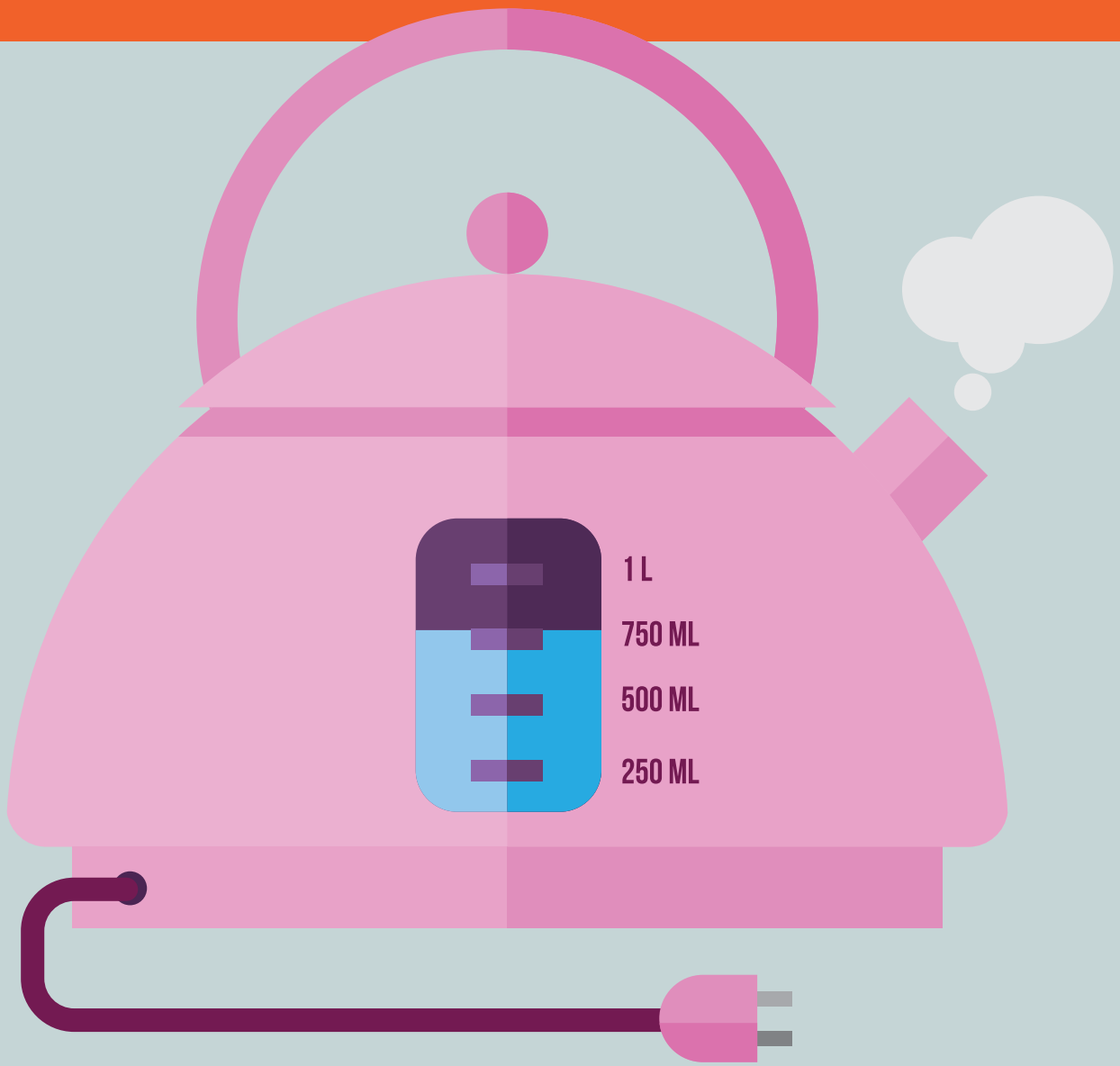
OXFORD UNIVERSITY PRESS

MATHS PLUS

Australian Curriculum v9.0

Help students build their skills, develop understanding and make connections over time



Maths Plus at a glance – practise, master, assess

Curriculum alignment

The series is fully aligned with the Australian Curriculum: Mathematics v9.0 – Number, Algebra, Measurement, Space, Statistics and Probability.

Teaching and learning approach

Students explore and revisit mathematical concepts over time, building their skills, developing understanding and making connections. This is a spiralled learning approach, also known as 'spacing', which supports practice and consolidation.

What sort of activities are included?

- learning, practice and consolidation activities
- problem-solving tasks
- extra support and extension activities
- mentals and homework activities

Student resources

- Student Books
- Student Dashboards
- Assessment Books
- Mentals and Homework Books

Teacher resources

A teacher book is available, along with online resources and support material for F-6 via a Teacher Dashboard.

- **Teaching resources**
  - interactive teaching tools to introduce concepts
  - blackline masters and investigations
  - lesson plans and learning support
  - potential difficulties video tutorials
- **Planning and assessment material**
  - curricula and planning documents
  - assessment tests and diagnostic term reviews
  - dictionary of mathematical terms
  - answers

What does *Maths Plus* look like in the classroom?

1

Plan and implement teaching

Use the Teacher Dashboard or Teacher Book to access lesson plans and learning support, including explicit references to the Student Books.

2

Practise

Student Books and Student Dashboards provide multiple problem-solving opportunities for students to explore and practise mathematical concepts.

3

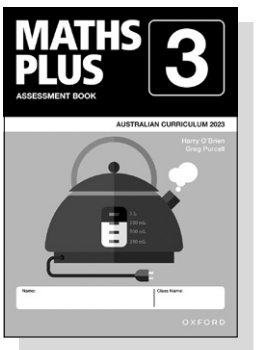
Master

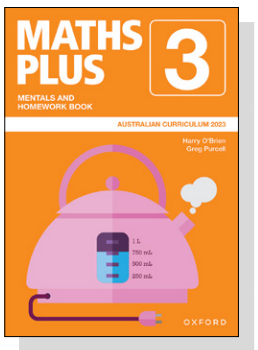
The Mentals and Homework Books allow students to practise their skills, consolidate understanding and increase fluency.

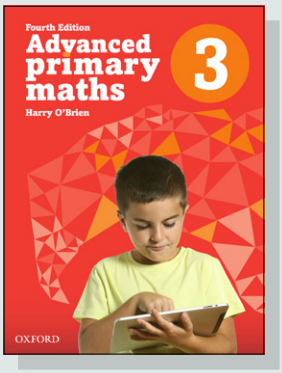
4

Assess the results

Use the post-tests to measure student growth and report on competency and understanding.







