



## MATHS- Year Group Key Learning Progression Document

Year 1	Year 2	Year3	Year 4	Year 5	Year 6
<b>NUMBER</b>					
<p><b>PLACE VALUE</b> Sort, count and represent objects Count, read and write forwards and backwards 0 to 10 Count one more and one less Compare groups and use greater and less than symbols Order objects and numbers Ordinal numbers Number line Count forwards and backwards and write numbers to 20 in numerals and words Tens and ones Count one more and one less Compare and order groups of objects Compare and order numbers Numbers to 50 Tens and ones Represent numbers to 50</p>	<p><b>PLACE VALUE</b> Count objects to 100 Represent numbers to 100 Tens and ones with a part-whole model Tens and ones using addition Using a place value chart Compare objects and numbers Count in 2s, 5s, 10s Count in 3s</p>	<p><b>PLACE VALUE</b> Hundreds 100s 10s 1s Number line to 1000 Find 1, 10, 100 more and less than a given number Compare objects and numbers to 1000 Order numbers Count in 50s</p>	<p><b>PLACE VALUE</b> Roman numerals to 100 Round to the nearest 10 and 100 Count in 1000s 1000s 100s 10s 1s Partitioning Number line to 10000 1000 more or less Compare and order numbers Round to the nearest 1000 Count in 25s Negative numbers</p>	<p><b>PLACE VALUE</b> Numbers to 10000 Roman numerals to 1000 Round to the nearest 10 100 1000 Number to 100000 Compare and order numbers to 100000 Round numbers within 100000 Numbers to a million Counting in 10s 100s 1000s 10000s 100000s Compare and order numbers to one million Round numbers to one million Negative numbers</p>	<p><b>PLACE VALUE</b> Numbers to ten millions Compare and order any number Round any number Negative numbers</p>

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<p>One more one less Compare objects and numbers within 50 Order numbers within 50 Count in 2s Count in 5s Counting to 100 Partitioning numbers Comparing numbers Ordering numbers One more, one less</p>					

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<b>ADDITION AND SUBTRACTION</b> Part-whole model Addition symbol Addition facts Find number bonds for numbers within 10 Systematic methods for number bonds within 10 Number bonds to 10 Compare number bonds Addition - altogether and adding more Finding a part Subtraction - how many left Counting back Add by counting on Find and make number bonds Add by making 10 Subtraction - not crossing 10 Subtraction - crossing 10 Related facts Compare number sentences	<b>ADDITION AND SUBTRACTION</b> Addition and subtraction bonds to 20 Check calculations Compare number sentences Related facts Bonds to 100 Add and subtract 1s 10 more and 10 less Add and subtract 10s Add a 2-digit and a 1-digit number - crossing 10 Subtract a 1-digit number from a 2-digit number - crossing 10 Add two 2-digit numbers - not crossing ten then crossing ten Subtract a 2-digit number from a 2-digit number - not crossing ten then crossing ten Bonds to 100 Add three 1-digit numbers	<b>ADDITION AND SUBTRACTION</b> Add and subtract multiples of 100 Add and subtract 3-digit and 1-digit numbers - not crossing 10 then crossing 10 Subtract 1-digit number from 3 digit-number - crossing 10 Add and subtract 3-digit and 2-digit numbers - not crossing 10 then crossing 10 Add and subtract 100s Spot the pattern Add and subtract a 2-digit and 3-digit numbers - not crossing 10 or 100 Add a 2-digit and 3-digit number - crossing 10 or 100 Subtract a 2-digit number from a 3-digit number - crossing 10 or 100 Add two 3-digit numbers - not crossing 10 or 100 then crossing 10 or 100 Subtract a 3-digit number from a 3-digit number - no exchange	<b>ADDITION AND SUBTRACTION</b> Add and subtract 1s 10s 100s 1000s Add two 4-digit numbers - no exchange; one exchange; more than one exchange Subtract two 4-digit numbers - no exchange; one exchange; more than one exchange Efficient subtraction Estimate answers Checking strategies	<b>ADDITION AND SUBTRACTION</b> Add whole numbers with more than 4 digits - column method Subtract whole numbers with more than 4 digits - column method Round to estimate and approximate Inverse operations - addition and subtraction Multi-step addition and subtraction problems	<b>FOUR OPERATIONS</b> Add and subtract whole numbers Multiply up to a 4-digit number by a 1-digit Short division Division using factors Long division Common factors Common multiples Primes Squares and cubes Order of operations Mental calculations and estimation Reason from known facts

