

# Mathematics Medium Term Overview: Year 6



<b>T1 Week 1</b> Place Value Terms – positional, multiplicative, additive, base10	<b>T1 Week 2</b> Place Value and relative size of number	<b>T1 Week 3</b> Fractions Division	<b>T1 Week 4</b> Calculation of Percentages and decimals	<b>T1 Week 5</b> Equivalences of fractions, decimals and percentages	<b>T1 Week 6</b> Mental Calculation	<b>T1 Week 7</b> Written methods for addition and subtraction	<b>T1 Week 8</b> Written methods for addition and subtraction, including decimals,
<b>T2 Week 1</b> Mental calculation strategies,	<b>T2 Week 2</b> Continue with mental for area and volume using multiplication	<b>T2 Week 3</b> Written methods with reasoning for multiplication and division as the inverse.	<b>T2 Week 4</b> Written methods with reasoning for division and multiplication as the inverse.	<b>T2 Week 5</b> Scaling up and scaling down. Of fraction and number	<b>T2 Week 6</b> 3D shape: using moldable material	<b>T2 Week 7</b> 2D shape:	<b>T2 Week 8</b> 2D shape:
<b>T3 Week 1</b> Place Value as in term 1	<b>T3 Week 2</b> Continuation of week 1 Algebra	<b>T3 Week 3</b> Negative numbers	<b>T3 Week 4</b> Fractions, : addition and subtraction,	<b>T3 Week 5</b> fractions to decimals and percentages, moving on from term 1	<b>T3 Week 6</b> Mental calculation strategies as in Term 1,	<b>T3 Week 7</b> Continue with mental calculation strategies and reasoning	<b>T3 Week 8</b> Written calculation of addition and subtraction
<b>T4 Week 1</b> Mental Calculation as in term 2	<b>T4 Week 2</b> Written methods for multiplication and division	<b>T4 Week 3</b> Long division	<b>T4 Week 4</b> Scaling up and scaling down as in term 2	<b>T4 Week 5</b> Interesting numbers:	<b>T4 Week 6</b> Recapping 3D and 2D shape covered in Term 2	<b>T4 Week 7</b> Circles: radius, diameter, circumference	<b>T4 Week 8</b> Full coordinate grid work Translation
<b>T5 Week 1</b> SATs Revision	<b>T5 Week 2</b> SATs Revision	<b>T5 Week 3</b> SATs Revision	<b>T5 Week 4</b> SATs	<b>T5 Week 5</b> Project work  Looking to year 7 curriculum	<b>T5 Week 6</b> Project work  Looking to year 7 curriculum	<b>T5 Week 7</b> Project work  Looking to year 7 curriculum	<b>T5 Week 8</b> Project work  Looking to year 7 curriculum
<b>T6 Week 1</b> Project work  Looking to year 7 curriculum	<b>T6 Week 2</b> Project work  Looking to year 7 curriculum	<b>T6 Week 3</b> Project work  Looking to year 7 curriculum	<b>T6 Week 4</b> Project work  Looking to year 7 curriculum	<b>T6 Week 5</b> Project work  Looking to year 7 curriculum	<b>T6 Week 6</b> Project work  Looking to year 7 curriculum	<b>T6 Week 7</b> Project work  Looking to year 7 curriculum	<b>T6 Week 8</b> Project work  Looking to year 7 curriculum

## Mathematics Medium Term Overview: Year 6



Reasoning and Mastery of Number: **Autumn 1; Spring 1 and Summer 1**

Reasoning and Mastery of Addition and Subtraction: **Autumn 1; Spring 1 and Summer 1**

Reasoning and Mastery of Multiplication and Division: **Autumn 2; Spring 2 and Summer 2**

Reasoning and Mastery of Geometry: **Autumn 2; Spring 2 and Summer 2**

Fractions, Statistics, Fractions, Measurement are all integrated within these four main blocks

These are highlighted in Red and are essential that they are taught in that week to ensure coverage. These elements will be monitored to ensure they happen in these weeks.

