Unit 1

Place value within 1,000,000

In this unit we will ...

- Find the value of each digit in numbers to 1,000,000
- Partition numbers in different ways
- Compare and order numbers up to 1,000,000
- Represent numbers in different ways, including with Roman numerals

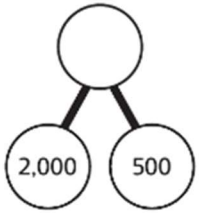
In Year 4, we used a place value grid and counters to represent numbers. What number does this show?

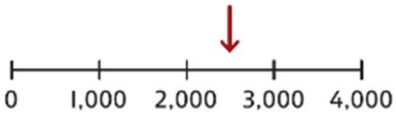
Th	H	T	O

We will need some maths words. Which of these have you met before?

- ones (1s)
- tens (10s)
- hundreds (100s)
- thousands (1,000s)
- ten thousands (10,000s)
- hundred thousands (100,000s)
- more than (>)
- less than (<)
- place value
- partition
- estimate

We will also use part-whole models and number lines. What number do these both represent?





Unit 2
Place value within 1,000,000 (2)

In this unit we will ...

- Further understand the value of any digit in a number up to 1,000,000
- Identify the position of a number on different number lines
- Compare and order numbers to 1,000,000
- Round numbers to the nearest 10, 100, 1,000, 10,000 and 100,000

We need to be able to extend the place value grid to include millions.

M	HTh	TTh	Th	H	T	O

We will need some maths words.
How many of these can you remember?

ones (1s) | tens (10s) | hundreds (100s)

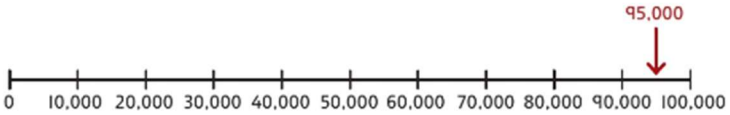
thousands (1,000s) | ten thousands (10,000s)

hundred thousands (100,000s) | million (1,000,000)

round | order | ascending | descending

less than (<) | greater than (>)

We need to be able to use a number line and recognise where each number lies on a number line.



Unit 3
Addition and subtraction

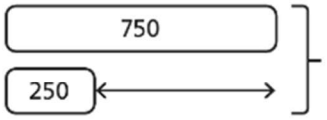
In this unit we will ...

- Add and subtract numbers with up to five digits
- Use the column method for addition and subtraction
- Round numbers to estimate answers to problems
- Add and subtract mentally
- Solve problems involving addition and subtraction

We will need some maths words.
How many of these can you remember?

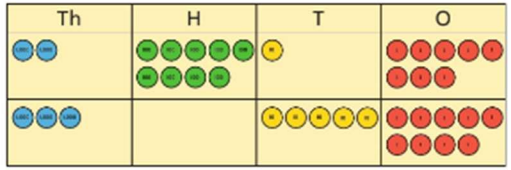
add | subtract | ones (1s) | tens (10s)
hundreds (100s) | thousands (1,000s)
ten thousands (10,000s) | mentally
inverse | round | estimate
distance chart

What information does this comparison bar model give you? What can you use it to work out?



Laying a calculation out neatly in columns can help us to understand the value of each digit.

	Th	H	T	O
	2	9	1	8
+	3	0	5	9
	5	9	7	7
			1	



Unit 4
Multiplication and division 1

In this unit we will ...

- Recognise and find multiples and factors
- Recognise and identify prime numbers
- Calculate square and cube numbers
- Multiply and divide by 10, 100 and 1,000
- Multiply and divide by multiples of 10, 100 and 1,000

These are sorting circles. We will use them to help us find factors and multiples.

Factors of 20 Factors of 50

We will need some maths words. Look for the words you do not already know. What might they mean?

prime number | composite number | square number | cube number | square (x^2) | cube (x^3) | lowest common multiple | multiply | divide | multiple | factor

We will use multiplication squares too! They will help us spot patterns in the numbers we learn about!

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Unit 5
Fractions 1

In this unit we will ...

- Find and use equivalent fractions
- Convert between improper fractions and mixed numbers
- Compare and order fractions

Do you remember what this model is called? We will use it to represent mixed numbers and improper fractions. Can you tell which is which?

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

1	$\frac{1}{4}$	$\frac{1}{4}$

We will need some maths words. Do you know what they all mean? Can you identify and explain the ones you already recognise?

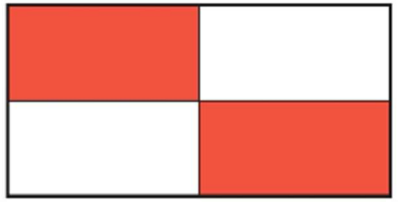
equivalent **numerator** **denominator**

whole **fraction** **improper fraction**

mixed number **convert** **order**

greater than (>) **less than (<)** **is equal to (=)**

We will need to represent different fractions. What fractions are shown here?

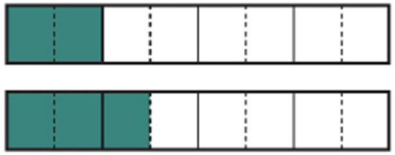


Unit 6
Fractions 2

In this unit we will ...

- Add and subtract fractions with the same denominator
- Add and subtract fractions, including mixed numbers, where one denominator is a multiple of the other
- Solve word problems involving fractions

How can you add these two fractions?



$\frac{1}{4} + \frac{3}{8}$

We will need some maths words. Do you know what they all mean?

add | subtract | proper fraction | improper fraction | convert | equivalent fraction | mixed number | denominator | numerator | whole | common denominator

We need to be able to convert between mixed numbers and improper fractions. Use your skills to convert $2\frac{1}{3}$ into an improper fraction.