

## Curriculum Map for Maths

	<b>Autumn</b>		<b>Spring</b>		<b>Summer</b>	
<b>Reception</b>	2D shapes Ordering familiar events Patterns Counting and ordering numbers to 0-5 1-1 correspondence 0-5 counting on and back 0-5	0-10 ordering 1-1 correspondence 0-10 subitising to 10 1 more 1 less to 10 Counting verbally and sequencing beyond 10 Counting on and back 0-10 Adding & subtracting two single digit numbers, counting on and back. Orders items by height, length and weight.	Counting, ordering and understanding concepts of numbers 11- 20. 1 more and 1 less to 10 3D shape Start counting in tens Writing and recognizing words of numbers to ten Subitising to 10.	Start counting in fives Start counting in 2's Recap adding and subtracting to ten Adding and subtracting amounts of coins to 10	Children to use language to talk about size, weight, capacity, position, distance, time and money to compare quantities and solve problems. Word problems. Time- days of the week, months, time in the day.	Solve problems including doubling, halving and sharing. Measure short periods of time. Solve problems with money.  Number names to 20
<b>Year 1</b>	<b><u>Number and Place Value (Within 20)</u></b> Count in 1s Read numbers in numerals and words Identify one more and one less than a number. Solve addition problems to 10. Know number bonds to 10. Count on and back in 10s.	<b><u>Number and place value</u></b> Adding more than 1. Subtracting more than 1 Fact Families Comparing numbers. Ordering numbers.	<b><u>Geometry and Measures</u></b> To recognise 2d shapes To recognise 3d shapes. Name 2d shapes Name 3d shapes To recognise patterns. <b><u>Place value (within 50)</u></b> Recognise and order numbers within 50. Count in 2's 5's and 10's	<b><u>Measurement</u></b> Measure length Add and subtract length  Measure mass Add and subtract mass  Measure capacity Compare capacity.	<b><u>Multiplication and division</u></b> Make equal groups Make arrays Sharing between equal groups Grouping equal groups <b><u>Fractions</u></b> Make a half. Find a half Make a quarter Find a quarter.	<b><u>Measurement Money</u></b> Count and recognise coins and notes Adding and subtracting money <b><u>Time</u></b> Before and after Dates Time to the hour
<b>Year 2</b>	<b><u>Number / Place Value</u></b> * count in steps of 2, 3 and 5 from 0 and in 10s from any number *compare and order numbers from 0-100 using $\leq$ and $=$ sign *read and write numbers to 100 in numerals and words * recognize the place value of each digit in a 2-digit number *identify, represent and estimate numbers using different representations, including the number line	<b><u>Addition and Subtraction</u></b> *Fact families: addition and subtraction bonds to 20. *Add and subtract 1s *Add and subtract 10s *10 more and 10 less *Add two 2-digit numbers not crossing ten and crossing ten. *Subtract two 2-digit numbers not crossing ten and crossing ten. *Bonds to 100 (tens and ones) *Add three 1-digit numbers.	<b><u>Multiplication and Division</u></b> *Recognise equal and unequal groups *Multiplication sentences using the x symbol, pictures and arrays. *Multiply by 2, 5 and 10 *Make equal groups by sharing and grouping *Divide by 2,5 and 10 *Odd and even numbers. <b><u>Statistics</u></b> *Interpret and construct simple pictograms, tally charts, block diagrams and	<b><u>Geometry: Properties of Shape</u></b> *Describe and compare properties of 2D shapes including line of symmetry *Count faces, edges and vertices on 3D shapes *Sort 2D and 3D shapes. . *Draw 2D and 3D shapes. *order and arrange 2D and 3D in patterns and sequences <b><u>Fractions</u></b> *Recognise and find one half, one quarter and one third.	<b><u>Number</u></b> *Recap on the 4 operations solve and solve number problems. *problem solving skills: - 2 step word problems. - missing number sentences <b><u>Measurement: Length and Height</u></b> *Compare lengths and heights *Measure lengths in cm and m. *Order lengths *4 operations with lengths.	<b><u>Number</u></b> *recap on the 4 operations and mathematical skills covered throughout the year *address any gaps in children's learning *extend problem solving and reasoning skills.  <b><u>Measurement: Time</u></b> *Telling the time to the hour and to half an hour. *Recognise O'Clock and half past.

