

Year 4 and Year 5 Maths Curriculum Overview

T1	Place Value	Place Value	Place Value	Mental Addition and Subtraction	Addition and subtraction	Addition and subtraction	Mental Multiplication and division	Mental multiplication and division
Y4	<ul style="list-style-type: none"> Revise 3 digit numbers through contexts Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) Identify, represent and estimate numbers using different representations 	<ul style="list-style-type: none"> Order and compare numbers beyond 1000 Estimate, compare different measures, including money in pounds and pence Round any number to the nearest 10, 100 or 1000 Rounding within measure as above 	<ul style="list-style-type: none"> Find 1000 more or less than a given number Find multiples of 100 more or less than a given number Find 1000 more/less range of measures Find 25 more/less than any given number and in contexts 	<ul style="list-style-type: none"> Find 1000 more or less than a given number <p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> A four-digit number and ones A four-digit number and tens A four-digit number and hundreds A four-digit number and thousands 	<ul style="list-style-type: none"> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Estimate and use inverse operations to check answers to a calculation 	<ul style="list-style-type: none"> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Estimate and use inverse operations to check answers to a calculation Calculate different measures, including money in pounds and pence 	<ul style="list-style-type: none"> Revise counting in 2,3,4,5,6, 8,9 and 10 from any number forwards and backwards Count forwards and backwards in multiples of these e.g 30s, 300s etc Patterns and sequences Recall 2,3,4,5,6,8,9,10x tables and division facts Use known facts to solve problems outside of 12 x 4, 12x9,12 x6 	<ul style="list-style-type: none"> Count in multiples of 7,11 Count in multiples of 70s, 90s, 700s, 900s Link x 7 to days of week Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers Recognise and use factor pairs and commutativity in mental calculations
Y5	<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 Multiply and divide whole numbers by 10, 100 and 1000 Link with convert between different units of metric measure (for example, kilometre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) 	<ul style="list-style-type: none"> Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Read, write, order and compare numbers with up to three decimal places Multiply and divide decimals by 10, 100 and 1000 Link with convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) 	<ul style="list-style-type: none"> 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 problems mentally 	<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) 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. Include decimal addition and subtraction and measures problems 	<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) 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. Include decimal addition and subtraction and measures problems 	<p>Square/prime and cube numbers</p> <ul style="list-style-type: none"> 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 Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) 	<ul style="list-style-type: none"> Revise multiply 3 single digit numbers Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers Multiply and divide numbers mentally drawing upon known facts Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Link Cube numbers to volume 	<ul style="list-style-type: none"> 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 Solve problems involving multiplication including using their knowledge of factors and multiples, squares and cubes

T2	X and division	Geometry	Fractions	Fractions	Time	4 rules through Statistics	Assess and Review
Y4	<ul style="list-style-type: none"> Revise multiplying 3 single digit numbers Multiply 1 digit by 2 digit numbers (range of methods moving to formal method) Multiplication of 1 x 2 digit in context of money, other measures. Rules of commutativity of 1 x 2 digit numbers Estimation and checking of answers Empty box problems $? \times 24 = 48$ 	<ul style="list-style-type: none"> Identify acute and obtuse angles and compare and order angles up to two right angles by size Identify angles within triangles and quadrilaterals 	<ul style="list-style-type: none"> Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Compare and order unit and fractions within context and without Revise y3 equivalent fractions see above 	<ul style="list-style-type: none"> Add and subtract fractions with the same denominator Add and subtract equivalent fractions e.g. $2/4 + 1/2 =$ Fraction families such as $1/4 + 2/4 = 3/4$ so $3/4 - 1/2 = 2/4$ All possibilities if my answer is $4/5$ what could my calculations be 	<ul style="list-style-type: none"> Read, write and convert time between analogue and digital 12- and 24-hour clocks Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. 	<ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 	Gaps analysis for term 2 and review
Y5	<ul style="list-style-type: none"> Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) Areas of rectangles mixed units cm/mm etc Use the properties of rectangles to deduce related facts and find missing lengths 	<ul style="list-style-type: none"> Know angles are measured in degrees: estimate and compare acute, obtuse, and reflex angles Draw given angles, and measure them in degrees (°) Identify: angles at a point and one whole turn (total 360°) angles at a point on a straight line and a turn (total 180°), other multiples of 90° 	<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 Read and write decimal numbers as fractions Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number 	<ul style="list-style-type: none"> Add and subtract fractions with the same denominator and denominators that are multiples of the same number 	<ul style="list-style-type: none"> Revisit 12- and 24-hour clock and problem solving with timetables. Revise time conversion and facts Read and interpret tables and charts. 	<ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in a line graph. 	Gaps analysis for term 2 and review

