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Maths

Student Book





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Contents

How to use this book	5	Unit 4 Addition				
		Engage	55			
Unit 1 Numbers and		4A Combining sets	56			
counting		4B Adding on a number line	61			
Engage	6	4C Counting on	63			
1A Counting objects	7	4D Bridging 10	66			
1B Reading and writing		4E Addition word problems	69			
numbers	10	Connect	71			
1C Counting on and back	15	Review	72			
1D Estimating	22					
Connect	25	Unit 5 Subtraction and				
Review	26	difference				
		Engage	73			
Unit 2 Number bonds		5A Counting back	74			
Engage	27	5B Taking away	76			
2A Number bonds for 6, 7,		5C Finding the difference	80			
8, 9	28	5D Subtraction word				
2B Number bonds for 10	30	problems	82			
2C Missing numbers	32	Connect	84			
Connect	35	Review	85			
Review	36					
Heir 7 Control of the control of		Unit 6 Multiplication and				
Unit 3 Exploring numbers		division				
Engage	37	Engage	86			
3A More and less	38	6A Equal sharing	87			
3B Between	40	6B Grouping	90			
3C Tens and ones	42	6C Repeated addition	92			
3D Partitioning	44	6D Multiplication word				
3E Ordering numbers	47	problems	94			
3F Even and odd	50	Connect	96			
Connect	53	Review	97			
Review	54					

Unit 7 Fractions		Unit 11 Geometry	
Engage	98	Engage	140
7A Doubles and halves	99	11A 2D shapes	141
7B Halves	101	11B 3D shapes	144
7C Quarters	103	11C Symmetry	148
Connect	105	11D Position and movement	151
Review	106	11E Turns	153
Main O I III		Connect	155
Unit 8 Length, mass and		Review	156
capacity	107	Unit 12 Statistics	
Engage	107	Unit 12 Statistics	4.57
8A Length	108	Engage	157
8B Mass	112	12A Pictograms, lists and	
8C Estimating capacity	115	tables	158
Connect	118	12B Block diagrams	162
Review	119	12C Venn diagrams	166
Unit 9 Money		12D Carroll diagrams	170
Engage	120	Connect	174
9A Money amounts	121	Review	176
9B Notes and coins	124	Glossary	177
Connect	126		1,7,7
Review	127		
	,		
Unit 10 Time			
Engage	128		
10A Ordering events	129		
10B Days of the week	131		
10C Telling the time	133		
10D Measuring time	136		
Connect	138		
Review	139		

How to use this book

The Student Book for Oxford International Primary Maths forms part of your mathematics lessons for this year. Your teacher will introduce the ideas through whole-class activity, then you will explore them in more depth using this book, before all coming back together to discuss what you have learned.

Find out more at: www.oxfordprimary. com/international-maths

Structure of the book

This book is divided into 12 units. Each unit covers a different strand of mathematics.

What you will find in each unit

There are 5 types of lessons:

Engage introduces the unit's mathematical ideas.

It tells you what you will learn in the unit and includes the big question.

Discover introduces mathematical skills and concepts.

In **Explore** you practise the skills you learned in Discover.

Connect helps you make links between the different areas of mathematics in the unit.

In **Review** you show your teacher what you have learned in the unit.

What you will find in the lessons

Although each lesson is unique, they have common features:

Discover / Explore The lesson type tells you whether you are discovering new mathematical concepts or exploring concepts you have already been introduced to.

Key words

e estimate

This box gives the key words for the lesson.

This challenges you to take your learning further.

In the speech bubbles, you will find useful hints, examples of how to complete a question, or extra questions to get you

thinking about the mathematics you are doing.

Additional features

This shows you where you can practise the key vocabulary, either by writing the words or through a discussion.

This shows you where you can practise your mental maths skills such as your times tables or other key number facts.

This shows you where you need to record your work in a notebook.

Glossary Key words are listed in a picture glossary at the end of the book. You can write your own definition for each word.

Teacher's Guides

The Teacher's Guide that accompanies this book provides lesson notes for each page.

Practice Book

At the bottom of each page in this book is a link to a Practice Book, where you can get extra practice to do in your lesson or at home. 1

Numbers and

16

counting

How do we use numbers?

In this unit you will:

- count, read and write numbers to I00
- count in twos, fives and tens
- know and make numbers using objects and pictures
- use words such as equal to, more than, less than (fewer), most, least

 read and write numbers from I to 20 in words.



Engage

Which numbers can you see in the classroom?

Which numbers can you see on your way to school?

What is the biggest number you have ever seen?