	Overall Weekly outcome
	Statutory Content to be taught during specific weeks week
	Possible Enrichment activities
<b>Target Tracker Statements</b> in red text for Terms 1-5. Term 6 focus use missing targets within each unit	



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As part of starter activities each day count in steps of the multiplication tables that you want the children to rehearse, decimal and fraction steps and steps that help children with mental calculation strategies such as 25, 50 and 75. Link this to linear number sequences in algebra.  
 It is also helpful to count in positive and negative integers across zero.  
 Rehearse telling the time on analogue and digital clocks. Rehearse mental calculation strategies.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Reasoning and Mastery of Number <b>Place Value</b>		Reasoning and Mastery of Number <b>Fractions and Percentages</b>			Reasoning and Mastery of Addition and Subtraction		
<b>Autumn 1</b>	<p><b>Vocabulary:</b>                      Multiplicative Additive fraction vinculum, denominator, numerator, equivalence                      fraction vinculum, denominator, numerator, equivalence</p> <p><b>Mental Arithmetic Focus                      Addition</b></p> <p>Follow micro steps as a base guide from steps 19 to final</p>					<p><b>Vocabulary:</b>                      Augend for the number you have, addend for the numbers to be added, sum for the combined amounts: augend add addend equals sum                      Minuend for the amount you have, subtrahend for the amount subtracted and difference for the amount left:                      minuend subtract subtrahend equals difference</p> <p><b>Mental Arithmetic Focus                      Subtraction</b></p> <p>Follow Micro steps 20 to final</p>		

# Mathematics Medium Term Overview: Year 6



Autumn 1

	<p>Place Value Terms – positional, multiplicative, additive, base10</p> <p>Recognising Place Value up to 10,000,000 children need to know the value of all place value columns and variation between columns include 100ths from year 4 and 5 and 1000ths</p> <p>Grids &amp; Digit cards Gettegno charts possible examples</p> <p>less than, equals mass, capacity, volume and money Statistics Brief Recap on Roman Numerals 10 1000</p>	<p>Place Value and relative size of number</p> <p>Solve Practical activities with mass, capacity, volume and money Rounding numbers up and down including decimals to 4 decimal places and with numbers to 10,000,000</p> <p>Ordering and comparing, Greater than,  Link to measurement-</p> <p>Recap on Prime numbers and composite numbers. Year 5</p>	<p>Fractions Division</p> <p>Dividing fractions and decimal place value, whole part relationships linking to bar modelling (animals see planning support document) Problem solving throughout</p>	<p>Calculation of Percentages and decimals</p> <p>Making calculations of percentages such as 15% of 360 or 15 % of 3.60 making explicit links with fraction and decimals</p> <p>Link to pie charts,</p> <p>Bar modelling, Problem solving throughout</p>	<p>Equivalences of fractions, decimals and percentages</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</p> <p>Include Fractions with different denominators and include those such as 25% 50% and 75%</p> <p>Link to Measurement imperial and metric</p>	<p>Mental Calculation</p> <p>Partitioning, doubling, halving, number pairs up to 10,000,000 Using near multiples of 10 and adjusting to solve addition and subtraction problems, using known number facts, bridging through 10, counting on and counting back Time differences and durations Bar charts Perimeter and its formula Missing number problems linking to algebra</p>	<p>Written methods for addition and subtraction</p> <p>Use of written methods for addition and subtraction of whole numbers, up to 10,000,000 subtraction to check and vice versa finding totals and differences</p> <p>Using bar charts/ line graphs/ pie charts and real data to generate problems</p>	<p>Written methods for addition and subtraction, including decimals,</p> <p>Using written methods to solve problems involving Measures of length, cm and mm, mass kg and g, capacity, l and ml, miles and KM</p> <p>practical activities and problem solving (sand)</p>
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# Mathematics Medium Term Overview: Year 6



