Marshall Cavendish Education

Endorsed by Cambridge Assessment International Education

Marshall Cavendish MATHS

For Cambridge Primary Stages 1 to 6

A high-quality and complete instructional package that provides support for the Cambridge Primary Mathematics Curriculum Framework

Support High Quality Teaching and Learning

This package provides a scaffolded and spiralling learning framework with problem solving at its heart.

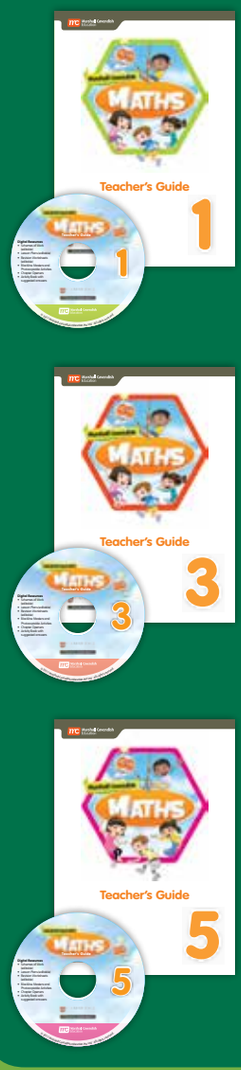
What's in Our Package

Pupil's Book

Stages 1 – 6

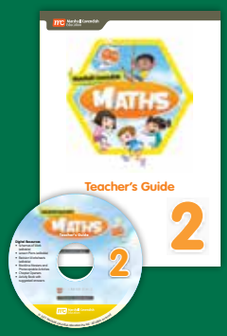
Activity Book

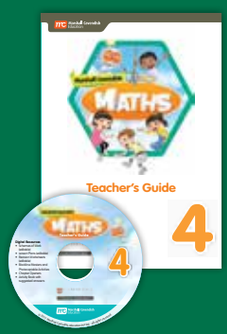
Stages 1 – 6

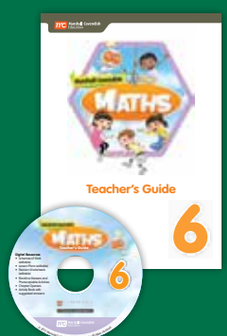


Teacher's Guide
with digital resources

Stages 1 – 6







Digital Resources in CD-Rom:

- Schemes of Work (editable)
- Lesson Plans (editable)
- Revision Worksheets (editable)
- Blackline Masters
- Chapter Openers
- Activity Book with Suggested Answers

(Resources also available at www.mc-maths.com)

Why choose Marshall Cavendish MATHS ?

Carefully Developed to guide pupils towards discovery and develop fluency and mastery in Mathematics

Well-designed to engage and captivate pupils

Enhance Teachers' Effectiveness to deliver better lessons

Master Concepts

Each lesson is scaffolded to ensure that pupils have the necessary support to understand new topics. Within each chapter are ample opportunities for formative assessment that enables teachers to monitor each pupil's progress.

Deepen conceptual understanding with the **Concrete-Pictorial-Abstract approach** in which physical objects (concrete), followed by diagrams (pictorial) and finally numeral representations (abstract) are used to develop each concept.

F Adding or Subtracting

Let's Recall

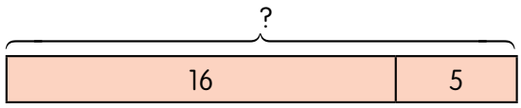
Take some .
Compare with your classmate.
What is the difference between the number of cubes that you and your classmate have?

Let's Learn Together

1 A florist sold 16 tulips and 5 roses.
How many flowers did she sell altogether?

Concrete

Pictorial



Abstract

16 + 5 = 21

She sold 21 flowers altogether.

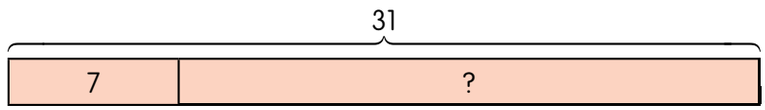
We can draw a bar model to help us.

Let's check!

$$\begin{array}{r} {}^{1}\cancel{2}\,{}^{11}\cancel{1} \\ -\quad 5 \\ \hline 1\ 6 \end{array}$$

My answer is correct.

2 David has 31 green and orange marbles.
There are 7 green marbles.
How many orange marbles are there?



31 – 7 = 24

There are 24 orange marbles.

How can you check your answer?

Pupils learn **strategies and heuristics** such as Make a List and Guess and Check **to solve unfamiliar or non-routine questions**. There are also opportunities for pupils to explore, experiment, discuss mathematical ideas and **engage in active learning**.

Mind Corner

1 Game: "Num-mory" Bond

You will need

2 sets of 0 1 2 3 4 5 6 7 8 9

STEP 1 Pair up with a partner. Get a set of number cards each.

STEP 2 Mix your own cards. Put them face down.

STEP 3 Turn over one card from each set of cards. Keep the cards if the numbers make 9. Put the cards back if the numbers do not make 9.

STEP 4 Take turns to play. Repeat STEP 3 until there are no cards left.

The person with more cards wins.

2 There are two numbers. One number is 1 more than the other. The two numbers make 9. What are they?

Reflection, page 46

Pupil's Book, Stage 1

Lesson 4 (2 periods)

Mind Corner

Teaching ideas

1
- Have pupils play the game in pairs. Give each pair 2 sets of Number Cards (TR07) numbered 0 to 9.
- Choose a pair to demonstrate Steps (2) to (4).

2 **Heuristic(s): Guess and check**
- Draw a number bond on the board. Write the whole (9).
- Ask a volunteer to guess a number pair to 9 and place the magnetic counters on the board, e.g. 3 and 6.
- Have the class check if one number is 1 more than the other.
- Repeat with another volunteer until the correct answer is obtained.
- Guide pupils to see that the two numbers are 4 and 5.

Materials(s)

1
- 2 sets of Number Cards (TR07) per pair

2
- 9 magnetic counters

Consolidation

Reflection, page 46

Have pupils work on Reflection to check and reinforce their understanding.

Mind Corner

1 Game: "Num-mory" Bond

You will need

2 sets of 0 1 2 3 4 5 6 7 8 9

STEP 1 Pair up with a partner. Get a set of number cards each.

STEP 2 Mix your own cards. Put them face down.

STEP 3 Turn over one card from each set of cards. Keep the cards if the numbers make 9. Put the cards back if the numbers do not make 9.

STEP 4 Take turns to play. Repeat STEP 3 until there are no cards left.

The person with more cards wins.

2 There are two numbers. One number is 1 more than the other. The two numbers make 9. What are they?

Use guess-and-check to solve it.

Reflection, page 46

46 Chapter 4

Teacher's Guide, Stage 1

Stop-Think-Go **prompts pupils to reflect on the questions that require application of concepts learnt** and leads them to the next concept.

Stop-Think-Go

These vases have the same height.
Do you think they have the same capacities?
How do you know?

Let's Practise

1 Which is a suitable unit of measure of each capacity?

(a)

(b)

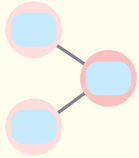
300 ____

8 ____

Pupil's Book, Stage 3

Let's Practise

1 There are 4 small butterflies and 3 big butterflies.
How many butterflies are there in all?



There are ____ butterflies in all.

2 5 frogs are in the water.
4 frogs are on the leaves.
How many frogs are there altogether?

5, ____, ____, ____, ____

There are ____ frogs altogether.

Worksheet 1, pages 47–52

Through *Let's Practise,* pupils reinforce concepts and skills learnt to **develop fluency**.

Pupil's Book, Stage 1

A Ways to Subtract

Let's Recall ensures pupils' readiness to learn new concepts and to facilitate **assessment for learning**.

Let's Recall

Pick a number from 5 to 9.
What number pairs make this number?

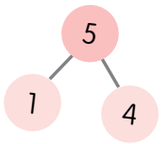
Let's Learn Together

1 There are 4 books.
Subtract 2 books from 4 books.

There are 2 books left.

Subtract means take away. We can cross out the 2 books to show that they are taken away.

2 There are 5 lions.
1 lion is sleeping.
How many lions are not sleeping



I can u... pairs to...