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<b>POSITION AND DIRECTION</b> The first quadrant Four quadrants Translations Reflections <b>MULTIPLICATION AND DIVISION</b> Count in 10s Make and add equal groups Make arrays Make doubles Make equal groups - grouping and sharing	<b>MULTIPLICATION AND DIVISION</b> Recognise equal groups Make and add equal groups Multiplication sentences using the x symbol and from pictures Use arrays 2 times table 5 times table 10 times table Make equal groups - sharing and grouping Divide by 2 Odd and even numbers Divide by 5 Divide by 10	<b>MULTIPLICATION AND DIVISION</b> Multiplication - equal groups Multiply and divide by 3 The 3 times table Multiply and divide by 4 The 4 times table Multiply and divide by 8. The 8 times table Comparing statements Related calculations Multiply 2-digits by 1-digit Divide 2-digits by 1-digit Scaling	<b>MULTIPLICATION AND DIVISION</b> Multiply by 10 and 100 Divide by 10 and 100 Multiply by 1 and 0 Divide by 1 Multiply and divide by 6 6 times table and division facts Multiply and divide by 9 9 times table and division facts Multiply and divide by 7 7 times table and division facts 11 and 12 times table Multiply 3 numbers Factor pairs Efficient Multiplication Written methods Multiply 2-digits by 1-digit then 3-digits by 1-digit Divide 2-digitd by 1-digit then 3-digits by 1-digit Correspondence problems	<b>MULTIPLICATION AND DIVISION</b> Multiples Factors Common factors Prime numbers Square numbers Cube numbers Multiply by 10 100 1000 Divide by 10 100 1000 Multiples of 10 100 1000 Multiply 4-digits by 1-digit Multiply 2-digits by 2-digits Multiply 3-digits by 2-digits Multiply 4-digits by 2-digits Divide 4-digits by 1-digit Divide with remainders	

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	<p><b>FRACTIONS</b>            Make equal parts            Recognise and find a half            Recognise and find a quarter            Recognise and find a third            Unit and non-unit fractions            Equivalence of <math>\frac{1}{2}</math> and <math>\frac{2}{4}</math>            Find three quarters            Count in fractions</p>	<p><b>FRACTIONS</b>            Unit and non-units fractions            Making the whole            Tenths            Count in tenths            Tenths as decimals            Fractions on a number line            Fractions of a set of objects            Equivalent fractions            Compare and order fractions            Add and subtract fractions</p>	<p><b>FRACTIONS</b>            What is a fraction?            Equivalent fractions            Fractions greater than 1            Count in fractions            Add 2 or more fractions            Subtract 2 fractions            Subtract from whole numbers            Calculate fractions of a quantity            Problem-solving.            Calculate quantities</p>	<p><b>FRACTIONS</b>            Equivalent fractions            Improper fractions to mixed numbers            Mixed numbers to improper fractions            Number sequences            Compare and order fractions less than 1 and greater than 1            Add and subtract fractions            Add fractions within 1            Add 3 or more fractions            Add and subtract mixed numbers            Subtract - breaking the whole</p>	<p><b>FRACTIONS</b>            Simplify fractions            Fractions on a number line            Compare and order - denominator; numerator            Add and subtract fractions            Mixed addition and subtraction            Multiply fractions by integers            Multiply fractions by fractions            Divide fractions by integers            Four rules with fractions            Fractions of an amount</p>

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			<p><b>DECIMALS</b>            Recognise tenths and hundredths            Tenths as decimals            Tenths on a place value grid            Tenths on a number line            Divide 1-digit by 10 then 2-digits by 10            Hundredths            Hundredths as decimals            Hundredths on a place value grid            Divide 1 or 2-digits by 100            Make a whole            Write decimals            Compare, order and round decimals            Halves and quarters</p>	<p><b>DECIMALS AND PERCENTAGES</b>            Decimals up to 2 d.p.            Decimals as fractions            Understand thousandths            Rounding decimals            Order and compare decimals            Understand percentages            Percentages as fractions and decimals            Equivalent F.D.P.            Adding decimals within 1            Subtracting decimals within 1            Complements to 1            Adding decimals - crossing the whole            Adding decimals with the same number of decimal places            Subtracting decimals with the same number of decimal places            Adding decimals with a different number of decimal places            Subtracting decimals with a different number of decimal places            Adding and subtracting wholes and decimals            Decimal sequences            Multiply decimals by 10 100 1000            Divide decimals by 10 100 1000</p>	<p><b>DECIMALS</b>            Three decimal places            Multiply by 10 100 1000            Divide by 10 100 1000            Multiply decimals by integers            Division to solve problems            Decimals as fractions            Fractions to decimals  <b>PERCENTAGES</b>            Fractions to percentages            Equivalent FDP            Order FDP            Percentage of an amount            Percentages - missing values</p>

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					<p><b>ALGEBRA</b>            Find a rule - one and two step            Forming expressions            Substitution            Formulae            Forming equations            Solve simple one-step equations            Solve two-step equations            Find pairs of values            Enumerate possibilities</p> <p><b>RATIO</b>            Using ratio language            Ratio and fractions            Introducing the ratio symbol            Calculating ratio            Using and calculating scale factors            Ratio and proportion problems</p>
<b>MEASUREMENT</b>					
<p><b>LENGTH AND WEIGHT</b>            Compare lengths and heights            Measure length</p>	<p><b>LENGTH AND HEIGHT</b>            Measure, compare and order lengths            Four operations with lengths</p>	<p><b>LENGTH AND WEIGHT</b>            Measure length            Equivalent lengths - m and cm; mm and cm            Compare lengths            Add and subtract</p>	<p><b>LENGTH AND PERIMETER</b>            Kilometres            Perimeter - on a grid; of a rectangle; of rectilinear shapes</p>		