Target Tracker Statements	<u>Number and Place Value</u>	<u>Number and Place Value</u>	<u>Fractions</u>	<u>Fractions</u>	<u>Fractions</u>	<u>Number and Place Value</u>	<u>Addition and Subtraction</u>	<u>Addition and Subtraction</u>
<p>I can read, write, order and compare numbers to at least 10, 000,000 and say the value of each digit</p> <p>I can round any number to a required degree of accuracy</p> <p>I can solve number and practical problems that involve ordering and comparing numbers to 10,000,000, rounding to a required degree of accuracy...</p> <p>I can show an understanding of place vale including decimals</p> <p><u>Statistics</u></p> <p>I can calculate and interpret the mean as an average.</p>	<p>I can read, write, order and compare numbers to at least 10, 000,000 and say the value of each digit</p> <p>I can round any number to a required degree of accuracy</p> <p>I can solve number and practical problems that involve ordering and comparing numbers to 10,000,000, rounding to a required degree of accuracy...</p> <p>I can show an understanding of place vale including decimals</p> <p><u>Measurement</u></p> <p>I can solve problems involving the calculation and conversion of units of measure, using decimal notation....</p> <p>I can use, read, write and convert between standard units, I can convert measurement of length, mass volume and time...</p>	<p>I can read, write, order and compare numbers to at least 10, 000,000 and say the value of each digit</p> <p>I can round any number to a required degree of accuracy</p> <p>I can solve number and practical problems that involve ordering and comparing numbers to 10,000,000, rounding to a required degree of accuracy...</p> <p>I can show an understanding of place vale including decimals</p> <p><u>Measurement</u></p> <p>I can solve problems involving the calculation and conversion of units of measure, using decimal notation....</p> <p>I can use, read, write and convert between standard units, I can convert measurement of length, mass volume and time...</p>	<p>I can divide proper fractions by whole numbers such as <math>1/3 \times \frac{1}{2} = 1/6</math></p> <p>I can add and subtract fractions with different denominators and mixed numbers</p> <p>I can compare and order fractions including those bigger than 2</p> <p>I can solve problems which require answers to be rounded to specified degrees of accuracy</p> <p>I can use common factors and multiples to simplify fractions and express fractions in the same denominator.</p> <p>I can solve problems involving unequal sharing and grouping. I can use my knowledge of fractions and multiples to do this.</p>	<p>I can use equivalences between simple fractions, decimals and percentages to help me solve problems</p> <p>I can explain the place value of any digit in a number with up to 3 decimal places and multiply or divide by 10, 100 and 1000</p> <p><u>Ratio and Proportion</u></p> <p>I can solve problems that involve the relative sizes of two things where the missing number can be found by multiplying or dividing by whole numbers.</p> <p>I can solve problems involving the calculation of percentages. I can also use percentages for comparison</p> <p><u>Addition and Subtraction</u></p> <p>I can mentally calculate using a mix of the four operations</p> <p><u>Multiplication and Division</u></p> <p>I can mentally calculate using a mix of the four operations and large numbers</p>	<p>I can use equivalences between simple fractions, decimals and percentages to help me solve problems</p> <p>I can explain the place value of any digit in a number with up to 3 decimal places and multiply or divide by 10, 100 and 1000</p> <p>I can link a fraction with division and work out decimal fractions such as knowing that 7 divided by 21 is the same as <math>7/21</math> and that this is equal to <math>1/3</math>...</p> <p><u>Ratio and Proportion</u></p> <p>I can solve problems involving the calculation of percentages. I can also use percentages for comparison</p> <p><u>Measurement</u></p> <p>I can use, read, write and convert between standard units, I can convert measurement of length, mass volume and time...</p>	<p>I can read, write, order and compare numbers to at least 10, 000,000...</p> <p>I can round any number to a required degree of accuracy</p> <p>I can show an understanding of place vale including decimals</p> <p><u>Addition and Subtraction</u></p> <p>I can mentally calculate using a mix of the four operations</p> <p>I can solve addition and subtraction word and practical problems</p> <p><u>Measurement</u></p> <p>I can recognise that shapes with the same area can have different perimeters and vice versa</p> <p><u>Algebra</u></p> <p>I can record missing number problems algebraically</p> <p>I can create a list of possibilities of the combination of two variables</p>	<p>I can mentally calculate using a mix of the four operations</p> <p>I can solve addition and subtraction word and practical problems</p> <p>I can solve problems with more than one step and operation and explain why I used them,</p> <p>I can use estimation to check the answers to determine an appropriate degree of accuracy.</p> <p><u>Statistics</u></p> <p>I can interpret and construct pie charts and line graphs. I can use these to solve problems</p>	<p>I can mentally calculate using a mix of the four operations</p> <p>I can solve addition and subtraction word and practical problems</p> <p>I can solve problems with more than one step and operation and explain why I used them,</p> <p>I can use estimation to check the answers to determine an appropriate degree of accuracy.</p> <p><u>Measurement</u></p> <p>I can use, read, write and convert between standard units, I can convert measurement of length, mass volume and time</p> <p>I can convert between miles and kilometres</p>