4 lions are not sleeping.

Pupil's Book, Stage 1

Worksheet gives pupils opportunities to **carry out independent work** when they are ready to develop fluency and gain mastery.

4 Number Pairs

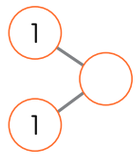
Worksheet 1

Making Number Pairs to 2, 3, 4, 5 and 6

1 Write the missing numbers.

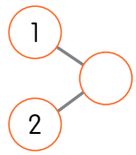
(a)

1 and 1 make _____.



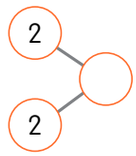
(b)

1 and 2 make _____.



(c)

2 and 2 make _____.



Activity Book, Stage 1

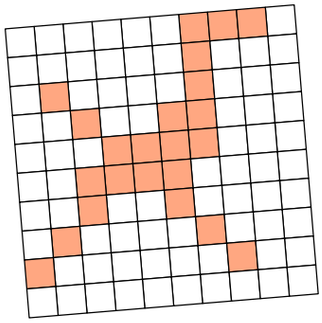
Stimulate Thinking

Each chapter is designed to nurture and encourage active, persistent and careful reflection. This reflection aids pupils in the development of critical and metacognitive thinking skills.

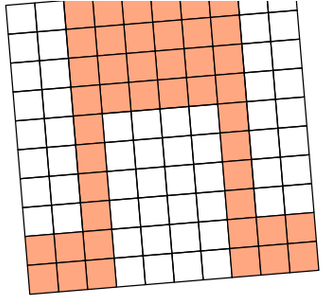
Pupil's Book, Stage 5

Let's Explore contains open-ended questions for problem solving and encourages **creative thinking** and application of **metacognitive strategies**.

(c)



(d)



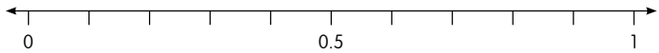
(e) How many squares have to be shaded if the percentage is 105%? Explain.

How many parts are there in a whole? How many wholes are needed?

Mascots prompt meaningful discussions and provide opportunities for pupils to monitor, direct and communicate their mathematical **thinking** and thought processes.

Questions with a light bulb **evoke deeper thinking and prompt investigation** with the aim of encouraging pupils' application of problem-solving skills to extend their learning.

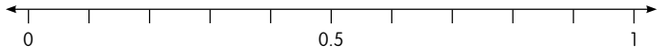
(b) 0.7 48% $\frac{3}{10}$ 12% $\frac{65}{100}$



_____, _____, _____, _____, _____

smallest

(c) 52% 0.6 90% 0.4 $\frac{4}{8}$



_____, _____, _____, _____, _____

smallest

Questions with a star are designed to **challenge the more able pupils**.

★(d) What is the value of each part on the number lines above? Explain. Express the value as a fraction, decimal and percentage.

_____

_____

_____

Activity Book, Stage 5

Make Maths Fun

Engaging mascots and interesting illustrations are used to capture pupils' interest.

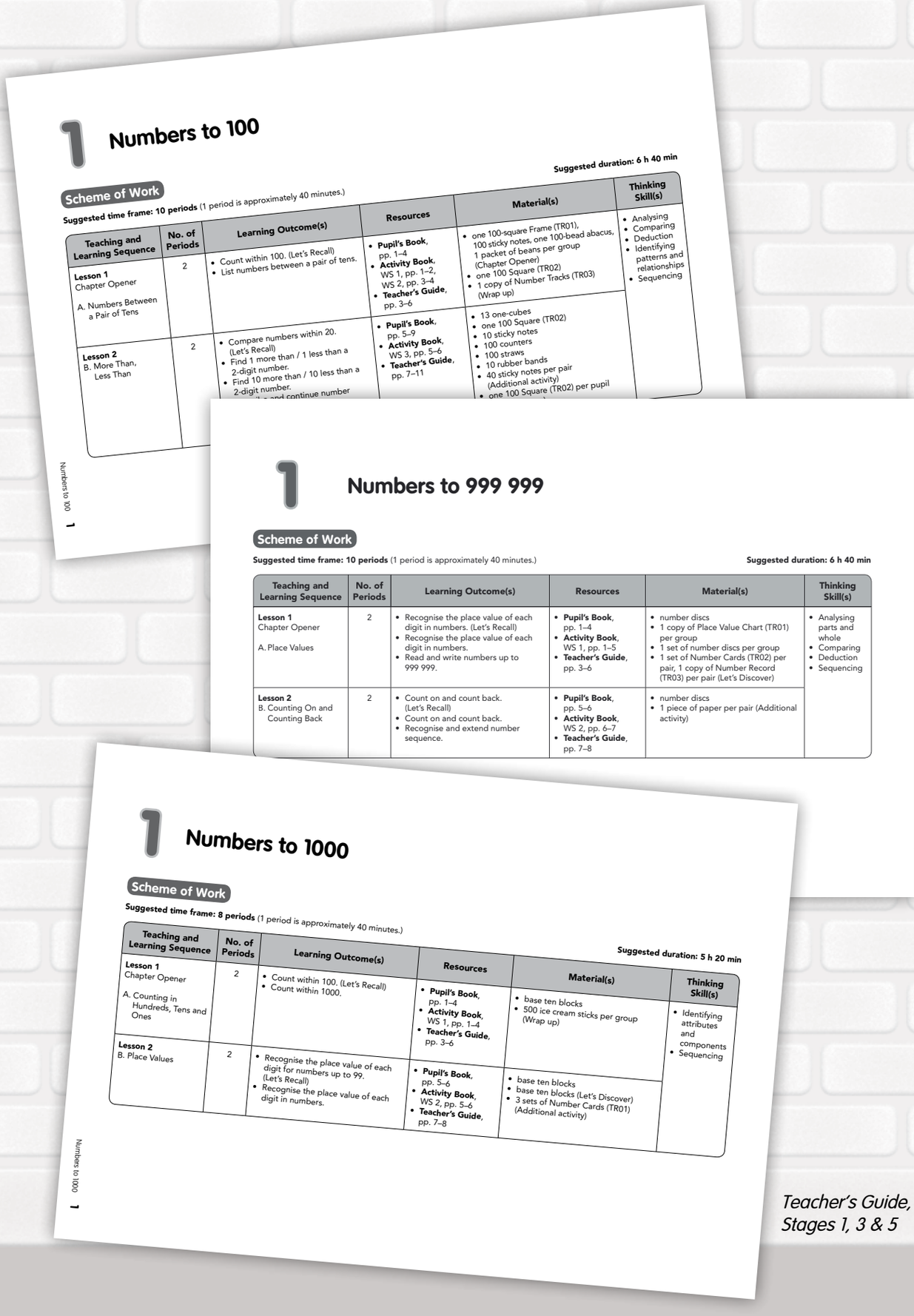
Pupil's Book, Stage 4

New concepts are introduced with **rich visuals and text** through a Chapter Opener.

Mascots (Owen, Lily, Aishah, Tom and Raj) are there to help guide the pupils and **make learning more fun!**

Save Lesson Preparation Time and Reduce Teachers' Workload

The teacher's guides are carefully laid out to give both experienced and novice teachers a wealth of resources, tips and helpful suggestions.



1 Numbers to 100

Scheme of Work

Suggested time frame: 10 periods (1 period is approximately 40 minutes.)

Suggested duration: 6 h 40 min

Teaching and Learning Sequence	No. of Periods	Learning Outcome(s)	Resources	Material(s)	Thinking Skill(s)
Lesson 1 Chapter Opener A. Numbers Between a Pair of Tens	2	• Count within 100. (Let's Recall) • List numbers between a pair of tens.	• **Pupil's Book**, pp. 1–4 • **Activity Book**, WS 1, pp. 1–2, WS 2, pp. 3–4 • **Teacher's Guide**, pp. 3–6	• one 100-square Frame (TR01), 100 sticky notes, one 100-bead abacus, 1 packet of beans per group (Chapter Opener) • one 100 Square (TR02) • 1 copy of Number Tracks (TR03) (Wrap up)	• Analysing • Comparing • Deduction • Identifying patterns and relationships • Sequencing
Lesson 2 B. More Than, Less Than	2	• Compare numbers within 20. (Let's Recall) • Find 1 more than / 1 less than a 2-digit number. • Find 10 more than / 10 less than a 2-digit number. and continue number	• **Pupil's Book**, pp. 5–9 • **Activity Book**, WS 3, pp. 5–6 • **Teacher's Guide**, pp. 7–11	• 13 one-cubes • one 100 Square (TR02) • 10 sticky notes • 100 counters • 100 straws • 10 rubber bands • 40 sticky notes per pair (Additional activity) • one 100 Square (TR02) per pupil	

Numbers to 100 1

1 Numbers to 999 999

Scheme of Work

Suggested time frame: 10 periods (1 period is approximately 40 minutes.)