	<p><b>Addition / Subtraction</b>  *solve problems with addition and subtraction:  - using concrete objects and pictorial representations, including those involving numbers, quantities and measures  - using a 100 square to add and subtract 2-digit numbers  - applying mental methods when adding tens or ones</p>	<p><b>Measurement: Money</b>  *count money: pence, pounds, notes and coins.  *Make the same amount.  *Find the total  *Find the difference  *Calculate change</p>	<p>simple tables and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.  *Ask and answer questions about totalling and comparing data</p>	<p>*Identify unity and non-unit fractions.  *Recognise the equivalence of one half and two quarters.  *Count in fractions</p>	<p><b>Geometry: Position and Direction</b>  *Describe position  *Describe movement and turns  *Make patterns with shapes</p>	<p>*Recognise quarter past and quarter to.  *Telling the time to 5 mins.  *Compare durations of time including days, hours and minutes.  <b>Measurement:</b>  *Measure and compare mass.  *Measure in grams and kgs.  *Measure capacity and volume.  *Measure in mls and litres.</p>
<b>Year 3</b>	<p><b>Number and Place Value</b>  Multiplication  Division  Number facts  Number pairs  <b>Shape</b>  2D Shapes  3D shapes  Shape: polygons and triangles Length  Area</p>	<p><b>Data:</b> frequency tables, pictograms  <b>Number and Place Value</b>  Addition and subtraction  Multiples  Multiplication and division  Fractions  Equivalent fractions  <b>Measurement</b>  Time in seconds</p>	<p><b>Number and Place Value</b>  Ordering  Odds and evens  Positive and negative numbers  Doubling and halving  Doubling and halving multiples  <b>Shape</b> Symmetry  <b>Measurement</b>  Capacity and Time</p>	<p><b>Shape</b>  Perimeter  <b>Data:</b> bar graphs  <b>Number and Place Value</b>  Addition  Subtraction  Addition: written methods  Multiplication and division: 6's and 8's  Ordering fractions</p>	<p><b>Number and Place Value</b>  Rounding  Multiplication and division  Subtraction by counting on  <b>Shape</b>  Direction  Angle  Co-ordinates  <b>Measurement</b>  Weight</p>	<p><b>Measurement</b>  Time  <b>Data:</b> Carroll and Venn Diagrams  <b>Number and Place Value</b>  Addition  Subtraction  Multiplication and division  Multiplication problems  Fractions  Fractions and decimals</p>
<b>Year 4</b>	<p><b>Number and Place Value</b>  Find 1000 more or less than a given number.  Recognise the place value of each digit in a four digit number  Order and compare numbers beyond 1000  Identify, represent and estimate numbers.  Round any number to the nearest 10, 100 or 1000  Solve number and practical problems that involve all of the above and with increasingly large positive numbers.  Count backwards through</p>	<p><b>Measurement</b>  Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres  Convert between different units of measure  Read, write and convert time between analogue and digital 12- and 24-hour clock  <b>Multiplication and Division</b>  Recall and use multiplication and division facts for multiplication tables up to 12 x 12.  Count in multiples of 6, 7, 9, 25 and 1000  Use place value, known and derived facts to multiply and</p>	<p><b>Shape</b>  Compare and classify 2D shapes including quadrilaterals and triangles  Lines of symmetry  <b>Properties of Shapes</b>  Identifying the properties of 3D shapes  Visualising 3D shapes  Identifying acute and obtuse angles and ordering angles by size  <b>Fractions</b>  Organise and show, using diagrams, families of common equivalent fractions</p>	<p><b>Position and Direction</b>  Describe coordinates on a 2D grid as coordinates in the first quadrant.  Translations of shapes  <b>Measurement</b>  Write and convert units of time (analogue and digital) solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days  Simple measure and money problems involving numbers with two decimal places.  Converting between different units of measurement (km to m, hour to minute etc)</p>	<p><b>Number and Place value</b>  Count in multiples of 6,7,9,25,50 and 1000  Known and derived number facts to multiply and divide mentally  To multiply 2 and 3 digit numbers by 1 digit using a formal written method  Division (Chunking method)  Word problems using the 4 operations  <b>Fractions</b>  Counting up and down in tenths and hundredths  Writing decimal equivalents of tenths and hundredths</p>	<p><b>Fractions</b>  Revising:  Ordering of fractions  Equivalent fractions  Fractions to decimals  Problems involving decimal fractions  <b>Number and Place Value (5/6 digits)</b>  Addition/ subtraction  Knowing all the times tables up to 12 x 12  Multiplication and division (Column methods)  Multiplying 3 numbers  Solving two step word problems</p>

