



## Willingham Primary School Mathematics Planning



Pupils will be provided with vocabulary, number fluency and conceptual understanding to become competent mathematicians. They will develop the knowledge, resilience and procedures to become excellent mathematical problem solvers with the flexibility of thought to confidently take on new mathematical content and reshape previously held ideas.

Substantive and Disciplinary Knowledge			Procedural Knowledge		
<p>Pupils will understand the place value of number</p> <p>Pupils will know how to calculate with larger integers, decimal numbers and negative numbers</p> <p>Pupils will know how to solve algebraic problems</p> <p>Pupils will know standard units of measure, including their relationships.</p> <p>Pupils will know how to calculate area, perimeter and volume</p>	<p>Pupils will know how to add, subtract, multiply and divide fractions</p> <p>Pupils will know geometric rules to be able to find unknown angles</p> <p>Pupils will be able to compare, classify and draw a range of geometric shapes</p> <p>Pupils will understand how to collect, manipulate and represent statistics in different ways</p> <p>Pupils will know how to scale both values and shapes using ratio and proportion</p>	<p>Pupils will develop accurate mathematical language relating to:</p> <ul style="list-style-type: none"> <li>• Calculation</li> <li>• Geometry</li> <li>• Ratio and Proportion</li> <li>• Fractions and Percentages</li> <li>• Statistics</li> </ul>	<p>Pupils will use their strong, accurate mathematical language to:</p> <ul style="list-style-type: none"> <li>• Explain</li> <li>• Justify</li> <li>• Discuss</li> </ul> <p>Pupils will be able us a range of mathematical equipment, including:</p> <ul style="list-style-type: none"> <li>• A protractor</li> <li>• Compasses</li> <li>• Mirrors</li> <li>• Rulers</li> <li>• calculators</li> </ul>	<p>Pupils will be able to represent concepts through:</p> <ul style="list-style-type: none"> <li>• Using objects</li> <li>• Pictures</li> <li>• Words</li> <li>• Symbols</li> </ul> <p>And make connections between these mathematical concepts</p>	<p>Pupils will display strong Mathematical thinking through:</p> <ul style="list-style-type: none"> <li>• Making conjectures</li> <li>• Trying out specific examples</li> <li>• Organising</li> <li>• Comparing</li> <li>• Looking for patterns</li> <li>• Generalising</li> </ul>

Year Grp	Autumn	Spring	Summer
EYFS	<p><b>Early Mathematical Experiences</b></p> <ul style="list-style-type: none"> <li>• Classifying objects based on one attribute</li> <li>• Matching equal and unequal sets</li> <li>• Comparing objects and sets</li> <li>• Ordering objects and sets</li> </ul> <p><b>Pattern and Early Number</b></p> <ul style="list-style-type: none"> <li>• Recognise, describe, copy and extend colour and size patterns</li> <li>• Count and represent the numbers 1 to 3</li> <li>• Estimate and check by counting</li> </ul> <p><b>Numbers within 6</b></p> <ul style="list-style-type: none"> <li>• Count up to six objects.</li> <li>• One more or one fewer</li> <li>• Order numbers 1 – 6</li> <li>• Conservation of numbers within six</li> <li>• <b>Subitise numbers to 5</b></li> </ul> <p><b>Addition and Subtraction within 6</b></p> <ul style="list-style-type: none"> <li>• Explore zero</li> <li>• Explore addition and subtraction</li> <li>• <b>Number bonds to 5</b></li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>• Estimate, order compare, discuss and explore capacity, weight and lengths</li> </ul> <p><b>Shape and Sorting</b></p> <ul style="list-style-type: none"> <li>• Describe, and sort 3- D shapes</li> <li>• Describe position accurately</li> </ul>	<p><b>Numbers within 10</b></p> <ul style="list-style-type: none"> <li>• Count up to ten objects</li> <li>• Represent, order and explore numbers to ten</li> <li>• One more or fewer, one greater or less</li> <li>• <b>Number bonds to 10</b></li> <li>• <b>Odds and evens</b></li> </ul> <p><b>Calendar and Time</b></p> <ul style="list-style-type: none"> <li>• Days of the week, seasons</li> <li>• Sequence daily events</li> </ul> <p><b>Addition and Subtraction within 10</b></p> <ul style="list-style-type: none"> <li>• Explore addition as counting on and subtraction as taking away</li> </ul> <p><b>Grouping and Sharing</b></p> <ul style="list-style-type: none"> <li>• Counting and sharing in equal groups</li> <li>• Grouping into fives and tens</li> <li>• Relationship between grouping and sharing</li> </ul> <p><b>Number Patterns within 15</b></p> <ul style="list-style-type: none"> <li>• Count