Suggested duration: 6 h 40 min

Teaching and Learning Sequence	No. of Periods	Learning Outcome(s)	Resources	Material(s)	Thinking Skill(s)
Lesson 1 Chapter Opener A. Place Values	2	• Recognise the place value of each digit in numbers. (Let's Recall) • Recognise the place value of each digit in numbers. • Read and write numbers up to 999 999.	• **Pupil's Book**, pp. 1–4 • **Activity Book**, WS 1, pp. 1–5 • **Teacher's Guide**, pp. 3–6	• number discs • 1 copy of Place Value Chart (TR01) per group • 1 set of number discs per group • 1 set of Number Cards (TR02) per pair, 1 copy of Number Record (TR03) per pair (Let's Discover)	• Analysing parts and whole • Comparing • Deduction • Sequencing
Lesson 2 B. Counting On and Counting Back	2	• Count on and count back. (Let's Recall) • Count on and count back. • Recognise and extend number sequence.	• **Pupil's Book**, pp. 5–6 • **Activity Book**, WS 2, pp. 6–7 • **Teacher's Guide**, pp. 7–8	• number discs • 1 piece of paper per pair (Additional activity)	

1 Numbers to 1000

Scheme of Work

Suggested time frame: 8 periods (1 period is approximately 40 minutes.)

Suggested duration: 5 h 20 min

Teaching and Learning Sequence	No. of Periods	Learning Outcome(s)	Resources	Material(s)	Thinking Skill(s)
Lesson 1 Chapter Opener A. Counting in Hundreds, Tens and Ones	2	• Count within 100. (Let's Recall) • Count within 1000.	• **Pupil's Book**, pp. 1–4 • **Activity Book**, WS 1, pp. 1–4 • **Teacher's Guide**, pp. 3–6	• base ten blocks • 500 ice cream sticks per group (Wrap up)	• Identifying attributes and components • Sequencing
Lesson 2 B. Place Values	2	• Recognise the place value of each digit for numbers up to 99. (Let's Recall) • Recognise the place value of each digit in numbers.	• **Pupil's Book**, pp. 5–6 • **Activity Book**, WS 2, pp. 5–6 • **Teacher's Guide**, pp. 7–8	• base ten blocks • base ten blocks (Let's Discover) • 3 sets of Number Cards (TR01) (Additional activity)	

Numbers to 1000 1

Teacher's Guide, Stages 1, 3 & 5

Vocabulary points out the **key mathematical terms** that pupils need to know.

Note to teachers explains what the key concepts are and how the Concrete-Pictorial-Abstract approach has been applied.

Teaching ideas give teachers **detailed lesson ideas and suggestions to enable sound concept development**. They are centered around pupils' self-discovery.

The instruction wraps around the relevant pages from the Pupil's Book to allow for **quick referencing during lesson planning**.

A Understanding Positions

Let's Recall

- Begin by having pupils recall ordering of numbers within 10. [Stage 1 Chapter 1, Section B]
- Have pupils order the numbers given.

Learning outcome(s)
- Recognise positions.

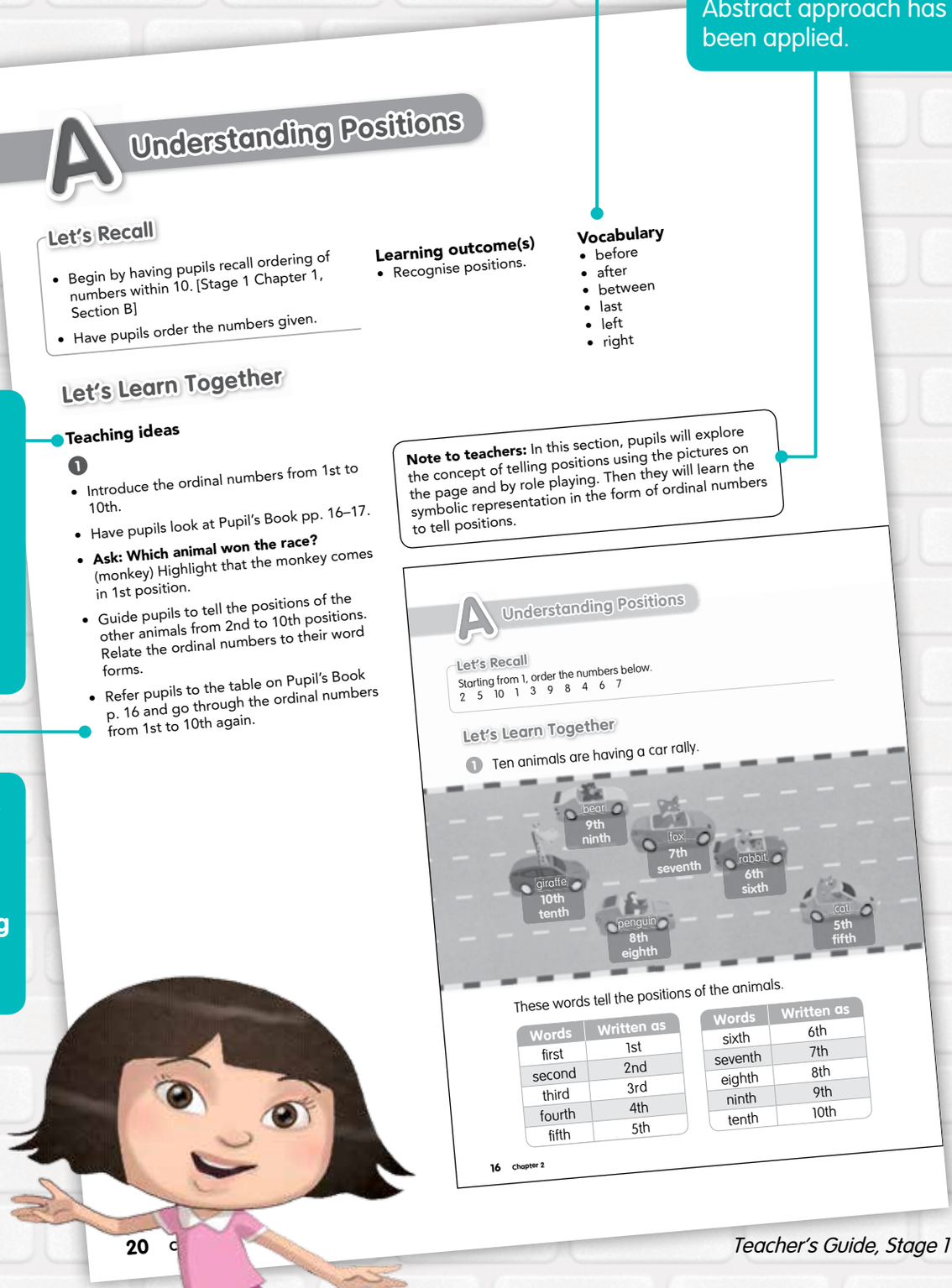
Vocabulary
- before
- after
- between
- last
- left
- right

Let's Learn Together

Teaching ideas

1
- Introduce the ordinal numbers from 1st to 10th.
- Have pupils look at Pupil's Book pp. 16–17.
- **Ask: Which animal won the race?** (monkey) Highlight that the monkey comes in 1st position.
- Guide pupils to tell the positions of the other animals from 2nd to 10th positions. Relate the ordinal numbers to their word forms.
- Refer pupils to the table on Pupil's Book p. 16 and go through the ordinal numbers from 1st to 10th again.

