

Unit 1 Numbers to 100



- In this unit we will ...
- ⚡ Count numbers to 100
 - ⚡ Use different ways to show numbers to 100
 - ⚡ Use place value grids to make and compare numbers
 - ⚡ Count in 10s
 - ⚡ Compare and order numbers to 100
 - ⚡ Count in 2s and 5s

Do you remember how to use this to find how many there are?



KEY LANGUAGE

There is some key language that children will need to know as part of the learning in this unit:

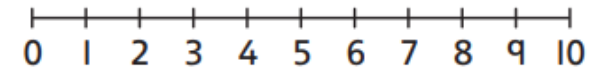
- less than, fewer, smaller, less, (<)
- greater than, larger, bigger, more, (>)
- equal to, (=)
- greatest, biggest
- fewest, smallest
- tens, ones
- how many?, count, partition
- place value grid, part-whole model

STRUCTURES AND REPRESENTATIONS

Part-whole model: This model helps children understand that two or more parts combine to make a whole. It also helps to strengthen children's understanding of number bonds within 100.



Number line: Number lines help children to represent the order of numbers. They will help children count on and back from a given starting point and help them identify patterns within the count.



Place value grid: Place value grids help children to record and describe how a number is 'made'. This representation can empower children to more efficiently describe and order numbers.

Tens	Ones

Unit 2

Addition and subtraction 1



- In this unit we will ...
- ✦ Use related number facts
 - ✦ Compare number sentences
 - ✦ Make number bonds to 100
 - ✦ Add and subtract ones and tens
 - ✦ Add a 2-digit and a 1-digit number
 - ✦ Subtract a 1-digit number from a 2-digit number

We have used this before. What is the same? What is different?



KEY LANGUAGE

There is some key language that children will need to know as a part of the learning in this unit:

- part, whole and part-whole
- add, added, plus, total, altogether, sum, calculation, (+)
- count, count on, count back, left
- subtract, take away, minus, (-)
- exchange, compare, greater than, less than, more, less, (>), (<)
- ones, tens, 10 more, 10 less, place value, column, 1-digit number, 2-digit number
- number sentence, number bonds, known fact, fact family

STRUCTURES AND REPRESENTATIONS

Part-whole model: This model helps children understand that two or more parts combine to make a whole. It will also help children understand how addition and subtraction are linked and can be used to calculate an unknown part or whole.

Number line: This model helps children visualise the order of numbers. It helps children to count on and back from a number. Number lines are used to show jumps of different amounts to help children understand the 'make 10' strategy and the steps completed in the column method.

Column method: This representation is introduced to children during this unit and will be built upon for all operations in future units and in later year groups. The column method shows a number broken down into parts based on the place value of its digits and how these digits change as a result of another number being added or subtracted to or from it.

$$\begin{array}{|c|c|}
 \hline
 \text{T} & \text{O} \\
 \hline
 3 & 4 \\
 + & 5 \\
 \hline
 3 & 9 \\
 \hline
 \end{array}$$

100 square: This model shows how numbers link to each other and how numbers change when 10 is added or subtracted to or from a number. This model is especially useful to help children make links to the column method.



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	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

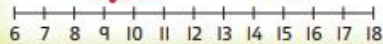
Unit 3

Addition and subtraction 2



- In this unit we will ...
- ⚡ Add two 2-digit numbers
 - ⚡ Subtract 2-digit numbers
 - ⚡ Add three 1-digit numbers
 - ⚡ Solve word problems

How many more red  are there than yellow  ?
Use this to find out.



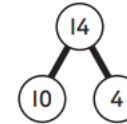
KEY LANGUAGE

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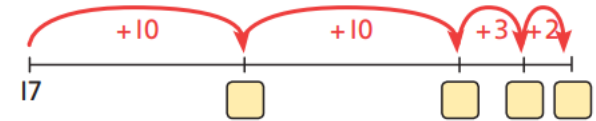
- part, whole and part-whole, partition
- add, added, plus, total, altogether, sum, calculation, (+)
- count, count on, count back, left, difference
- subtract, take away, minus, (-)
- exchange, compare, greater than, less than, more, less, (>), (<), regroup, represent
- ones, tens, 10 more, 10 less, place value, column, 1-digit number, 2-digit number, bar model

STRUCTURES AND REPRESENTATIONS

Part-whole model: This model helps children understand that a number can be partitioned in different ways and how changing the ways that it is partitioned suits different mental calculations.