up to 15 objects and recognise different representations</li> <li>• Order and explore number patterns to 15 <i>Not needed for progress towards End of Rec learning goals (ELG's)</i></li> <li>• One more or fewer</li> </ul> <p><b>Doubling and Halving</b></p> <ul style="list-style-type: none"> <li>• Doubling and halving</li> <li>• Relationship between doubling and halving</li> </ul> <p><b>Shape and Pattern</b></p>	<p><b>Securing Addition and Subtraction Facts</b></p> <ul style="list-style-type: none"> <li>• Commutativity</li> <li>• Explore addition and subtraction</li> <li>• Compare two amounts</li> <li>• <b>Subtraction facts using number bonds to 5 and some to 10</b></li> </ul> <p><b>Number Patterns within 20</b></p> <ul style="list-style-type: none"> <li>• Count up to 10 and beyond with objects</li> <li>• Represent, compare and explore numbers to 20 <i>Not needed for progress towards End of Rec learning goals (ELG's)</i></li> <li>• One more or fewer</li> </ul> <p><b>Number Patterns beyond 20</b> <i>Not needed for progress towards End of Rec learning goals (ELG's)</i></p> <ul style="list-style-type: none"> <li>• One more one less</li> <li>• Estimate and count</li> <li>• Grouping and sharing</li> <li>• <b>Revisit doubling and halving</b></li> </ul> <p><b>Money</b></p> <ul style="list-style-type: none"> <li>• Coin recognition and values</li> <li>• Combinations to total 20p <i>Not needed for progress towards End of Rec learning goals (ELG's)</i></li> <li>• Change from 10p</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>• Describe capacities</li> <li>• Compare volumes</li> <li>• Compare weights</li> <li>• Estimate, compare and order lengths</li> </ul> <p><b>Exploration of Patterns within Number</b></p> <ul style="list-style-type: none"> <li>• Explore numbers and strategies</li> </ul>

		<ul style="list-style-type: none"><li>• Describe and sort 2-D and 3-D shapes</li><li>• Recognise, complete and create patterns</li></ul>	<ul style="list-style-type: none"><li>• Recognise and extend patterns</li><li>• Apply number, shape and measures knowledge</li><li>• Count forwards and backwards</li></ul>
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<p>1</p>	<p><b>Numbers to 10</b></p> <ul style="list-style-type: none"> <li>• Represent, compare, and explore numbers within 10</li> <li>• One more and one less</li> <li>• Doubling and halving</li> </ul> <p><b>Addition and subtraction within 10</b></p> <ul style="list-style-type: none"> <li>• Represent and explain addition and subtraction</li> <li>• Commutativity</li> <li>• Addition and subtraction facts</li> </ul> <p><b>Shape and patterns</b></p> <ul style="list-style-type: none"> <li>• Identify, describe, sort, and classify 2-D and 3-D shapes</li> <li>• Investigate repeating patterns</li> <li>• Use and follow instructional and positional language</li> </ul> <p><b>Numbers to 20</b></p> <ul style="list-style-type: none"> <li>• Identify, represent, compare, and order numbers to 20</li> <li>• Doubling and halving</li> <li>• One more and one less</li> </ul> <p><b>Addition and subtraction within 20</b></p> <ul style="list-style-type: none"> <li>• Represent and explain addition and subtraction strategies including 'Make Ten'</li> <li>• Use known facts to add and subtract</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• Read, write and tell the time to o'clock and half past on analogue clock</li> <li>• Sequencing daily activities</li> <li>• Whole and half turns linked to time</li> </ul> <p><b>Exploring calculation strategies within 20</b></p> <ul style="list-style-type: none"> <li>• Model, explain and choose addition and subtraction strategies</li> </ul> <p><b>Numbers to 50</b></p> <ul style="list-style-type: none"> <li>• 2-digit numbers – represent, sequence, explore, compare.</li> <li>• Count in 2s, 5s and 10s</li> <li>• Describe and complete number patterns</li> </ul> <p><b>Addition and subtraction within 20</b></p> <ul style="list-style-type: none"> <li>• Illustrate, explain, and link addition and subtraction with equations</li> <li>• Apply 'Make Ten' strategy</li> <li>• Use language to quantify and compare difference</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Identify <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math> of a shape or objects</li> <li>• Find <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math> of a quantity</li> </ul> <p><b>Measures: Length and mass</b></p> <ul style="list-style-type: none"> <li>• Compare and measure lengths and mass using cm and kg</li> <li>• Doubling and halving</li> </ul>	