

# Mathematics progression of concepts – year 1

## Number and place value

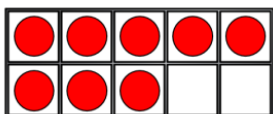
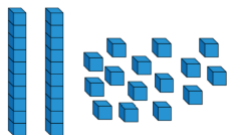
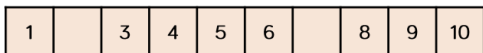
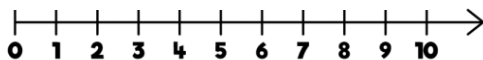
### Key vocabulary:

number more than less than count equal to the same as most  
least few fewer fewest odd even ones tens digit greater  
lesser compare order value between numeral figure

### In F2, I have learnt...

- to have a deep understanding of numbers to 10
- to subitise up to 5
- to verbally count beyond 20
- to compare quantities up to 10
- to begin to represent patterns with numbers to 1-, including evens and odds

### Representations and manipulatives



### In year 1, I am learning...

#### Counting

- to count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- to count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- to identify one more and one less of a given number

#### Comparing numbers

- to use the language of: equal to, more than, less than (fewer), most, least

#### Identifying, representing and estimating numbers

- to identify and represent numbers using objects and pictorial representations including the number line

#### Reading and writing numbers

- to read and write numbers from 1 to 20 in numerals and words.

### In year 2, I will learn...

#### Counting

- to count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward

#### Comparing numbers

- to compare and order numbers from 0 up to 100; use  $<$ ,  $>$  and  $=$  signs

#### Identifying, representing and estimating numbers

- to identify, represent and estimate numbers using different representations, including the number line

#### Reading and writing numbers

- to read and write numbers to at least 100 in numerals and in words

#### Understanding place value

- to recognise the place value of each digit in a two-digit number (tens, ones)

### In my future I can...

#### Across the curriculum

- science – understanding data
- DT – taking measurements
- PE – keeping score, measuring, angles
- geography – coordinates, maps
- computing – databases, coding

#### Life skills

- shopping and budgeting
- critical thinking
- playing sport
- map reading
- interpreting statistics
- working with computers

#### Careers

- shop worker
- bank cashier
- architect
- doctor
- nurse
- teacher
- computer programmer

# Mathematics progression of concepts – year 2

## Number and place value

**Key vocabulary:**  
 number more than less than count equal to the same as most  
 least few fewer fewest odd even ones tens hundreds digit  
 greater lesser compare order value between numeral figure  
 greater than less than partition exchange recombine

### In year 1, I have learnt...

- Counting**  
 - to count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number  
 -to count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens  
 -to identify one more and one less of a given number
- Comparing numbers**  
 -to use the language of: equal to, more than, less than (fewer), most, least
- Identifying, representing and estimating numbers**  
 -to identify and represent numbers using objects and pictorial representations including the number line
- Reading and writing numbers**  
 -to read and write numbers from 1 to 20 in numerals and words.

### In year 2, I am learning...

- Counting**  
 -to count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward
- Comparing numbers**  
 -to compare and order numbers from 0 up to 100; use <, > and = signs
- Identifying, representing and estimating numbers**  
 -to identify, represent and estimate numbers using different representations, including the number line
- Reading and writing numbers**  
 -to read and write numbers to at least 100 in numerals and in words
- Understanding place value**  
 -to recognise the place value of each digit in a two-digit number (tens, ones)

### In year 3, I will learn...

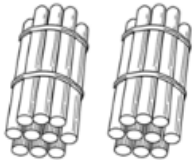
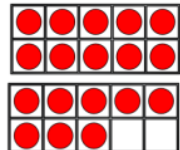
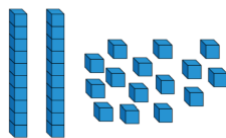
- Counting**  
 -to count from 0 in multiples of 4, 8, 50 and 100  
 -to find 10 or 100 more or less than a given number
- Comparing numbers**  
 -to compare and order numbers up to 1 000
- Identifying, representing and estimating numbers**  
 -to identify, represent and estimate numbers using different representations
- Reading and writing numbers**  
 -to read and write numbers up to 1000 in numerals and in words
- Understanding place value**  
 -to recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

### In my future I can...

- Across the curriculum**  
 -science – understanding data  
 -DT – taking measurements  
 -PE – keeping score, measuring, angles  
 -geography – coordinates, maps  
 -computing – databases, coding
- Life skills**  
 -shopping and budgeting  
 -critical thinking  
 -playing sport  
 -map reading  
 -interpreting statistics  
 -working with computers
- Careers**  
 -shop worker  
 -bank cashier  
 -architect  
 -doctor  
 -nurse  
 -teacher  
 -computer programmer

**Representations and manipulatives**

	15		17	
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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