# Mathematics Medium Term Overview: Year 6



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Reasoning and Mastery of Multiplication and Division					Reasoning and Mastery of Geometry		
Autumn 2	<p><b>Vocabulary:</b>  <b>Multiplicand</b> for the number you have, <b>multiplier</b> for the amount of times you have it and <b>product</b> for the total:                      multiplicand multiplied by multiplier equals product  <b>Dividend</b> for the amount you have, <b>divisor</b> for the number of groups you are taking away and <b>quotient</b> for how many groups you make:                      dividend divided by divisor equals quotient</p> <p><b>Mental Arithmetic Focus</b>  <b>Multiplication</b></p> <p>Follow micro steps as a base guide from steps 15 to final</p>					<p><b>Vocabulary:</b>  <b>Names of shapes; Symmetry</b> reflectional symmetry, translational symmetry prism, angles, acute obtuse reflex straight angle, full rotation (perigon angle)                      Plane, viewpoint, orientation,</p> <p><b>Mental Arithmetic Focus</b>  <b>Division</b></p> <p>Follow micro steps as a base guide from steps 16 to final</p>		

# Mathematics Medium Term Overview: Year 6



Autumn 2

	<p>Mental calculation strategies,</p> <p>Partitioning doubling and doubling, halving and halving, x by 5 and 10 and halving, ÷ by 5 by ÷ 10 and doubling by 20 by x10 and double ÷ 20 by ÷ by 10 and halving, x by 15, x by 10, halve and add, using known facts, grouping</p> <p>Bar model problems, e.g. Sam had 23 cars, Tom had 5 times as many. How many more did Tom have?</p>	<p>Continue with mental for area and volume using multiplication</p> <p>Using formulae to find areas and solid volumes and exploring the formulae for these – practically on squared paper and using interlocking cubes.</p> <p>Creating, e.g. time/distance line graphs where scale goes up in multiples the children need to practice Missing number problems linking to algebra</p>	<p>Written methods with reasoning for multiplication and division as the inverse.</p> <p>Practical reasoning of multiplication and division and inverse. Make arrays using place value counters for 4 digits multiplication by single digit and link to grid method and then onto written method.</p> <p>Link this to division using the array, for example, <math>1\ 365 \times 3 = 4\ 095</math>, so <math>4\ 095 \div 1365 = 3</math> and link to <math>4\ 095 \div 3 = 1\ 365</math>.</p> <p>Link to measures: 1l 245ml juice in a jug, how much in 6 jugs?</p> <p>Bar modelling</p>	<p>Written methods with reasoning for division and multiplication as the inverse.</p> <p>Use manipulatives for 4 digits by single digit. Checking using multiplication.</p> <p>Word problems that have remainders and the children need to decide what to do, e.g. 145 children going on trip, mini buses hold 9 children. How many mini buses needed?</p> <p>Word Problems</p>	<p>Scaling up and scaling down. Of fraction and number</p> <p>Doubling of number and fractions.</p> <p>Currency conversion and metric to imperial conversion through problem solving.</p> <p>Link this to ratio.</p> <p>4 times as much type question linking to measurement.</p>	<p>3D shape: material</p> <p>Recognising sphere, cube, cuboid, pyramid from nets and through properties of more advanced properties, exploring what doing to get each new shape and properties. Include shapes from different orientations.</p> <p>Exploring which patterns make nets and which don't. Repeat net work for cuboids, prisms. Pyramid and prism</p> <p>Investigations: how many faces, edges and vertices do they have? MA&amp;T Can they make an algebraic generalisation?</p> <p>Use of protractor</p>	<p>2D shape: Radius and Circumference</p> <p>Introduce radius, diameter and circumference and know that the diameter is twice the radius they could explore the relationship between diameter and circumference</p> <p>Revisit naming shapes as per properties. that this is not new learning but a recap on learning. This can link to reasoning style questioning.</p>	<p>2D shape: Block as one week for week 7 and 8</p> <p>Drawing shapes using given dimensions and angles, focusing on how to use a protractor including 360 protractors and external angles include and where they meet a straight line including ones where others are missing.</p> <p>Exploring missing angles in shapes using formula, e.g. <math>a = 180 - (b + c)</math></p>
