these abacuses?



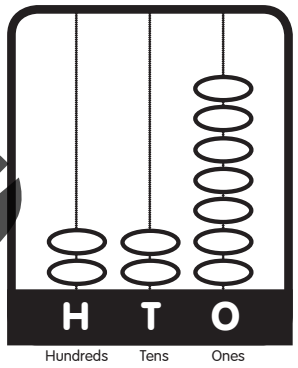
a. _____



b. _____

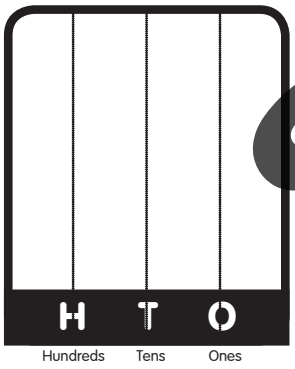


c. _____



d. _____

❑ Draw to make the numbers on the abacuses.



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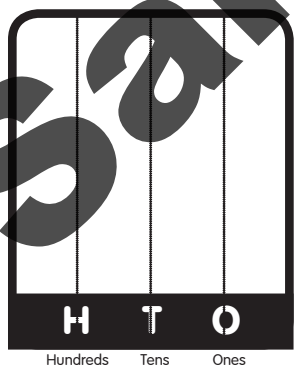

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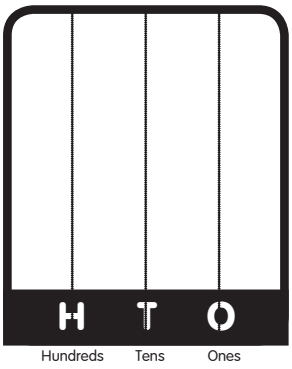
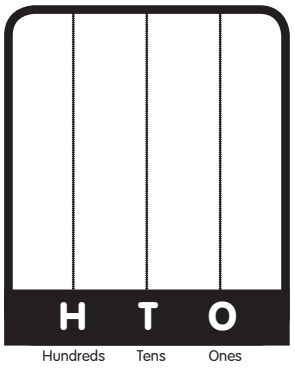


g. 464



h. 270

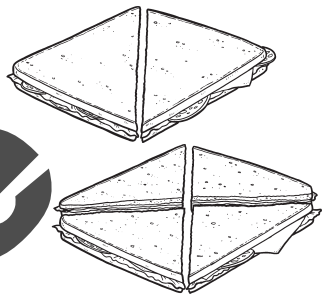
Extension

1. Draw an abacus on the back of this sheet with a number represented on it and see if someone can work out what number it is. Give a friend a number and see if they can represent it on an abacus.
2. My friend Tom has drawn an abacus with 2 beads on the hundreds, 11 on the tens and 5 on the ones. My teacher said he has actually represented 315. How? What has he done wrong? Can you fix it?

Halves or quarters?

I walked into the kitchen to find my Mum making a sandwich for my school lunch. She asked me, "Would you like it cut into halves or quarters?"

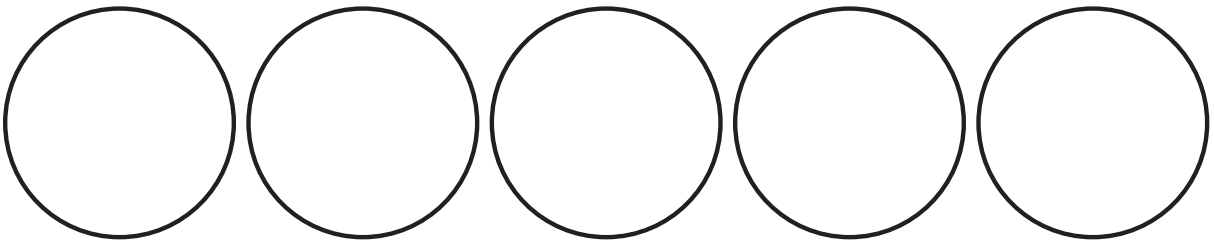
1. How many ways could my mum cut my sandwich into halves? Draw the possibilities.



2. Today, I decided I would like my sandwich cut into quarters. How many ways could my Mum cut the sandwich into quarters? In a different colour, draw each way of cutting the sandwich.

