



Year 6 Curriculum	Number and place value	Addition and subtraction Multiplication & division	Fractions, Percentages and Decimals	Ratio, Proportion and Algebra
<p data-bbox="94 220 264 245">Autumn term</p> 	<ul data-bbox="349 225 725 783" style="list-style-type: none"> <li>• Secure knowledge of place value with numbers to 2 decimal places</li> <li>• Count on and back from any given number in powers of 10</li> <li>• Know the number that is a power of 10 more/less than any number up to ten million</li> <li>• Be able to read, write, partition and know the value of each digit of numbers up to ten million</li> <li>• Estimate to the nearest 10, 100, 1000, 10000, 100,000 and 1000,000</li> <li>• Solve problems in different contexts</li> <li>• Use approximation to estimate and check answers to calculations and determine the levels of accuracy</li> </ul>	<ul data-bbox="801 225 1155 1166" style="list-style-type: none"> <li>• Know times tables to 12 x 12 and the related division facts and relate to multiples of 10</li> <li>• Find common factors of two or more numbers</li> <li>• Identify prime numbers and explore patterns within them</li> <li>• Multiply and divide numbers mentally using known facts</li> <li>• Use the method of short division for a 4 digit number by a single digit number and also a 3 digit number by a 2 digit number</li> <li>• Secure multiplication of numbers up to 4 digit numbers by a single digit using a written method</li> <li>• Derive related facts using known multiplication and division facts including decimals (00.9 x 7)</li> <li>• Multiply 2 and 3 digit numbers by a 2 digit number using long multiplication</li> <li>• Secure division of three digit numbers by two digit numbers using short division, expressing remainders as a whole number, decimal or fraction</li> <li>• Solve problems using all four operations</li> </ul>	<ul data-bbox="1234 225 1666 959" style="list-style-type: none"> <li>• Simplify fractions using common factors</li> <li>• Find equivalent fractions using multiplication facts</li> <li>• Express two fractions so they have the same denominator (1/6 and 5/12.....1/6 becomes 2/12)</li> <li>• Compare and order fractions including fractions &gt; 1</li> <li>• Add/subtract fractions with different denominators using equivalence</li> <li>• Add/subtract mixed numbers with different denominators using equivalence</li> <li>• Read, write and order decimals with up to 3 decimal places</li> <li>• Round decimals to 2 decimal places</li> <li>• Multiply and divide numbers by 10, 100, 1000 and explain the movement of digits left and right (answers can be up to 3 decimal places)</li> <li>• Recall and use equivalences between simple fractions, decimals and percentages</li> </ul>	<ul data-bbox="1742 225 2141 991" style="list-style-type: none"> <li>• Solve scaling problems in a range of contexts</li> <li>• Know that scaling up involves multiplication and scaling down involves division</li> <li>• To know that the scale factor is the amount by which an object has been enlarged or reduced</li> <li>• Enlarge or reduce a shape using a given scale factor</li> <li>• Identify the scale factor used to enlarge or reduce a shape</li> <li>• Express the relationship between numbers in words then symbols</li> <li>• Understand algebra as an aspect where letters and symbols represent the unknown</li> <li>• Form and solve equations using simple shapes</li> <li>• Substitute a given value for an unknown</li> <li>• Understand that letters and numbers together make expressions</li> <li>• To understand that expressions can be simplified</li> </ul>

Year 6 Curriculum	Number and place value	Addition and subtraction Multiplication & Division	Fractions, Percentages and Decimals	Ratio, Proportion and Algebra
<p>Spring term</p> 	<ul style="list-style-type: none"> <li>Secure knowledge of place value with numbers to 2 decimal places</li> <li>Count on and back from any given number in powers of 10</li> <li>Know the number that is a power of 10 more/less than any number up to ten million</li> <li>Be able to read, write, partition and know the value of each digit of numbers up to ten million</li> <li>Estimate to the nearest 10, 100, 1000, 10000, 100,000 and 1000,000</li> <li>Solve problems in different contexts</li> <li>Identify and position positive and negative numbers on a number line</li> <li>Compare negative numbers using <math>&lt;</math> <math>&gt;</math> symbols</li> <li>Order a set of positive and negative numbers in a given context</li> <li>Calculate intervals between positive and negative numbers by finding the difference</li> <li>Solve problems involving negative numbers in different contexts</li> <li>Use approximation to estimate and check answers to calculations and determine the levels of accuracy</li> </ul>	<ul style="list-style-type: none"> <li>Know times tables to <math>12 \times 12</math> and the related division facts and relate to multiples of 10</li> <li>Find common factors of two or more numbers</li> <li>Identify prime numbers and explore patterns within them</li> <li>Multiply and divide numbers mentally using known facts</li> <li>Use the method of short division for a 4 digit number by a single digit number