Note to teachers: In this section, pupils will explore the concept of telling positions using the pictures on the page and by role playing. Then they will learn the symbolic representation in the form of ordinal numbers to tell positions.



Teacher's Guide, Stage 1

Common error(s) **highlight concepts** that commonly confuse pupils.

Let's Practise **offers suggested answers** to the questions in the Pupil's Book.

Common error(s)

Some pupils may misinterpret the second sentence as only 1 apple eaten and will subtract 1 from 2 to get the answer. Highlight the word 'each' used in the sentence to correct pupils' misinterpretation.

Let's Practise

1 (a) 3
(b) 6
(c) 4
(d) 6

2 2 – 2 = 0 or 2 – 1 – 1 = 0

Wrap up **contains ideas to help pupils consolidate their learning** and brings the lesson to a close.

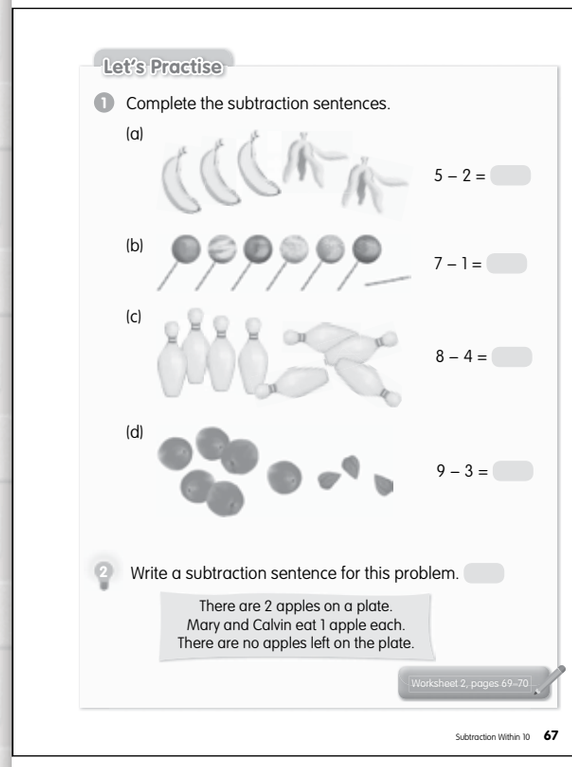
Wrap up

Material(s): 1 set of Subtraction Cards (TR11)

Reinforce the concept of subtraction sentences by having an activity. Shuffle a set of Subtraction Cards (TR11). Get a pupil to come to the front and pick a random card, e.g. '3 – 1'. Have the pupil ask the class, 'What is 3 minus 1?' The first pupil to give the correct answer gets to pick the next card.

Worksheet 2, pages 69–70

Have pupils do Worksheet 2 to practise writing subtraction sentences on their own.



Teacher's Guide, Stage 1

Cater to Different Learning Needs

Designed for pupils of all levels, the series guides teachers on how to meet the needs of advanced learners and learners needing more support.

For advanced learners offers suggestions to challenge the more able pupils and **reinforces their understanding of the concepts**.

For learners needing more support offers **suggestions to aid** less confident pupils.

Teaching ideas

4

- Prompt pupils to see that 99 is near 100. Point out that 99 = 100 – 1. Hence adding 99 is the same as adding 100 and then subtracting 1.
- Conclude that 54 + 99 = 153.
- Prompt pupils to suggest other pairs of numbers where they can make use of this strategy to add numbers easily.
- Lead pupils to see that they can use this strategy when one of the numbers is near 100.

For advanced learners

Have pupils suggest a mental strategy to add 99 and 98 and list their steps to get the answer. (E.g. add 100 and 98, then subtract 1 from the sum; add 99 and 100, then subtract 2 from the sum, etc.)

For learners needing more support

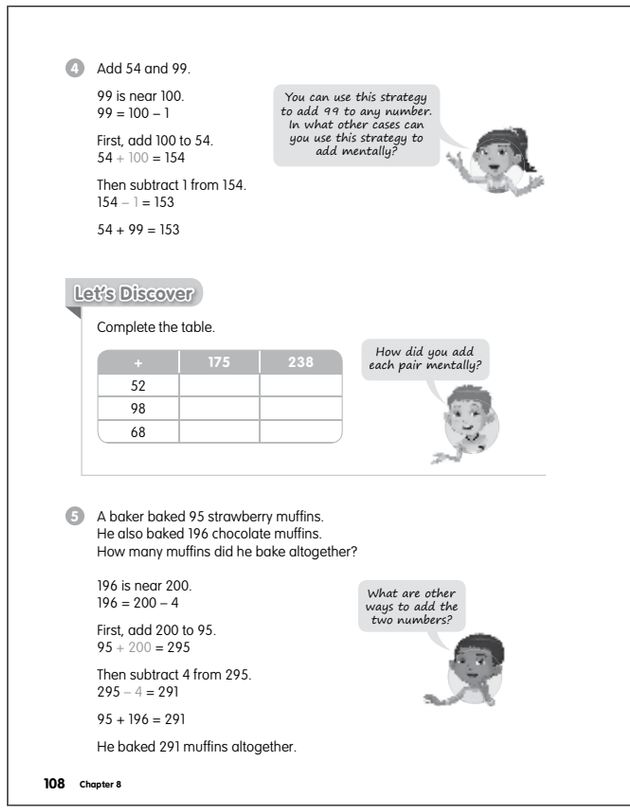
For pupils who have difficulty adding numbers mentally where renaming is involved in the steps, guide them to count on in ones or tens to get the answer.

Let's Discover

- Have pupils work in pairs. Get each pair to discuss the mental strategies they used to add each pair of numbers. Then have some pupils present their answers to the class.
- Have pupils discuss and explain which strategy they prefer.
- Conclude that there can be more than one way to add the numbers.

5

- Have pupils read the word problem. Guide them to see that they have to add 95 and 196 to find the total number of muffins.
- Prompt pupils to see that 196 is near 200, which is a multiple of 100. Point out that 196 = 200 – 4. Hence adding 196 is the same as adding 200 and then subtracting 4.
- Conclude that 95 + 196 = 291. Hence the baker baked 291 muffins altogether.
- Have pupils suggest other ways to add the numbers mentally. For example, 95 is near 100 (95 = 100 – 5). Hence adding 95 is the same as adding 100 and then subtracting 5.



4 Add 54 and 99.

99 is near 100.
99 = 100 – 1

First, add 100 to 54.
54 + 100 = 154

Then subtract 1 from 154.
154 – 1 = 153

54 + 99 = 153

You can use this strategy to add 99 to any number. In what other cases can you use this strategy to add mentally?

Let's Discover

Complete the table.

+	175	238
52		
98		
68		

How did you add each pair mentally?

5 A baker baked 95 strawberry muffins.
He also baked 196 chocolate muffins.
How many muffins did he bake altogether?

196 is near 200.
196 = 200 – 4

First, add 200 to 95.
95 + 200 = 295

Then subtract 4 from 295.
295 – 4 = 291

95 + 196 = 291

He baked 291 muffins altogether.

What are other ways to add the two numbers?

108 Chapter 8

124 Chapter 8

Additional activity **offers teachers more teaching ideas for pupils' enrichment.**

Additional activity

Material(s): 1 die per pair

(1) Have pupils work in pairs. Provide each pair with a die.

(2) Get pupils to generate two 3-digit numbers by tossing the die.

(3) Then ask them to choose an appropriate mental strategy to find the sum of the two numbers.

(4) Get pupils to share their answers with their classmates.

Teaching ideas

6

- Have pupils read the word problem. Prompt them to see that they have to add 427 and 202 to find the total number of flowers sold.
- Prompt pupils to see that 202 is near 200. Point out that 202 = 200 + 2. Hence adding 202 is the same as adding 200 and then adding 2.
- Conclude that 427 + 202 = 629.
- Prompt pupils to suggest ways to check the answer.
- Carry out **Additional activity** if time permits.

Let's Practise

1 (a) 90
(b) 170

2 (a) 68
(b) 87
(c) 85
(d) 133
(e) 317
(f) 484

6 A florist sold 427 roses and 202 daisies in a day.
How many flowers did he sell altogether?

202 is near 200.
202 = 200 + 2

First, add 200 to 427.
427 + 200 = 627

Then add 2 to 627.
627 + 2 = 629

He sold 629 flowers altogether.

