

# Unit 1

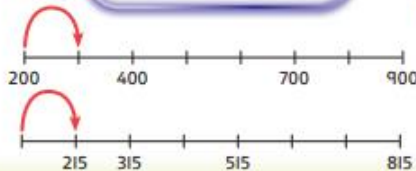
## Place value – 4-digit numbers 1



In this unit we will ...

- ⚡ Round numbers to the nearest 10 or 100
- ⚡ Count in 1,000s
- ⚡ Represent 4-digit numbers
- ⚡ Use number lines
- ⚡ Learn about Roman numerals

Do you remember how to count in 100s?



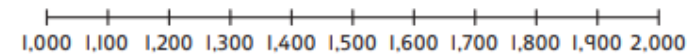
### KEY LANGUAGE

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

- ➔ tens (10s), hundreds (100s), thousands (1,000s)
- ➔ rounding, counting, represent, compare, order
- ➔ more than (>), less than (<)
- ➔ partition, recombine
- ➔ numerals
- ➔ nearest, distance

### STRUCTURES AND REPRESENTATIONS

**Number line:** The number line will allow children to see which numbers a number sits between. It also allows children to see how increments can be used to view numbers.



**Place value grid, including using base 10 equipment, place value counters and blank counters:** This model will help children organise 4-digit numbers into 1,000s, 100s, 10s and 1s, with both concrete representations and abstract numbers.

Th	H	T	O
8,000	900	80	

Th	H	T	O
8,000	900	80	

## Unit 2

### Place value – 4-digit numbers 2



In this unit we will ...

- ⚡ Find 1,000 more or less
- ⚡ Compare and order numbers to 10,000
- ⚡ Round numbers to the nearest 1,000
- ⚡ Count in 25s
- ⚡ Count back through 0 into negative numbers

What number is represented here? Use it to find 100 more.

H	T	O
● ● ●	● ● ● ● ●	● ●



#### KEY LANGUAGE

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

- thousands (1,000s), hundreds (100s), tens (10s), ones (1s)
- place value
- more, less
- greater than (>), less than (<), equal to (=)
- order, compare
- round to, nearest
- negative, positive
- step
- ascending, descending

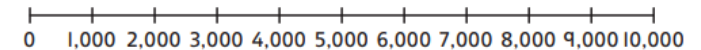
#### STRUCTURES AND REPRESENTATIONS

**Place value grid, including using base 10 equipment, place value counters and blank counters:** This model will help children organise 4-digit numbers into 1,000s, 100s, 10s and 1s, with both concrete representations and abstract numbers.

Th	H	T	O
8,000	900	80	

Th	H	T	O
8,000	900	80	

**Number line to 10,000:** This model will help children to visualise the order of numbers, and can help them to compare numbers. It can also help children to round numbers to the nearest 10, 100 and 1,000 and can be used to reinforce understanding of negative numbers.



## Unit 3 Addition and subtraction



In this unit we will ...

- Add and subtract 1s, 10s, 100s and 1,000s
- Add and subtract two 4-digit numbers using the column method
- Learn how to find and use equivalent difference, and other mental methods
- Estimate answers to additions and subtractions
- Learn how to check strategies and apply our knowledge

Do you remember what this is called?  
We use it to compare amounts.



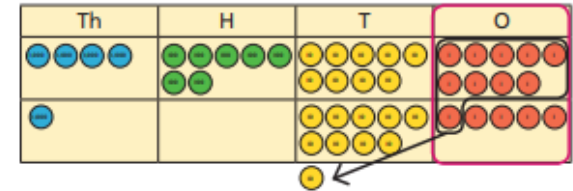
### KEY LANGUAGE

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

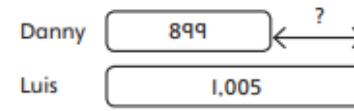
- ➔ addition, subtraction
- ➔ total
- ➔ more than, less than
- ➔ difference, exchange
- ➔ column method
- ➔ estimate, accurate, efficient, exact
- ➔ strategy
- ➔ diagram

### STRUCTURES AND REPRESENTATIONS

**Place value grid:** This model uses counters to show the value of each column, which supports the column method layout.



**Bar model:** This model can be used to represent the situation in some addition and subtraction word problems.



**Part-whole model:** This model is an alternative way to represent the situation in addition and subtraction word problems.



## Unit 4 Measure – perimeter



In this unit we will ...

- ⚡ Convert between kilometres and metres
- ⚡ Find perimeters of shapes
- ⚡ Work out missing lengths
- ⚡ Find solutions involving perimeter

Do you remember how to measure length using squares?  
How long is this line?



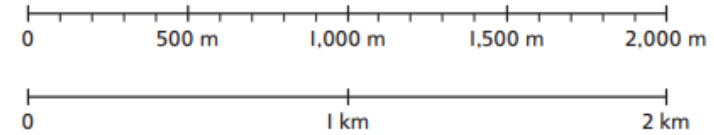
### KEY LANGUAGE

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

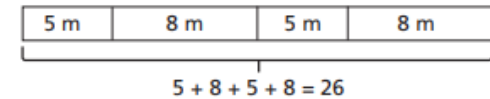
- kilometres, metres, centimetres
- convert, equivalent to
- perimeter, distance, around
- total
- length, width
- square, rectangle, rectilinear shape

### STRUCTURES AND REPRESENTATIONS

**Number line:** Modelling with double number lines, showing kilometres and metres, helps children to see the equivalence of measurements in different units.



**Bar model:** This model helps children to see that the perimeter of a shape is the total of its side lengths. Children also work with bar models to represent perimeter-based problems, for example working out one dimension of a rectangle, given a perimeter and the other dimension.



## Unit 5 Multiplication and division 1



In this unit we will ...

- ✦ Multiply by and divide multiples of 10 and 100
- ✦ Multiply and divide by 0 and 1
- ✦ Learn all of our times-tables from 1 to 12
- ✦ Understand related multiplication and division facts
- ✦ Find solutions to multiplication and division word problems

Do you remember what this is called?  
Use it to find  $2 \times 7$  or  $7 \times 2$ .



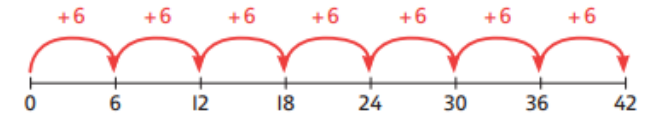
### KEY LANGUAGE

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

- times-table, times, times by
- multiply ( $\times$ ), multiple, multiply by
- divide ( $\div$ ), divide by
- grouping, groups of, lots of, sets of, grouped, x groups of y
- sharing, share, equal, equally
- number facts, number sentences, multiplication facts/sentences, division facts/sentences, fact family
- ones (1s), tens (10s), hundreds (100s), zero (0), how many, total, method, calculation, exchange, solve, less than ( $<$ ), greater than ( $>$ ), added, sort, sum, recall

### STRUCTURES AND REPRESENTATIONS

**Number line:** The number line is an effective way to represent multiplication and division. It shows the grouping clearly and helps children practise counting on or back in groups.



**Arrays:** Arrays visually show multiplication and division. They are particularly clear at showing commutativity, such as  $2 \times 5 = 5 \times 2$ .



**Ten frame:** The ten frame helps children to reinforce their knowledge of place value.

