

YEAR 3 MATHEMATICS CURRICULUM FRAMEWORK

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Number and Place Value	<p>Add and subtract fractions with the same denominator within one whole.</p> <p>Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s).</p>	<p>Understand 2- and 3-digit numbers; find 1, 10 or 100 more or less than a given number without difficulty.</p> <p>Round numbers to the nearest 10 and 100, using a number line.</p> <p>Identify, represent and estimate numbers using different representations including a number line.</p> <p>Multiply and divide by 10 (whole-number answers).</p> <p>Count from 0, in steps of 10, 50 and 100, and find 10 or 100 more or less than a given number; spot patterns in both systems to solve problems.</p> <p>Begin to compare and order numbers up to 1000, using < and > signs.</p> <p>Work systematically and make generalisations.</p>	<p>Count from 0 in multiples of 4, 8, 10, 50 and 100; find 10 or 100 more or less than a given number.</p> <p>Compare and order numbers up to 1000, using < and > signs.</p> <p>Solve number problems and practical problems involving these ideas.</p>
Addition and Subtraction	<p>Recall or quickly find multiples of 5 bonds to 100.</p> <p>Use number bonds and number patterns to add and subtract 1-digit numbers from 2-digit numbers.</p> <p>Add several numbers, spotting doubles and bonds.</p> <p>Add and subtract multiples and near multiples of 10 by counting on and back or by using number facts and place value.</p> <p>Work systematically, using logical reasoning and deduction, to find number pairs that total a 2-digit number.</p> <p>Spot patterns to add any pair of 2-digit numbers, choosing an appropriate strategy, for example using bonds.</p> <p>Use knowledge of bonds to add to the next multiple of 10 and then on to 100.</p> <p>Begin to derive pairs of numbers that total 100.</p>	<p>Find pairs with a total of 100 or a maximum total of £1.00.</p> <p>Add numbers mentally, including 2-digit and 3-digit numbers.</p> <p>Subtract 2-digit numbers from 3-digit numbers, and begin to subtract 3-digit numbers from 3-digit numbers, using counting up and by looking for patterns in the digits.</p> <p>Count up to find change from £5 and £10 (multiples of 5p).</p> <p>Solve simple word problems using addition or subtraction.</p> <p>Begin to add numbers with up to 3 digits, using formal written methods of columnar addition (1s greater than 10s or 10s greater than 100s).</p> <p>Investigate patterns when adding numbers, estimate the answer to a calculation and begin to use a systematic approach, including using inverse operations, to check answers.</p>	<p>Subtract a 2-digit or 3-digit number using place value.</p> <p>Find change from £10 and begin to find change from £20.</p> <p>Subtract numbers with up to 3 digits by counting up (difference less than 100); work systematically to find possibilities and begin to explain mathematical patterns</p> <p>Estimate the answer to a calculation and use inverse operations to check answers (use addition to check subtraction).</p> <p>Use number facts to add and subtract numbers mentally, including a 3-digit number and 1s, a 3-digit number and 10s, and a 3-digit number and 100s, and explain their methods.</p> <p>Choose an appropriate strategy (mental or written) to solve addition of 3-digit numbers.</p> <p>Add numbers with up to 3 digits using column addition and using reasoning and trial and improvement.</p> <p>Use reasoning skills to invent appropriate addition questions.</p>
Multiplication and division	<p>Recall doubles of numbers 1 to 20, derive the related halves and apply reasoning skills to choose numbers that will give the longest halving chains.</p> <p>Double 2-digit numbers to 50 and halve 2-digit numbers up to</p>	<p>Understand the relationship between doubling and halving.</p> <p>Recall and use multiplication and division facts for the 2, 3, 4, 5 and 10 multiplication tables.</p> <p>Multiply 2-digit numbers by 4 by doubling twice, and divide 2-</p>	<p>Recall and use multiplication and division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables.</p> <p>Understand the relationship between multiplication and division.</p>