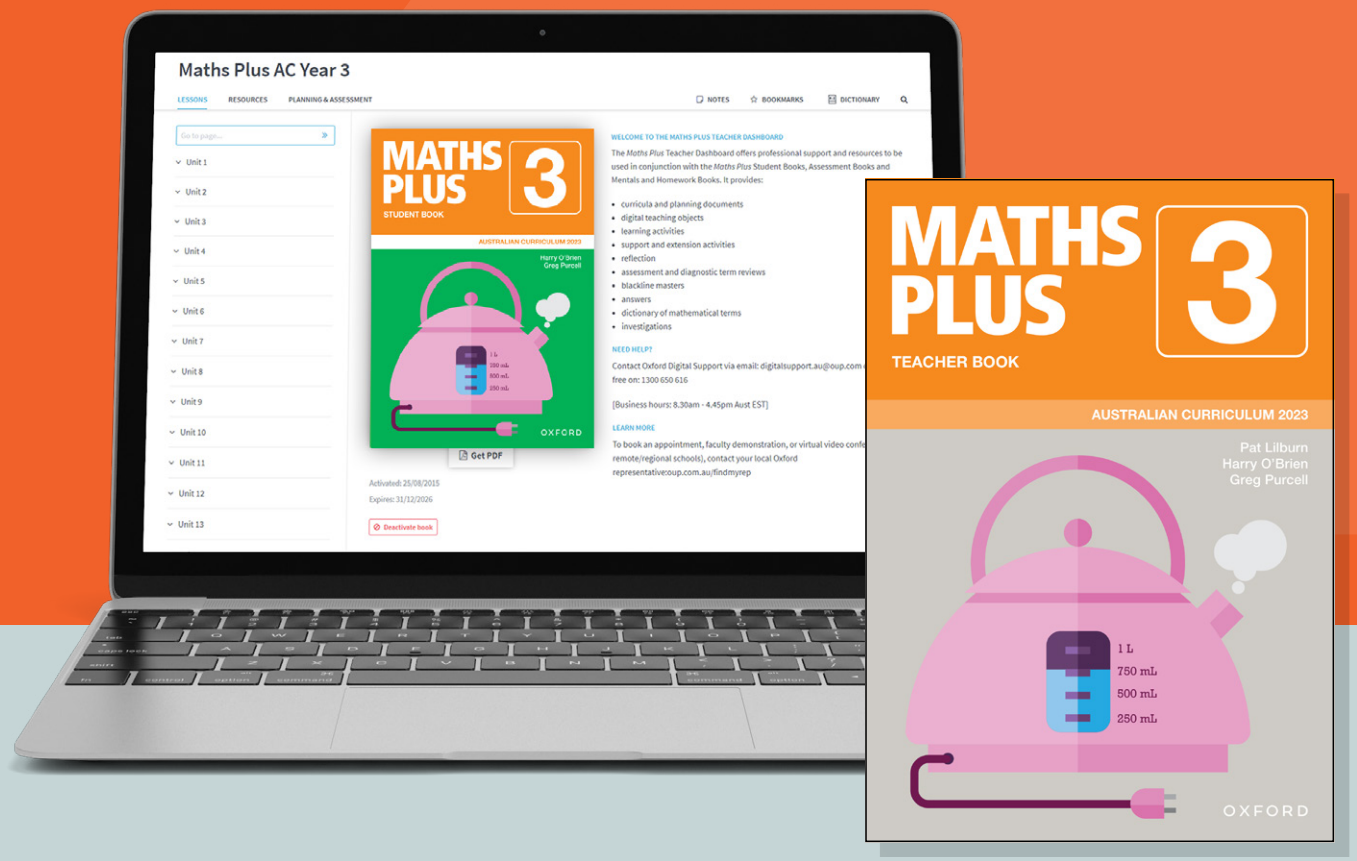
Challenge and extend

Advanced Primary Maths is an accelerated program of mathematics that can be used in conjunction with *Math Plus.*

It engages and extends students in Years 3 to 6, and supports the effective teaching of mathematics through problem solving and open-ended learning in real-world contexts.

See pages 21–23.

Teacher Book and Teacher Dashboard



Refer to the *Maths Plus* **Teacher Book** or **Teacher Dashboard** for curriculum links, direct instruction and links to the Student Books, Mentals and Homework Books and *Advanced Primary Maths*.

Use the *Maths Plus* **Teacher Dashboard** to access a wealth of additional teaching and learning resources such as interactive teaching tools, videos, blackline masters, investigations, answers and more!

Teaching notes from the *Maths Plus 3* **Teacher Book**

Links to corresponding *Maths Plus* resources for every unit

unit 2

Revising subtraction facts

Student Book → SB Page 6

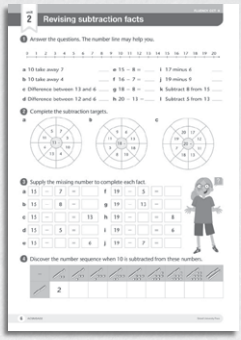
Mentals and Homework Book → M&H Page 4

Advanced Primary Maths → APM Page 6

Australian Curriculum
AC9M3A02 (Fluency) [CCT] [N]

Lesson focus
Use mental strategies when subtracting

Materials
- a large number line (0–20) drawn in chalk on the floor
- rulers
- dice
- MAB Base 10 materials



Getting started

Direct instruction

Revise the method for using a number line to subtract. Write 15 – 6 on the board and choose a student to stand on number 15 on a large number line drawn in chalk on the floor. As the student moves back to show subtracting 6 on that number line, the other students count back 6, until the student on the number line reaches 9. Write '= 9' next to 15 – 6. Repeat this for other subtractions.

Refer to the Teacher Dashboard for resources such as videos that address potential difficulties, digital teaching objects (interactives), blackline masters and investigations.

Link to Teacher Dashboard

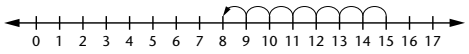
Learning activities

Learning activities

1. Show students how they can use their rulers as number lines. Give them subtractions to work out and choose students to demonstrate their method.
2. Brainstorm all the words the class can think of related to subtraction. List these on the board or a chart.
   Discuss these words and their meanings. Ask students to create a problem situation using each of the words.
   Discuss and solve each of the suggested problem situations. Decide whether subtraction was the best operation to use each time.
3. In pairs, students play a subtraction game. Both students start with 30. In turn, they toss a dice and subtract the number thrown from 30. Play continues, with students continuing to subtract until one student reaches zero. That student is the winner. Allow students to use their ruler as a number line if they wish.
4. Give out MAB materials. Ask students to use the longs and small cubes to model various numbers and then subtract 10 by taking away one long. They should say what the answer is (for example, 17 – 10 = 7).

Support activities

➜ Work with students to model subtraction with a number line. Encourage students to draw an arc on the number line to represent each number that is subtracted (for example, 15 – 7 = 8).



Extension activities

➜ Students write subtraction problems using the various words for subtraction.

➜ Ask students to write an explanation about how to use MAB materials in the subtraction of larger numbers.

Reflection

Tell students a subtraction problem (for example, 17 minus 8) and ask them to solve it. Make time for as many students as possible to share the mental strategy they used.

Link to *Advanced Primary Maths*

Advanced Primary Maths

Ask students to share their tips for remembering subtraction facts, such as linking subtraction with known addition facts.

Assessment

➜ Can students solve simple subtraction situations?

➜ Which students require the support of MAB materials or number lines to solve the situations?

➜ Can students associate various words with subtraction and create subtraction problems that involve those words?

➜ The Assessment Book is best used for end-of-year assessment; however, appropriate questions from page 6 can be used to find out any facts that students are having difficulty with and target these with further activities.

Term planner from the *Maths Plus 3* Teacher Book

Term planners

TERM 1 SUGGESTED PLANNER

WEEK	UNIT	PAGES	Number & Algebra	Measurement & Space	Statistics & Probability
1	1	2–5	Addition facts to 9 + 9. Find a pattern in an addition grid. Add single-digit numbers with materials. Use arrays for skip counting patterns. Skip count to find a total. Skip count to complete patterns.	Identify prisms and cylinders. Match 3D objects with their names. Measure items using centimetres. Draw lines to exact centimetres.	
2	2	6–9	Subtraction facts to 20. Missing numbers in subtractions. Model odd and even numbers. Find patterns in odd and even numbers. Link between multiplication and repeated addition.	Interpret and construct column graphs.	
3	3	10–13	Make equal groups and use multiplication to describe them. Addition and subtraction as inverse operations.	Describe the position of objects. Follow directions to place items in a grid.	Use tally marks to record survey results. Interpret a column graph.
4	4	14–17	Subtraction facts from addition. Write and solve word problems and number sentences. Use mental strategies and arrays to multiply by 2.	Identify faces, edges and corners of pyramids. Describe a pyramid. Measure and estimate the length of leaves and objects in centimetres.	
5	5	18–21	Extend addition facts. Complete addition grids to find addition patterns. Model and write three-digit numbers. Order three-digit numbers.	Draw plans to represent position.	
6	6	22–25	Expand three-digit numbers. Use > or < to compare numbers. Use mental strategies to multiply by 5. Expand numbers to 5000.	Use a grid to locate and give positions.	Interpret column graphs. Construct a column graph.
7	7	26–29	Write and solve division number sentences. Use the 'jump' strategy to solve addition of two-digit numbers. Use mental strategies to multiply by 10.	Capacity using informal units. Choose appropriate measuring units.	
8	8	30–33	Extend subtraction facts. Introduce numerator and denominator. Identify and model unit fractions of shapes and collections. Use partitioning and models to solve two-digit additions.	Match sets of faces to 3D objects.	
9	9	34–37	Use the split strategy to add 2-digit numbers. Solve problems using the split strategy. Learn to trade in a 2-digit algorithm.	Identify quarter to and quarter past on a clock face. Add hands to illustrate various times.	Create and interpret graphs, including using computer software.
10		38–39	Diagnostic review 1		