Let's Practise

1 Find the sum mentally.
(a) 10 + 30 + 50 = ☐ (b) 20 + 60 + 90 = ☐

2 Add mentally.
(a) 25 and 43 ☐ (b) 22 and 65 ☐
(c) 29 and 56 ☐ (d) 35 and 98 ☐
(e) 41 and 276 ☐ (f) 99 and 385 ☐
(g) 101 and 456 ☐ (h) 198 and 526 ☐

Explain to your classmates how you arrived at your answers.

3 Joy has 267 red beads and 404 yellow beads.
How many beads does Joy have altogether? ☐

Worksheet 2, pages 112–114

Questions with a star are designed to **challenge the more able pupils.**

★5 Sharon bought 8 rolls of ropes.
Each roll of rope was 5 m long.
How many metres of ropes did she buy altogether?

☐ ○ ☐ = ☐

She bought _____ m of ropes altogether.

★6 There are 2 pencils in each pencil holder.
How many pencils are there in 4 pencil holders?

☐ ○ ☐ = ☐

There are _____ pencils in 4 pencil holders.

★7 There are 3 bags of potatoes.
Each bag has 5 potatoes.
How many potat

Teacher's Guide, Stage 6

Activity Book, Stage 2

Stage 1

Schemes of Work*

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 1 Numbers 0 to 10	
A. Counting Within 10 **B.** Ordering Numbers Within 10 **C.** Comparing Numbers Within 10	• Count within 10 • Read and write numbers within 10 • Order numbers within 10 • Compare numbers within 10
Chapter 2 Naming Positions	
A. Understanding Positions **B.** Days of the Week	• Recognise positions • Tell days of the week
Chapter 3 Length and Mass	
A. Comparing Lengths **B.** Comparing Masses	• Compare lengths • Compare masses
Chapter 4 Number Pairs	
A. Making Number Pairs to 2, 3, 4, 5 and 6 **B.** Making Number Pairs to 7, 8 and 9	• Make number pairs up to 9
Chapter 5 Addition Within 10	
A. Ways to Add **B.** Writing Addition Sentences **C.** Solving 1-Step Addition Word Problems **D.** Adding Three Numbers	• Add two numbers within 10 • Write addition sentences • Solve 1-step addition word problems • Add three numbers within 10
Chapter 6 Subtraction Within 10	
A. Ways to Subtract **B.** Writing Subtraction Sentences **C.** Solving 1-Step Subtraction Word Problems **D.** Relating Subtraction to Addition	• Subtract numbers within 10 • Write subtraction sentences • Solve 1-step subtraction word problems • Relate subtraction to addition
Chapter 7 2D Shapes	
A. Straight Lines and Curved Lines **B.** Squares, Rectangles, Triangles and Circles **C.** Making Patterns With 2D Shapes **D.** Symmetry	• Identify straight lines and curved lines • Name shapes such as squares, rectangles, triangles and circles • Sort 2D shapes • Make patterns with 2D shapes • Recognise symmetrical objects
Chapter 8 3D Shapes	
A. Flat Faces and Curved Faces **B.** Cubes, Cuboids, Spheres and Cylinders **C.** Making Patterns With 3D Shapes	• Recognise flat faces and curved faces • Name shapes such as cubes, cuboids, spheres and cylinders • Sort 3D shapes • Make patterns with 3D shapes
Chapter 9 Making 10	
A. Making Number Pairs to 10 **B.** Subtracting From 10	• Make number pairs to 10 • Subtract from 10

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 10 Numbers 11 to 20	
A. Counting Within 20 **B.** Ordering Numbers Within 20 **C.** Comparing Numbers Within 20	• Count within 20 • Count in twos • Read and write numbers within 20 • Order numbers within 20 • Compare numbers within 20
Chapter 11 Addition and Subtraction Within 20	
A. Adding Numbers Within 20 **B.** Subtracting Numbers Within 20 **C.** Solving 1-Step Word Problems	• Add numbers within 20 • Subtract numbers within 20 • Solve 1-step word problems
Chapter 12 More on Length and Mass	
A. Measuring and Comparing Lengths **B.** Measuring and Comparing Masses	• Measure and compare lengths • Measure and compare masses
Chapter 13 Time	
A. Telling Time to the Hour **B.** More on Telling Time	• Tell time to the hour • Know key times of day
Chapter 14 Graphs	
A. Reading Lists and Tables **B.** Reading Pictograms **C.** Reading Block Graphs	• Read lists and tables • Read pictograms • Read block graphs
Chapter 15 Doubles and Halves	
A. Finding Doubles **B.** Finding Near Doubles **C.** Finding Halves of Shapes **D.** Finding Halves of Numbers	• Find doubles of numbers • Find near doubles of numbers • Find halves of shapes • Find halves of numbers
Chapter 16 Sharing	
A. Sharing Equally **B.** Even and Odd Numbers	• Share objects into two equal groups • Find even and odd numbers
Chapter 17 Numbers to 100	
A. Counting Within 40 **B.** Counting Within 100	• Count within 100 • Read and write numbers within 100 • Count in tens • Describe and continue patterns • Estimate a number of objects
Chapter 18 Money	
A. Coins **B.** Paying With Coins	• Recognise and exchange coins of different values • Pay an exact sum using coins
Chapter 19 Capacity	
A. Comparing Capacities **B.** Measuring Capacities	• Compare capacities • Measure capacities
Chapter 20 Handling Information	
A. Counting Within 40 **B.** Counting Within 100	• Use given information to make graphs • Use Carroll diagrams and Venn diagrams to group objects

*Please visit http://www.cambridgeinternational.org/ to see how the learning outcomes correlate to the Cambridge Primary Mathematics Curriculum framework.

Stage 2

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 1 Numbers to 100	
A. Numbers Between a Pair of Tens **B.** More Than, Less Than **C.** Number Line **D.** Ordinal Numbers	• List numbers between a pair of tens • Find 1 more than / 1 less than a 2-digit number • Find 10 more than / 10 less than a 2-digit number • Describe and continue number patterns • Place numbers on a number line • Use ordinal numbers up to the 10th number and more
Chapter 2 More About Numbers to 100	
A. Place Values **B.** Comparing Numbers Within 100 **C.** Rounding Numbers	• Count in tens and ones • Recognise the place values of each digit in numbers • Compare numbers within 100 • Round numbers to the nearest ten
Chapter 3 2D Shapes	
A. Knowing More Shapes **B.** Symmetrical Shapes and Lines of Symmetry	• Identify and describe 2D shapes • Identify symmetrical shapes • Identify and draw lines of symmetry
Chapter 4 3D Shapes	
A. Cones and Pyramids **B.** Identifying Shapes of Objects in Daily Life	• Name 3D shapes such as cones and pyramids • Recognise 3D shapes in the environment
Chapter 5 Addition Within 100	
A. Adding Without Renaming **B.** Adding With Renaming **C.** Number Pairs to 20 **D.** Number Pairs to 100 **E.** Adding Small Numbers	• Add without renaming • Add with renaming • Make number pairs to 20 • Make number pairs to 100 • Add three or more small numbers
Chapter 6 Subtraction Within 100	
A. Subtracting Without Renaming **B.** Subtracting With Renaming **C.** Using Number Pairs to 20 to Subtract **D.** Using Number Pairs to 100 to Subtract **E.** Solving Number Sentences **F.** Adding or Subtracting	• Subtract without renaming • Subtract with renaming • Using number pairs to 20 to subtract • Using number pairs to 100 to subtract • Solve number sentences • Use addition or subtraction to solve word problems
Chapter 7 Length	
A. Measuring Length in Centimetres **B.** Measuring Length in Metres **C.** Comparing Lengths	• Estimate and measure lengths in centimetres • Estimate and measure lengths in metres • Compare lengths
Chapter 8 Multiplication	
A. Adding Equal Groups **B.** Multiplication Sentences	• Add equal groups • Write multiplication sentences