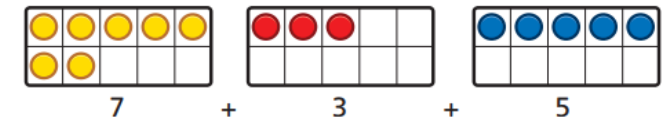
Number line: This model helps children to count on and back from a number. It is used to show jumps of different amounts to help children understand the 'make 10' strategy and the steps completed in the column method.



Column method: This column method shows a number broken down into parts based on the place value of its digits and how these digits change as a result of another number being added or subtracted to or from it.

$$\begin{array}{r} \text{T O} \\ 32 \\ + 14 \\ \hline \end{array}$$

Ten frame: The ten frame helps children make links to their number bonds to 10 and helps children to recognise the structure of numbers and what happens to this structure during addition and subtraction calculations.



Unit 4 Money



- In this unit we will ...
- ⚡ Count coins and notes
 - ⚡ Compare different amounts of money
 - ⚡ Find different ways to make the same amount
 - ⚡ Work out the amount of change
 - ⚡ Solve two-step problems involving money

Do you remember these coins?



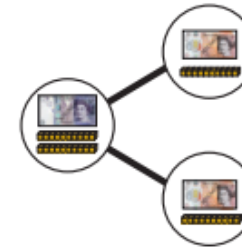
KEY LANGUAGE

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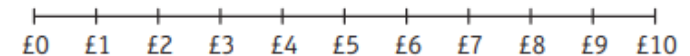
- money, coins, notes
- pounds (£), pence (p)
- change, left, right, money, buy(s), spend, step
- how much?, value, amount, total, altogether, parts, between, difference
- count on, sort, match, compare, add, addition, calculate, subtraction
- great(er/est), smallest, exact(ly), higher, lower, most, least
- more than (>), less than (<), equal (=)
- part-whole model, number line, bar model

STRUCTURES AND REPRESENTATIONS

Part-whole model: This model will help children visualise calculations as a whole made up of two parts. It can help strengthen children's fluency in addition and subtraction. Money is used instead of numbers or counters to develop children's understanding of how to add and subtract coins and notes.



Number line: This model helps children visualise the order of numbers. It can help them demonstrate concepts such as 'one more' and 'one less' in a more efficient way than using concrete resources. It can help children to demonstrate the addition of coins and notes in regular but varying jumps.



Bar model: This model will help children visualise amounts of money and solve money word problems. It can help children to add amounts of coins and notes by representing them in rectangles.

£20		
£8	£5	£7

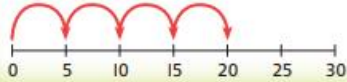
Unit 5 Multiplication and division 1



In this unit we will ...

- ⚡ Decide if groups are equal
- ⚡ Form multiplication sentences
- ⚡ Use arrays
- ⚡ Practise the 2, 5 and 10 times-tables
- ⚡ Solve multiplication word problems

We use these a lot, don't we?
You can use a number line for
multiplication as well. Can you
find 4×5 using the number line?



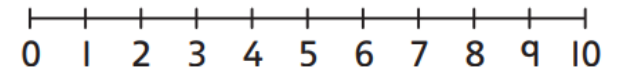
KEY LANGUAGE

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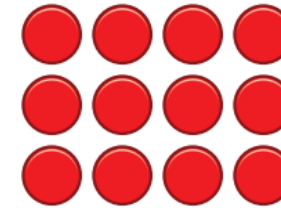
- equal groups
- repeated addition
- skip counting
- number in a group
- number of groups
- times
- times-table
- multiply/multiplication (\times)
- more than, less than ($<$ and $>$)
- array
- rows/columns
- bar model
- equal parts
- number of equal parts
- times bigger/times taller/
times greater
- twice as big

STRUCTURES AND REPRESENTATIONS

Number line: Number lines help children see the equal jumps being made. The number of jumps is also the other number in a multiplication sentence.

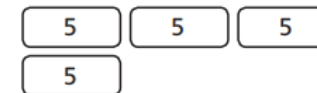


Array: The array is organised into rows and columns, which helps children to distinguish between each number in a multiplication calculation. Each counter represents one object.



Bar model:

A comparison bar model that compares two amounts.



An equal parts bar model that displays a whole as a certain amount bigger than one part.

