



RADDLEBARN PRIMARY SCHOOL SUBJECT OVERVIEW IN MATHS



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Context/ Resources
Nursery	<p>Throughout the year children in Nursery (3-4 year olds) will be learning to...</p> <p>Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). Recite number past 5. Say one number for each item in order: 1,2,3,4,5. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Show 'finger numbers' up to 5. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5. Compare quantities using language: 'more than', 'fewer than'.</p> <p>Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. Understand position through words alone – for example. "The bag is under the table," (no pointind to the position – words only). Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'.</p>						
Reception	<p>Throughout the year children in Reception will be learning to...</p> <p>Count objects, actions and sounds. Subitise. Link the number symbol (numeral) with its cardinal number value. Count beyond ten. Compare numbers. Understand the 'one more than/one less than' relationship between consecutive numbers. Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–5 and some to 10. Select, rotate and manipulate shapes to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Continue, copy and create repeating patterns. Compare length, weight and capacity. Early Learning Goals – Number. Numerical Patterns.</p>						
Year 1	<p>Number: Place Value (within 10) Sort objects Count objects Count objects from a larger group</p>	<p>Number: Addition and Subtraction Find a part Subtraction - find a part Fact families - the eight facts Subtraction - take away/crossing out (How</p>	<p>Number: Place Value (within 20) Count forward/backwards number 20 Numbers 11-20 Tens and Ones Count one more/less</p>	<p>Number: Place value (within 50) Compare/order objects/numbers 50 Count in 2s Count in 5s</p>	<p>Number: Multiplication and division Count in 2s Count in 5s Count in 10s Make equal groups</p>	<p>Geometry: Position and direction Describe turns Describe positions</p> <p>Number: Place Value (within 100) Counting forward and backwards in 100 Partitioning numbers</p>	

	<p>Represent objects Recognise numbers as words Count on from any number 1 more Count backwards within 10 1 less Compare groups by matching Fewer, more, same Less than, greater than, equal to Compare numbers Order objects and numbers The number line</p> <p>Number: Addition and Subtraction (within 10) Introduce parts and wholes Part-whole model Write number sentences Fact families - addition facts Number bonds within 10 Systematic number bonds within 10 Number bonds to 10 Addition - add together Addition - add more Addition problems</p>	<p>many left?) Subtraction - take away (How many left?) Subtraction on a number line Add or subtract 1 or 2</p> <p>Geometry: Shape Recognise and name 3D Shapes Sort 3D Shapes Recognise and name 2D Shapes Sort 2D Shapes Patterns with 3D Shapes/2D Shapes</p>	<p>Compare numbers Order groups objects/numbers</p> <p>Number: Addition and Subtraction (within 20) Add by counting on Find and make number bonds Add by making 10 Subtraction not crossing 10, crossing 10 Related facts Compare number sentences</p> <p>Number: Place value (within 50) Number to 50 Tens and ones Represent numbers to 50 One More One Less</p>	<p>Measurement (Length and height) Compare lengths and heights Measure length Measure height</p> <p>Measurement (Weight and volume) Introduce weight and mass Measure mass Compare mass Introduce capacity and volume Measure capacity Compare capacity</p>	<p>Add equal groups Make arrays Make doubles Make equal groups (grouping/sharing)</p> <p>Number: Fractions Find a half Find a quarter</p>	<p>Comparing numbers Ordering numbers One more one less</p> <p>Measurement: Money Recognising coins Recognising notes Comparing in coins</p> <p>Measurement: Time Before/after Dates Times to the hour Times to half hour Writing in time Comparing time</p>	
