Year 2 Long-term planning

Number and place value

● Using materials and a range of representations, children should practise counting, reading, writing and comparing numbers to at least 100 and solving a variety of related problems to develop fluency. They should count in multiples of three to support their later understanding of a third.

● As they become more confident with numbers up to 100, children should be introduced to larger numbers to develop further their recognition of patterns within the number system and represent them in different ways, including spatial representations.

● Children should partition numbers in different ways to support subtraction. They become fluent and apply their knowledge of numbers to reason with, discuss and solve problems that emphasise the value of each digit in two-digit numbers. They begin to understand zero as a place holder.

Multiplication and division

● Children should use a variety of language to describe multiplication and division.

● Children should be introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.

● Children should work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, relating these to fractions and measures (e.g. 40 ÷ 2 = 20, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (e.g. 4 × 5 = 20 and 20 ÷ 5 = 4).

Measurement

● Children should use standard units of measurement with increasing accuracy, using their knowledge of the number system. They should use the appropriate language and record using standard abbreviations.

● They should become fluent in telling the time on analogue clocks and recording it.

● Children should also become fluent in counting and recognising coins. They should read and say amounts of money confidently and use the symbols £ and p accurately, recording pounds and pence separately.

Geometry: position and direction

● Children should work with patterns of shapes, including those in different orientations.

● Children should use the concept and language of angles to describe *turn* by applying rotations, including in practical contexts (e.g. children themselves moving in turns, giving instructions to other children to do so, and programming robots using instructions given in right angles).

Fractions

● Children should use additional fractions as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. They connect unit fractions to equal sharing and grouping, to numbers when they can be calculated, and to measures, finding fractions of lengths, quantity, a set of objects or shapes. They meet $\frac{3}{4}$ as the first example of a non-unit fraction.

● Children should count in fractions up to 10, starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line ($1\frac{1}{4}$, $1\frac{2}{4}$, (or $1\frac{1}{2}$), $1\frac{3}{4}$, 2). This reinforces the concept of fractions as numbers and that they can add up to more than one.

Addition and subtraction

● Children should extend their understanding of the language of addition and subtraction to include sum and difference.

● Children should practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using 3 + 7 = 10, 10 – 7 = 3 and 7 = 10 – 3 to calculate 30 + 70 = 100, 100 – 70 = 30 and 70 = 100 – 30. They should check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition (5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5). This establishes commutativity and associativity of addition.

● Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers.

Geometry: properties of shapes

● Children should handle and name a wider variety of common 2D and 3D shapes and identify the properties of each shape. Children identify, compare and sort shapes on the basis of their properties and use vocabulary precisely, such as sides, edges, vertices and faces.

● Children should read and write names for shapes that are appropriate for their word reading and spelling.

● Children should draw lines and shapes using a straight edge.

Statistics

● Children should record, interpret, collate, organise and compare information (e.g. using many-to-one correspondence with simple ratios 2, 5, 10).