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<p><b>WEIGHT AND VOLUME</b> Measure and compare mass Measure and compare capacity</p> <p><b>MONEY</b> Recognising coins and notes Counting in coins</p> <p><b>TIME</b> Before and after Dates Time to the hour Time to the half hour Writing and comparing time</p>	<p><b>MASS, CAPACITY AND TEMPERATURE</b> Compare mass Measure mass in grams and kilograms Compare volume Millilitres Litres Temperature</p> <p><b>MONEY</b> Count money- pence and pounds; notes and coins Select money Make the same amount Compare money Find the total Find the difference Find change Two-step problems</p> <p><b>TIME</b> O'clock and half past Quarter past and quarter to Telling the time to 5 minutes Hours and days Find and compare durations of time</p>	<p>lengths Measure and calculate perimeter</p> <p><b>MASS AND CAPACITY</b> Measure mass Compare mass Add and subtract mass Measure capacity Compare capacity Add and subtract capacity</p> <p><b>MONEY</b> Pounds and pence Convert pounds and pence Add and subtract money Give change</p> <p><b>TIME</b> Months and years Hours in a day Telling the time to 5 minutes Telling the time to the minute Using am and pm 24-hour clock</p>	<p><b>MONEY</b> Pounds and pence Ordering and estimating money Four operations</p> <p><b>TIME</b> Hours, minutes and seconds Years, months, weeks and days Analogue to digital - 12 hour and 24 hour</p>	<p><b>VOLUME</b> What is volume? Compare volume Estimate volume Estimate capacity</p>	<p><b>VOLUME</b> Volume - counting cubes Volume of a cuboid</p>



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		Finding the duration Comparing durations Start and end times Measuring time in seconds	<b>AREA</b> What is area? Counting squares Making shapes Comparing area	<b>PERIMETER AND AREA</b> Measure and calculate perimeter Area of rectangles Area of compound shapes Area of irregular shapes  <b>CONVERTING UNITS</b> Kilograms and kilometres Milligrams and millilitres Metric units Imperial units Converting units of time Timetables	<b>PERIMETER, AREA AND VOLUME</b> Shapes - same area Area and perimeter Area of a triangle Area of a parallelogram  <b>CONVERTING UNITS</b> Metric measurements Convert metric measurements Calculate metric measurements Miles and kilometres Imperial measures

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<b>GEOMETRY</b>					
<p><b>SHAPE</b> Recognise, name and sort 3D shapes Recognise, name and sort 2D shapes Patterns with 3D and 2D shapes</p>	<p><b>PROPERTIES OF SHAPES</b> Recognise 2D and 3D shapes Count sides and vertices on 2D shapes Draw 2D shapes Lines of symmetry Sort 2D shapes Make patterns with 2D shapes Count faces, edges, vertices on 3D shapes Sort 3D shapes Make patterns with 3D shapes</p>	<p><b>PROPERTIES OF SHAPES</b> Turns and angles Right angles in shapes Compare angles Draw accurately Horizontal and vertical Parallel and perpendicular Recognise and describe 2D shapes Recognise and describe 3D shapes Make 3D shapes</p>	<p><b>PROPERTIES OF SHAPES</b> Identify angles Compare and order angles Triangles Quadrilaterals Lines of symmetry</p>	<p><b>PROPERTIES OF SHAPES</b> Measuring angles in degrees Measuring with a protractor Drawing lines and angles accurately Calculating angles on a straight line Calculating angles around a point Calculating lengths and angles in shapes Regular and irregular polygons Reasoning about 3-D shapes</p>	<p><b>PROPERTIES OF SHAPES</b> Measure with a protractor Introduce angles Calculate angles Vertically opposite angles Angles in a triangle Missing angles in a triangle Angles in special quadrilaterals Angles in regular polygons Draw shapes accurately Draw nets of 3D shapes</p>
<p><b>POSITION AND DIRECTION</b> Describe turns Describe position</p>	<p><b>POSITION AND DIRECTION</b> Describing movement and turns Making patterns with shapes</p>		<p><b>POSITION AND DIRECTION</b> Describe position Draw on a grid Move on a grid Describe a movement on a grid</p>	<p><b>POSITION AND DIRECTION</b> Position in the first quadrant Reflection Reflection with coordinates Translation Translation with coordinates</p>	<p><b>POSITION AND DIRECTION</b> The first quadrant Four quadrants Translations Reflections</p>

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<b>STATISTICS</b>					
	Make tally charts Draw and interpret pictograms Block diagrams Pictograms Bar charts Tables	Pictograms Bar charts Tables	Interpret charts Comparison, sum and difference Introducing line graphs	Read and interpret line graphs Draw line graphs Use line graphs to solve problems Read and interpret tables Two-way tables Timetables	Read and interpret line graphs Draw line graphs Use line graphs to solve problems Circles Read and interpret pie charts Pie charts with percentages Draw pie charts The mean