# Mathematics progression of concepts – year 3

## Number and place value

### Key vocabulary:

more than less than relationship equal to most least few  
fewer fewest odd even ones tens hundreds thousands digit  
greater lesser compare order value between numeral figure  
greater than less than partition exchange Roman numerals

### In year 2, I have learnt...

#### Counting

-to count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward

#### Comparing numbers

-to compare and order numbers from 0 up to 100; use  $<$ ,  $>$  and  $=$  signs

#### Identifying, representing and estimating numbers

-to identify, represent and estimate numbers using different representations, including the number line

#### Reading and writing numbers

-to read and write numbers to at least 100 in numerals and in words

#### Understanding place value

-to recognise the place value of each digit in a two-digit number (tens, ones)

#### Representations and manipulatives

100s	10s	1s
● ● ● ● ●	●	●
● ●		

### In year 3, I am learning...

#### Counting

-to count from 0 in multiples of 4, 8, 50 and 100  
-to find 10 or 100 more or less than a given number

#### Comparing numbers

-to compare and order numbers up to 1 000

#### Identifying, representing and estimating numbers

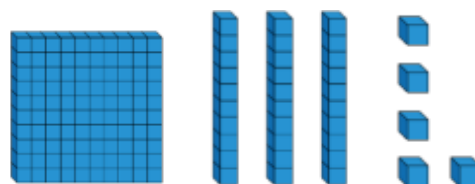
-to identify, represent and estimate numbers using different representations

#### Reading and writing numbers

-to read and write numbers up to 1000 in numerals and in words

#### Understanding place value

-to recognise the place value of each digit in a three-digit number (hundreds, tens, ones)



### In year 4, I will learn...

#### Counting

-to count backwards through zero to include negative numbers  
-to count in multiples of 6, 7, 9, 25 and 1 000  
- find 1000 more or less than a given number

#### Comparing numbers

-to order and compare numbers beyond 1 000

#### Identifying, representing and estimating numbers

-to identify, represent and estimate numbers using different representations

#### Reading and writing numbers

-to read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value

#### Understanding place value

-to recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)

200	300		500			800	
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### In my future I can...

#### Across the curriculum

-science – understanding data  
-DT – taking measurements  
-PE – keeping score, measuring, angles  
-geography – coordinates, maps  
-computing – databases, coding

#### Life skills

-shopping and budgeting  
-critical thinking  
-playing sport  
-map reading  
-interpreting statistics  
-working with computers

#### Careers

-shop worker  
-bank cashier  
-architect  
-doctor  
-nurse  
-teacher  
-computer programmer

100s	10s	1s
● 100	● 10 ● 10	● 1 ● 1
	● 10	● 1 ● 1

## Mathematics progression of concepts – year 4

### Number and place value

#### Key vocabulary:

number more than less than count equal to the same as most least few fewer fewest odd even ones tens hundreds thousands ten thousands hundred thousands round digit greater lesser compare order value between positive negative greater than less than partition exchange recombine

#### In year 3, I have learnt...

##### Counting

- to count from 0 in multiples of 4, 8, 50 and 100
- to find 10 or 100 more or less than a given number

##### Comparing numbers

- to compare and order numbers up to 1 000

##### Identifying, representing and estimating numbers

- to identify, represent and estimate numbers using different representations

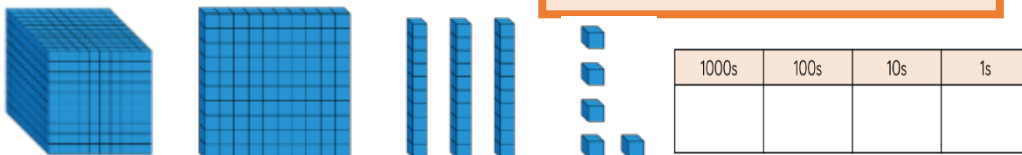
##### Reading and writing numbers

- to read and write numbers up to 1000 in numerals and in words

##### Understanding place value

- to recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

#### Representations and manipulatives



#### In year 4, I am learning...

##### Counting

- to count backwards through zero to include negative numbers
- to count in multiples of 6, 7, 9, 25 and 1 000
- find 1000 more or less than a given number

##### Comparing numbers

- to order and compare numbers beyond 1 000

##### Identifying, representing and estimating numbers

- to identify, represent and estimate numbers using different representations

##### Reading and writing numbers

- to read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value

##### Understanding place value

- to recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)

#### In year 5, I will learn...

##### Counting

- to interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- to count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000

##### Comparing numbers

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

##### Reading and writing numbers

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers)
- to read Roman numerals to 1000 (M) and recognise years written in Roman numerals

##### Understanding place value

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit

#### In my future I can...

##### Across the curriculum

- science – understanding data
- DT – taking measurements
- PE – keeping score, measuring, angles
- geography – coordinates, maps
- computing – databases, coding

##### Life skills

- shopping and budgeting
- critical thinking
- playing sport
- map reading
- interpreting statistics
- working with computers