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Target Tracker Statements	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Properties of Shape</u>	<u>Properties of Shape</u>
	<p>I can mentally calculate using a mix of the four operations and large numbers</p> <p>I can use the order of importance of the four operations when answering questions</p> <p>I can solve problem involving addition subtraction multiplication and division</p> <p>I can use estimating to check the answers and problem solving.</p>	<p>I can mentally calculate using a mix of the four operations and large numbers</p> <p>I can use the order of importance of the four operations when answering questions</p> <p>I can solve problem involving addition subtraction multiplication and division</p> <p>I can use estimating to check the answers and problem solving</p> <p><u>Measurement</u></p> <p>I can recognise when it is possible to use formulae to find the areas or volumes of shapes</p> <p>I can calculate, estimate and compare volumes of cubes and cuboids using standard units, including cubic centimetres and cubic metres...</p> <p><u>Algebra</u></p> <p>I can record missing number problems algebraically</p>	<p>I can multiply numbers of up to 4 digits by a two-digit number using a formal written method.</p> <p>I can divide numbers of up to 4 digits by a two-digit number using a formal written method of long division, showing remainders, fractions or rounding as appropriate</p> <p>I can divide numbers of up to 4 digits by a two-digit numbers using a formal written method of short division, showing remainders, fractions or rounding as appropriate</p> <p>I can solve addition and subtraction multi-step problems deciding which operations and methods to use and explain why they were suitable</p> <p><u>Measurement</u></p> <p>I can use, read, write and convert between standard units, I can convert measurement of length, mass volume and time</p> <p>I can convert between miles and kilometres</p>	<p>I can multiply numbers of up to 4 digits by a two-digit number using a formal written method.</p> <p>I can divide numbers of up to 4 digits by a two-digit number using a formal written method of long division, showing remainders, fractions or rounding as appropriate</p> <p>I can divide numbers of up to 4 digits by a two-digit numbers using a formal written method of short division, showing remainders, fractions or rounding as appropriate</p> <p>I can solve addition and subtraction multi-step problems deciding which operations and methods to use and explain why they were suitable</p> <p>I can solve problem involving addition subtraction multiplication and division</p> <p>I can use estimating to check the answers and problem solving</p>	<p>I can solve problem involving addition subtraction multiplication and division</p> <p>I can use estimating to check the answers and problem solving</p> <p><u>Fractions</u></p> <p>I can multiply numbers less than 10 with up to 2 decimal places.</p> <p><u>Measurement</u></p> <p>I can solve problems involving the calculation and conversion of units of measure, using decimal notation....</p> <p>I can use, read, write and convert between standard units, I can convert measurement of length, mass volume and time...</p> <p><u>Ration and Proportion</u></p> <p>I can solve problems involving shapes where the scale factor is known of can be found</p>	<p>I can recognise describe and build simple 3-D shapes including making nets.</p> <p>I can compare and classify geometric shapes based on their properties and sizes. I can also find unknown angles in any triangles quadrilaterals or regular polygons</p> <p><u>Algebra</u></p> <p>I can create a list of possibilities of the combination of two variables</p> <p>I can use a simple formulae</p>	<p>I can draw 2-D Shapes using dimensions and angles I am given</p> <p>I can recognise angles where they meet at a point are on a straight line or are vertically opposite. I can then find any missing angles.</p> <p>I can recognise describe and build simple 3-D shapes including making nets.</p> <p>I can compare and classify geometric shapes based on their properties and sizes. I can also find unknown angles in any triangles quadrilaterals or regular polygons</p> <p>I can illustrate and name the parts of circles including radius, diameter and circumference. I know that the diameter is twice the radius.</p> <p><u>Algebra</u></p> <p>I can find pairs of numbers which complete an equation with two unknowns</p>

