Year 1 Mathematics programme of study (statutory requirements)

Number and place value	**Addition and subtraction**	**Multiplication and division**	**Fractions**	**Measurement**	**Geometry: properties of shapes**	**Geometry: position and direction**
Pupils should be taught to: ▪ 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	Pupils should be taught to: ▪ read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs ▪ represent and use number bonds and related subtraction facts within 20 ▪ add and subtract one-digit and two-digit numbers to 20, including zero ▪ solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9	Pupils should be taught to: ▪ solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	Pupils should be taught to: ▪ recognise, find and name a half as one of two equal parts of an object, shape or quantity ▪ recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Pupils should be taught to: ▪ compare, describe and solve practical problems for: - lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) - mass / weight (for example, heavy/light, heavier than, lighter than) - capacity and volume (full/empty, more than, less than, half, half full, quarter) - time (quicker, slower, earlier, later) ▪ measure and begin to record the following: - lengths and heights - mass/weight - capacity and volume - time (hours, minutes, seconds) ▪ recognise and know the value of different denominations of coins and notes ▪ sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) ▪ recognise and use language relating to dates, including days of the week, weeks, months and years • tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	Pupils should be taught to: ▪ recognise and name common 2-D and 3-D shapes, including: - 2-D shapes [for example, rectangles (including squares), circles and triangles] - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	Pupils should be taught to: ▪ describe position, direction and movement, including whole, half, quarter and three-quarter turns

Y1 notes and Guidance (non-statutory)

Number and place value	**Addition and subtraction**	**Multiplication and division**	**Fractions**	**Measurement**	**Geometry: properties of shapes**	**Geometry: position and direction**
Pupils practise counting (1, 2, 3…), ordering (for example, first, second, third…), or to indicate a quantity (for example, 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent. Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations. They practise counting as reciting numbers and counting as enumerating objects, and counting in twos, fives and tens from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers), including varied and frequent practice through increasingly complex questions. They recognise and create repeating patterns with objects and with shapes.	Pupils memorise and reason with number bonds to 10 and 20 in several forms (for example, 9 + 7 = 16; 16 - 7 = 9; 7 = 16 - 9). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations. Pupils combine and increase numbers, counting forwards and backwards. They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.	Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities. They make connections between arrays, number patterns, and counting in twos, fives and tens.	Pupils are taught half and quarter as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could recognise and find half a length, quantity, set of objects or shape. Pupils connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.	The pairs of terms: mass and weight, volume and capacity, are used interchangeably at this stage. Pupils move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units. In order to become familiar with standard measures, pupils begin to use measuring tools such as a ruler, weighing scales and containers. Pupils use the language of time, including telling the time throughout the day, first using o'clock and then half past.	Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other.	Pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside. Pupils make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face.

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