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 9 Multiplying by 2, 5 and 10	
A. Multiplying by 2 **B.** Multiplying by 5 **C.** Multiplying by 10 **D.** Solving Multiplication Word Problems	• Count in twos • Build up the multiplication table of 2 • Count in fives • Build up the multiplication table of 5 • Count in tens • Build up the multiplication table of 10 • Solve multiplication word problems
Chapter 10 Multiplying by 3 and 4	
A. Multiplying by 3 **B.** Multiplying by 4 **C.** Solving Multiplication Word Problems	• Count in threes • Build up the multiplication table of 3 • Count in fours • Build up the multiplication table of 4 • Solve multiplication word problems
Chapter 11 Mass	
A. Measuring Mass in Kilograms **B.** Measuring Mass in Grams **C.** Comparing Masses	• Estimate and measure masses in kilograms • Estimate and measure masses in grams • Compare masses
Chapter 12 Capacity and Volume	
A. Measuring Capacity and Volume in Litres **B.** Comparing Capacities	• Estimate and measure capacities and volumes in litres • Compare capacities
Chapter 13 Data Handling	
A. Sorting Numbers or Objects **B.** Making and Understanding Graphs	• Use Carroll and Venn diagrams to sort numbers or objects • Organise information to make and understand graphs
Chapter 14 Division	
A. Division as Grouping **B.** Any Left Over?	• Divide using grouping • Divide and leave some left over
Chapter 15 Dividing by 2 and 3	
A. Dividing by 2 **B.** Even and Odd Numbers **C.** Dividing by 3	• Relate division to multiplication • Divide by 2 and 3 • Recognise even and odd numbers
Chapter 16 Dividing by 4, 5 and 10	
A. Dividing by 4 **B.** Dividing by 5 **C.** Dividing by 10	• Relate division to multiplication • Divide by 4, 5 and 10
Chapter 17 Time, Days and Months	
A. Telling Time to the Half Hour **B.** Telling Time Using Before and After **C.** Measuring Time in Minutes and Seconds **D.** Days and Months	• Tell time to the half hour • Tell time using before and after • Measure time in minutes and seconds • Name and order days and months

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 18 Doubles and Halves	
A. Finding Doubles **B.** Finding Halves of Numbers	• Find doubles of numbers • Find halves of numbers
Chapter 19 Halves and Quarters	
A. Finding Parts of a Whole **B.** Making a Whole **C.** Finding Halves and Quarters of a Number of Objects	• Recognise and name one-half and quarters • Recognise and find halves and quarters of shapes • Recognise that or make a whole • Recognise and find halves and quarters of a number of objects
Chapter 20 Angles and Movement	
A. Angles and Turnings **B.** Knowing Right Angles **C.** Movement	• Identify angles as turnings • Recognise whole, half and quarter turns, both clockwise and anti¬clockwise • Identify right angles • Follow and give instructions involving position, direction and movement
Chapter 21 Money	
A. Coins and Notes **B.** Exchanging Money **C.** Counting, Reading and Writing Money **D.** Making Up an Amount of Money **E.** Adding and Subtracting Money	• Recognise dollar notes and coins • Compare amounts of money • Exchange coins or notes for their equivalent values • Use money notation • Make up an amount of money • Solve word problems on addition and subtraction of money • Work out change

Stage 3

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 1 Numbers to 1000	
A. Counting in Hundreds, Tens and Ones **B.** Place Values **C.** Numbers and Words	• Count within 1000 • Recognise the place value of each digit in numbers • Read and write numbers within 1000
Chapter 2 More About Numbers	
A. Counting On and Counting Back **B.** Number Line **C.** Comparing and Ordering **D.** Rounding Numbers	• Count on and count back • Place 3-digit numbers on a number line • Compare and order numbers within 1000 • Round numbers to the nearest ten and hundred
Chapter 3 2D Shapes and 3D Shapes	
A. Sides, Vertices and Right Angles **B.** Making and Drawing Shapes **C.** Faces, Edges and Vertices **D.** Pyramids and Prisms	• Classify 2D shapes according to their sides, vertices and right angles • Identify, describe and draw 2D shapes • Identify and describe 3D shapes according to their faces, edges and vertices • Identify which nets will make a cube • Identify, describe and make pyramids and prisms

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 4 Addition and Subtraction Within 1000	
A. Adding Without Renaming **B.** Subtracting Without Renaming **C.** Adding With Renaming **D.** Subtracting With Renaming	• Add without renaming • Subtract without renaming • Add with renaming • Subtract with renaming
Chapter 5 Word Problems	
A. Solving Word Problems Involving Addition **B.** Solving Word Problems Involving Subtraction **C.** Solving Word Problems Involving Addition and Subtraction	• Solve 2-step word problems involving addition • Solve 2-step word problems involving subtraction • Solve 2-step word problems involving addition and subtraction
Chapter 6 Length	
A. Metres and Centimetres **B.** Measuring Length in Metres and Centimetres **C.** Drawing and Measuring Lines **D.** Adding and Subtracting Lengths **E.** Kilometres and Metres	• Recognise the relationship between metres and centimetres • Choose appropriate units of measure • Measure lengths in metres and centimetres • Convert lengths between metres and centimetres • Draw and measure lines • Do simple addition and subtraction of lengths • Relate kilometres and metres
Chapter 7 Multiplication	
A. Multiplication Tables of 2, 3, 4, 5 and 10 **B.** Multiplication Tables of 6 and 9 **C.** Multiplying by 10 **D.** Multiplying Teen Numbers by 3 and 5 **E.** Solving Word Problems	• Write and complete multiplication tables of 2, 3, 4, 5 and 10 • Write and complete multiplication tables of 6 and 9 • Multiply 2-digit numbers by 10 • Multiply teen numbers by 3 and 5 • Solve word problems involving multiplication
Chapter 8 Division	
A. Relating Division to Multiplication **B.** Division With Remainder **C.** Solving Word Problems	• Relate division to multiplication • Work out division with remainder • Solve word problems involving division
Chapter 9 Mass	
A. Kilograms and Grams **B.** Solving Word Problems	• Measure masses in kilograms and grams • Read scales for masses • Relate kilograms and grams • Solve word problems involving kilograms and grams
Chapter 10 Capacity	
A. Measuring in Litres and Millilitres **B.** Relating Litres and Millilitres **C.** Solving Word Problems	• Measure capacities and volumes in litres and millilitres • Relate litres and millilitres • Solve word problems involving litres and millilitres

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 11 Symmetry	
A. Lines of Symmetry **B.** Completing Symmetrical Shapes **C.** Drawing Reflections of Shapes	• Identify lines of symmetry • Complete symmetrical shapes • Draw reflections of shapes
Chapter 12 Time and Dates	
A. Reading and Writing Time **B.** Time Intervals **C.** Reading a Calendar	• Read and write time • Calculate time intervals • Read a calendar
Chapter 13 Number Crunching	
A. Numbers in Steps **B.** Doubling and Halving **C.** Complements to 100 and 1000	• Count on and count back in steps of 2, 3, 4, 5 and 10 • Understand the relationship between doubling and halving • Find doubles and halves of numbers within 100 • Find complements to 100
Chapter 14 Data Handling	
A. Tally Charts and Frequency Tables **B.** Pictograms With Scales **C.** Bar Charts **D.** Sorting Data Using Two Criteria	• Read and use tally charts and frequency tables • Read and use pictograms with scales • Read and use bar charts • Sort data using two criteria
Chapter 15 Fractions	
A. Unit Fractions **B.** Parts of a Whole **C.** Simple Mixed Numbers **D.** Comparing and Ordering Simple Fractions and Mixed Numbers	• Recognise and name unit fractions up to $\frac{1}{12}$ • Recognise and name a fraction of a whole • Recognise and name simple mixed numbers • Compare and order simple fractions • Place simple fractions and mixed numbers on a number line
Chapter 16 More About Fractions	
A. Equivalent Fractions of Half **B.** Fractions of a Number	• Find equivalent fractions of half • Find a fraction of a number
Chapter 17 Money	
A. Using Money Notation **B.** Converting Money **C.** Adding Money **D.** Finding Change **E.** Solving Word Problems	• Use money notation • Convert between dollars and cents • Add money • Find change • Solve word problems involving money
Chapter 18 Right Angles	
A. Comparing Angles With a Right Angle **B.** Drawing Right Angles With a Set Square	• Compare angles with a right angle • Draw right angles with a set square
Chapter 19 Position and Movement	
A. 4-Point Compass **B.** Square Grid	• Tell the directions north, east, south and west • Locate and describe a position in a labelled square grid