Australian Curriculum cross-reference chart from the *Maths Plus 3* Teacher Book

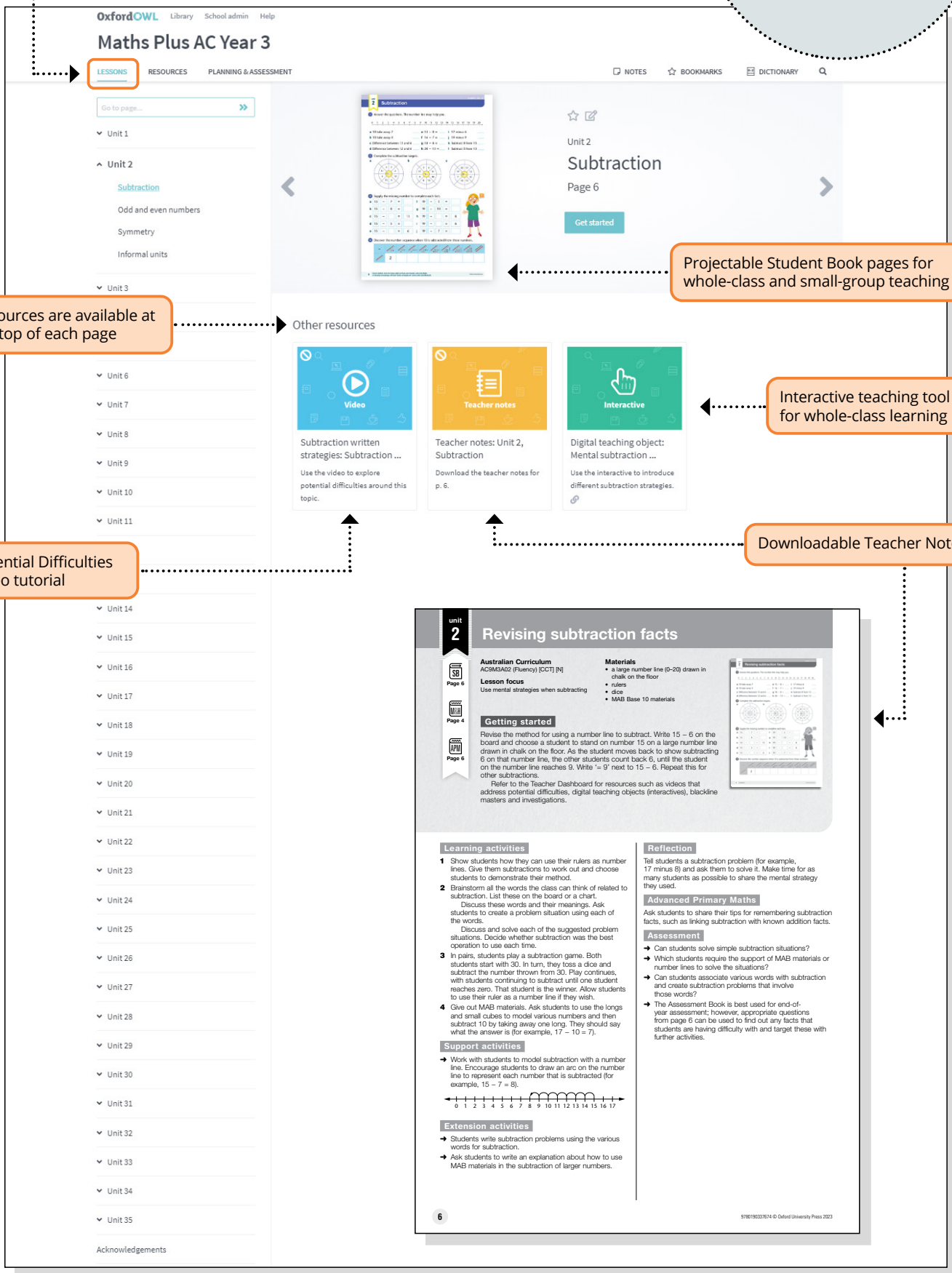
Australian Curriculum

Units	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
NUMBER AND ALGEBRA																																			
Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000 (AC9M3N01)																																			
Recognise and represent unit fractions including $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ and their multiples in different ways; combine fractions with the same denominator to complete the whole (AC9M3N02)																																			
Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator (AC9M3N03)																																			
Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies (AC9M3N04)																																			
Estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations (AC9M3N05)																																			
Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation (AC9M3N06)																																			
Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns (AC9M3N07)																																			
Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences (AC9M3A01)																																			
Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator (AC9M3A02)																																			
Recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts (AC9M3A03)																																			
MEASUREMENT AND SPACE																																			
Identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates (AC9M3M01)																																			
Measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings (AC9M3M02)																																			
Recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events (AC9M3M03)																																			
Describe the relationship between the hours and minutes on analog and digital clocks, and read the time to the nearest minute (AC9M3M04)																																			
Identify angles as measures of turn and compare angles with right angles in everyday situations (AC9M3M05)																																			
Recognise the relationships between dollars and cents and represent money values in different ways (AC9M3M06)																																			
Make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses (AC9M3SP01)																																			
Interpret and create two-dimensional representations of familiar environments, locating key landmarks and objects relative to each other (AC9M3SP02)																																			
STATISTICS AND PROBABILITY																																			
Acquire data for categorical and discrete numerical variables to address a question of interest or purpose by observing, collecting and accessing data sets; record the data using appropriate methods including frequency tables and spreadsheets (AC9M3ST01)																																			
Create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context (AC9M3ST02)																																			
Conduct guided statistical investigations involving the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest (AC9M3ST03)																																			
Identify practical activities and everyday events involving chance; describe possible outcomes and events as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' explaining reasoning (AC9M3P01)																																			
Conduct repeated chance experiments; identify and describe possible outcomes, record the results, recognise and discuss the variation (AC9M3P02)																																			

Teacher Dashboard

Teaching notes and resources from the *Maths Plus 3* Teacher Dashboard

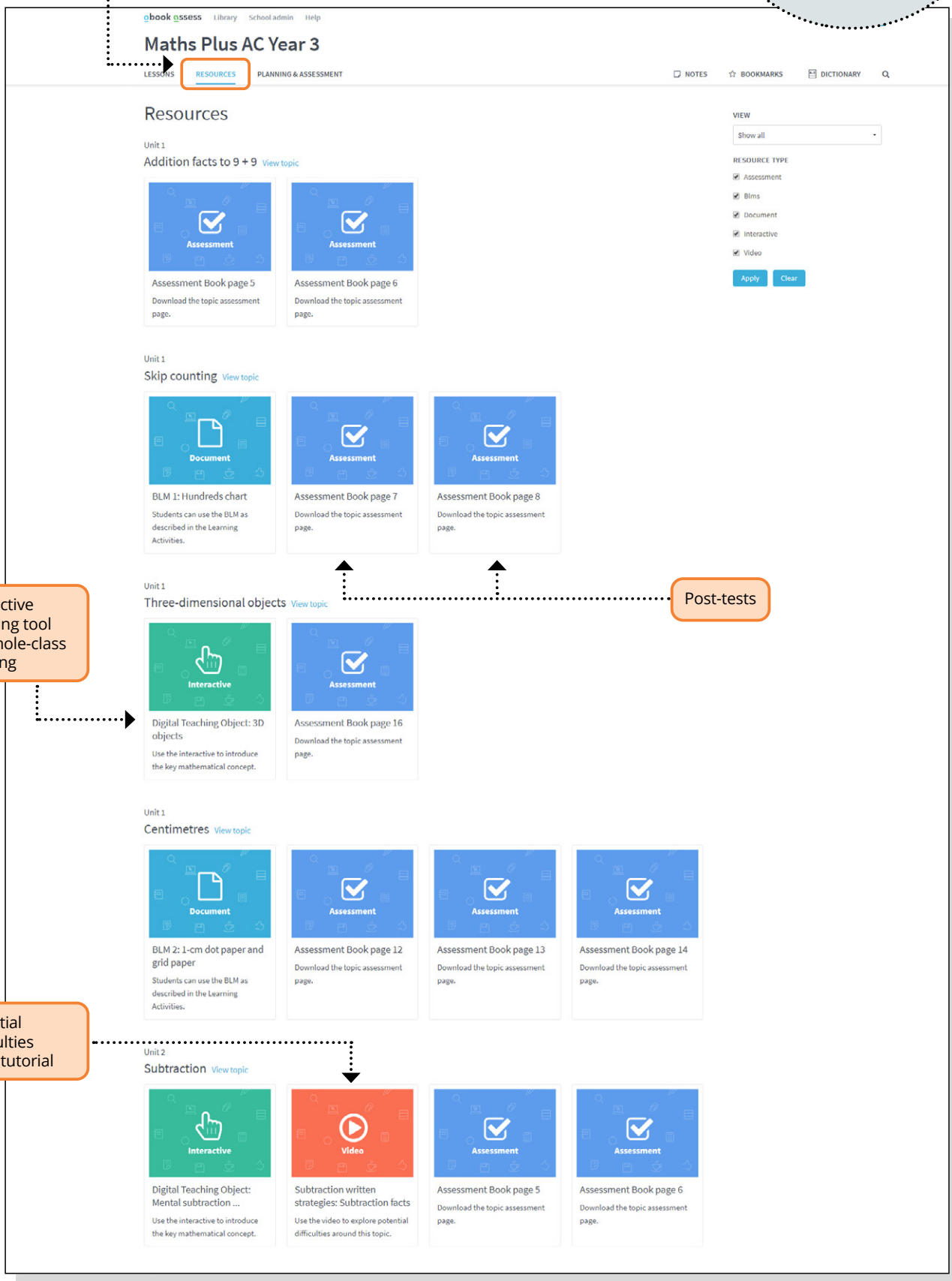
Start your lesson by navigating to a page on the Lessons tab