1A Counting objects

Discover

Count them!

- Take a handful of cubes.
 - Sort the cubes into colours.



Key words

- count
- more



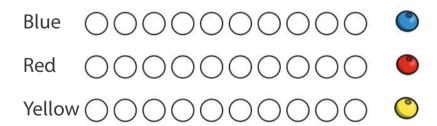
Touch each cube as you count it.

- Count each pile.
- **2** Colour one square for each cube.

Blue	
Red	
Yellow	



- 3 Do the same with a handful of beads.
- 4 Colour one square for each bead.



Stretch zone

Were there more cubes or more beads? How do you know?

1A Counting objects

Explore 1

Count the coins

- I Take some coins from the pot. Do not look!
 - Count the coins.
- 2 Draw the coins on a money bag.
 - Put the coins back in the pot.
 - Repeat for each money bag.



3 Tick ✓ the bag with the most coins in it.

Key words

- coin
- count
- most
- fewest

Count out loud.
Count as you
draw.



Which bag has the fewest coins?



Some of your bags might have the same number of coins.



Stretch zone

What is the biggest number of coins you can count? Do you always have to count in ones? Is there another way to count?

1A Counting objects

Explore 2

Count cubes

I Take a handful of cubes.
Count the cubes.

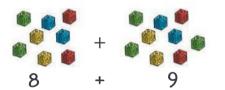


2 Write the number of cubes that you can hold.

I can hold cubes.

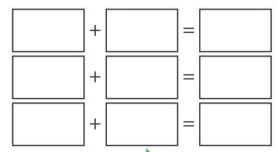
My friend can hold cubes.

We can hold cubes altogether.



3 Repeat three times.

Record the number sentence each time.



Key words

- more than
- fewer than
- altogether

I think I can hold more cubes in my hand than my friend.



I can hold 8 cubes and my friend can hold 9 cubes.

That is 17 cubes altogether!



Stretch zone

What is the largest number of cubes you and your partner can hold?

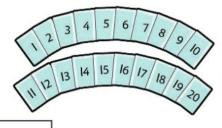
= 17

What is the smallest number?

Discover 1

Draw your number

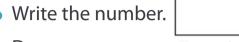
Pick a number card.



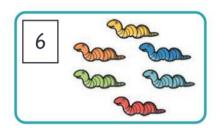
Key words

- I less
- I more

Write the number.



 Draw some worms to match your number. An example is done for you.



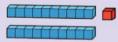
- 2 Pick a number card.
 - Write the number word.

Draw some shoes to match your



7 is one more than 6.

10 is one less than II.





Stretch zone

Look at your worms in **question I**. Write the number that is one more and the number that is one less.

Look at your shoes in **question 2**. Write the number that is one more and the number that is one less.

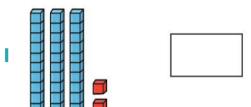
Explain to a partner how you know.

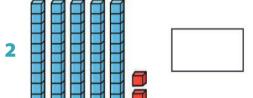


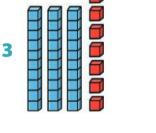
Discover 2

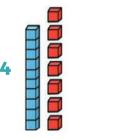
Make numbers to 100

What numbers do these rods and cubes show?



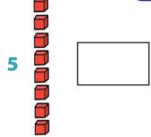


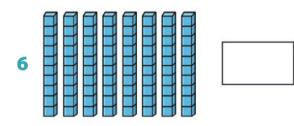


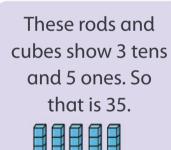


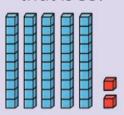
Key words

- ones
- tens
- cubes
- rods









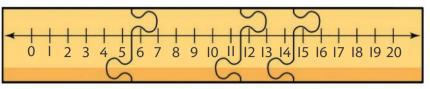
Stretch zone

Work with a partner. Make a number with your rods and cubes. Ask your partner to say the number out loud and then to write the number in numerals and in words.



Explore 1

Number jigsaw



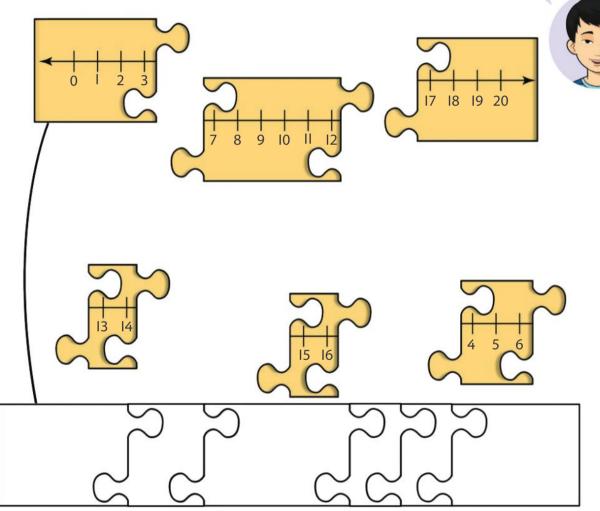
Where do the numbers go?

