

NUMBER - Number and place value

Pupils should be taught to:

Year 1 programme of study:

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

Year 2 programme of study:

count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward
recognise the place value of each digit in a two-digit number (tens, ones)
identify, represent and estimate numbers using different representations, including the number line
compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs
read and write numbers to at least 100 in numerals and in words
use place value and number facts to solve problems.

Year 3 programme of study:

count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
compare and order numbers up to 1000
identify, represent and estimate numbers using different representations
read and write numbers up to 1000 in numerals and in words
solve number problems and practical problems involving these ideas.

Year 4 programme of study:

count in multiples of 6, 7, 9, 25 and 1000
find 1000 more or less than a given number
count backwards through zero to include negative numbers
recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
order and compare numbers beyond 1000
identify, represent and estimate numbers using different representations
round any number to the nearest 10, 100 or 1000
solve number and practical problems that involve all of the above and with increasingly large positive numbers
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.

Year 5 programme of study:

read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero
round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
solve number problems and practical problems that involve all of the above
read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Year 6 programme of study:

read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
round any whole number to a required degree of accuracy
use negative numbers in context, and calculate intervals across zero
solve number and practical problems that involve all of the above.

ALGEBRA

express missing number problems algebraically
use simple formulae expressed in words
generate and describe linear number sequences
find pairs of numbers that satisfy number sentences involving two unknowns
enumerate all possibilities of combinations of two variables.