Teacher Dashboard

Teaching and learning resources from the *Maths Plus 3* Teacher Dashboard

Access all teaching and learning resources for Year 3 on the Resources tab



Interactive teaching tool for whole-class learning

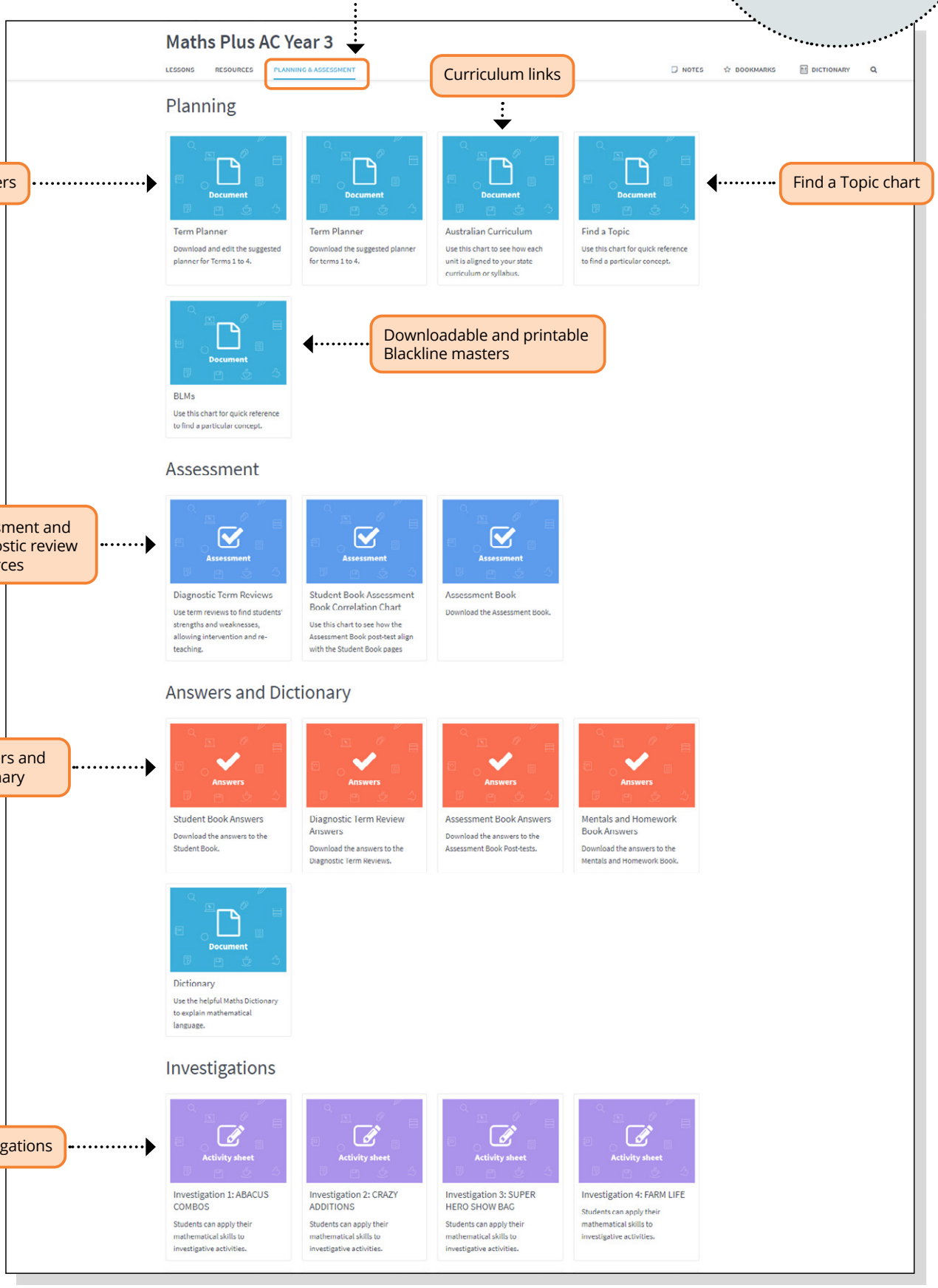
Post-tests

Potential Difficulties video tutorial

Teacher Dashboard

Planning and assessment resources from the *Maths Plus 3* Teacher Dashboard

Access all planning and assessment material for Year 3 on the Planning & Assessment tab



Teacher Dashboard

Investigation page from the *Maths Plus 3* Teacher Dashboard

Investigation 13

Balancing act

Task 1:

Use the pan balances to answer the questions.

How many marbles would be needed to balance an orange?

How many marbles would be needed to balance a dictionary?

How many apples would be needed to balance a maths book?

How many oranges would be needed to balance three dictionaries?

How many marbles would be needed to balance a math

Which is the heaviest item on the scales above?

Explain how you came to this conclusion.

Task 2:

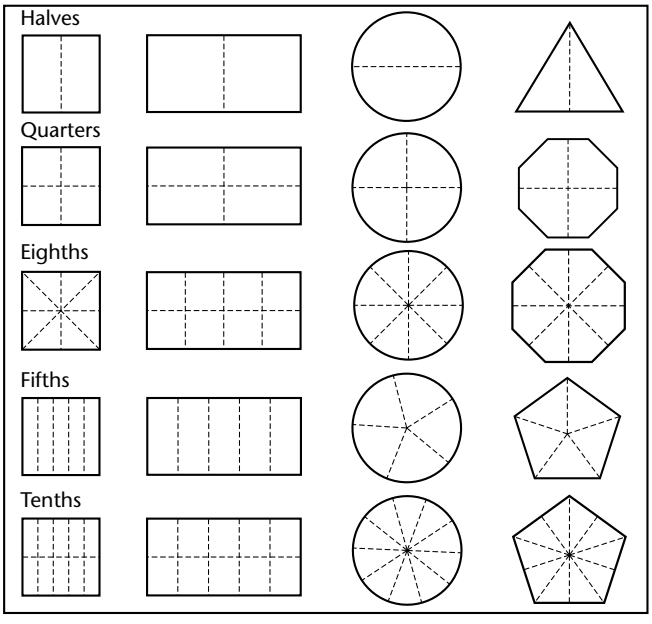
Use the pan balances to work out your own tricky quest
(Remember, you must know the answer yourself.)

Blackline master from the *Maths Plus 3* Teacher Dashboard

BLM
17

Fraction wall/fraction models

1									
$\frac{1}{2}$									
$\frac{1}{3}$									
$\frac{1}{4}$									
$\frac{1}{5}$									
$\frac{1}{6}$									
$\frac{1}{7}$									
$\frac{1}{8}$									
$\frac{1}{9}$									
$\frac{1}{10}$									



Teacher Dashboard

Find a topic page from the *Maths Plus 3* Teacher Dashboard

Dictionary page from the *Maths Plus 3* Teacher Dashboard

Find a topic

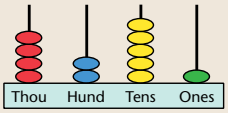
NUMBER AND ALGEBRA

MEASUREMENT AND SPACE

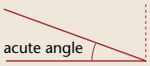
STATISTICS AND PROBABILITY

Dictionary

abacus
An instrument used for calculating.



acute angle
An angle less than 90°.

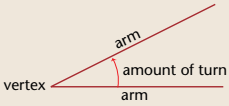


addition (+)
The operation that finds the sum or total.

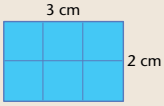
am (*ante meridiem*)
The morning. Any time from midnight to noon, e.g. 7:30 am is 7:30 in the morning.

analogue clock
A clock face with numbers 1 to 12, and two hands.

angle
The amount of turn between two arms around a common endpoint (the vertex).



area
The surface covered by any 2D shape. Area can be measured in cm², m², hectares and km².



Area = 6 cm²

array
An arrangement of objects or symbols into rows and columns.

ascending order
An arrangement of numbers from smallest to largest.

256, 291, 307, 452

associative property
A series of numbers can be added in any order without changing the result.

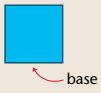
5 + 4 + 6 = 15
4 + 6 + 5 = 15
6 + 5 + 4 = 15

A series of numbers can be multiplied in any order without changing the result.

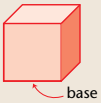
5 × 4 × 3 = 60
4 × 3 × 5 = 60
3 × 5 × 4 = 60

axis of symmetry
An imaginary line that divides a shape exactly in half. If a shape is folded along this line, both sides will match.

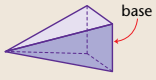
base
The bottom line of a 2D shape.



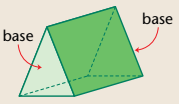
The bottom face of a 3D object.



For example:
- pyramids have one base



For example:
- prisms have two bases.



capacity
The amount a container can hold. Capacity can be measured in millilitres (mL), litres (L) and kilolitres (kL).

Student Books and Student Dashboards

The *Maths Plus* **Student Books** and **Student Dashboards** offer opportunities for spiralled learning and practice, and for students to develop and consolidate skills in understanding, fluency, reasoning and problem solving.

They include:

- four diagnostic term reviews (Years 1–6) to assess concepts and skills
- contextual support and examples
- dictionary (Years 2–6)
- answers (Years 1–6)

Student Book

Activity page from the *Maths Plus 3* Student Book.

Student activity pages are colour-coded and cover the three Australian Curriculum: Mathematics content strands of Number and Algebra, Measurement and Space, and Statistics and Probability.