Year 2	<p>Number: Place value Numbers to 20 Count objects to 100 by making 10s Recognise tens and ones Use a place value chart Partition numbers to 100 Write numbers to 100 in words Flexibly partition numbers to 100 Write numbers to 100 in expanded form 10s</p>	<p>Number: Addition and subtraction Subtract a 1-digit number from a 2-digit number (across a 10) 10 more, 10 less Add and subtract 10s Add two 2-digit numbers (not across a 10) Add two 2-digit numbers (across a 10) Subtract two 2-digit numbers (not across a 10) Subtract two 2-digit numbers (across a 10) Mixed addition and</p>	<p>Measurement: Money Recognising coins and notes Count money p £ notes and coins Select money Make the same amount Compare money Find the total Find the difference Find change Two step problem</p>	<p>Geometry: Properties of shape Recognise 2D/3D shapes Count side/vertices on 2D Shapes Draws 2D Shapes Lines of symmetry Sort 2D Shapes Make patterns with 2D shapes Count faces, edges and vertices on 3D Shapes Sort 3D Shapes</p>	<p>Fractions Make equal parts Recognise and find half/quarter/third Unit fractions Non unit fractions Equivalence $\frac{1}{2}$ $\frac{2}{4}$ Find $\frac{3}{4}$ Count in fractions</p> <p>Statistics Make tally charts Draw pictograms (1:1, 2, 5, 10) Interpret pictograms (1:1, 2, 5, 10)</p>	<p>Geometry: Position and direction Describe position Describe movement and turns Make patterns and shapes</p> <p>Measurement: Time Telling time to hour/half hour O clock and half past Quarter past/quarter to Telling time to 5mins Writing time Hours and days Find/compare durations of time</p>	

	<p>on the number line to 100 10s and 1s on the number line to 100 Estimate numbers on a number line Compare objects Compare numbers Order objects and numbers Count in 2s, 5s and 10s Count in 3s s</p> <p>Number: Addition and subtraction Bonds to 10 Fact families – addition and subtraction bonds within 20 Related facts Bonds to 100 (tens) Add and subtract 1s Add by making 10 Add three 1-digit numbers Add to the next 10 Add across a 10 Subtract across 10 Subtract from a 10</p>	<p>subtraction Compare number sentences Missing number problems</p> <p>Geometry: Properties of shape Recognise 2-D and 3-D shapes Count sides on 2-D shapes Count vertices on 2-D shapes Draw 2-D shapes Lines of symmetry on shapes Use lines of symmetry to complete shapes Sort 2-D shapes Count faces on 3-D shapes Count edges on 3-D shapes Count vertices on 3-D shapes Sort 3-D shapes Make patterns with 2-D and 3-D shapes</p>	<p>Number: Multiplication and division Make equal groups Add equal groups Make arrays Recognise equal groups Make equal groups Add equal groups Multiplication sentences (x symbol) Multiplication (pictures) Use arrays Make doubles 2, 5, 10 times tables Make equal groups (sharing/grouping) Divide by 2 Odd and even Divide by 5, 10</p>	<p>Make patterns with 3D Shapes</p> <p>Measurement: Mass, capacity, temperature Introduce weight and mass Measure mass Compare mass Measure mass g/kg Introduce capacity and volume Measure capacity Compare volume Millilitres/litres Temperature</p>	<p>Block diagrams</p> <p>Measurement: Height and length Compare lengths and heights Measure lengths (cm/m) Compare lengths Order lengths Four operations with lengths</p>	