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	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Reasoning and Mastery of Number <b>Place Value</b>		Reasoning and Mastery of Number <b>Fractions and Percentages</b>			Reasoning and Mastery of Addition and Subtraction		
<b>Spring 1</b>	<p>Vocabulary:  <b>Multiplicative</b> Additive fraction vinculum, denominator, numerator, equivalence                      fraction vinculum, denominator, numerator, equivalence</p> <p style="text-align: center;"><b>Mental Arithmetic Focus Addition</b></p> <p style="text-align: center;">Follow micro steps as a base guide from steps Where needed in class</p>					<p>Vocabulary:  <b>Augend</b> for the number you have, <b>addend</b> for the numbers to be added, <b>sum</b> for the combined amounts:                      augend add addend equals sum  <b>Minuend</b> for the amount you have, <b>subtrahend</b> for the amount subtracted and <b>difference</b> for the amount left:                      minuend subtract subtrahend equals difference</p> <p style="text-align: center;"><b>Mental Arithmetic Focus Subtraction.</b></p> <p style="text-align: center;">Follow Micro steps where needed in class</p>		

# Mathematics Medium Term Overview: Year 6



Spring 1

	<p>Place Value as in term 1</p> <p>Link to Algebra algebra: finding pairs of numbers that satisfy an equation with two unknowns, with numbers greater than 100,000</p> <p><math>x + y = a</math> composite number that has 0 as a place holder in the 1000s column but is greater than 1000</p> <p>Missing number elements</p>	<p>Continuation of week 1 Algebra</p> <p>Compare through reasoning other aspects of algebra, e.g. enumerate possibilities of combinations of two variables and other aspects listed in the planning support document</p> <p>Algebra of area where the shape is built up of more than one quadrilateral</p> <p>Is there a formula?</p>	<p>Negative numbers</p> <p>within the context of temperature, money and depth below sea level</p> <p>Use of quadrants to make posing questions. For example what was the weather like in December based on the chart?</p> <p>Link to money and temperature</p>	<p>Fractions, : addition and subtraction,</p> <p>Adding and subtracting fractions. finding equivalences to do this, counting in fractional steps, improper fractions and mixed numbers</p> <p>– link to addition and counting, e.g. <math>\frac{1}{2}</math>, <math>1, 1\frac{1}{2}, 2, 2\frac{1}{2}</math>, how many halves?</p> <p>Multiplying and dividing fractions</p>	<p>fractions to decimals and percentages, moving on from term 1</p> <p>Finding equivalences between the three moving onto more complex numbering including numbers &gt; than 1</p> <p>for example <math>\frac{2}{10} = 20\% = 0.2</math></p> <p>Money and fractions</p> <p>Bar modelling problems</p>	<p>Mental calculation strategies as in Term 1, Can link week 6 and 7 together</p> <p>Picking up on any strategies that weren't covered (see planning support document)</p> <p>Bridging though tenth, one, ten, hundred etc. e.g. <math>12.7 + 13.8 = 13 + 13.5</math></p> <p>linking to time differences and perimeter</p>	<p>Continue with mental calculation strategies and reasoning Can link week 6 and 7 together</p> <p>Using bar modelling to solve problems using only mental calculations</p> <p>Bar modelling Problem solving</p>	<p>Written calculation of addition and subtraction</p> <p>Using column methods for addition and subtraction, linking to money multi-step problems</p>
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Target Tracker Statements	<u>Number and Place Value</u>	<u>Number and Place Value</u>	<u>Number and Place Value</u>	<u>Fractions</u>	<u>Fractions</u>	<u>Number and Place Value</u>	<u>Number and Place Value</u>	<u>Addition and Subtraction</u>
	I can read, write, order and compare numbers to at least 10, 000,000 and say the value of each digit	I can read, write, order and compare numbers to at least 10, 000,000 and say the value of each digit	I can read, write, order and compare numbers to at least 10, 000,000 and say the value of each digit	I can divide proper fractions by whole numbers such as $1/3 \times \frac{1}{2} = 1/6$	I can use equivalences between simple fractions, decimals and percentages to help me solve problems	I can read, write, order and compare numbers to at least 10, 000,000...	I can read, write, order and compare numbers to at least 10, 000,000...	I can mentally calculate using a mix of the four operations
	I can round any number to a required degree of accuracy	I can round any number to a required degree of accuracy	I can round any number to a required degree of accuracy	I can add and subtract fractions with different denominators and mixed numbers	I can explain the place value of any digit in a number with up to 3 decimal places and multiply or divide by 10, 100 and 1000	I can round any number to a required degree of accuracy	I can round any number to a required degree of accuracy	I can solve addition and subtraction word and practical problems
	I can solve number and practical problems that involve ordering and comparing numbers to 10,000,000, rounding to a required degree of accuracy...	I can solve number and practical problems that involve ordering and comparing numbers to 10,000,000, rounding to a required degree of accuracy...	I can solve number and practical problems that involve ordering and comparing numbers to 10,000,000, rounding to a required degree of accuracy...	I can compare and order fractions including those bigger than 2	I can solve problems which require answers to be rounded to specified degrees of accuracy	I can show an understanding of place value including decimals	I can show an understanding of place value including decimals	I can solve problems with more than one step and operation and explain why I used them,
	I can show an understanding of place value including decimals	I can show an understanding of place value including decimals	I can show an understanding of place value including decimals.	I can use common factors and multiples to simplify fractions and express fractions in the same denominator.	<u>Ratio and Proportion</u> I can solve problems that involve the relative sizes of two things where the missing number can be found by multiplying or dividing by whole numbers.	<u>Addition and Subtraction</u> I can mentally calculate using a mix of the four operations	<u>Addition and Subtraction</u> I can mentally calculate using a mix of the four operations	I can use estimation to check the answers to determine an appropriate degree of accuracy.
	<u>Algebra</u> I can create a list of possibilities of the combination of two variables	<u>Algebra</u> I can create a list of possibilities of the combination of two variables	I can use negative numbers in context when looking at temperature or money: counting in jumps forwards and backwards through 0.	I can use common factors and multiples to simplify fractions and express fractions in the same denominator.	I can solve problems involving the calculation of percentages. I can also use percentages for comparison	I can solve addition and subtraction word and practical problems	I can solve addition and subtraction word and practical problems	
	I can use a simple formulae.	I can use a simple formulae.		I can use equivalences between simple fractions, decimals and percentages to help me solve problems	<u>Multiplication and Division</u> I can mentally calculate using a mix of the four operations and large numbers	<u>Measurement</u> I can recognise that shapes with the same area can have different perimeters and vice versa	<u>Measurement</u> I can recognise that shapes with the same area can have different perimeters and vice versa	
	I can record missing number problems algebraically.	I can record missing number problems algebraically.		I can link a fraction with division and work out decimal fractions such as knowing that 7 divided by 21 is the same as $7/21$ and that this is equal to $1/3$ ...				
	I can create and describe linear sequences	I can create and describe linear sequences		I can use common factors and multiples to simplify and express fractions in the same denominator.				

