

Year 5 and Year 6 Overview Map

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Four Operations					Number: Fractions				
Spring	Number: Decimals and Percentages			Y5: Number: Decimals	Measurement: Converting Units	Measurement: Perimeter, Area and Volume			Y5: Consolidation	Statistics		
				Y6: Number: Algebra					Y6: Number: Ratio			
Summer	Geometry: Properties of Shape		Geometry: Position and Direction	Y6: SATS		Investigations and Consolidation						

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Unit	Main strand objectives	Linked objectives and other aspects of maths to explore within each strand
Y5 Place Value	<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 • Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • Solve number problems and practical problems that involve all of the above • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. 	<ul style="list-style-type: none"> • Partition numbers into 10000, 1000s, 100s, 10s , and 1s and multiples of 10000, 1000s, 100s,10s and 1s • Partition decimals into 1s,1/10s and 100ths • Use <,>signs • Round units of measure to nearest 10,100 or 1000, 100000, 100000 • Interpret and present data using bar charts, pictograms and tables – 6,7,9,25 and 1000 • Recall and use multiplication and division facts for all times tables multiplication tables • Compare units of measure linked to conversion e.g. 6m > 5000mm • Powers of 10 – square and cubed numbers • Read and write decimal numbers as fractions • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Round decimals with two decimal places to the nearest whole number and to one decimal place • Read, write, order and compare numbers with up to three decimal places • Solve problems involving number up to three decimal places • Compare and order fractions whose denominators are all multiples of the same number • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Read Roman Numerals on clocks and in other contexts (History link)
Y6 Place Value	<ul style="list-style-type: none"> • Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • Round any whole number to a required degree of accuracy • Use negative numbers in context, and calculate intervals across zero <p>Solve number and practical problems that involve all of the above.</p>	<p>Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</p> <ul style="list-style-type: none"> • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Partition decimals into 1/10ths,1/100ths,1/1000ths and multiples of these • Round decimals to 1,2 decimal places and to 10,100,100,1000 etc • Compare and order fractions, including fractions > 1 • All through range of measures as well as just numbers • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

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<p>Y5 Addition and Subtraction</p>	<ul style="list-style-type: none"> ● Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) ● Add and subtract numbers mentally with increasingly large numbers ● Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy ● Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. 	<ul style="list-style-type: none"> ● Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. ● Solve comparison, sum and difference problems using information presented in a line graph ● Complete, read and interpret information in tables, including timetables. ● Calculate the perimeter of composite rectilinear shapes in centimetres and metres ● Solve problems involving number up to three decimal places
<p>Y6 Addition and subtraction</p>	<ul style="list-style-type: none"> ● Perform mental calculations, including with mixed operations and large numbers ● Use their knowledge of the order of operations to carry out calculations involving the four operations ● Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why ● Solve problems involving addition, subtraction, multiplication and division ● 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"> ● All through range of measures ● Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate ● Perimeter ● Interpret and construct pie charts and line graphs and use these to solve problems

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<p>Y5 X and Division</p>	<ul style="list-style-type: none"> • Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Multiply and divide numbers mentally drawing upon known facts • 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 • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. 	<ul style="list-style-type: none"> • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. • Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables, including timetables • Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes • Solve problems involving number up to three decimal places
<p>Y6 X and division</p>	<ul style="list-style-type: none"> • Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • 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 • Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • Perform mental calculations, including with mixed operations and large numbers • Identify common factors, common multiples and prime numbers • Use their knowledge of the order of operations to carry out calculations involving the four operations • Solve problems involving addition, subtraction, multiplication and division • 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"> • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • Multiply simple pairs of proper fractions, writing the answer in its simplest form • Divide proper fractions by whole numbers • 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 • Associate a fraction with division and calculate decimal fraction equivalents • Area • Volume • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average.