Year 3	<p>Number: Place value Represent numbers to 100 Tens and ones using addition Represent numbers to 1000 100s, 10s, 1s Number line to 1000 Find 1, 10, 100 more/less Compare objects and numbers to 1000 Order numbers Count in 50s</p> <p>Number: Addition and subtraction Add and subtract multiples of 100 Add/subtracts 1s</p>	<p>Number: Addition and subtraction Add/subtract two digit and 3 digit numbers – crossing 10/100 Add 3 2 digit numbers crossing/not crossing 10 Subtract 3 digit number from 3 digit number no exchange/exchange</p> <p>Number: Multiplication and division Multiplication – equal groups Multiplication symbol Using arrays 2 and 5 times table Make equal groups – sharing Make equal groups – grouping</p>	<p>Number: Multiplication and division Consolidate 2, 4, 8 times tables Comparing statements Related calculations Multiply 2 digit by 1 digit Divide by 2 digit by 1 digit (~3 lessons) Scaling How many ways?</p> <p>Measurement: Money Count money (£ and pence) Convert pounds and pence Add money Subtract money Give change</p> <p>Statistics Make tally charts Draw pictograms</p>	<p>Measurement: Length and perimeter Measure length (m) Equivalent lengths – (m & cm) and (mm and cm) Compare lengths Add lengths Subtract lengths Measure perimeter Calculate perimeter Measure length</p> <p>Number: Fractions Make equal parts Recognise a half Find a half Recognise a quarter Find a quarter Recognise a third Find a third Unit fractions</p>	<p>Number: Fractions Making the whole Tenths Count in tenths Tenths as decimals Fractions on number line Fraction of set of objects (~3 lessons) Equivalent fractions (~3 lessons) Compare fractions Order fractions Add/subtract fractions</p> <p>Measurement: Time O'clock and half past Quarter past and quarter to Months and years Hours in a day Telling the time to 5 mins</p>	<p>Geometry: Properties of shape Turns and angles Right angles Compare angles Draw accurately Horizontal vertical Parallel and perpendicular Recognise and describe 2D 3D shapes Make 3D shapes</p> <p>Measurement: Mass and capacity Compare mass Measure mass Add and subtract mass Compare volume Measure capacity Compare capacity Add and subtract capacity Temperature</p>

	<p>Add and subtract 3 digit by 1 digit – not crossing 10</p> <p>Add 2/3 digit and 1 digit numbers crossing 10</p> <p>Subtract 1 digit from 2/3 digit number – crossing 10</p> <p>Add and subtract 3 digit and 2 digit not crossing 100/ crossing 100</p> <p>Subtract 2 digit from 3 digit number</p> <p>Add and subtract 100s</p> <p>Spot the pattern</p>	<p>Divide by 2, 5, 10</p> <p>Multiply by 3</p> <p>Divide by 3</p> <p>3 times table</p> <p>Multiply/divide by 4</p> <p>The 4 times table</p> <p>Multiply/divide by 8</p> <p>The 8 times table</p>	<p>Interpret pictograms</p> <p>Pictograms</p> <p>Bar charts</p> <p>Tables</p>	<p>Non-unit fractions</p> <p>Equivalence $\frac{1}{2}$ $\frac{2}{4}$</p> <p>Count in fractions</p>	<p>Telling time to a minute</p> <p>Using am and pm</p> <p>24 hour clock</p> <p>Finding the duration</p> <p>Comparing duration</p> <p>Start end times</p> <p>Measuring time in seconds</p>	