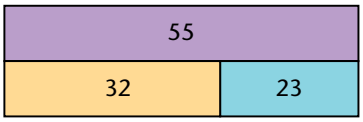
unit 8

Bar models

PROBLEM SOLVING N

Proficiency strands and general capabilities are included on every page

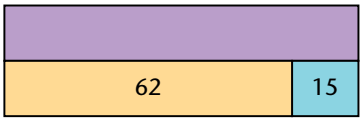
6 Use the bar models to help you complete the additions.

a


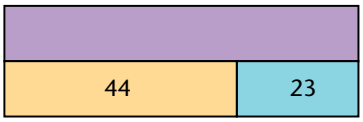
32 + 23 = ☐

b

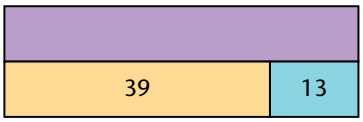

42 + ☐ = ☐

c


62 + ☐ = ☐

d


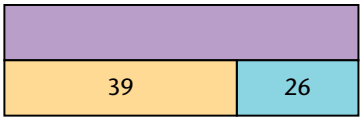
44 + ☐ = ☐

e


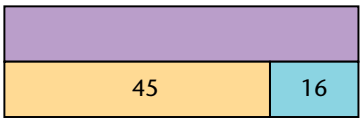
39 + ☐ = ☐

f


44 + ☐ = ☐

g


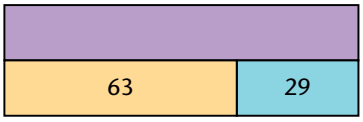
39 + ☐ = ☐

h


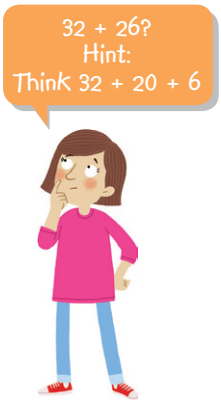
45 + ☐ = ☐

i


56 + ☐ = ☐

j


63 + ☐ = ☐



Activity page from the *Maths Plus 3* Student Book.

unit 25

Patterns and non-patterns

1 First write the rule, then complete the pattern up to 8 numbers, then state what the tenth number in each pattern would be.

a

Rule								
	2	4	6	8	10			

What would be the tenth term? _____

b

Rule								
	3	6	9	12	15			

What would be the tenth term? _____

c

Rule								
	4	8	12	16	20			

What would be the tenth term? _____

d

Rule								
	6	12	18	24	30			

What would be the tenth term? _____

2 Add 6 to this group of numbers.

+	6	16	26	36	46	56	66	76	86
6									

What did you learn? _____

_____

Fresh and engaging illustrations

3 Subtract 6 from this group of numbers.

−	19	29	39	49	59	69	79	89	99
6									

What did you learn? _____

_____

4 Tick the box for the patterns and put a cross for the non-patterns.

a	3	6	9	12	15	20	☐
b	35	45	55	60	75	80	☐
c	1	4	8	12	15	20	☐
d	14	17	20	23	26	29	☐
e	10	17	22	30	38	44	☐

f	91	87	83	79	75	71	☐
g	1	2	4	8	16	32	☐
h	300	400	500	700	600		☐
i	135	140	155	165	170		☐
j	342	344	348	354	350		☐

 AC9M3N07, AC9M3A02

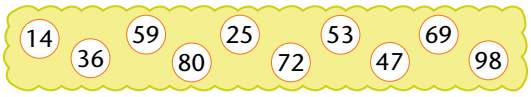
Australian Curriculum: Mathematics content codes are included on every page.

Diagnostic term review from the *Maths Plus 3* Student Book

Diagnostic review 1

PART 1

a Sort the numbers into odd and even.



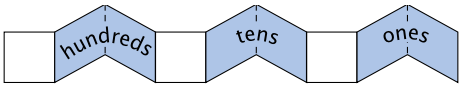
Odd						
Even						

b Write the next even number after 33. _____

c Write the next odd number after 29. _____

PART 2

a Write 267 in the number expander.



Expand these numbers.

b 569 ☐ + ☐ + ☐

c 337 ☐ + ☐ + ☐

d 853 ☐ + ☐ + ☐

e 485 ☐ + ☐ + ☐

Use numerals to write these numbers.

f Four hundred and fifty-six. _____

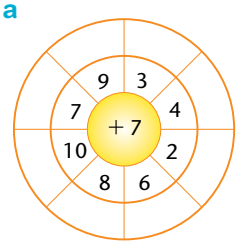
g Six hundred and forty-five. _____

h Five hundred and sixty-four. _____

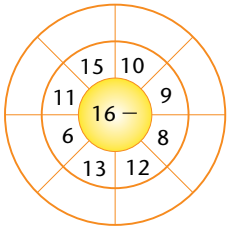
PART 3

Complete the addition and subtraction targets.

a



b



PART 4

Complete the addition and subtraction facts.

a 52 + 13 = ☐

b 25 + 32 = ☐

c 34 + 22 = ☐

d 49 + 23 = ☐

e 45 + 28 = ☐

f 50 − 32 = ☐

g 37 − 16 = ☐

h 65 − 24 = ☐

i 76 − 23 = ☐

j 82 − 24 = ☐

PART 5

Solve the problems.

a	54 children arrived through the front gate of the school and 33 arrived through the back gate. How many children arrived at school?	
b	The dog park has 2 parts. There were 48 dogs in one part and 24 dogs in the other part. How many dogs were there altogether?	

PART 6

Complete the table facts grids for 2s and 5s.

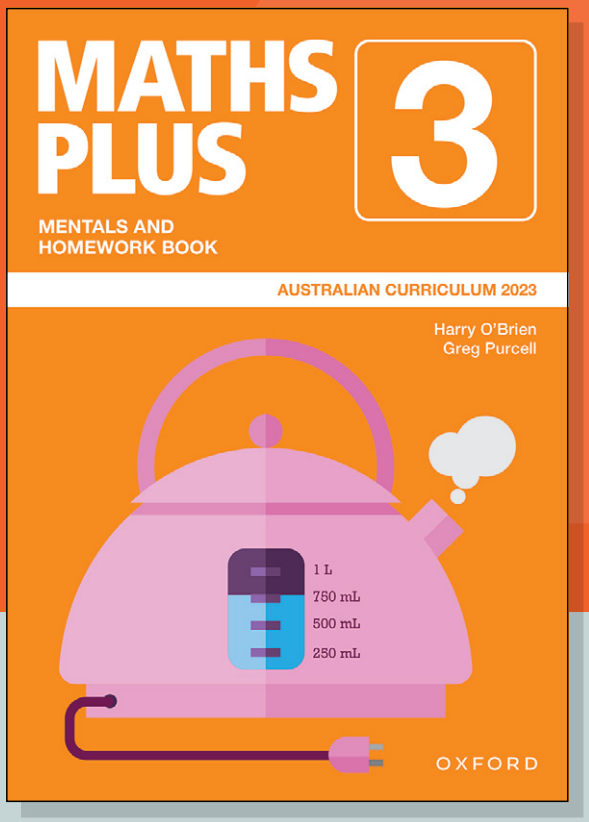
a

× 2	
2	
5	
3	
4	
6	
8	
9	

b

× 5	
2	
5	
3	
6	
8	
4	
7	

Mentals and Homework Books



The *Maths Plus* **Mentals** and **Homework Books** (Years 1–6) provide opportunities to practise and develop skills and strategies.

The Mentals and Homework Books:

- provide essential revision and consolidation activities
- directly correspond to the concepts and units of work presented in the Student Books
- link all activities to the three Australian Curriculum: Mathematics strands.

Activity page from the *Maths Plus 3* Mentals and Homework Book

UNIT 3

Number and Algebra

SET 1 Basic

1 6 + 5

2 4 + 3

3 9 + 2

4 5 + 4

5 6 + 0

6 8 + 5

7 9 – 5

8 8 – 7

9 10 – 10

10 10 – 4

11 7 take away 3

12 10 take away 9

13 Half of 12

14 Double 7.

15

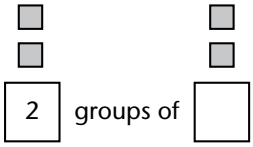
Jim ate 15 peanuts and Lauren ate 7. How many peanuts did they eat altogether?

☐ peanuts

SET 2 Equal groups/ multiplication

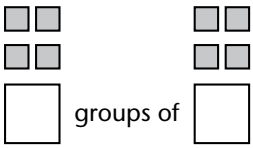
Write number sentences to describe the groups.

1



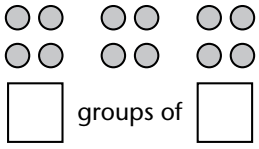
2 groups of ☐ = ☐

2



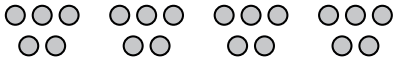
☐ groups of ☐ = ☐

3



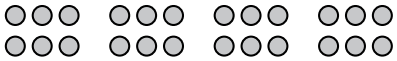
☐ groups of ☐ = ☐

4



☐ groups of ☐ = ☐

5



☐ groups of ☐ = ☐

Space Describing position

Petri built a model out of blocks. Put the letters on the blocks to discover the secret message.