<p><b>Numbers 50 to 100 and beyond</b></p> <ul style="list-style-type: none"> <li>• Read, write, represent, compare and order numbers to 100</li> <li>• One more / fewer, ten more / fewer</li> <li>• Identify number patterns</li> </ul> <p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>• Explore addition and subtraction involving 2-digit numbers and ones</li> <li>• Represent and explain addition and subtraction with regrouping</li> <li>• Investigate number bonds within 20</li> </ul> <p><b>Money</b></p> <ul style="list-style-type: none"> <li>• Name coins and notes and understand their value</li> <li>• Represent the same value using different coins</li> <li>• Find change</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Share equally into groups</li> <li>• Doubling</li> <li>• Link halving to fractions</li> <li>• Add equal groups</li> <li>• Explore arrays</li> </ul> <p><b>Measures: Capacity and volume</b></p> <ul style="list-style-type: none"> <li>• Compare capacities, volumes and lengths</li> <li>• Explore litres</li> <li>• Apply understanding of fractions to capacity</li> </ul>
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2	<p><b>Numbers within 100</b></p> <ul style="list-style-type: none"> <li>• Read, write, represent, partition, compare and order numbers to 100</li> <li>• Explore patterns including, odds and evens, tens and ones</li> </ul> <p><b>Addition and subtraction of 2-digit numbers</b></p> <ul style="list-style-type: none"> <li>• Apply number bonds to add and subtract</li> <li>• Represent and explain addition and subtraction of two 2-digit numbers.</li> <li>• Add three 1-digit numbers</li> </ul> <p><b>Addition and subtraction word problems</b></p> <ul style="list-style-type: none"> <li>• Introduction to bar models as a representation</li> <li>• Create, label and sketch bar models</li> </ul> <p><b>Measures: Length</b></p> <ul style="list-style-type: none"> <li>• Draw and measure lengths in centimetres</li> <li>• Use &lt;, &gt; and = to compare and order lengths in metres and centimetres</li> </ul> <p><b>Graphs</b></p> <ul style="list-style-type: none"> <li>• Represent and interpret: pictograms, block diagrams, tables and tally charts</li> </ul> <p><b>Multiplication and division 2, 5 and 10</b></p> <ul style="list-style-type: none"> <li>• Calculate the times tables of 2, 5, and 10 by skip counting</li> <li>• Relate the 2 times table to doubling</li> <li>• Explore representations of multiplication and division</li> <li>• Commutativity</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• Tell the time on an analogue clock: quarter past, quarter to and five minute intervals</li> <li>• Calculate durations of time in minutes and seconds</li> <li>• Sequence daily events</li> <li>• Minutes in an hour and hours in a day</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Part-whole relationships</li> <li>• Fractions as part of a whole or a whole set</li> <li>• Relate to division</li> <li>• Equivalent fractions</li> </ul> <p><b>Addition and subtraction of 2-digit numbers</b></p> <ul style="list-style-type: none"> <li>• Illustrate, represent and explain addition and subtraction involving regrouping including 'Make Ten', 'Round and adjust' and near doubles strategies</li> </ul> <p><b>Money</b></p> <ul style="list-style-type: none"> <li>• Recognise coins and notes</li> <li>• Use £ and p accurately</li> <li>• Add and subtract amounts</li> <li>• Calculate change</li> </ul> <p><b>Face, shapes and patterns; Lines and turns</b></p> <ul style="list-style-type: none"> <li>• Explore, sort and describe 2-D shapes</li> <li>• Lines of symmetry in 2-D shapes</li> <li>• Identify 2-D shapes on 3-D shapes</li> <li>• Compare and sort 2-D and 3-D shapes</li> <li>• Use language to describe position, direction and rotation to follow a route</li> </ul>	<p><b>Numbers within 1000</b></p> <ul style="list-style-type: none"> <li>• Represent in different ways</li> <li>• Compare using symbols</li> <li>• Read scales</li> </ul> <p><b>Measures: Capacity and volume</b></p> <ul style="list-style-type: none"> <li>• Read and measure temperature</li> <li>• Estimate, measure and understand litres and millilitres</li> <li>• Compare and order capacities</li> </ul> <p><b>Measures: Mass</b></p> <ul style="list-style-type: none"> <li>• Weigh and compare masses in kilograms and grams</li> </ul> <p><b>Exploring calculation strategies</b></p> <ul style="list-style-type: none"> <li>• Apply addition and subtraction strategies to solve equations</li> <li>• Illustrate and explain addition and subtraction using column method</li> </ul> <p><b>Multiplication and division 3 and 4</b></p> <ul style="list-style-type: none"> <li>• Multiplication and division facts for 3 and 4</li> <li>• Relate 4 times table to doubling the 2 times tables</li> <li>• Describe, interpret and represent using arrays and bar models</li> <li>• Recognise inverse relationship</li> </ul>