Year 4	<p>Number: Place value</p> <p>Represent numbers to 1000</p> <p>100, 10s, 1s</p> <p>Number line to 1000</p> <p>Round the nearest 10/100</p> <p>Count in 1000s, 100s, 10s, 1s</p> <p>Partitioning</p> <p>Number line to 10,000</p> <p>Find 1, 10, 100, 1000 more/less</p> <p>Compare and order numbers</p> <p>Round to nearest 1000</p> <p>Count in 25s</p> <p>Negative numbers</p> <p>Roman numerals to 100</p> <p>Number: Addition and subtraction</p> <p>Add/subtract 1, 10s, 100s & 1000s</p> <p>Add two 3 and 4 digit numbers (not crossing 10/100 - no exchange)</p>	<p>Measurement: area</p> <p>What is area?</p> <p>Counting squares</p> <p>Making shapes</p> <p>Comparing area</p> <p>Number: Multiplication and division</p> <p>Multiply by 10/100</p> <p>Divide by 10/100</p> <p>Multiply by 1/0</p> <p>Divide by 1 and itself</p> <p>Multiply and divide by 3, 6, 9, 7</p> <p>The 3, 6, 9, 7 times table and division facts</p>	<p>Number: Multiplication and division</p> <p>11 and 12 times tables</p> <p>Multiply 3 numbers</p> <p>Factor pairs</p> <p>Efficient multiplication</p> <p>Written methods</p> <p>Multiply 2 and 3 digits by 1 digit</p> <p>Divide 2 and 3 digits by 1 digit</p> <p>Correspondence problems</p> <p>Measurement: Length and perimeter</p> <p>Equivalent lengths m and cm & cm/mm</p> <p>Kilometres</p> <p>Add/subtract lengths</p> <p>Measure perimeter</p> <p>Perimeter on a grid</p> <p>Perimeter of rectangle</p> <p>Perimeter of rectilinear shapes</p> <p>Number: Fractions</p> <p>Unit and non-unit fractions</p> <p>What is a fraction?</p> <p>Tenths</p> <p>Count in tenths</p>	<p>Number: Fractions</p> <p>Add fractions</p> <p>Add 2 or more fractions</p> <p>Subtract fractions</p> <p>Subtract 2 fractions</p> <p>Subtract whole amounts</p> <p>Fractions of set of objects</p> <p>Calculate fractions of a quantity</p> <p>Problem solving</p> <p>Number: Decimals</p> <p>Recognise tenths and hundredths</p> <p>Tenths as decimals</p> <p>Tenths on a place value grid</p> <p>Tenths on a number line</p> <p>Divide 1 digit by 0</p> <p>Divide 2 digits by 10</p> <p>Hundredths as decimals</p> <p>Hundredths on place value grid</p>	<p>Number: Decimals</p> <p>Bonds to 100 and 100</p> <p>Make a whole</p> <p>Write decimals</p> <p>Compare decimals</p> <p>Order decimals</p> <p>Round decimals</p> <p>Halves and quarters</p> <p>Measurement: Money</p> <p>Pounds and pence</p> <p>Ordering money</p> <p>Estimating money</p> <p>Convert pounds and pence</p> <p>Add money</p> <p>Subtract money</p> <p>Find change</p> <p>Four operations</p> <p>Measurement: Time</p> <p>Telling time to 5 minutes</p> <p>Telling time to minute</p> <p>Using am and pm</p> <p>24 hour clock</p> <p>Hours minutes and seconds</p>	<p>Statistics</p> <p>Interpret charts</p> <p>Comparison sum and difference</p> <p>Introducing line graphs</p> <p>Line graphs</p> <p>Geometry: Properties of shape</p> <p>Turns and angles</p> <p>Right angles</p> <p>Compare angles</p> <p>Identify angles</p> <p>Compare and order angles</p> <p>Recognise and describe 2D</p> <p>Triangles</p> <p>Quadrilaterals</p> <p>Horizontal and vertical</p> <p>Lines of symmetry</p> <p>Complete symmetric figure</p> <p>Geometry: Position and direction</p> <p>Describe position</p> <p>Draw on a grid</p> <p>Move on a grid</p> <p>Describe movement on a grid</p>

	<p>Add two 3 and 4 digit numbers crossing 10/100 (1 exchange/more than one)</p> <p>Subtract 3 and 4 digit from 3 and 4 digit - inc exchange</p>		<p>Equivalent fractions</p> <p>Fractions greater than 1</p> <p>Count in fractions</p>	<p>Divide 1 and 2 digits by 100</p>	<p>Years months weeks and days</p> <p>Analogue to digital</p> <p>12hr/24 hour</p>		
