

Knowledge Organiser

Year Group	Subject	Topic
4	Mathematics	Place Value

What does place value consist of?

In maths, every digit in a number has a place value. Place value can be defined as the value represented by a digit in a number based on its position in the number. For example, the 5 in 350 represents 5 tens, or 50; however, the 5 in 5,006 represent 5 thousands, or 5,000. It is important that pupils understand that whilst a digit can be the same, its value depends on where it is in the number. In Year 4, pupils' knowledge of place value will be extended, and they will need to build on their prior knowledge to work out sums and differences of pairs of multiples of 10, 100 or 1000. They might be asked to mentally work out $80 + 40$ in which case they would need to 'cross 100' to find the answer 120. Another example that they would need to work out is $700 + 600$ or $8000 + 3000$, in which case they would be crossing 1000 and 10,000. A number line can be helpful in these instances.

Outcomes

By using a variety of representations, including measures, pupils should become fluent in the order and place value of numbers beyond 1000, including counting in tens and hundreds, and maintaining fluency in other multiples through varied and frequent practice.

These are the National Curriculum objectives for Year 4 that pupils are required to meet:

- To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones.)
- Know that over time, the numeral system changed to include the concept of zero and place value.

Roman numerals will also be put in their historical context. Pupils will be taught that there have been different ways to write whole numbers, and that the important concepts of zero and place value were introduced over a period of time.

Key Vocabulary

Thousands	Hundreds
Tens	Ones
Zero	Place Value
Greater than	Less than
Order	Round
Partition	Digit
Roman Numeral	Diennes/Base 10

Counting

Counting in 1000s

0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10 000
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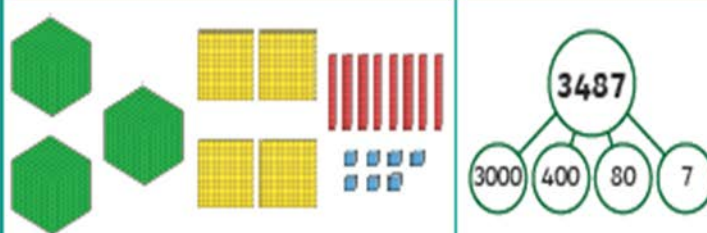
Represent 4-Digit Numbers

3487

three thousand, four hundred and eighty-seven

1000s	100s	10s	1s

Thousands	Hundreds	Tens	Ones



Roman Numerals

one	1	I
five	5	V
ten	10	X
fifty	50	L
one hundred	100	C

XVIII - 18

XXIX - 29

LXXXIV - 84

Rounding

Look at the place value column to the right of the value you are rounding to. If this digit is a 4 or less, round down. If the digit is a 5 or more, round up.

Rounding to nearest 10

20	21	22	23	24	25	26	27	28	29	30
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← round down → round up

Rounding to the nearest 100

200	249	250	300
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← round down → round up

Rounding to the nearest 1000

2000	2499	2500	3000
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← round down → round up



Compare and Order

Th	H	T	O

4324 > 3243
greater than

Th	H	T	O

Th	H	T	O

879 < 2126
less than

Th	H	T	O

2497	2508	3012	3521	3530	4002
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smallest

greatest

1000 More or 1000 Less

1000 Less		1000 More
1212	2212	3212