1 Put a **C** on the top left block.

2 Put an **N** on the middle block.

3 Put a **D** on the bottom left block.

4 Put a **T** on the top right block.

5 Put a **G** on the bottom right block.

6 Put another **D** to the right of **N**.

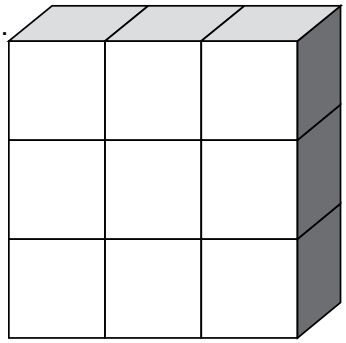
7 Put an **A** to the left of **N**.

8 Put an **O** between **D** and **G**.

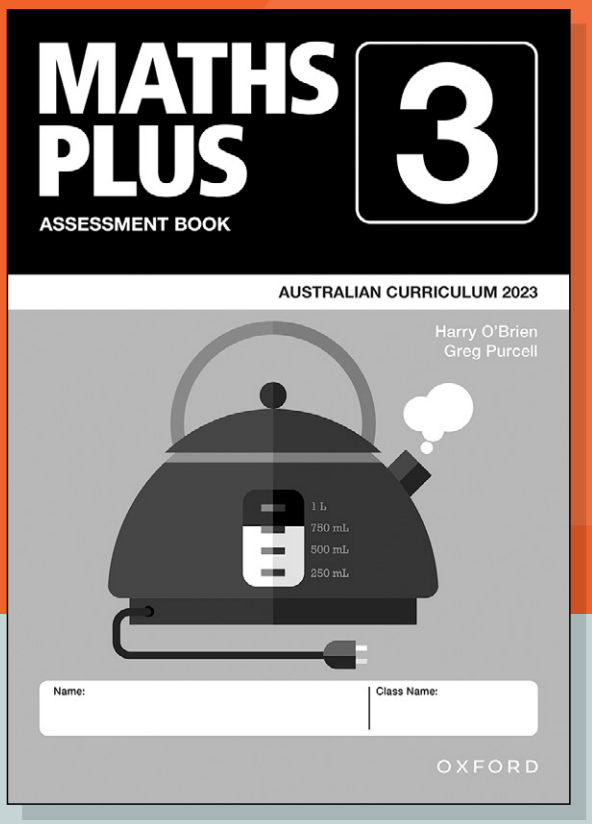
9 Put another **A** between the **C** and **T**.

10 What is the message?

_____



Assessment Books



The *Maths Plus* **Assessment Books** provide teachers with an easily administered, yet comprehensive, post-assessment tool. They:

- provide opportunities for teachers to measure student growth
- include short post-tests for each topic
- are suitable for end-of-year reporting.

Post-test from the *Maths Plus 3* Assessment Book

Each Assessment Book page is a snapshot of work that addresses a specific content code from the Australian Curriculum.

AC AC9M3N01, AC9M3N05

Partitioning and estimation

Supply the missing numbers in the partitioned numbers below.

1	1256	=	1000	+	200	+		+		
2	8327	=		+	300	+	20	+		
3	5364	=	5000	+		+		+	4	
4	8973	=		+		+		+		

5 How many tens are there in 100? _____

6 How many hundreds are there in two thousand? _____

Estimation

Adjust each number to estimate, then check the answers. Tick the boxes of the ones that you think are correct.

EXAMPLE

Adjust up to 30 | Adjust down to 30

29 + 33 is about 60

7	8	+	21	=	29	✔	**11**	121	+	38	=	179	
8	38	+	23	=	61		**12**	138	+	47	=	275	
9	49	+	32	=	71		**13**	197	+	42	=	239	
10	31	+	57	=	88		**14**	241	+	38	=	299	

Round the prices of these items to the nearest 10 dollars.

15  $9

16 

$18

17  $31

18  $102

19  $49

Rounded $_____ $_____ $_____ $_____ $_____

Use the rounded prices above to estimate the purchases.

20 A kettle and a soccer ball $_____

21 Three toy cars $_____

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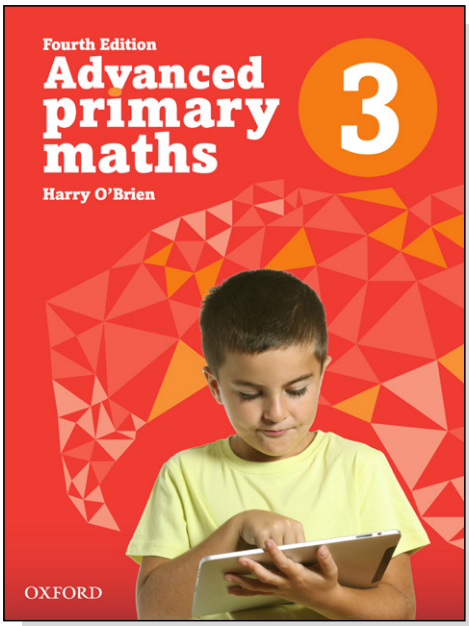
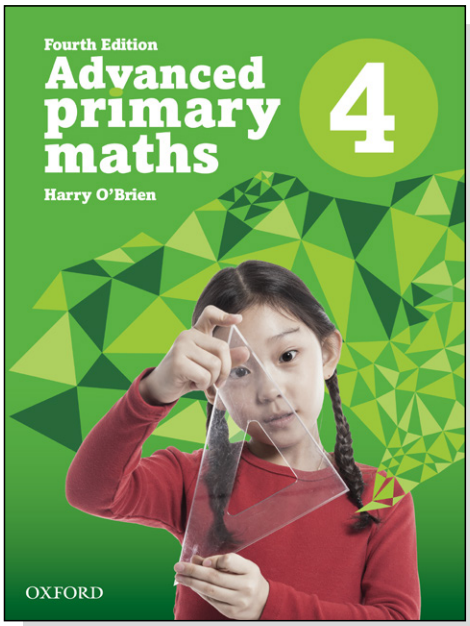
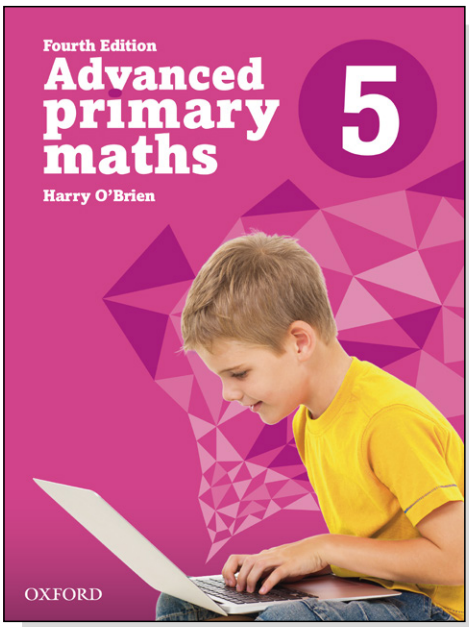
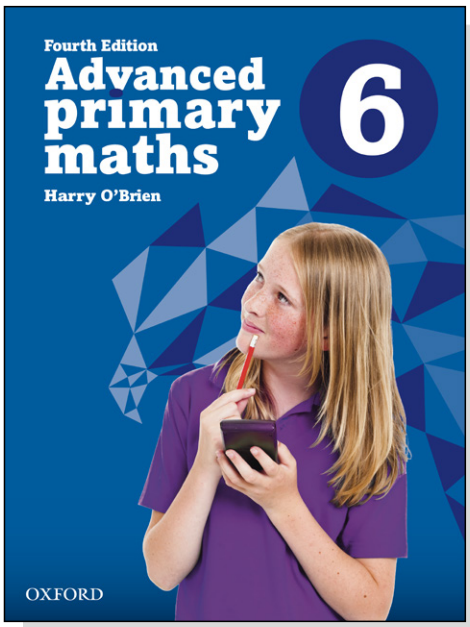
Advanced Primary Maths

Advanced Primary Maths is the only advanced mathematics program written specifically for Australian students in Years 3 to 6.









Use the Diagnostic Reviews and Answers to assess students' understandings of concepts covered.

UNIT 23 Number patterns

6 Complete each pattern then write a rule for it.

a	8	12	16	20				
b	7	10	13	16				
c	18	22	26	30				
d	30	35	40	45				

7 Add 6 to this sequence of numbers.

+	6	16	26	36	46	56	66	76	86
6									

What did you learn about this number sequence? _____

8 Subtract 6 from this sequence of numbers.

−	19	29	39	49	59	69	79	89	99
6									

What did you learn about this number sequence? _____

9 Complete the pattern up to 8 numbers, then state what the tenth number or term would be.

a 2 4 6 8 10 _ _ _
What would be the tenth number? _____

b 3 6 9 12 15 _ _ _
What would be the tenth number? _____

c 14 1 _ _ _ _ _ _
What w _____

d 16 2 _ _ _ _ _ _
What w _____

SUPER QUESTION

10 Complete the number patterns.

a 16 32 64 _ _

b 512 _ _ _ _ _

104

Describe, continue and create number patterns resulting fr

My pattern is take away 5. 55, 50, 45, ...

Activity page from *Advanced Primary Maths 3*

Students can use the Super Problem Solving pages, with Open-ended Challengers and Weekly Testers, to consolidate and extend their learning.