Year 5	<p>Number: Place value</p> <p>1000s 100s 10s 1s</p> <p>Rounding to nearest 10/100/1000 (within 100,000)</p> <p>Numbers to 100,000</p> <p>Counting in 10s, 100s, 1000s, 10,000s, 100,000s</p> <p>Compare, order and round numbers to a million</p> <p>Negative numbers</p> <p>Roman numerals to 1000 and 10,000</p> <p>Number: Addition and subtraction</p> <p>Adding and subtracting two 4-digit numbers - one exchange/more than one</p> <p>Add/subtract whole numbers (more than 4 digits)</p> <p>Round to estimate</p> <p>Inverse operations</p> <p>Multi-step problems</p>	<p>Number: Multiplication and division</p> <p>Multiples</p> <p>Factors</p> <p>Common factors</p> <p>Prime numbers</p> <p>Square/cube numbers</p> <p>Multiply and divide by 10, 100, 1000</p> <p>Multiples of 10, 100, 1000</p> <p>Fractions</p> <p>What is a fraction?</p> <p>Equivalent fractions</p> <p>Fractions greater than 1</p> <p>Improper fractions to mixed numbers (vice versa)</p> <p>Number sequences</p> <p>Compare and order fractions less than 1</p> <p>Compare and order fractions greater than 1</p> <p>Add and subtract fractions</p> <p>Add fractions within 1</p> <p>Add 3 or more fractions</p> <p>Add mixed numbers</p> <p>Subtract fractions</p> <p>Subtract mixed numbers</p> <p>Subtract – breaking the whole</p> <p>Subtract 2 mixed numbers</p>	<p>Number: Multiplication and division</p> <p>Multiply 2, 3 and 4-digits by 1-digit</p> <p>Multiply 2-digits (area model)</p> <p>Multiply 2, 3 and 4-digits by 2-digits</p> <p>Divide 2-digits by 1-digit</p> <p>Divide 3 and 4-digits by 1-digit</p> <p>Divide with remainders</p> <p>Fractions</p> <p>Multiply unit fractions by an integer</p> <p>Multiply non-unit fractions by an integer</p> <p>Multiply mixed numbers by integers</p> <p>Calculate fractions of a quantity</p> <p>Fraction of an amount</p> <p>Using fractions as operators</p>	<p>Number: Decimal and percentages</p> <p>Decimals up to 2 d.p.</p> <p>Decimals as fractions</p> <p>Understand thousandths</p> <p>Thousandths as decimals</p> <p>Rounding decimals</p> <p>Order and compare decimals</p> <p>Understand percentages</p> <p>Percentages as fractions and decimals</p> <p>Equivalent F.D.P.</p> <p>Measurement: Perimeter and area</p> <p>Measure perimeter</p> <p>Perimeter on a grid</p> <p>Perimeter of rectangles</p> <p>Perimeter of rectilinear shapes</p> <p>Calculate perimeter</p> <p>Counting squares</p> <p>Area of rectangles & compound shapes</p> <p>Area of irregular shapes</p> <p>Statistics:</p> <p>Interpret charts</p> <p>Comparison sum and difference</p>	<p>Geometry: Properties of shape</p> <p>Identify angles</p> <p>Compare and order angles</p> <p>Measure angles in degrees</p> <p>Measuring with a protractor</p> <p>Drawing lines and angles accurately</p> <p>Calculating angles on a straight line and around a point</p> <p>Triangles</p> <p>Quadrilaterals</p> <p>Calculating lengths/angles in shapes</p> <p>Regular and irregular polygons</p> <p>Reasoning about 3-D shapes</p> <p>Geometry: Position and direction</p> <p>Describe position</p> <p>Draw on a grid</p> <p>Position in the first quadrant</p> <p>Translation (inc with coordinates)</p> <p>Lines of symmetry</p> <p>Complete a symmetric figure</p> <p>Reflection (inc with coordinates)</p>	<p>Numbers: Decimals</p> <p>Adding and subtracting decimals within 1</p> <p>Complements to 1</p> <p>Adding decimals – crossing the whole</p> <p>Adding and subtracting decimals (same number of decimal places)</p> <p>Adding and subtracting decimals (different number of decimal places)</p> <p>Adding and subtracting wholes and decimals</p> <p>Decimal sequences</p> <p>Multiplying and dividing decimals by 10, 100 and 1,000</p> <p>Measurement: Converting units</p> <p>Kilometres/Kilograms Millimetres/Millilitres</p> <p>Metric/imperial units</p> <p>Converting units of time</p> <p>Timetables</p> <p>Measurement: Volume</p> <p>Compare volume</p> <p>Estimate volume and capacity</p>	

				<p>Read, interpret and draw line graphs Use to solve problems Read and interpret tables inc two way tables Timetables</p>			
