Year 4





Numbers to 10 000

We will embed our understanding of number by counting to 10 000 in multiples of 25, 100 and 1000. We will develop our understanding of place value by using concrete apparatus to represent numbers. We will compare and order 4 digit numbers and learn to create and interpret number patterns by using our knowledge of place value. We will learn to round numbers to the nearest 10, 100 and 1000 and use this knowledge to estimate numbers. We will begin to understand that numbers less than one exist.

Addition and Subtraction within 10 000

We will learn to add and subtract with numbers up to 10 000. We will learn mental methods and column methods for addition and subtraction. We will be encouraged to think about when is the most appropriate time to use each method. We will use the methods taught to solve word problems: visualising the problems using the bar model.

Autumn Term 1 Autumn Term 2

> **Multiplication and Division** We will learn how to multiply and divide by 6, 7, 9, 11 and 12. We will begin to understand mathematical vocabulary such as 'quotient' in relation to division. We will learn how to calculate multiplication equations using the multiplication facts that we know. We will understand the difference between sharing and grouping and we will understand the commutative law in multiplication. We will also solve problems involving multiplication and division.

Further Multiplication and Division

We will further develop our understanding of multiplication and division. We will learn how to divide and multiply by 1 and 0 and understand the law of commutativity. We will learn how to multiply three numbers together using our knowledge of multiplication tables. We will use our tables and knowledge of place value to multiply multiples of ten leading to the multiplication of 2-digit numbers using short multiplication. We will use our knowledge of multiplying multiples of ten when multiplying multiples of 100 leading to multiplying 3-digit numbers using short multiplication.

Spring Term 1

Completion of Further Multiplication and Division We will learn more about

division and will divide 2-digit numbers using chunking and short division: this includes numbers with remainders. We will learn to solve multiplication and division problems using the methods we have learned and will use the bar model to help visualise what the problem is asking us to do.

Graphs

We will learn how to interpret picture graphs and bar graphs. We will be introduced to line graphs and how they are used to measure change over time. We will interpret line graphs and use information collated in a table to draw a line graph. We will learn to make predictions based on trends identified in data.

Fractions

We will be using concrete apparatus to learn about mixed number fractions and improper fractions. We will learn about hundredths using concrete apparatus. We will learn how to convert between mixed numbers and improper fractions. We will learn how to add and subtract fractions and we will solve addition and subtraction word problems.

Spring Term 2 Time

We will embed our learning about the 24-hour clock. We will learn how to convert between the 12-hour clock and the 24-hour clock. We will learn to convert between units of time, such as minutes and seconds, and hours and minutes. We will learn how to solve time problems involving conversions and calculating durations of time.

Decimals

We will be learning how to count, order and record the decimals in different ways. We will begin to understand the equivalence between tenths and hundredths and will be able to compare and order the numbers. We will learn to create number sequences using decimals as well as rounding decimals to the nearest whole number. We will explore the link between tenths and hundredths and dividing by 10 and 100.

Summer Term 1 Money

We will be learning how to count and record in pounds and pence. We will make links between tenths and hundredths and decimal notation for money. We will learn how to compare amounts of money by looking at significant digits and by converting amounts from pounds to pence and vice versa. We will learn how to round money to the nearest pound and we will understand contexts in which this would be a useful skill to know, like estimating. We will apply our learning to problem solving - finding totals and calculating change. We will be suing the bar model to visualise money problem. We will begin to explore unequal sharing in the context of money.

Mass, Volume and Length

We will be learning how to estimate and measure mass, volume and length. We be learning how to convert units of measure from larger to smaller and vice versa. We will embed our understanding of measuring perimeter using cm and mm. We will solve problems involving mass, volume and length.

Area of Figures

We understand the concept of area by measuring surface coverage: i.e. counting squares before measuring area by using multiplication. We will find areas of figures that have squares and rectangles by counting and visualising. We will learn how to apply our knowledge of finding area of figures in different orientations.

Summer Term 2 Geometry

We be learning to name and compare angles and use this information to help us when classifying triangles and quadrilaterals. We will explore symmetry and symmetrical figures before applying this knowledge to the completion of symmetrical figures. We will draw lines of symmetry on shapes and figures and will combine this knowledge and understanding to sort a variety of 2-D shapes.

Position and Movement

We will be learning how to describe the positions of objects and figures. We will understand how we can describe positions on grids using coordinates. We will be introduced to the x and y axes and how coordinates are written. We will learn how to translate shapes using the language of 'left', 'right', 'upwards' and 'downwards' and will use coordinates to describe a figure following a translation.

Roman Numerals

We will learn to write the Roman numerals to 100. exploring the patterns involved and exploring other concepts of number whilst learning about this number system.