Super problem solving UNIT 23

11 Answer the number sentences. Always do the work in the brackets first.

a (3 + 7) × 2 =
b 2 × (5 − 3) =
c 2 + 3 × 5 =
d 4 × (20 − 10) =
e (13 − 7) × 5 =
f (20 − 6) ÷ 2 =
g (20 − 13) × 4 =
h (40 − 20) ÷ 4 =
i 20 × 2 − 6 =
j 9 × 5 − 27 =
k 5 × 4 + 3 × 6 =
l 6 × 5 + 20 ÷ 5 =
m 2 × 7 + 26 ÷ 13 =
n 6 × 6 − 15 ÷ 3 =
o 10 × 5 − 16 ÷ 4 =

12 Solve the problems.

a Taylor scored 58 runs and 38 runs in his first test match. What was his total score?

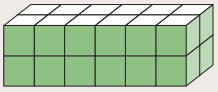
b 5 pizzas cost Mr Brown $35. How much did each pizza cost if they were all the same price?

WEEKLY TESTER

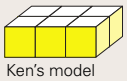
13 Ken and Barby each made a prism. Barby finished her prism and proudly displayed it. Ken was a bit of a slow worker and only finished the first layer of his prism.

a If Ken's prism were to have the same number of blocks as Barby's, how many more layers would it need? _____

b Design and sketch another prism that is made of 24 cubes.



Barby's model



Ken's model

OPEN-ENDED CHALLENGER

14 Rebecca paid $15 for her group to enter the zoo. How many could have been in Rebecca's group if children cost $1.50 some examples.

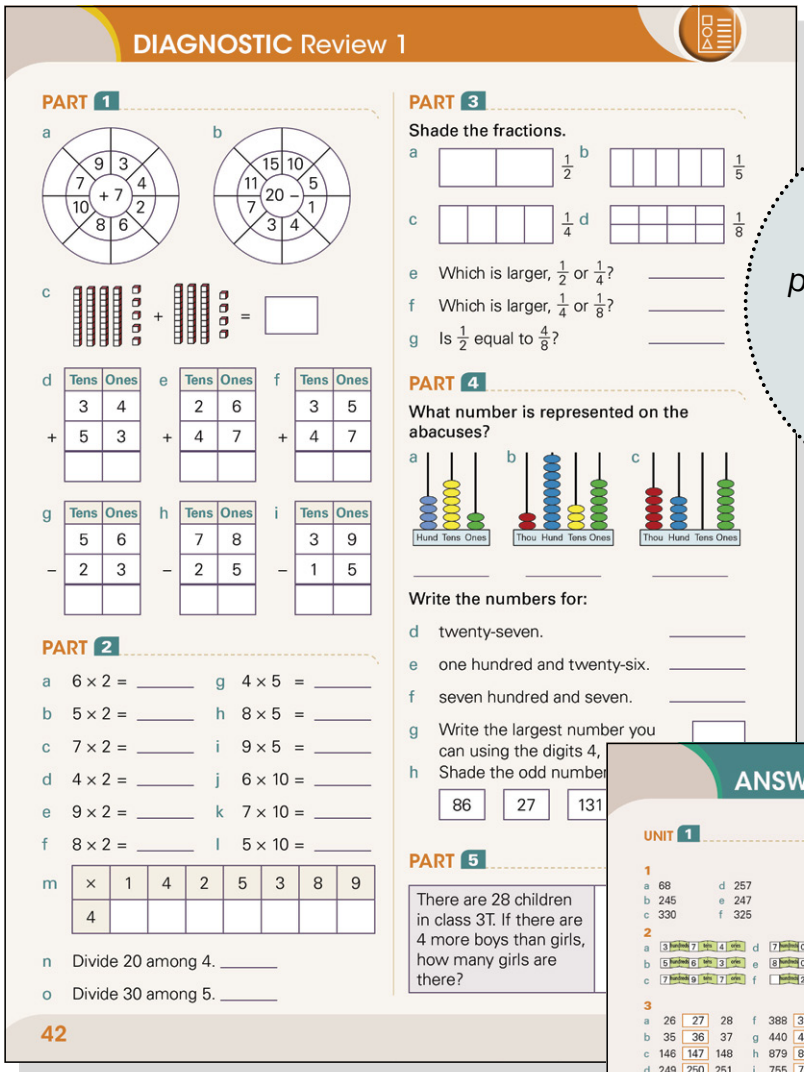
Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA

Super Problem Solving page from *Advanced Primary Maths 3*

Super Questions for exploring concepts at a higher level

Weekly Testers

Open-ended Challenger questions with multiple solutions



DIAGNOSTIC Review 1

PART 1

a

b

c

d

Tens	Ones
3	4
+ 5	3

e

Tens	Ones
2	6
+ 4	7

f

Tens	Ones
3	5
+ 4	7

g

Tens	Ones
5	6
− 2	3

h

Tens	Ones
7	8
− 2	5

i

Tens	Ones
3	9
− 1	5

PART 2

a 6 × 2 = _____ g 4 × 5 = _____

b 5 × 2 = _____ h 8 × 5 = _____

c 7 × 2 = _____ i 9 × 5 = _____

d 4 × 2 = _____ j 6 × 10 = _____

e 9 × 2 = _____ k 7 × 10 = _____

f 8 × 2 = _____ l 5 × 10 = _____

m

×	1	4	2	5	3	8	9
4							

n Divide 20 among 4. _____

o Divide 30 among 5. _____

PART 3

Shade the fractions.

a ½ b ⅕

c ¼ d ⅛

e Which is larger, ½ or ¼? _____

f Which is larger, ¼ or ⅛? _____

g Is ½ equal to ⅜? _____

PART 4

What number is represented on the abacuses?

a

b

c

_____ _____ _____

Write the numbers for:

d twenty-seven. _____

e one hundred and twenty-six. _____

f seven hundred and seven. _____

g Write the largest number you can using the digits 4, _____

h Shade the odd numbe

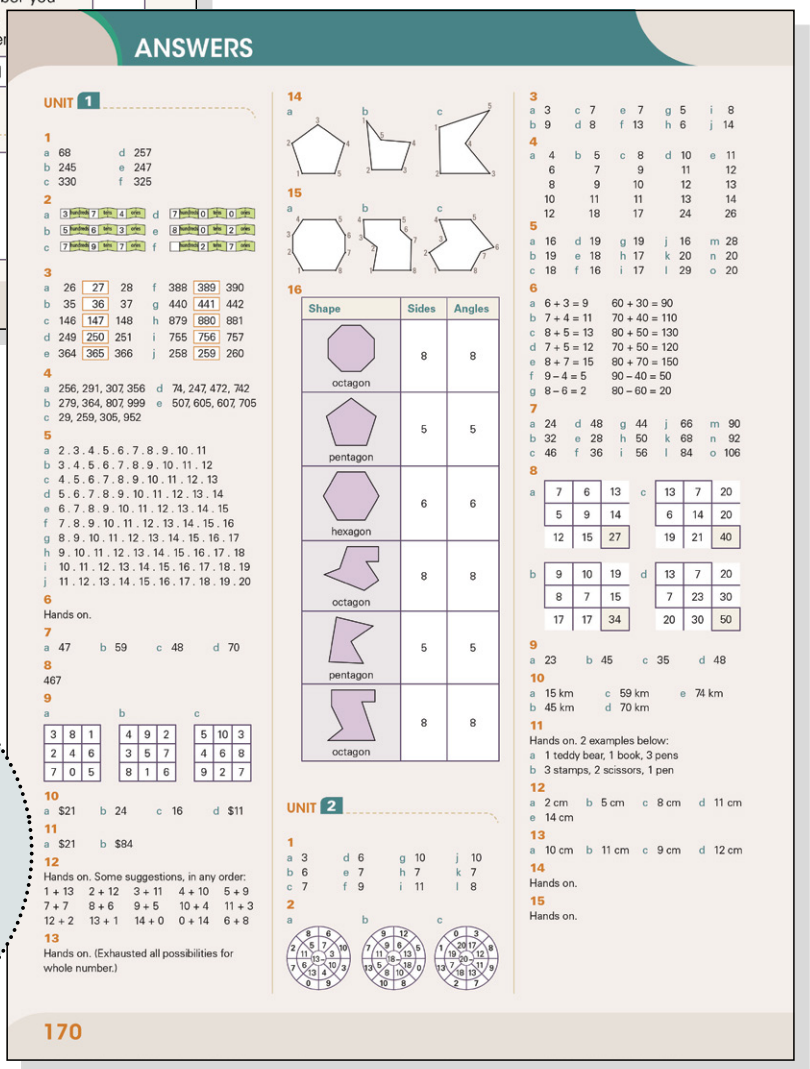
86 27 131

PART 5

There are 28 children in class 3T. If there are 4 more boys than girls, how many girls are there?

