

Mathematics Key Learning Areas For Every Year Group – Number

Y	Number & Place Value	Addition & Subtraction	Multiplication & Division	Fractions	Ratio & Proportion / Algebra
1	<ul style="list-style-type: none"> 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 2, 5, 10. Given a number, identify one more and one less. 	<ul style="list-style-type: none"> Represent and use number bonds and related subtraction facts within 20. 		<ul style="list-style-type: none"> Recognise, find and name a half as one of two equal parts of an object, shape or quantity. 	
2	<ul style="list-style-type: none"> Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. Compare and order numbers from 0 up to 100; use <, > and = signs. Use place value and number facts to solve problems. 	<ul style="list-style-type: none"> Solve problems with addition and subtraction: <ul style="list-style-type: none"> Using concrete objects and pictorial representations, including those involving numbers, quantities and measures. Applying their increasing knowledge of mental and written methods. Recall and use addition and subtraction facts fluently up to 20. 	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. 	<ul style="list-style-type: none"> Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity. 	
3	<ul style="list-style-type: none"> 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). Solve number problems and practical problems involving these ideas. 	<p><i>Add and subtract numbers mentally, including:</i></p> <ul style="list-style-type: none"> a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds. 	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the multiplication tables 3; 4; and 8. 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, using mental and progressing to formal written methods. 	<ul style="list-style-type: none"> Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise and show, using diagrams, equivalent fractions with small denominators. 	
4	<ul style="list-style-type: none"> 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. Order and compare numbers beyond 1000. Round any number to the nearest 10, 100 or 1000. 	<ul style="list-style-type: none"> Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 	<ul style="list-style-type: none"> Recall multiplication and division facts for multiplication tables up to 12×12. 	<ul style="list-style-type: none"> Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Round decimals with one decimal place to the nearest whole number. Solve simple measure and money problems involving fractions and decimals to two decimal places. 	
5	<ul style="list-style-type: none"> Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. 	<ul style="list-style-type: none"> Add and subtract whole numbers with more than 4 digits. Add and subtract numbers mentally with increasingly large numbers, eg, $12\,462 - 2300 = 10\,162$ 	<ul style="list-style-type: none"> Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. 	<ul style="list-style-type: none"> Compare and order fractions whose denominators are all multiples of the same number. Read and write decimal numbers as fractions. Read, write, order and compare numbers with up to three decimal places. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25. 	
6	<ul style="list-style-type: none"> Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. 	<ul style="list-style-type: none"> Multiply multi-digit numbers up to 4 digits by a two-digit whole number. Divide numbers up to 4 digits by a two-digit number and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. 		<ul style="list-style-type: none"> Use written division methods in cases where the answer has up to two decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 	<ul style="list-style-type: none"> Solve problems involving the calculation of percentages, eg, 15% of 360, and the use of percentages for comparison. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. Algebra: Use simple formulae.

No National Curriculum statements for this year group in this section

Mathematics KPIs for Measurement, Geometry and Statistics

Y	Measurement	Geometry		Statistics
		Properties of Shape	Position & Direction	
1	<p><i>Compare, describe and solve practical problems for:</i></p> <ul style="list-style-type: none"> ❖ lengths and heights; ❖ mass/weight; ❖ capacity and volume; ❖ time. <p>❖ Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</p>	<p><i>Recognise and name common 2-D and 3-D shapes, including:</i></p> <ul style="list-style-type: none"> ❖ 2-D shapes ❖ 3-D shapes 		
2	<ul style="list-style-type: none"> ❖ Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. 	<ul style="list-style-type: none"> ❖ Compare and sort common 2-D and 3-D shapes and everyday objects. 	<ul style="list-style-type: none"> ❖ Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise). 	<ul style="list-style-type: none"> ❖ Ask and answer questions about totalling and comparing categorical data.
3	<p><i>Measure, compare, add and subtract:</i></p> <ul style="list-style-type: none"> ❖ lengths (m/cm/mm); ❖ mass (kg/g); ❖ volume/capacity (l/ml). <p>❖ Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p> <p>❖ Tell and write the time from an analogue clock and 12-hour and 24-hour clocks.</p>	<ul style="list-style-type: none"> ❖ Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. 		<ul style="list-style-type: none"> ❖ Interpret and present data using bar charts, pictograms and tables.
4	<ul style="list-style-type: none"> ❖ Convert between different units of measure. 	<ul style="list-style-type: none"> ❖ Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. ❖ Identify acute and obtuse angles and compare and order angles up to two right angles by size. ❖ Identify lines of symmetry in 2-D shapes presented in different orientations. 	<ul style="list-style-type: none"> ❖ Plot specified points and draw sides to complete a given polygon. 	<ul style="list-style-type: none"> ❖ Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
5	<ul style="list-style-type: none"> ❖ Convert between different units of metric measure. ❖ Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres ❖ Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²). 	<ul style="list-style-type: none"> ❖ Draw given angles, and measure them in degrees (°). 		<ul style="list-style-type: none"> ❖ Complete, read and interpret information in tables, including timetables.
6	<ul style="list-style-type: none"> ❖ Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. 	<ul style="list-style-type: none"> ❖ Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. 	<ul style="list-style-type: none"> ❖ Describe positions on the full coordinate grid (all four quadrants). 	<ul style="list-style-type: none"> ❖ Interpret pie charts and line graphs and use these to solve problems. ❖ Calculate and interpret the mean as an average.

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