T3	Place Value	Addition and Subtraction through Perimeter and length	Multiplication through area if mixed	Division	Division	Fractions
Y4	<ul style="list-style-type: none"> Count backwards through zero to include negative numbers Round any number to the nearest 10, 100 or 1000 Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to two decimal places Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. 	<ul style="list-style-type: none"> Convert between different units of measure [for example, kilometre to metre; hour to minute] Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Estimate and use inverse operations to check answers to a calculation 	<ul style="list-style-type: none"> Find the area of rectilinear shapes by counting squares Introduce area with arrays Introduce simple formula for rectangles for area. Investigate area v perimeter Link to factor pairs Scaling up and down problems 2 digit x 1 digit and introduce 1 x 3 digit using arrays 	<ul style="list-style-type: none"> Revise use of known facts for division Revise 2 digit ÷ 1 Introduce short division 3 digit by 1 digit without remainder Use of factor pairs for checking Estimation 	<ul style="list-style-type: none"> Estimate and use inverse operations to check answers to a calculation Problem solving with mixed measures for division problems 	<ul style="list-style-type: none"> Recognise and show, using diagrams, families of common equivalent fractions Recognise and write decimal equivalents of any number of tenths or hundredth Recognise and write decimal equivalents to $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$
Y5	<ul style="list-style-type: none"> Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Solve number problems and practical problems that involve all of the above read Round decimals with two decimal places to the nearest whole number and to one decimal place 	<ul style="list-style-type: none"> Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) 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"> Revisit x of 4 by 1 in problem solving 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 	<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. Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) 	<ul style="list-style-type: none"> 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. 	

T4	Geometry	Geometry	Fractions and decimals	Fractions and Decimals	Multiplication	Assess and Review
Y4	<ul style="list-style-type: none"> Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes Revise angles Identify lines of symmetry in 2-D shapes presented in different orientations Complete a simple symmetric figure with respect to a specific line of symmetry. 	<ul style="list-style-type: none"> Describe positions on a 2-D grid as coordinates in the first quadrant Describe movements between positions as translations of a given unit to the left/right and up/down Plot specified points and draw sides to complete a given polygon. 	<ul style="list-style-type: none"> Revise equivalent fractions in context of measures Revise adding and subtracting through problems such as $\frac{5}{6}$ of 60 + $\frac{2}{8}$ of 56 = Problem solve comparing problems would you rather have $\frac{3}{8}$ of 80 or $\frac{2}{5}$ of 50 	<ul style="list-style-type: none"> Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Include fractions of shapes, fractions linked to measures Solve simple measure problems involving fractions and decimals to two decimal places. 	<ul style="list-style-type: none"> Revisit 1 x 3 digit multiplication Problem solving with 1 x 2 digit and 1 x 3 digit Checking answers by division 	Gaps analysis and review
Y5	<ul style="list-style-type: none"> Distinguish between regular and irregular polygons based on reasoning about equal sides and angles Use the properties of rectangles to deduce related facts and find missing lengths and angles 	<ul style="list-style-type: none"> Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. 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"> Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams 	<ul style="list-style-type: none"> Revisit and consolidate fractions through problem solving 	<ul style="list-style-type: none"> Problem solving with multiplication check using inverse 	Gaps analysis and review

T5	Statistics	Time	Addition and Subtraction	Multiplication and Division	Mass/Volume and Capacity
Y 4	<ul style="list-style-type: none"> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 	<ul style="list-style-type: none"> Read, write and convert time between analogue and digital 12- and 24-hour clocks Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. 	<ul style="list-style-type: none"> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Estimate and use inverse operations to check answers to a calculation Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 	<ul style="list-style-type: none"> Recognise and use factor pairs and commutativity in mental calculations Multiply two-digit and three-digit numbers by a one-digit number using formal written layout Division of a 3 digit number by 1 digit (include remainders) Know all timetables to 12 x 12 Division facts for up to 12 x 12 	<ul style="list-style-type: none"> Convert between different units of measure [for example, kilometre to metre; hour to minute] Read scales – link to place value Read decimal scales Estimate, compare and calculate different measures through problems Round mass and volume Solve simple measure problems involving fractions and decimals to two decimal places.
Y5	<ul style="list-style-type: none"> Read and interpret charts, tables and graphs. Problem solve with above. 	<ul style="list-style-type: none"> Complete, read and interpret information in tables, including timetables. Solve problems involving converting between units of time 	<ul style="list-style-type: none"> Find missing lengths and angles revision problems linked to area and perimeter Empty boxes in calculations 	<ul style="list-style-type: none"> Problem solve with x and division 	<ul style="list-style-type: none"> Estimate, compare and calculate different measures through problems Round mass and volume Solve simple measure problems involving fractions and decimals to three decimal places.

T6	Place Value	Calculation & Measures	Calculation & Measures	Fractions	Geometry	Transition x 3 weeks
Y4	Problem solving with place value and number properties	Problem solving with 4 rules applied to measures and missing boxes, known facts	Problem solving with 4 rules applied to measures and missing boxes, known facts	Problem solving with fractions,	Problem solving geometry	Y4 non negotiables for Y5, skill and application
Y5	Problem solving with place value and number properties	Problem solving with 4 rules applied to measures and missing boxes, known facts	Problem solving with 4 rules applied to measures and missing boxes, known facts	Problem solving with fractions,	Problem solving geometry	Y5 non negotiables for Y6, skill and application