##### Careers

- shop worker
- bank cashier
- architect
- doctor
- nurse
- teacher
- computer programmer



# Mathematics progression of concepts – year 5

## Number and place value

### Key vocabulary:

number more than less than count equal to the same as most least few fewer fewest odd even ones tens hundreds thousands ten thousands hundred thousands round digit greater lesser compare order value between positive negative greater than less than partition exchange recombine

### In year 4, I have learnt...

#### Counting

- to count backwards through zero to include negative numbers
- to count in multiples of 6, 7, 9, 25 and 1 000
- find 1000 more or less than a given number

#### Comparing numbers

- to order and compare numbers beyond 1 000

#### Identifying, representing and estimating numbers

- to identify, represent and estimate numbers using different representations

#### Reading and writing numbers

- to read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value

#### Understanding place value

- to recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)

### In year 5, I am learning...

#### Counting

- to interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- to count forwards or backwards in steps of powers of 10 for any given number up to 1000 000

#### Comparing numbers

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

#### Reading and writing numbers

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers)
- to read Roman numerals to 1000 (M) and recognise years written in Roman numerals

#### Understanding place value

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit

### In year 6, I will learn...

#### Counting

- to use negative numbers in context, and calculate intervals across zero

#### Comparing numbers

- to read, write, order and compare numbers up to
- to compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

#### Reading and writing numbers

- to read, write, order and compare numbers up to 10 000 000 and determine the value of each digit

#### Understanding place value

- to read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

### In my future I can...

#### Across the curriculum

- science – understanding data
- DT – taking measurements
- PE – keeping score, measuring, angles
- geography – coordinates, maps
- computing – databases, coding

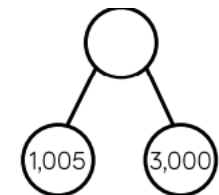
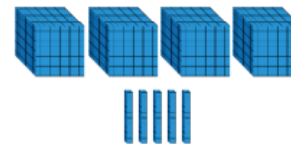
#### Life skills

- shopping and budgeting
- critical thinking
- playing sport
- map reading
- interpreting statistics
- working with computers

#### Careers

- shop worker
- bank cashier
- architect
- doctor
- nurse
- teacher
- computer programmer

### Representations and manipulatives



# Mathematics progression of concepts – year 6

## Number and place value

### Key vocabulary:

number more than less than count equal to the same as most least few fewer fewest odd even ones tens hundreds thousands ten thousands hundred thousands round digit greater lesser compare order value between positive negative greater than less than partition exchange recombine

### In year 5, I have learnt...

#### Counting

- to interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- to count forwards or backwards in steps of powers of 10 for any given number up to 1000 000

#### Comparing numbers

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

#### Reading and writing numbers

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers)

#### Understanding place value

- to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit

### In year 6, I am learning...

#### Counting

- to use negative numbers in context, and calculate intervals across zero

#### Comparing numbers

- to read, write, order and compare numbers up to
- to compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

#### Reading and writing numbers

- to read, write, order and compare numbers up to 10 000 000 and determine the value of each digit

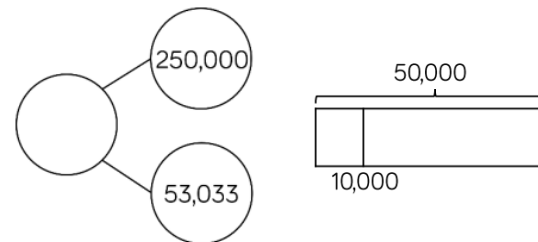
#### Understanding place value

- to read, write, order and compare numbers up to 10 000 000 and determine the value

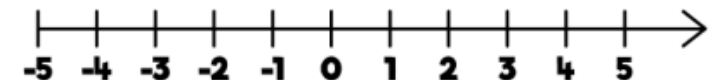
### In KS3, I will learn...

- to understand and use place value for decimals, measures and integers of any size
- to order positive and negative integers, decimals and fractions
- to use the number line as a model for ordering real numbers
- to use symbols such as =, ≠, <, >
- to round number and measures to an appropriate degree of accuracy
- to use approximation through rounding to estimate answers
- to appreciate the infinite nature of the sets of integers, real and rational numbers

#### Representations and manipulatives



M	HTh	TTh	Th	H	T	O
●		● ● ● ●	●	● ● ●	●	● ●



### In my future I can...

#### Across the curriculum

- science – understanding data
- DT – taking measurements
- PE – keeping score, measuring, angles
- geography – coordinates, maps
- computing – databases, coding

#### Life skills

- shopping and budgeting
- critical thinking
- playing sport
- map reading
- interpreting statistics
- working with computers

#### Careers

- shop worker
- bank cashier
- architect
- doctor
- nurse
- teacher
- computer programmer

HTh	TTh	Th	H	T	O