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 1 Numbers to 10 000	
A. Counting in Thousands, Hundreds, Tens and Ones **B.** Place Values **C.** Numbers and Words	• Count within 10 000 • Recognise the place value of each digit in numbers • Read and write numbers within 10 000
Chapter 2 More About Numbers	
A. Counting On and Counting Back **B.** Number Line **C.** Comparing Numbers Within 10 000 **D.** Rounding Numbers	• Count on and count back • Describe and continue number sequences • Place numbers on a number line • Compare numbers within 10 000 • Round numbers to the nearest ten and hundred
Chapter 3 Addition and Subtraction	
A. Addition B. Subtraction C. Solving Word Problems	• Add without renaming • Add with renaming • Subtract without renaming • Subtract with renaming • Solve word problems involving addition and subtraction
Chapter 4 Time	
A. Using a.m. and p.m. **B.** Telling Time in Hours and Minutes **C.** Calculating Time Intervals **D.** Reading Simple Timetables and Using Calendars	• Use a.m. and p.m. • Tell time in hours and minutes • Choose units of time to measure time intervals • Calculate time intervals • Read simple timetables and use calendars
Chapter 5 Multiplication	
A. Multiplication Tables **B.** Multiplying by a 1-Digit Number **C.** Multiplying by 10and 100	• Write and complete multiplication tables of 2, 3, 4, 5, 6, 7, 8, 9 and 10 • Multiply 2-digit numbers by a 1-digit number • Recognise the effect of multiplying numbers by 10 and 100
Chapter 6 Division	
A. Dividing by a 1-Digit Number **B.** Dividing by 10 and 100 **C.** Even and Odd Numbers	• Divide 2-digit numbers by a 1-digit number • Recognise the effect of dividing numbers by 10 and 100 • Make general statements about even and odd numbers
Chapter 7 Pictograms and Bar Charts With Scales	
A. Reading and Making Pictograms With Scales **B.** Reading and Making Bar Charts With Scales	• Read amd make pictograms with scales • Read and make bar charts with scales
Chapter 8 Number Crunching	
A. Complements to 100 and 1000 **B.** Mental Addition **C.** Mental Subtraction **D.** Doubling and Halving **E.** Multiplying Creatively	• Find complements to 100 and 1000 • Add mentally • Subtract mentally • Find doubles and halves of numbers • Multiply creatively

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 9 Negative Numbers	
A. Understanding Negative Numbers **B.** Using Negative Numbers	• Recognise negative numbers • Describe and continue number sequences involving negative numbers • Use negative numbers
Chapter 10 From 2D Shapes to 3D Shapes	
A. Polygons **B.** Making and Drawing Polygons **C.** Symmetry **D.** 3D Shapes and Nets	• Identify and describe more 2D shapes • Make and draw polygons • Identify and draw lines of symmetry in 2D shapes and patterns • Draw 3D shapes • Recognise and make nets
Chapter 11 Decimals	
A. Tenths **B.** Hundredths **C.** Relating Money Notation to Decimals	• Read and write tenths and hundredths in decimal notation • Recognise the place value of each digit in decimals • Place decimals on a number line • Relate money notation to decimals • Round amounts of money to the nearest dollar
Chapter 12 Length, Mass and Capacity	
A. More About Length **B.** More About Mass **C.** More About Capacity	• Choose and use standard metric units • Understand the meaning of 'kilo', 'centi' and 'milli' • Use decimal notation to record readings • Read divisions on partially numbered scales • Convert between units of measure • Estimate and measure lengths, masses and capacities using standard metric units
Chapter 13 Angles, Direction and Position	
A. Angles and Turns **B.** Grids, Direction and Position	• Measure angles and turns in degrees • Compare and order angles • Identify positions on grids of squares. • Give directions to follow on a given path
Chapter 14 Fractions	
A. Parts of a Whole **B.** Equivalent Fractions **C.** Comparing and Ordering Fractions **D.** Fractions and Decimals	• Find fractions of shapes • Identify fractions with a total of 1 • Recognise and find equivalent fractions • Compare and order fractions • Recognise equivalence of fractions and decimals
Chapter 15 Mixed Numbers	
A. Mixed Numbers **B.** Ordering Mixed Numbers	• Recognise mixed numbers • Order mixed numbers on a number line

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 16 More About Fractions	
A. Fraction of a Set **B.** Proportion	• Find fraction of a set • Recognise proportions
Chapter 17 Perimeter and Area	
A. Perimeter **B.** Area	• Measure and calculate the perimeters of squares and rectangles • Recognise that area is measured in square units • Find the area of figures by counting squares
Chapter 18 Data Handling	
A. Graphs With Different Scales **B.** Carroll Diagrams **C.** Venn Diagrams	• Use graphs of different scales • Use Carroll diagrams • Use Venn diagrams

Stage 5

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 1 Numbers to 999 999	
A. Place Values **B.** Counting On and Counting Back **C.** Comparing and Ordering Numbers **D.** Rounding Numbers	• Recognise the place value of each digit in numbers • Read and write numbers up to 999 999 • Count on and count back. • Recognise and extend number sequences • Compare and order numbers up to 999 999 • Round numbers to the nearest ten, hundred and thousand
Chapter 2 Addition and Subtraction	
A. Addition **B.** Subtraction **C.** Adding More Numbers **D.** Estimation	• Add numbers up to 4 digits • Subtract numbers up to 4 digits • Add three or more numbers • Estimate answers in calculations
Chapter 3 Angles	
A. Types of Angles **B.** Estimating and Measuring Angles **C.** Angles on a Straight Line	• Identify different types of angles • Estimate and measure the size of an angle in degrees • Calculate angles on a straight line
Chapter 4 Lines and Shapes	
A. Perpendicular Lines **B.** Parallel Lines **C.** 3D Shapes and Nets	• Identify perpendicular lines • Identify parallel lines • Visualise 3D shapes from nets

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 5 Multiplication and Division	
A. Multiplying by a 1-Digit Number **B.** Multiplying by Tens and 100 **C.** Multiplying by a 2-Digit Number **D.** Dividing by a 1-Digit Number **E.** Dividing by Tens and 100 **F.** Calculating With Brackets **G.** Solving Word Problems	• Multiply 3-digit numbers by a 1-digit number • Recognise the effects of multiplying numbers by tens and 100 • Multiply 2-digit numbers by a 2-digit number • Divide 2-digit and 3-digit numbers by a 1-digit number • Recognise the effects of dividing numbers by tens and 100 • Calculate with brackets • Solve word problems
Chapter 6 Factors, Multiples and Square Number	
A. Factors **B.** Multiples **C.** Divisibility Rules **D.** Square Numbers	• Find factors of 2-digit numbers • Recognise multiples of 5, 10, 25, 50 and 100 • Apply tests of divisibility by 2, 5, 10 and 100 • Recognise square numbers
Chapter 7 Time	
A. Relating Seconds and Minutes **B.** 24-Hour Clock **C.** Time Intervals in Hours and Minutes **D.** Time Intervals in Days, Weeks, Months and Years	• Relate seconds and minutes • Interpret the 24-hour clock • Calculate time intervals using the 24-hour clock • Calculate time intervals in days, weeks, months and years
Chapter 8 Number Crunching	
A. Adding and Subtracting Near Multiples of 10, 100 and 1000 **B.** Doubling and Halving **C.** Multiplying Creatively	• Add and subtract near multiples of 10, 100 and 1000 • Double numbers up to 100 • Double multiples of 10 and 100, and derive the corresponding halves • Multiply creatively
Chapter 9 More About Numbers	
A. Positive and Negative Numbers **B.** General Statements About Numbers	• Count on and count back beyond zero • Describe and extend number sequences • Order and compare positive and negative numbers • Find the rise and fall in temperatures • Make general statements about numbers
Chapter 10 Data Handling	
A. Bar Line Charts and Line Graphs **B.** Mode of a Set of Data **C.** Likelihood of Events	• Read and interpret bar line charts and line graphs • Construct simple line graphs • Read and interpret the mode of a data set • Describe how likely an event will occur
Chapter 11 Decimals	
A. Comparing and Ordering Decimals **B.** Rounding Decimals	• Compare and order decimals up to 2 decimal places • Round decimals up to 2 decimal places to the nearest whole number