Draw lines to put the pieces of jigsaw in order.

Key words

- numbers
- order

First, count from 0 to 20 aloud. Then find the numbers.



Stretch zone

Can you make your own number line jigsaw? Draw it in your notebook and give it to a partner to solve.

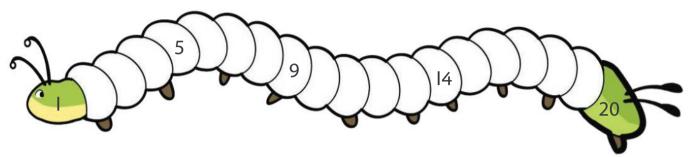
Explore 2

Make number lines and grids

Write the missing numbers.

Key words

- count on
- count back

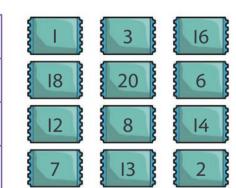


- 2 Choose a ticket number.
 - Match it with the correct empty space in the grid.
 - Write the number in the grid.
 - Repeat until the grid is full.
 - Check your work. Start at I.
 - Count the numbers in order up to 20.

		4	5
		9	10
Ш			15
	17	19	

Use a number line to help you.





3 Draw a bigger grid in your notebook and write all the numbers in words.

Stretch zone

How do you know where to put the missing numbers?

Explore 3

Read and write numbers to 100

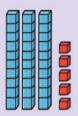
- Use tens-rods and ones-cubes to make five different numbers between 10 and 100.
- 2 Write the number and draw the rods and cubes.

Number	Rods and cubes

Key words

- ones
- tens
- smallest
- largest

I chose the number 35. I used 3 tens-rods and 5 ones-cubes.





3 Write the numbers from smallest to largest.

Smallest Largest

How do you know which number is the smallest and which is the largest?

Stretch zone

Use rods and cubes to make four different numbers greater than 50 but less than 75. Draw them in your notebook.



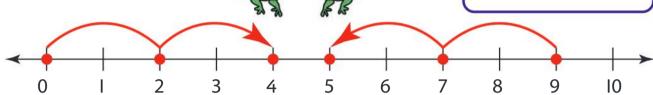
1C Counting on and back

Discover 1

Count in twos

Key words

- 2 less
- 2 more
- count on
- count back

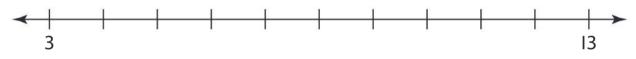


Frog jumps on in twos from 0 to 4.

Frog jumps back in twos from 9 to 5.

Draw the jumps and write the numbers you land on.

I Jump on from 3 to 13 in twos.
I land on these numbers.



2 I jump back from 16 to 4 in twos. I land on these numbers.



3 I jump back from 20 to 8 in twos. I land on these numbers.



Stretch zone

Use number lines to make up your own jumping questions. How do you know if Frog will land on an even number or on an odd number?

1C Counting on and back

Discover 2

Count in tens

I Draw the jumps and write all the numbers you land on.

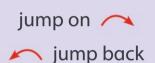
Key words

- 10 more
- 10 less
- predict



a I jump on from 0 to 30 in tens. I land on these numbers.

b I jump back from 25 to 5 in tens. I land on these numbers.





2 Draw the jumps for these calculations. Write where you land.



- a I start on 7 and jump on 10. I land on
- **b** I start on 12 and jump back 10. I land on

Stretch zone

Jump from 3 to 33 in tens. What numbers do you land on? Can you predict the numbers you will land on without counting?

1 Numbers and counting

1C Counting on and back

Discover 3

Count in fives

I	2	3	4	5	6	7	8	9	10
Ш	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Key words

- 5 more
- 5 less
- count in fives
- multiples

Colour the number 5.

2 Count on in fives and colour all the numbers you land on.

3 What do you notice about the pattern of counting in fives?

Say all the numbers you have coloured to a partner.



Stretch zone

If you start at 100 and count back in fives, will you see the same pattern? Why?