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<p>3</p>	<p>Year 3</p> <p><b>Number sense and exploring calculation strategies</b></p> <ul style="list-style-type: none"> <li>• Read, write, order and compare numbers to 100</li> <li>• Calculate mentally using known facts, round and adjust, near doubles, adding on to find the difference</li> <li>• Derive new facts from a known fact</li> </ul> <p><b>Place value</b></p> <ul style="list-style-type: none"> <li>• Read, write, represent, partition, order and compare 3-digit numbers</li> <li>• Find 10 and 100 more or less</li> <li>• Round to the nearest multiple of 10 and 100</li> </ul> <p><b>Graphs</b></p> <ul style="list-style-type: none"> <li>• Collect, interpret and present data using charts and tables</li> </ul> <p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>• Develop and use a range of mental calculation strategies</li> <li>• Illustrate and explain formal written methods – column method</li> </ul> <p><b>Length and perimeter</b></p> <ul style="list-style-type: none"> <li>• Measure, draw and compare lengths</li> <li>• Add and subtract lengths</li> <li>• Calculate perimeter</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Multiplication and division facts for 2, 3, 4, 5, 6, 8 and 10</li> <li>• Multiplicative structures: equal groups/parts, change and comparison, correspondence problems</li> <li>• Relationships: commutativity and inverse</li> </ul> <p><b>Deriving multiplication and division facts</b></p> <ul style="list-style-type: none"> <li>• Multiply and divide by 10 and 100</li> <li>• Multiply a 2-digit number by 2, 3, 4, 5 and corresponding division situations</li> <li>• Divide 2-digit by a 1-digit</li> </ul> <p><b>Time</b></p> <ul style="list-style-type: none"> <li>• Tell, record, write and order the time analogue and digital</li> <li>• 12-hour, a.m., p.m.</li> <li>• Measure, calculate and compare durations</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Part-whole relationships</li> <li>• Fractions as part of a whole or a whole set and as a number</li> <li>• Add, subtract, compare and order fractions</li> </ul>	<p>Angles and shape</p> <ul style="list-style-type: none"> <li>• Identify angles including right angles and recognise as a quarter of a turn</li> <li>• Identify and draw parallel and perpendicular lines</li> <li>• Draw/make, classify and compare 2-D and 3-D shapes</li> <li>• Measure the perimeter</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>• Read scales with different intervals when measuring mass and volume</li> <li>• Weigh and compare masses and capacities with mixed units</li> <li>• Estimate mass and capacity</li> </ul> <p><b>Securing multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Recall and use multiplication and division facts for 6 and 8 times table</li> </ul> <p><b>Exploring calculation strategies and place value</b></p> <ul style="list-style-type: none"> <li>• Add and subtract mentally</li> <li>• Find 10, 100 and 1000 more or less</li> <li>• Order and compare beyond 1000</li> <li>• Round numbers</li> </ul>
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<p>4</p>	<p>Year 4</p> <p><b>Reasoning with large numbers</b></p> <ul style="list-style-type: none"> <li>• 4-digit place value. Read, write, represent, order and compare</li> <li>• Find 10, 100 or 1000 more or less</li> <li>• Round numbers to the nearest 10, 100 or 1000</li> </ul> <p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>• Select appropriate strategies to add and subtract</li> <li>• Illustrate and explain appropriate addition and subtraction strategies including column method with regrouping</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Distributive property including multiplying three 1-digit numbers</li> <li>• Mental multiplication and division strategies using place value and known and derived facts</li> <li>• Short multiplication and division</li> </ul> <p><b>Discrete and continuous data</b></p> <ul style="list-style-type: none"> <li>• Read, interpret and construct pictograms, bar charts and time graphs</li> <li>• Compare tables, pictograms and bar charts</li> </ul>	<p><b>Securing multiplication facts</b></p> <ul style="list-style-type: none"> <li>• Identify