Year 6	<p>Number: Place value Numbers to 10,000 Numbers to 100,000 Numbers to a million Numbers to 10 million Compare and order any number Round numbers to 10, 100 and 1000 Round any number</p>	<p>Number: Addition, subtraction, multiplication and division Factors and common factors Common multiples Primes to 100 Squares and cubes BODMAS Mental calculations and estimation</p>	<p>Number: Ratio Using ratio language Ratio and fractions Introducing the ratio symbol Calculating ratio Using scale factors Calculating scale factors Ratio and proportion problems</p> <p>Number: Algebra</p>	<p>Number: Percentages Understand percentages Fractions to percentages Equivalent FDP Order FDP Percentage of an amount Percentages – missing values</p>	<p>Geometry: Properties of shape Measure with a protractor Draw lines and angles accurately Introduce angles Angles on a straight line Angles around a point</p>	<p>Consolidation and themed projects White Rose Bakery Theme Park Maths</p>	

	<p>Negative numbers</p> <p>Number: Addition, subtraction, multiplication and division</p> <p>Add/subtract whole numbers with more than 4 digits</p> <p>Inverse operations</p> <p>Multi step addition and subtraction</p> <p>Add and subtract integers</p> <p>Multiply 4 digits by 1 digit</p> <p>Multiply 2, 3 and 4 digits by 2 digits</p> <p>Divide 4 digits by 1 digit (inc with remainders)</p> <p>Short division</p> <p>Division using factors</p> <p>Long division</p>	<p>Reason for known facts</p> <p>Number: Fractions</p> <p>Equivalent fractions</p> <p>Simplify fractions</p> <p>Improper fractions to mixed numbers (vice versa)</p> <p>Fractions on a number line</p> <p>Compare and order</p> <p>Add and subtract fractions and mixed numbers</p> <p>Mixed add/subtract</p> <p>Multiply fractions by integers & fractions</p> <p>Divide fractions by integers</p> <p>4 rules - fractions</p> <p>Fraction of amount</p> <p>Measurement: Converting units</p> <p>Metric measures</p> <p>Convert metric measures</p> <p>Calculate with metric measures</p> <p>Miles and kilometres</p> <p>Imperial measures</p>	<p>Find a rule – one step</p> <p>Find a rule – two step</p> <p>Forming expressions</p> <p>Substitution</p> <p>Formulae</p> <p>Forming equations</p> <p>Solve simple one-step equations</p> <p>Solve two-step equations</p> <p>Find pairs of values</p> <p>Enumerate possibilities</p> <p>Number: Decimals</p> <p>Decimals up to 2 decimal places</p> <p>Understand thousandths</p> <p>Three decimal places</p> <p>Multiply and divide by 10, 100 and 1,000</p> <p>Multiply and divide decimals by integers</p> <p>Division to solve problems</p> <p>Decimals as fractions</p> <p>Fractions to decimals</p>	<p>Measurement: Perimeter, area and volume</p> <p>Shapes – same area</p> <p>Area and perimeter</p> <p>Area of a triangle</p> <p>Area of parallelogram</p> <p>What is volume?</p> <p>Volume – counting cubes</p> <p>Volume of a cuboid</p> <p>Statistics</p> <p>Read and interpret line graphs</p> <p>Draw line graphs</p> <p>Use line graphs to solve problems</p> <p>Circles</p> <p>Read and interpret pie charts</p> <p>Pie charts with percentages</p> <p>Draw pie charts</p> <p>The mean</p>	<p>Calculate angles</p> <p>Vertically opposite angles</p> <p>Angles in a triangle</p> <p>Angles in a triangle – special cases</p> <p>Angles in a triangle – missing angles</p> <p>Angles in special quadrilaterals</p> <p>Angles in regular polygons</p> <p>Draw shapes accurately</p> <p>Draw nets of 3-D shapes</p> <p>Geometry: position and direction</p> <p>The first quadrant</p> <p>Four quadrants</p> <p>Translations</p> <p>Reflections</p>		
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