and also a 3 digit number by a 2 digit number</li> <li>Secure multiplication of numbers up to 4 digit numbers by a single digit using a written method</li> <li>Derive related facts using known multiplication and division facts including decimals (<math>00.9 \times 7</math>)</li> <li>Multiply 4 digit numbers by a 2 digit number using long multiplication</li> <li>Secure division of three/four digit numbers by two digit numbers using short and long division, expressing remainders as a whole number, decimal or fraction</li> <li>Solve problems using all four operations</li> <li>Use brackets to explore the order of operations using BODMAS</li> <li>Calculate mentally using factors</li> <li>Secure knowledge of brackets to determine the order of operations</li> <li>Perform mental calculations including mixed operations</li> <li>Multiply one digit numbers with up to 2 decimal places by a whole number (<math>2.75 \times 8</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Simplify fractions using common factors</li> <li>Find equivalent fractions using multiplication facts</li> <li>Express two fractions so they have the same denominator (<math>1/6</math> and <math>5/12</math>.....<math>1/6</math> becomes <math>2/12</math>)</li> <li>Compare and order fractions including fractions <math>&gt; 1</math></li> <li>Add/subtract fractions with different denominators using equivalence</li> <li>Add/subtract mixed numbers with different denominators using equivalence</li> <li>Read, write and order decimals with up to 3 decimal places</li> <li>Round decimals to 2 decimal places</li> <li>Multiply and divide numbers by 10, 100, 1000 and explain the movement of digits left and right (answers can be up to 3 decimal places)</li> <li>Recall and use equivalences between simple fractions, decimals and percentages</li> <li>Find equivalent fractions with a given numerator or denominator</li> <li>Write a fraction in its simplest form using equivalence</li> <li>Multiply simple pairs of proper fractions</li> <li>Divide a proper fraction by whole numbers</li> <li>To know that a percentage is a way of expressing a fraction as parts of a hundred</li> <li>To find 10% by dividing by 10 and to find 1% you divide by 100</li> <li>To explain how to find percentages of amounts (17% of 200)</li> <li>To calculate percentages that go beyond multiples of 5 and 10</li> <li>To solve missing number box percentage problems</li> <li>To solve problems involving percentages</li> </ul>	<ul style="list-style-type: none"> <li>Solve scaling problems in a range of contexts</li> <li>Know that scaling up involves multiplication and scaling down involves division</li> <li>To know that the scale factor is the amount by which an object has been enlarged or reduced</li> <li>Enlarge or reduce a shape using a given scale factor</li> <li>Identify the scale factor used to enlarge or reduce a shape</li> <li>Express the relationship between numbers in words then symbols</li> <li>Understand algebra as an aspect where letters and symbols represent the unknown</li> <li>Form and solve equations using simple shapes</li> <li>Substitute a given value for an unknown</li> <li>Understand that letters and numbers together make expressions</li> <li>To understand that expressions can be simplified</li> <li>To understand that a linear sequence continues as a constant whereas a non-linear does not</li> <li>Identify and describe the rule for a sequence</li> <li>Understand that a formula may be written to describe a rule</li> <li>To investigate special sequences (Fibonacci)</li> </ul>

Year 6 Curriculum	Number and place value	Addition and subtraction Multiplication & Division	Fractions, Percentages and Decimals	Ratio, Proportion and Algebra
<p>Summer term</p> 	<ul style="list-style-type: none"> <li>Secure knowledge of place value with numbers to 3 decimal places</li> <li>Count on and back from any given number in powers of 10</li> <li>Know the number that is a power of 10 more/less than any number up to ten million</li> <li>Be able to read, write, partition and know the value of each digit of numbers up to ten million</li> <li>Estimate and round to the nearest 10, 100, 1000, 10000, 100,000 and 1000,000</li> <li>Solve problems in different contexts</li> <li>Identify and position positive and negative numbers on a number line</li> <li>Compare negative numbers using <math>&lt;</math> <math>&gt;</math> symbols</li> <li>Order a set of positive and negative numbers in a given context</li> <li>Calculate intervals between positive and negative numbers by finding the difference</li> <li>Solve problems involving negative numbers in different contexts</li> <li>Use approximation to estimate and check answers to calculations and determine the levels of accuracy</li> </ul>	<ul style="list-style-type: none"> <li>Know times tables to 12 x 12 and the related division facts and relate to multiples of 10</li> <li>Use known facts to derive related facts fluently</li> <li>Secure knowledge of multiples, factors, primes, squares and cubes</li> <li>To know the prime numbers to at least 19</li> <li>To know square numbers to 144</li> <li>Secure knowledge of mental strategies including with mixed operations and large