# Mathematics Medium Term Overview: Year 6



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Reasoning and Mastery of Multiplication and Division					Reasoning and Mastery of Geometry		
Spring 2	<p><b>Vocabulary:</b>  <b>Multiplicand</b> for the number you have, <b>multiplier</b> for the amount of times you have it and <b>product</b> for the total:                      multiplicand multiplied by multiplier equals product  <b>Dividend</b> for the amount you have, <b>divisor</b> for the number of groups you are taking away and <b>quotient</b> for how many groups you make:                      dividend divided by divisor equals quotient</p> <p><b>Mental Arithmetic Focus</b>  <b>Multiplication</b></p> <p>Follow micro steps as a base guide from steps                      Where needed in class</p>					<p><b>Vocabulary:</b>  <b>Names of shapes; Symmetry</b> reflectional symmetry, translational symmetry prism, angles, acute obtuse reflex straight angle, full rotation (perigon angle)                      Plane, viewpoint, orientation,</p> <p><b>Mental Arithmetic Focus</b>  <b>Division</b></p> <p>Follow micro steps as a base guide from steps                      Where needed in class</p>		

# Mathematics Medium Term Overview: Year 6



Spring 2	Mental Calculation as in term 2	Written methods for multiplication and division	Long division	Scaling up and scaling down as in term 2	Interesting numbers:	Recapping 3D and 2D shape covered in Term 2	Full coordinate grid work Translation	Circles: radius, diameter, circumference
	<p>include finding pairs of numbers that satisfy an equation two unknowns, e.g. <math>a \times 12 = b</math>, <math>a \times b = 48</math></p> <p>Link to prime and composite numbers (non-prime)</p>	<p>Long multiplication through grid method</p> <p>Statistics: line graphs, bar graphs and mean of a set of data</p> <p>Focus on the Mean of a set</p>	<p>Solving problems to the nearest decimal using long division</p> <p>Problem solving</p>	<p>Scaling of whole numbers and decimals using multiplication and division</p>	<p>Primes, squares linking to area, cubes linking to volume</p> <p>Factor and multiple investigations</p> <p>Prime Volume Cubed numbers</p>	<p>Drawing triangles and quadrilaterals by use of a protractor to given angles and dimensions</p> <p>Finding missing angles linking to algebra</p> <p>Area and Algebra</p>	<p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes including across a 4 quadrant with looking into negative coordinates.</p>	<p>Revisit and name parts of circles, including radius, diameter and for example: Link this to reasoning problems and solving problems</p> <p><math>d = 2 \times r</math></p> <p>MA&amp;T</p> <p>Link to pie charts and knowing that pie chart is 10 degrees.</p> <p>To calculate the percentage each slice is worth, measure the angle of each slice and divide this by 360 then multiply it by 100. To find the number of pieces of data each slice represents, multiply the percentage that each slice is worth by the total number of the data sets.</p>

