



# Knowledge Organiser



## Number

### Year 5

### Number & Place Value

Place value will help us develop our understanding of the powers of 10 and numbers up to one million. It will help us in real life when making decisions with money and time. Even though Roman numerals were used many many years ago, they are still used in the modern world for displaying the time, in books and when referring to royalty (Queen Elizabeth II).

#### Builds from Year 4:

Comparing, ordering and making 4-digit numbers.  
Counting in 6s, 7s, 9s, 25s and 1000s.  
Rounding numbers.  
Negative numbers.

#### This year:

Read, write, order and compare numbers to at least 1,000,000.  
Count in steps of powers of 10.  
Round numbers to the nearest 10 000, 100 000  
Interpret negative numbers in context.  
Recognise years written in Roman numerals.

#### Leads to Year 6:

Read, write, order and compare numbers to 10,000,000.  
Round any whole number.  
Use negative numbers in context.

### Numbers to 1,000,000

# 957, 231

nine hundred and fifty-seven thousand, two hundred and thirty-one

hundred thousands	ten thousands	thousands	hundreds	tens	ones
9	5	7	2	3	1

$$900\ 000 + 50\ 000 + 7000 + 200 + 30 + 1 = 957\ 231$$

### Compare and Order Numbers

$$26 + 38 = 8 \times 8$$

equals

$$32,547 > 9054$$

greater than

$$930,477 < 1,254,798$$

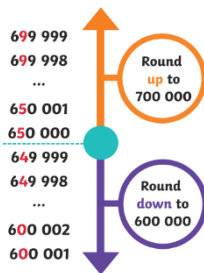
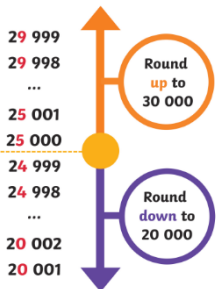
less than

898	6735	6835	7019	9002	11 235
smallest			largest		

### Rounding

Round to the nearest 10 000.

Round to the nearest 100 000.



### Counting in Powers of 10

#### Counting in 10s

The tens increase until the 9 becomes one more hundred and 0 tens.

465	475	485	495	505	515
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#### Counting in 100s

The hundreds increase until the 9 becomes one more thousand and 0 hundreds.

3841	3941	4041	4141	4241	4341
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#### Counting in 10,000s

The ten thousand increase until the 9 becomes one more hundred thousand and 0 ten thousands.

162 561	172 561	182 561	192 561	202 561	212 561
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#### Counting in 100,000s

The hundred thousands increase until the 9 becomes one more million and 0 hundred thousands.

5 962 015	6 062 015	6 162 015	6 262 015
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### Roman Numerals

I = 1	II = 2	III = 3	IV = 4	V = 5	VI = 6	VII = 7	VIII = 8							
IX = 9	X = 10	XI = 11	XX = 20	XXX = 30	XL = 40	L = 50	LX = 60	LXX = 70	LXXX = 80	XC = 90	C = 100	CL = 150	CC = 200	CCC = 300
CD = 400	D = 500	DC = 600	DCC = 700	DCCC = 800	CM = 900	M = 1000	MC = 1100	MD = 1500	MM = 2000					

CCXLVIII = 248    DCCLXXXIV = 784    MMXVI = 2016    MMXXIII = 2023

### Negative Numbers



### Key Vocabulary

millions    thousands    hundreds    tens    ones    zero    place value    greater than    less than    order  
round    rounded    negative number    partition    interval    sequence    linear sequence