and explore patterns in multiplication tables including 7 and 9</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Explore different interpretations and representations of fractions</li> <li>• Equivalent fractions</li> <li>• Represent fractions greater than one as mixed number and improper fractions</li> <li>• Add and subtract fractions with the same denominator including fractions greater than one</li> </ul> <p><b>Time</b></p> <ul style="list-style-type: none"> <li>• Analogue to digital, 12- hour and 24-hour</li> <li>• Convert between units of time</li> </ul> <p><b>Decimals</b></p> <ul style="list-style-type: none"> <li>• Decimal equivalents to tenths, quarters and halves</li> <li>• Compare and order numbers with same number of decimal places</li> <li>• Multiply and divide by 10 and 100 including decimals</li> </ul> <p><b>Area and perimeter</b></p> <ul style="list-style-type: none"> <li>• Perimeter of rectangles and rectilinear shapes</li> <li>• Area of rectangles and rectilinear shapes</li> <li>• Investigate area and perimeter</li> </ul>	<p><b>Solving measures and money problems</b></p> <ul style="list-style-type: none"> <li>• Convert units of measure</li> <li>• Select appropriate units to measure</li> <li>• Use strategies to investigate problems: trial and improvement, organising using lists and tables, working systematically</li> </ul> <p><b>Shape and symmetry</b></p> <ul style="list-style-type: none"> <li>• Classify, compare and order angles</li> <li>• Compare and classify 2-D shapes</li> <li>• Identify lines of symmetry</li> </ul> <p><b>Position and direction</b></p> <ul style="list-style-type: none"> <li>• Describe and plot using coordinates</li> <li>• Describe translations</li> </ul> <p><b>Reasoning with pattern and sequences</b></p> <ul style="list-style-type: none"> <li>• Roman numerals up to 100</li> <li>• Place value of other number systems</li> <li>• Number sequences and patterns</li> </ul> <p><b>3-D shape</b></p> <ul style="list-style-type: none"> <li>• Use understanding of 3-D shapes</li> <li>• Identify 3-D shapes from 2-D representations</li> </ul>
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5	<p><b>Reasoning with large whole integers</b></p> <ul style="list-style-type: none"> <li>• Read, write, order and compare numbers up to one million</li> <li>• Round numbers within one million to the nearest multiple of powers of ten</li> <li>• Read Roman numerals up to M</li> </ul> <p><b>Integer addition and subtraction</b></p> <ul style="list-style-type: none"> <li>• Use rounding to estimate</li> <li>• Use a range of mental calculation strategies to add and subtract integers</li> <li>• Illustrate and explain the written method of column addition and subtraction</li> <li>• Select efficient calculation strategies</li> </ul> <p><b>Line graphs and timetables</b></p> <ul style="list-style-type: none"> <li>• Complete, read and interpret data presented in line graphs</li> <li>• Read and interpret timetables including calculating intervals</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Identify multiples and factors</li> <li>• Investigate prime numbers</li> <li>• Multiply and divide by 10, 100 and 1000 (integers)</li> <li>• Derived facts</li> <li>• Illustrate and explain formal multiplication and division strategies such as short and long</li> <li>• Use a range of mental calculation strategies</li> </ul> <p><b>Perimeter and area</b></p> <ul style="list-style-type: none"> <li>• Investigate area and perimeter of rectilinear shapes</li> <li>• Estimate area of nonrectilinear shapes</li> </ul>	<p><b>Fractions and decimals</b></p> <ul style="list-style-type: none"> <li>• Read, write, order and compare decimals</li> <li>• Round decimals to the nearest whole number</li> <li>• Represent, identify, name, write, order and compare fractions (including improper and mixed numbers)</li> <li>• Calculate fractions of amounts</li> </ul> <p><b>Angles</b></p> <ul style="list-style-type: none"> <li>• Classify, compare and order angles</li> <li>• Measure a draw angles with a protractor</li> <li>• Understand and use angle facts to calculate missing angles</li> </ul> <p><b>Fractions and percentages</b></p> <ul style="list-style-type: none"> <li>• Add, subtract fractions with denominators that are multiples of the same number</li> <li>• Multiply fractions (and mixed numbers) by a whole number</li> <li>• Explore percentage, decimal, fractions equivalence</li> </ul> <p><b>Transformations</b></p> <ul style="list-style-type: none"> <li>• Coordinates in all four quadrants</li> <li>• Translation and