# Mathematics Medium Term Overview: Year 6



Target Tracker Statements	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Multiplication and Division</u>	<u>Properties of Shape</u>	<u>Position and Direction</u>	<u>Properties of Shape</u>
	<p>I can mentally calculate using a mix of the four operations and large numbers</p> <p>I can use the order of importance of the four operations when answering questions</p> <p>I can solve problem involving addition subtraction multiplication and division</p> <p>I can use estimating to check the answers and problem solving I can solve addition and subtraction multi-step problems deciding which operations and methods to use and explain why they were suitable</p> <p>I can identify common factors, multiples and prime numbers</p>	<p>I can multiply numbers of up to 4 digits by a two-digit number using a formal written method.</p> <p>I can divide numbers of up to 4 digits by a two-digit number using a formal written method of long division, showing remainders, fractions or rounding as appropriate</p> <p>I can divide numbers of up to 4 digits by a two-digit numbers using a formal written method of short division, showing remainders, fractions or rounding as appropriate</p> <p>I can solve addition and subtraction multi-step problems deciding which operations and methods to use and explain why they were suitable</p> <p>I can use estimating to check the answers and problem solving</p> <p><u>Statistics</u></p> <p>I can interpret and construct pie charts and line graphs. I can use these to solve problems</p>	<p>I can multiply numbers of up to 4 digits by a two-digit number using a formal written method.</p> <p>I can divide numbers of up to 4 digits by a two-digit number using a formal written method of long division, showing remainders, fractions or rounding as appropriate</p> <p>I can divide numbers of up to 4 digits by a two-digit numbers using a formal written method of short division, showing remainders, fractions or rounding as appropriate</p> <p>I can solve addition and subtraction multi-step problems deciding which operations and methods to use and explain why they were suitable</p> <p>I can use estimating to check the answers and problem solving</p>	<p>I can solve problem involving addition subtraction multiplication and division</p> <p>I can use estimating to check the answers and problem solving</p> <p><u>Fractions</u></p> <p>I can multiply numbers less than 10 with up to 2 decimal places.</p> <p><u>Ration and Proportion</u></p> <p>I can solve problems involving shapes where the scale factor is known of can be found</p>	<p>I can identify common factors, multiples and prime numbers</p> <p><u>Measurement</u></p> <p>I can calculate, estimate and compare volumes of cubes and cuboids using standard units, including cubic centimetres and cubic metres...</p> <p>I can recognise that shapes with the same area can have different perimeters and vice versa</p> <p>I can recognise when it is possible to use formulae to find the areas or volumes of shapes</p> <p>I can calculate, estimate and compare volumes of cubes and cuboids using standard units, including cubic centimetres and cubic metres...</p>	<p>I can recognise describe and build simple 3-D shapes including making nets.</p> <p>I can compare and classify geometric shapes based on their properties and sizes. I can also find unknown angles in any triangles quadrilaterals or regular polygons</p> <p>I can calculate the areas of parallelograms and triangles</p> <p><u>Algebra</u></p> <p>I can create a list of possibilities of the combination of two variables</p> <p>I can use a simple formulae</p> <p>I can find pairs of numbers which complete an equation with two unknowns.</p>	<p>I can describe positions in all four quadrants on a full coordinate graph</p> <p>I can draw and translate simple shapes on the coordinate plane and reflect these in the axis</p> <p>I can illustrate and name the parts of circles including radius, diameter and circumference. I know that the diameter is twice the radius.</p>	<p>I can illustrate and name the parts of circles including radius, diameter and circumference. I know that the diameter is twice the radius.</p>

## Mathematics Medium Term Overview: Year 6



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
	Combination of: Reasoning and Mastery of Number Reasoning and Mastery of Addition and Subtraction Reasoning and Mastery of Multiplication and Division Reasoning and Mastery of Geometry							
Summer 1	SATs Revision  Place value with addition and subtraction of positive and negative numbers, Fractions  Additive	SATs Revision  Algebra comparison: enumerate possibilities of combinations of two variables, e.g. ice cream, football kits  Multiplicative	SATs Revision  Geometric Reasoning: Properties of shapes including symmetry Translation Coordinates	SATS WEEK	Exciting project that involves all learnt over the year, e.g. planning a holiday, designing a bedroom, theme park	Exciting project that involves all learnt over the year, e.g. planning a holiday, designing a bedroom, theme park	Exciting project that involves all learnt over the year, e.g. planning a holiday, designing a bedroom, theme park	Exciting project that involves all learnt over the year, e.g. planning a holiday, designing a bedroom, theme park
Summer 2	Continuation of project work  Looking to year 7 curriculum	Continuation of project work  Looking to year 7 curriculum	Continuation of project work  Looking to year 7 curriculum	Transition projects  Looking to year 7 curriculum	Transition projects  Looking to year 7 curriculum	Transition projects  Looking to year 7 curriculum	Transition projects  Looking to year 7 curriculum	Transition projects  Looking to year 7 curriculum