42

Diagnostic Review page from Advanced Primary Maths 3



ANSWERS

UNIT 1

1
a 68 d 257
b 245 e 247
c 330 f 325

2
a 3 hundreds 7 tens 4 ones d 7 hundreds 0 tens 0 ones
b 5 hundreds 6 tens 3 ones e 8 hundreds 0 tens 2 ones
c 7 hundreds 9 tens 7 ones f 2 hundreds 7 ones

3
a 26 27 28 f 388 389 390
b 35 36 37 g 440 441 442
c 146 147 148 h 879 880 881
d 249 250 251 i 755 756 757
e 364 365 366 j 258 259 260

4
a 256, 291, 307, 356 d 74, 247, 472, 742
b 279, 364, 807, 999 e 507, 605, 607, 705
c 29, 259, 305, 952

5
a 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11
b 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12
c 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13
d 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14
e 6 . 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15
f 7 . 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15 . 16
g 8 . 9 . 10 . 11 . 12 . 13 . 14 . 15 . 16 . 17
h 9 . 10 . 11 . 12 . 13 . 14 . 15 . 16 . 17 . 18
i 10 . 11 . 12 . 13 . 14 . 15 . 16 . 17 . 18 . 19
j 11 . 12 . 13 . 14 . 15 . 16 . 17 . 18 . 19 . 20

6
Hands on.

7
a 47 b 59 c 48 d 70

8
467

9

a			b			c		
3	8	1	4	9	2	5	10	3
2	4	6	3	5	7	4	6	8
7	0	5	8	1	6	9	2	7

10
a $21 b 24 c 16 d $11

11
a $21 b $84

12
Hands on. Some suggestions, in any order:
1 + 13 2 + 12 3 + 11 4 + 10 5 + 9
7 + 7 8 + 6 9 + 5 10 + 4 11 + 3
12 + 2 13 + 1 14 + 0 0 + 14 6 + 8

13
Hands on. (Exhausted all possibilities for whole number.)

14
a

15
a

16

Shape	Sides	Angles
octagon	8	8
pentagon	5	5
hexagon	6	6
octagon	8	8
pentagon	5	5
octagon	8	8

UNIT 2

1
a 3 d 6 g 10 j 10
b 6 e 7 h 7 k 7
c 7 f 9 i 11 l 8

2
a

b

c

3
a 3 c 7 e 7 g 5 i 8
b 9 d 8 f 13 h 6 j 14

4

a		b		c		d		e	
4		5		8		10		11	
6		7		9		11		12	
8		9		10		12		13	
10		11		11		13		14	
12		18		17		24		26	

5
a 16 d 19 g 19 j 16 m 28
b 19 e 18 h 17 k 20 n 20
c 18 f 16 i 17 l 29 o 20

6
a 6 + 3 = 9 60 + 30 = 90
b 7 + 4 = 11 70 + 40 = 110
c 8 + 5 = 13 80 + 50 = 130
d 7 + 5 = 12 70 + 50 = 120
e 8 + 7 = 15 80 + 70 = 150
f 9 − 4 = 5 90 − 40 = 50
g 8 − 6 = 2 80 − 60 = 20

7
a 24 d 48 g 44 j 66 m 90
b 32 e 28 h 50 k 68 n 92
c 46 f 36 i 56 l 84 o 106

8

a

7	6	13
5	9	14
12	15	27

c

13	7	20
6	14	20
19	21	40

b

9	10	19
8	7	15
17	17	34

d

13	7	20
7	23	30
20	30	50

9
a 23 b 45 c 35 d 48

10
a 15 km c 59 km e 74 km
b 45 km d 70 km

11
Hands on. 2 examples below:
a 1 teddy bear, 1 book, 3 pens
b 3 stamps, 2 scissors, 1 pen

12
a 2 cm b 5 cm c 8 cm d 11 cm
e 14 cm

13
a 10 cm b 11 cm c 9 cm d 12 cm

14
Hands on.

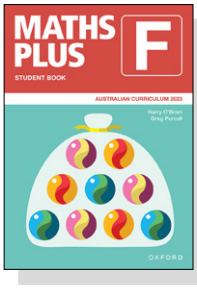
15
Hands on.

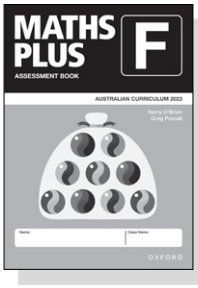
170

Answers page from Advanced Primary Maths 3

Explore *Maths Plus*

Value Pack - Student Book and Assessment Book





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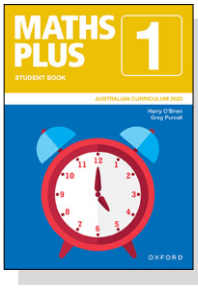

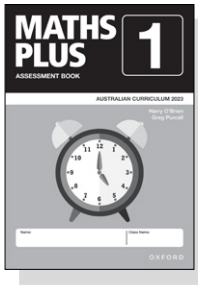

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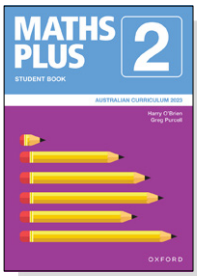

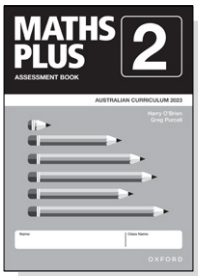

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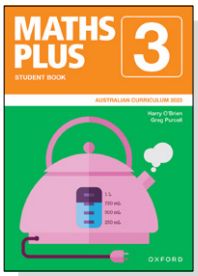

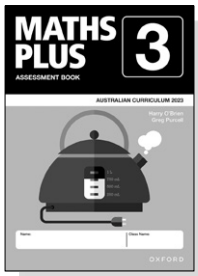

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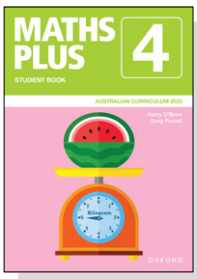

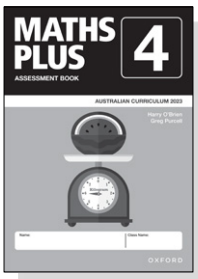

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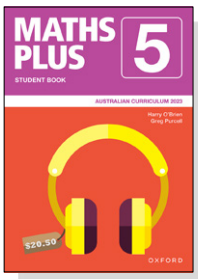

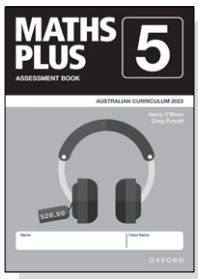

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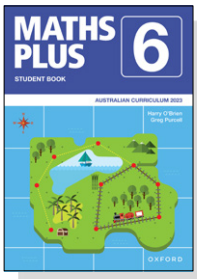

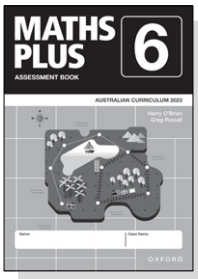

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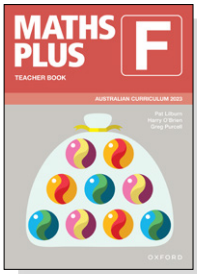

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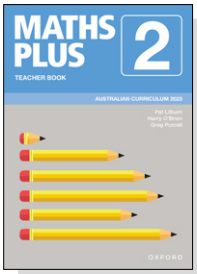

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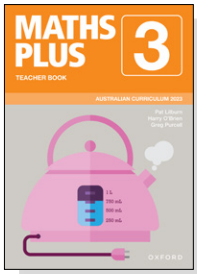

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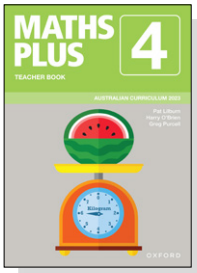

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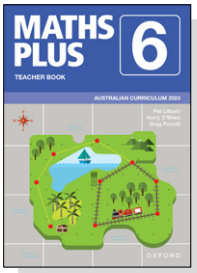

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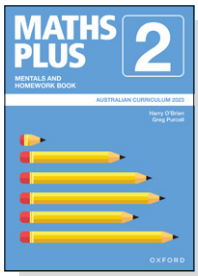

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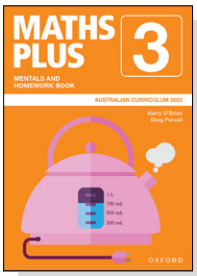

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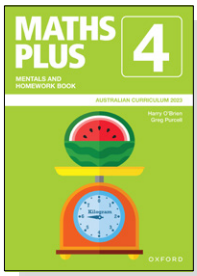

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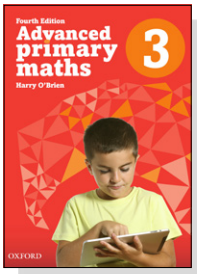

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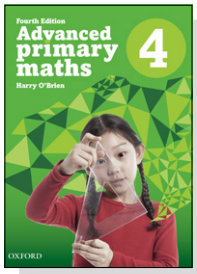

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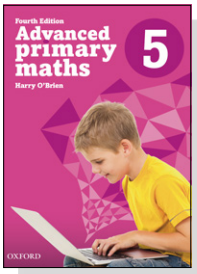

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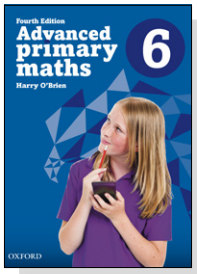

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