	<p>100.</p> <p>Recall and use multiplication and division facts for the 2, 3, 4, 5 and 10 multiplication tables.</p> <p>Understand that division is the inverse of multiplication.</p> <p>Understand that a remainder is the amount left over after a division and begin to understand the patterns of remainders.</p> <p>Use commutativity to find multiplication facts using known facts.</p>	<p>digit numbers by 4 by halving twice (whole-number answers).</p> <p>Solve problems, including missing number problems, involving multiplication and division.</p> <p>Double numbers, and halve even numbers, up to 100 by partitioning.</p> <p>Multiply numbers between 10 and 25</p> <p>Multiply and divide multiples of 10 by 3, 4 and 5 (with no remainders).</p> <p>Begin to use the grid method to multiply 2-digit numbers from 10 to 25 by 1-digit numbers.</p>	<p>Write and calculate mathematical statements for multiplication using multiplication tables, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods, for example using grid methods to multiply 2-digit numbers by 3, 4, 5, and 8.</p> <p>Begin to make generalisations and solve problems, including missing number problems and word problems, involving 2-digit by 1-digit multiplication or division.</p> <p>Solve positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p> <p>Write and calculate mathematical statements for division using the multiplication tables that they know, using mental and progressing to formal written methods, for example divide by 3, 4, 5, 8 with and without remainders (answers less than 20).</p> <p>Divide numbers just beyond the range of known table facts by subtracting 10 times the divisor.</p>
Fractions	<p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators, e.g. $\frac{1}{2}$, $\frac{1}{3}$s and $\frac{1}{4}$s of multiples of 2, 3 and 4, using visual representations.</p> <p>Understand fractions as parts of a whole and compare unit fractions.</p> <p>Understand that a fraction is an equal part of a whole and that a unit fraction is one part and a non-unit fraction is several parts.</p> <p>Look for patterns, make predictions and begin to see the relationship between finding fractions of amounts and division.</p>	<p>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators, e.g. identify $\frac{1}{2}$s, $\frac{1}{3}$s, $\frac{1}{4}$s, $\frac{1}{5}$s, $\frac{1}{6}$s and $\frac{1}{8}$s, and say how many are needed to make a whole.</p> <p>Mark and identify simple fractions on 0 to 1 lines.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators, for example $\frac{1}{2}$s, $\frac{1}{3}$s, $\frac{1}{4}$s, and $\frac{1}{5}$s of amounts (whole number answers only).</p> <p>Recognise and show, using diagrams, equivalent fractions with small denominators.</p>	<p>Add and subtract fractions with the same denominator within one whole.</p> <p>Compare and order unit fractions, and fractions with the same denominators.</p> <p>Solve problems with fractions that involve all of the above.</p> <p>Recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10.</p>
Measures	<p>Tell and write the time to the nearest 5 minutes from an analogue or digital clock, including using Roman numerals from I to XII.</p> <p>Know the number of days in each month, year and leap year and use this to try different approaches and find ways of overcoming difficulties.</p> <p>Solve number and practical problems using place value to add and subtract amounts of money.</p> <p>Measure and compare lengths;</p>	<p>Tell and write the time to the nearest minute from an analogue clock, including using Roman Numerals from I to XII, or a digital clock.</p> <p>Calculate time intervals and compare durations of events.</p> <p>Begin to measure the perimeter of simple 2D shapes.</p> <p>Know the number of seconds in a minute.</p>	<p>Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p> <p>Measure the perimeter of simple 2D shapes.</p> <p>Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight.</p> <p>Tell and write the time from 12-hour and 24-hour clocks.</p>

Geometry	<p>Draw and make 3D shapes using modelling materials.</p> <p>Recognise 3D shapes in different orientations and describe them.</p>	<p>Identify and draw 2D shapes, and describe their properties.</p> <p>Identify right angles, recognise that 2 right angles make a half turn, 3 make $\frac{3}{4}$ of a turn and 4 complete a turn; identify whether angles are greater than or less than a right angle.</p>	<p>Recognise angles as a property of shape or a description of a turn.</p> <p>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p>
Statistics			<p>Interpret and present data using bar charts, pictograms and tables.</p> <p>Solve 1-step and 2-step questions (for example, 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables.</p>