numbers</li> <li>Use estimation and rounding to check answers and to make sensible estimates</li> <li>Solve multi-step worded problems for all four operations</li> <li>Find common factors of two or more numbers</li> <li>Identify prime numbers and explore patterns within them</li> <li>Multiply and divide numbers mentally using known facts</li> <li>Use the method of short division for a 4 digit number by a single digit number and also a 3 digit number by a 2 digit number</li> <li>Secure multiplication of numbers up to 4 digit numbers by a single digit using a written method</li> <li>Derive related facts using known multiplication and division facts including decimals (0.09 x 7)</li> <li>Multiply 4 digit numbers by a 2 digit number using long multiplication</li> <li>To use long division with 2 digit divisors</li> <li>Secure division of three/four digit numbers by two digit numbers using short and long division, expressing remainders as a whole number, decimal or fraction</li> <li>Use brackets to explore the order</li> </ul>	<ul style="list-style-type: none"> <li>Simplify fractions using common factors</li> <li>Find equivalent fractions using multiplication facts</li> <li>Express two fractions so they have the same denominator (1/6 and 5/12.....1/6 becomes 2/12)</li> <li>Compare and order fractions including fractions <math>&gt;</math> 1</li> <li>Add/subtract fractions with different denominators using equivalence</li> <li>Add/subtract mixed numbers with different denominators using equivalence</li> <li>Read, write and order decimals with up to 3 decimal places</li> <li>Round decimals to 2 decimal places</li> <li>Multiply and divide numbers by 10, 100, 1000 and explain the movement of digits left and right (answers can be up to 3 decimal places)</li> <li>Recall and use equivalences between simple fractions, decimals and percentages</li> <li>Find equivalent fractions with a given numerator or denominator</li> <li>Write a fraction in its simplest form using equivalence</li> <li>Multiply simple pairs of proper fractions</li> <li>Divide a proper fraction by whole numbers</li> <li>To know that a percentage is a way of expressing a fraction as parts of a hundred</li> <li>To find 10% by dividing by 10 and to find 1% you divide by 100</li> <li>To calculate simple fractions, decimals and percentages in different contexts</li> <li>To explain how to find percentages of amounts (17% of 200)</li> <li>To calculate percentages that go beyond multiples of 5 and 10</li> <li>To solve missing number box percentage problems</li> <li>To solve problems involving percentages</li> <li>Calculate the decimal fraction equivalent for a simple fraction using division</li> <li>Add/subtract mixed numbers and different denominators</li> </ul>	<ul style="list-style-type: none"> <li>Solve scaling problems in a range of contexts</li> <li>Know that scaling up involves multiplication and scaling down involves division</li> <li>To know that the scale factor is the amount by which an object has been enlarged or reduced</li> <li>Enlarge or reduce a shape using a given scale factor</li> <li>Identify the scale factor used to enlarge or reduce a shape</li> <li>Use simple ratio and proportional reasoning to solve problems</li> <li>Express the relationship between numbers in words then symbols</li> <li>Understand algebra as an aspect where letters and symbols represent the unknown</li> <li>Form and solve equations using simple shapes</li> <li>Substitute a given value for an unknown</li> <li>Understand that letters and numbers together make expressions</li> <li>To understand that expressions can be simplified</li> <li>To understand that a linear sequence continues as a constant whereas a non-linear does not</li> <li>Identify and describe the rule for a sequence</li> <li>Understand that a formula may be written to describe a rule</li> <li>To investigate special sequences (Fibonacci)</li> <li>To know that ratio compares one part to another</li> <li>Proportion compares one part to the whole</li> <li>Solve problems using a four cell diagram</li> <li>Express missing number problems algebraically</li> <li>Find pairs of numbers that satisfy an</li> </ul>

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		<p>of operations using BODMAS</p> <ul style="list-style-type: none"> <li>• Calculate mentally using factors</li> <li>• Secure knowledge of brackets to determine the order of operations</li> <li>• Perform mental calculations including mixed operations and large numbers</li> </ul>	<ul style="list-style-type: none"> <li>• Multiply one digit numbers with up to 2 decimal places (<math>5.64 \times 12</math>)</li> <li>• Divide two or three digit numbers by two digit numbers where the answer has up to two decimal places</li> <li>• Divide decimal numbers by one digit whole numbers</li> <li>• Solve problems which require answers to be rounded to specified degrees of accuracy</li> </ul>	<p>equation involving two unknowns</p> <ul style="list-style-type: none"> <li>• Enumerate all possibilities of combinations of two variables  <math>A + A + A + B + B</math>  A and B are worth two different whole numbers. The sum above is 30. What is the value of A and B?</li> </ul>