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 12 Adding, Subtracting and Multiplying Decimals	
A. Addition **B.** Subtraction **C.** Multiplying by a 1-Digit Number **D.** Doubling and Halving **E.** Solving Word Problems	• Add decimals with the same number of decimal places • Subtract decimals with the same number of decimal places • Multiply a decimal with 1 decimal place by a 1-digit whole number • Find doubles and halves of decimals • Solve word problems involving addition, subtraction and multiplication of decimals
Chapter 13 More on Measurement	
A. Converting Between Units of Measure **B.** Comparing and Ordering Measurements **C.** Rounding Measurements **D.** Drawing and Measuring Lines **E.** Comparing Readings on Different Scales	• Convert between units of measure • Compare and order measurements in mixed units • Round measurements to the nearest whole unit • Draw and measure lines • Compare readings on different scales
Chapter 14 Mixed Numbers and Improper Fractions	
A. Ordering Mixed Numbers **B.** Improper Fractions **C.** Changing Improper Fractions and Mixed Numbers **D.** Fractions and Division	• Order mixed numbers • Identify improper fractions • Change improper fractions and mixed numbers • Relate fractions to division
Chapter 15 Percentage	
A. Per Cent **B.** Decimals and Fractions as Percentages **C.** Percentage Part of a Whole	• Express a part of a whole as a percentage • Express fractions and decimals as percentages • Compare and order percentages, fractions and decimals • Calculate percentage part of a whole
Chapter 16 Ratio	
A. Simple Ratio **B.** Equivalent Ratios	• Interpret ratios a : b and b : a • Recognise and find equivalent ratios • Express a ratio in its simplest form
Chapter 17 Symmetry and Triangles	
A. Reflective Symmetry **B.** Rotational Symmetry **C.** Types of Triangles	• Identify reflective symmetry • Create symmetrical patterns with two lines of symmetry • Identify rotational symmetry about a centre point for which shapes can move about • Identify and classify triangles • Describe properties of triangles
Chapter 18 Translation and Reflection	
A. Coordinates **B.** Translation **C.** Reflection	• Read and plot points using coordinates on a grid • Translate a shape to a new position on a grid • Make a reflected image of a shape in a mirror line

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 19 Perimeter and Area	
A. Perimeter **B.** Area	• Measure and calculate the perimeter of polygons • Calculate area of rectangles and squares using formula

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 1 Whole Numbers	
A. Place Values **B.** Comparing and Ordering Numbers **C.** Estimating and Rounding Numbers	• Recognise the place value of each digit in numbers • Compare and order numbers • Round numbers to the nearest ten, hundred and thousand
Chapter 2 Factors, Multiples and Prime Numbers	
A. Factors, Multiples and Common Multiples **B.** Divisibility Rules **C.** Prime Numbers	• Find factors of 2-digit numbers • Find multiples and common multiples • Apply tests of divisibility by 2, 4, 5, 10, 25 and 100 • Recognise and find prime numbers
Chapter 3 Shapes	
A. Polygons **B.** 3D Shapes **C.** Nets	• Recognise and classify polygons • Identify and describe properties of quadrilaterals • Visualise and describe the properties of 3D shapes • Recognise the relationship between 2D and 3D shapes • Recognise nets of 3D shapes
Chapter 4 Operations With Whole Numbers	
A. Multiplying and Dividing by Tens, Hundreds and 1000 **B.** Multiplying by 1-Digit and 2-Digit Numbers **C.** Dividing by 1-Digit and 2-Digit Numbers **D.** Order of Operations **E.** Mental Calculations	• Multiply and divide by tens, hundreds and 1000 • Multiply and divide by 1-digit and 2-digit numbers • Apply the order of operations • Apply mental calculation strategies
Chapter 5 Length	
A. Measuring Length **B.** Drawing Length	• Use standard units of measure for length • Convert between units of measure for length • Draw and measure lines
Chapter 6 Time	
A. Converting Time Between Hours, Minutes and Seconds **B.** Telling and Comparing Time **C.** Time Intervals	• Convert units of time • Tell time in 24-hour clock notation • Compare times • Calculate time intervals

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 7 More About Numbers	
A. Positive and Negative Numbers **B.** General Statements About Numbers **C.** Number Sequences **D.** Decimals	• Perform subtraction involving negative numbers • Order and compare negative numbers • Use the >, < and = signs • Make general statements about odd and even numbers • Find rules for number sequences • Write decimals with place values up to thousandths • Recognise the place value of each digit in decimals with up to 3 decimal places • Compare and round decimals with up to 2¬ decimal places
Chapter 8 Operations With Decimals	
A. Addition and Subtraction **B.** Multiplying by 10, 100 and 1000 **C.** Dividing by 10 and 100 **D.** Converting Length **E.** Multiplying and Dividing by 1-digit Numbers **F.** Decimals in Context	• Add and subtract decimals • Multiply decimals by 10, 100 and 1000 • Divide decimals by 10 and 100 • Convert between units of measure for length • Multiply and divide decimals by 1-digit numbers • Solve word problems involving decimals
Chapter 9 Mass and Volume	
A. Measuring and Converting Mass **B.** Measuring and Converting Volume **C.** Solving Word Problems	• Use standard units of mass • Convert between units of mass • Use standard units of volume • Convert between units of volume
Chapter 10 Data Handling	
A. Line Graphs **B.** Mode, Median, Mean and Range **C.** Probability	• Use line graphs • Find the mode, median, mean and range • Use the language of probability • Apply statistics in everyday life
Chapter 11 Perimeter and Area	
A. Perimeter and Area of Squares and Rectangles **B.** Perimeter and Area of Compound Shapes **C.** Area of Irregular Shapes	• Measure and calculate the perimeter and area of squares and rectangles • Find the unknown length or width of squares and rectangles • Calculate the perimeter and area of compound shapes • Estimate the area of irregular shapes
Chapter 12 Time Zones	
A. Time Zone Map **B.** Finding the Time in Different Time Zones	• Find the time difference between two time zones • Find the local time in different time zones

Sections in the Chapter	Learning Outcome(s) in the Chapter
Chapter 13 Fractions, Mixed Numbers and Decimals	
A. Equivalent Fractions and the Simplest Form **B.** Comparing and Ordering Fractions **C.** Converting Mixed Numbers and Improper Fractions **D.** Converting Fractions and Decimals **E.** Fraction and Division **F.** Fraction of a Set	• Find equivalent fractions and express fractions in their simplest form • Compare and order fractions • Count on and back in fractions • Convert mixed numbers and improper fractions • Convert fractions and decimals • Relate fraction with division • Find fraction of a set
Chapter 14 Percentage	
A. Percentages and Fractions **B.** Percentages of Shapes **C.** Percentages of Whole Numbers	• Express fractions as percentages • Find percentages of shapes • Find percentages of whole numbers • Solve word problems involving percentages
Chapter 15 Angles	
A. Estimating and Measuring Angles **B.** Drawing Angles **C.** Angle Properties	• Estimate and measure angles • Draw angles • Find unknown angles using angle properties
Chapter 16 Transforming Shapes	
A. Coordinates in Four Quadrants **B.** Translating Shapes **C.** Reflecting Shapes **D.** Rotating Shapes	• Use coordinates in all four quadrants • Translate shapes • Reflect shapes • Rotate shapes
Chapter 17 Ratio and Proportion	
A. Ratio **B.** Proportion	• Solve word problems involving ratio • Solve word problems involving proportion
Chapter 18 Metric and Imperial Measures	
A. Imperial Measures of Length **B.** Imperial Measures of Mass **C.** Imperial Measures of Capacity	• Recognise imperial units of length • Relate metric and imperial units of length • Recognise imperial units of mass • Relate metric and imperial units of mass • Recognise imperial units of capacity • Relate metric and imperial units of capacity