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<p>Y5 Fractions</p>	<ul style="list-style-type: none"> • Compare and order fractions whose denominators are all multiples of the same number • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number • Add and subtract fractions with the same denominator and denominators that are multiples of the same number • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • Read and write decimal numbers as fractions • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Round decimals with two decimal places to the nearest whole number and to one decimal place • Read, write, order and compare numbers with up to three decimal places • Solve problems involving number up to three decimal places • Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal • 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. 	<ul style="list-style-type: none"> • Addition and subtraction • Multiplication and division • Compare the place value of decimals • Find fractions of shapes, objects and quantities • Link % to division by 100
<p>Y6 Fractions</p>	<ul style="list-style-type: none"> • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • Compare and order fractions, including fractions > 1 • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • Multiply simple pairs of proper fractions, writing the answer in its simplest form • Divide proper fractions by whole numbers • Associate a fraction with division and calculate decimal fraction equivalents • Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • Multiply one-digit numbers with up to two decimal places by whole numbers • 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"> • Place Value – ordering and comparing • 4 rules for fractions • 4 rules for decimals • Interpret and construct pie charts and line graphs and use these to solve problems
<p>Y6 Ratio and Prp</p>	<ul style="list-style-type: none"> • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison • Solve problems involving similar shapes where the scale factor is known or can be found 	<ul style="list-style-type: none"> • Multiplication and division • Area • Convert between miles and kilometres

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	<ul style="list-style-type: none"> Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. 	
Y5 Measure	<ul style="list-style-type: none"> Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints 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) and estimate the area of irregular shapes Estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] Solve problems involving converting between units of time Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. 	<ul style="list-style-type: none"> Conversion of all units of measure Link to x and division by 10, 100 and 1000 Link to multiplication for area Link to addition for perimeter Multiplication and cubed numbers for volume <p><i>Reinforce measure through Science</i></p>
Y6 Measure	<ul style="list-style-type: none"> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate 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 Convert between miles and kilometres Recognise that shapes with the same areas can have different perimeters and vice versa Recognise when it is possible to use formulae for area and volume of shapes Calculate the area of parallelograms and triangles Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³]. 	<ul style="list-style-type: none"> Multiplication and division by 10,100,1000 Ratio and proportion
Y6 Algebra	<ul style="list-style-type: none"> Use simple formulae Generate and describe linear number sequences Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables. Pupils should be introduced to the use of symbols and letters to represent variables and unknowns in mathematical situations that they already understand, such as: <ul style="list-style-type: none"> Missing numbers, lengths, coordinates and angles Formulae in mathematics and science Equivalent expressions (for example, $a + b = b + a$) Generalisations of number patterns Number puzzles (for example, what two numbers can add up to). 	<ul style="list-style-type: none"> Recognise when it is possible to use formulae for area and volume of shapes Calculate the area of parallelograms and triangles Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³]. Cubes ,primes ,multiples, factors Number sequences Empty boxes

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<p>Y5 Geometry</p>	<ul style="list-style-type: none"> •Identify 3-D shapes, including cubes and other cuboids, from 2-D representations •Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles •Draw given angles, and measure them in degrees (o) •Identify: angles at a point and one whole turn (total 360o) , □angles at a point on a straight line and a turn (total 180o), □other multiples of 90o •Use the properties of rectangles to deduce related facts and find missing lengths and angles •Distinguish between regular and irregular polygons based on reasoning about equal sides and angles •Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. 	<ul style="list-style-type: none"> ● Link with measures of length ● Use of protractor and ruler ● Conversion of units of length ● Link with area and perimeter <p style="text-align: center;"><i>Reinforce Geometry through Computing and Geography</i></p>
<p>Y6 Geometry</p>	<ul style="list-style-type: none"> ● Draw 2-D shapes using given dimensions and angles ● Recognise, describe and build simple 3-D shapes, including making nets ● Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons ● Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius ● Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. ● Describe positions on the full coordinate grid (all four quadrants) <p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p>	<ul style="list-style-type: none"> ● Use of mixed measures for length ● Use of protractor and compass ● Drawing pie charts <p style="text-align: center;"><i>Links to Geography, computing and Art</i></p>
<p>Y5 Statistics</p>	<ul style="list-style-type: none"> ● Solve comparison, sum and difference problems using information presented in a line graph ● Complete, read and interpret information in tables, including timetables. 	<ul style="list-style-type: none"> ● Addition and subtraction ● Multiplication and division ● Conversion of time
<p>Y6 Statistics</p>	<ul style="list-style-type: none"> ● Interpret and construct pie charts and line graphs and use these to solve problems ● Calculate and interpret the mean as an average. 	<ul style="list-style-type: none"> ● Fractions and % ● Multiplication and division ● Word problems 4 rules ● Link to Science and computing