	<p>zero to include negative numbers. Roman numerals to 100. <b>Addition Subtraction</b> Add and subtract numbers with up to 4 digits using the formal written methods of addition and subtraction 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.</p>	<p>divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</p>	<p>Adding and subtracting fractions with the same common denominator. Finding fractions of amounts Mixed fractions <b>Data</b> Collecting/ interpreting data (bar graph/ pictogram) Interpreting and presenting discrete and continuous data using appropriate graphical methods, including bar charts, time graphs.</p>	<p>Solving problems involving converting units of measurement</p>	<p>Decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{3}{4}</math> Comparing and ordering decimals Rounding decimals to a whole number.</p>	<p>Rounding whole numbers and decimals</p>
<b>Year 5</b>	<p><b>Number: Place Value:</b> 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.</p>	<p><b>Number: Multiplication and Division:</b> Multiply and divide numbers mentally drawing upon known facts 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 numbers Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) Establish whether a number up to 100 is prime and recall prime numbers up to 19 Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</p>	<p><b>Number: Multiplication and Division:</b> Multiply and divide numbers mentally drawing upon known facts 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 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 Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p>	<p><b>Number: Fractions:</b> 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 Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. <b>Fractions: Decimals and Percentages:</b> Read, write, order and compare numbers with up to 3 decimal places Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Round decimals with 2 decimal places to the nearest</p>	<p><b>Number: Decimals:</b> Solve problems involving number up to 3 decimal places Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 Use all four operations to solve problems involving measure (e.g. length, mass, volume and money) including decimal scaling <b>Geometry:</b> Properties of Shape 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 the following::</p>	<p><b>Geometry: Position and Direction:</b> 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. <b>Measurements:</b> Converting Units: Convert between different units of metric measure (for example km, m, ,cm, mm, g, kg, l, ml) Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints Solve problems involving converting between units of time Volume: Estimate volume and capacity</p>

				<p>whole number and to 1 decimal place Solve problems involving number up to 3 decimal places Recognise the symbol (%) and understand that per cent relates to “number of parts per 100”, and write percentages as a fraction with denominator 100, and as a decimal fraction Solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and fractions with a denominator of a multiple of 10 or 25.</p>	<p>1. angles at a point and 1 whole turn (total 360o) 2. angles at a point on a straight line and half a turn (total 180o) 3. other multiples of 90o</p> <p>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.</p>	Use all four operations to solve problems involving measure
<b>Year 6</b>	<p><b>Number/calculation:</b> Place value of 7-digit numbers and decimals Mental calculation strategies for addition and subtraction Formal written addition and subtraction Prime numbers, common factors and multiples Formal written multiplication and division methods Fractions: simplifying, comparing, ordering, adding and subtracting <b>Geometry and Measurement:</b> Properties of 2D and 3D shapes Properties of angles <b>Problem solving:</b> Solve multi-step number problems involving all four operations in a variety of contexts</p>	<p><b>Number/calculation:</b> Multiply and divide numbers by powers of ten (e.g. 10, 100, 1000) Use negative numbers in context Use knowledge of the order of operations Mental and written strategies for all four operations (including decimals) Recall and use equivalence between simple fractions, decimals and percentages, including different contexts <b>Geometry and Measurement:</b> Measurements including length and time. <b>Problem solving:</b> Solve multi-step number problems involving all four operations in a variety of contexts.</p>	<p><b>Number/calculation:</b> Fractions (add, subtract, multiply and divide) Consolidate written and mental strategies for all four operations (including decimals) <b>Algebra:</b> Simple formulae Linear number sequences Express missing number problems algebraically <b>Geometry and Measurement:</b> Position and direction (coordinates) Understand units of mass and convert between them (including problem solving) <b>Problem solving:</b> Solve multi-step number problems involving all four operations in a variety of contexts.</p>	<p><b>Number/calculation:</b> Consolidate written and mental strategies for all four operations (including decimals) Consolidate calculating with fractions (add, subtract, multiply and divide) <b>Ratio and proportion:</b> Recognise and solve proportion problems Use ratio to solve problems involving numbers, shapes and scale drawings <b>Geometry and Measurement:</b> Perimeter and area (including triangles and parallelograms) <b>Problem solving:</b> Solve multi-step number problems involving all four operations in a variety of contexts</p>	<p><b>Number/calculation:</b> Consolidate previous number and calculations work from throughout the year Consolidate work on fractions, decimals and percentages (including calculations) <b>Statistics:</b> Interpret and construct pie charts and line graphs Calculate and interpret the mean as an average</p> <p><b>Measurement:</b> Volume and capacity</p> <p>Revision of all other key concepts covered.</p>	<p>Revisit and consolidate in preparation for SATs</p> <p>Investigations and collaborative work.</p>