Could you cut a sandwich into eighths? Draw what this might look like on the back of this sheet.

3. What about when you are cutting a cake? How can you cut a cake into halves, quarters, eighths or other fractions equally? Draw your answers below.



Word problems - subtraction

1. On the weekend Jed and his mum made cupcakes for his birthday. They made 56 cupcakes in total and Jed took 24 cupcakes to school for his classmates. How many cupcakes were left at home? Show your working out.

2. Ask a friend to write a word problem for you to solve:

_____

_____

_____

Number sentence and answer:

3. Did you write a word problem for a friend to solve? What was the number sentence for the word problem that you wrote for him/her? Did your friend solve it?

Measuring 1

1. We can use lots of different things to measure objects. Can you find objects around your classroom that are longer than, shorter than and equal to the length of your foot?

Shorter than..	Equal to..	Longer than..

2. Use your feet to do some more measuring. Write what you measured and how many foot lengths it was.

Item	How many foot lengths?
table	

Extra

If you and your friend both measured the width of the classroom in foot lengths, would your answers be the same? Explain your answer on the back of this sheet.

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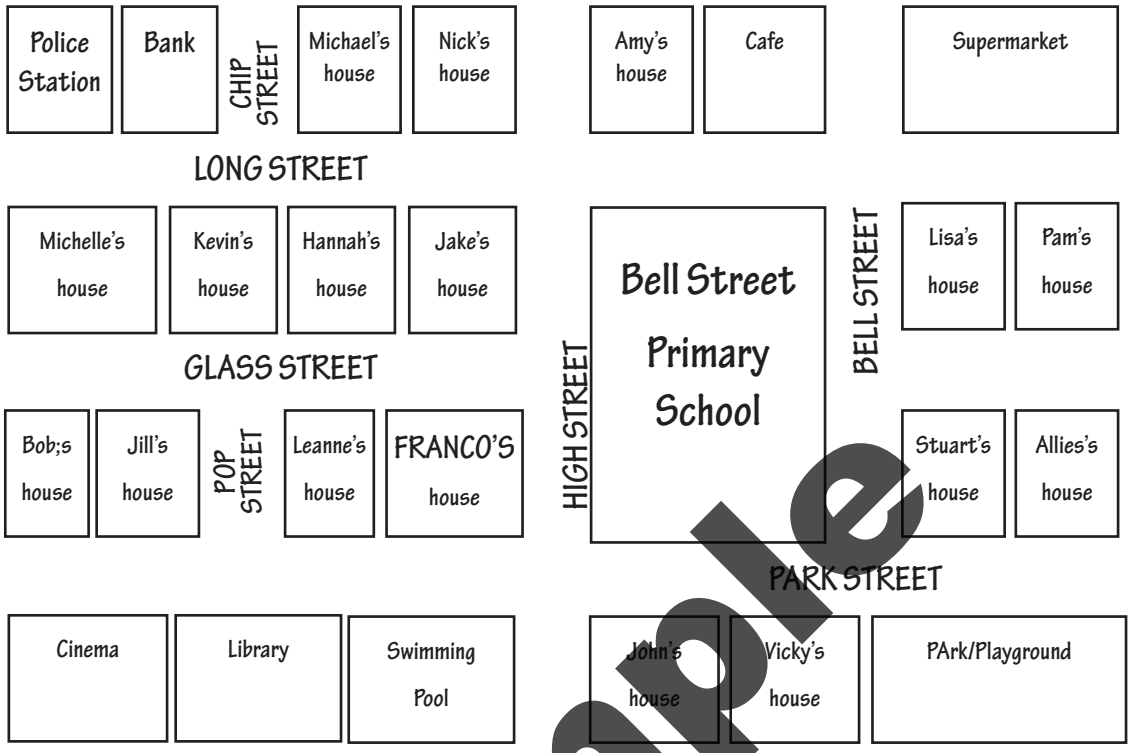
Mapping 1

❑ Below is a map of the streets around Franco's house.



❑ Read about Franco's movements below.

Franco leaves the cinema in the direction of the library and takes his first left. He turns right at the end of that street then his first left. He takes the next left and then the first right and his destination will be on the left.

Where did Franco end up?

Extension

Using the map above write your own set of directions to a place on the map. Have a friend follow them and see if he/she ends up in the right place.