reflection</li> <li>• Calculate intervals across zero as a context for negative numbers</li> </ul>	<p><b>Converting units of measure</b></p> <ul style="list-style-type: none"> <li>• Convert between metric units of length, mass and capacity and units of time</li> <li>• Know and use approximate conversion between imperial and metric</li> </ul> <p><b>Calculating with whole numbers and decimals</b></p> <ul style="list-style-type: none"> <li>• Mental strategies to add and subtract involving decimals</li> <li>• Formal written strategies to add, subtract and multiply involving decimals</li> <li>• Multiply and divide by 10, 100 and 1000 involving decimals</li> <li>• Derive multiplication facts involving decimals</li> </ul> <p><b>2-D and 3-D shape</b></p> <ul style="list-style-type: none"> <li>• Classify 2-D shapes and reason about regular and irregular polygons</li> <li>• Properties of diagonals of quadrilaterals</li> <li>• Classify 3-D shapes</li> <li>• 2-D representations of 3-D shapes</li> </ul> <p><b>Volume</b></p> <ul style="list-style-type: none"> <li>• Use cube numbers and notation</li> <li>• Estimate volume</li> <li>• Convert units of volume</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Negative numbers and calculating intervals across zero</li> <li>• Calculating the mean</li> <li>• Interpret remainders</li> <li>• Investigate numbers: consecutive, palindromic, multiples</li> </ul>
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6	<p><b>Integers and decimals</b></p> <ul style="list-style-type: none"> <li>• Represent, read, write, order and compare numbers up to ten million</li> <li>• Round numbers, make estimates and use this to solve problems in context</li> <li>• Solve multi-step problems involving addition and subtraction</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Identify and use properties of number, focusing on primes</li> <li>• Multiply larger integers and decimal numbers using a range of strategies</li> <li>• Divide integers by 1-digit and 2-digit numbers representing remainders appropriately</li> <li>• Illustrate and explain formal multiplication and division strategies</li> </ul> <p><b>Calculation problems</b></p> <ul style="list-style-type: none"> <li>• Understand the use of brackets</li> <li>• Use knowledge of the order of operations to carry out calculations</li> <li>• Generate and describe linear number sequences</li> <li>• Express missing number problems algebraically</li> <li>• Solve equations with unknown values</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Deepen understanding of equivalence</li> <li>• Order, simplify and compare fractions, including those greater than one</li> <li>• Recall equivalence between common fractions and decimals</li> <li>• Find decimal quotients using short division</li> <li>• Add and subtract fractions</li> </ul> <p><b>Missing angles and length</b></p> <ul style="list-style-type: none"> <li>• Compare and classify a range of geometric shapes</li> <li>• Use angle facts to find unknown angles</li> </ul>	<p><b>Coordinates and shapes</b></p> <ul style="list-style-type: none"> <li>• Draw a range of geometric shapes using given dimensions and angles</li> <li>• Describe, draw, translate and reflect shapes on a co-ordinate plane</li> <li>• Recognise and construct 3-D shapes</li> <li>• Name and illustrate parts of a circle</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Represent multiplication involving fractions</li> <li>• Multiply two proper fractions</li> <li>• Divide a fraction by an integer</li> </ul> <p><b>Decimals and measure</b></p> <ul style="list-style-type: none"> <li>• Use, read, write and convert between standard units of measures; length, mass, time, money and volume as well as imperial units</li> <li>• Calculate the area of parallelograms and triangles</li> <li>• Calculate, estimate and compare the volume of cuboids</li> </ul> <p><b>Percentage and statistics</b></p> <ul style="list-style-type: none"> <li>• Calculate and compare percentages of amounts</li> <li>• Connect percentages with fractions</li> <li>• Explore the equivalence of fractions, decimals and percentages</li> <li>• Calculate the mean</li> <li>• Construct and interpret lines graphs and pie charts</li> <li>• Compare pie charts</li> </ul> <p><b>Proportion problems</b></p> <ul style="list-style-type: none"> <li>• Use fractions to express proportion</li> <li>• Identify ratio as a relationship between quantities and as a scale factor</li> <li>• Unequal sharing involving ratio</li> </ul>	
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