

Year 3

Place Value

- I can count from 0 in multiples of 4, 8, 50 and 100
- I can compare and order numbers up to 1000
- I can read and write numbers up to 1000 in numerals and in words
- I can identify, represent and estimate numbers using different representations
- I can recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

4 Operations

- I can estimate an answer
- I can use the inverse to check my calculations
- I can write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers,

Problem Solving

- I can solve number problems and practical problems that involve all of the above
- I can solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
- I can solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Vocabulary : Multiples, compare, numerals, represent, estimate, digit, hundreds, tens, ones, problems, reasoning, product, scale up,

Year 4

Place Value

- I can count backwards through zero to include negative numbers
- I can count in multiples of 6, 7, 9, 25 and 1000
- I can find 1000 more or less than a given number
- I can order and compare numbers beyond 1000
- I can 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
- I can identify, represent and estimate numbers using different representations
- I can recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)

4 Operations

- I can recognise and use factor pairs and commutativity in mental calculations

Rounding

- I can round any number to the nearest 10, 100 or 1 000

Problem Solving

- I can solve number problems and practical problems that involve all of the above
- I can solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why
- I can solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects

Vocabulary : Backwards, negative, multiples, more than, less than, order, compare, roman numerals, decimal point, decimal place, estimate, round, whole number, problems, tenths, hundredths, integer, in-

Progression in Mathematics at Banks Lane Junior School—Number and Place Value and 4 Operations

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions



Year 6

Place Value

- I can use negative numbers in context, and calculate intervals across zero
- I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit

Rounding

- I can round any whole number to a required degree of accuracy

4 Operations

- I can identify common factors, common multiples and prime numbers

- I can estimate to check my calculations

Problem Solving

- I can solve number problems and practical problems that involve all of the above
- I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- I can solve problems involving addition, subtraction, multiplication and division
- I can divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

Vocabulary: Positive, negative, forwards, backwards, order, compare, numeral, thousandths, tenths, hundredths, round, degree of accuracy, decimal places, whole number, place holder, reasoning, million, BODMAS, common factor, common multiple.

Year 5

Place Value

- I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- I can count forwards or backwards in steps of powers of 10 for any given number up to 1000 000
- I can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals

Rounding

- I can round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000

4 Operations

- I can use my knowledge of rounding to estimate answers
- I can use the inverse to check my calculations
- I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers

Problem Solving

- I can solve number problems and practical problems that involve all of the above
- I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- I can solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
- I can divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context

Vocabulary: Positive, negative, forwards, backwards, order, compare, numeral, thousandths, tenths, hundredths, round, decimal places, whole number, place holder, reasoning, efficiency, factor pairs, composite, prime, square, cubed