

# AUTUMN

## Year 1

Place Value	Addition & Subtraction	Geometry – Shape	Place Value (to 20)
<ul style="list-style-type: none"> <li>- Count to and beyond 100 forwards and backwards</li> <li>- Identify and represent numbers using objects and pictorial reps</li> <li>- Identify one more and one less</li> </ul>	<ul style="list-style-type: none"> <li>- Read &amp; write maths statements involving '+', '-' and '='</li> <li>- Represent and use number bonds within 20</li> </ul>	<ul style="list-style-type: none"> <li>- Recognise and name common 2D shapes</li> <li>- Recognise and name common 3D shapes</li> </ul>	<ul style="list-style-type: none"> <li>- Count in multiples of 2s, 5s and 10s</li> </ul>

### Resources/Activities

<ul style="list-style-type: none"> <li>- Counting songs</li> <li>- Dice games</li> <li>- Number Bingo</li> <li>- Card Games (Snap, number pairs)</li> <li>- Physical resources: Rubber vehicles, counters, Numicon</li> </ul>	<ul style="list-style-type: none"> <li>- Dice addition</li> <li>- Grouping and counting</li> <li>- Numicon</li> </ul>	<ul style="list-style-type: none"> <li>- Playdough/cookie cutters</li> <li>- Lollipop stick shapes</li> <li>- Using 2D shapes to form pictures (houses, rockets etc)</li> <li>- Pin boards and elastics</li> <li>- Plastic shapes and sorting rings</li> </ul>	<ul style="list-style-type: none"> <li>- Grouping</li> <li>- Multilink cubes</li> <li>- Number peg lines</li> <li>- Counting songs</li> </ul>
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## Year 2

Place Value	Addition & Subtraction	Measurement – Money	Number – Multiplication and Division
<ul style="list-style-type: none"> <li>- Count in 2s, 3s, 5s from 0 and in 10s from any number (forward and backwards)</li> </ul>	<ul style="list-style-type: none"> <li>- Recall addition and subtraction facts to 20</li> <li>*related facts to 100</li> </ul>	<ul style="list-style-type: none"> <li>- Recognise and use symbols for pounds and pence, combine to make a particular value</li> </ul>	<ul style="list-style-type: none"> <li>- Recall and use multiplication and division facts for 2, 5 and 10</li> </ul>

<ul style="list-style-type: none"> <li>- Read and write numbers to 100 in numerals and words</li> <li>- Identify, represent and estimate numbers using different representations</li> </ul>	<ul style="list-style-type: none"> <li>- Show that addition can be commutative and subtraction cannot</li> <li>- Recognise and use the inverse relationship between addition &amp; subtraction to solve missing number problems and check calculations</li> <li>- Add and subtract numbers using concrete objects, pictorial representations and mentally</li> <li>- Solve addition and subtraction problems</li> </ul>	<ul style="list-style-type: none"> <li>- Find different combinations of coins that make the same amounts</li> <li>- Solve simple problems in practical context, involving addition and subtraction, including giving change</li> </ul>	<ul style="list-style-type: none"> <li>multiplication tables, and recognise odd and even numbers</li> <li>- Show that multiplication of two numbers can be done in any order (commutative) and that division can not</li> <li>- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication, division and equals signs</li> <li>- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication/division facts – Including problems in context</li> </ul>
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**Resources/Activities**

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**Year 3**

<b>Number: Place Value</b>	<b>Number: Addition &amp; Subtraction</b>	<b>Number: Multiplication &amp; Division</b>
<ul style="list-style-type: none"> <li>- Count from 0 in multiples of 4, 8, 50 and 100</li> <li>- Count backwards through 0, to include negatives</li> </ul>	<ul style="list-style-type: none"> <li>- Estimate answers to calculations and use inverse operations to check answers</li> </ul>	<ul style="list-style-type: none"> <li>- Recall and use multiplication and division facts for 3, 4 and 8 multiplication tables</li> </ul>

<ul style="list-style-type: none"> <li>- Identify, represent and estimate numbers using different representations</li> <li>- Read and write numbers to 1000 in numerals and words</li> <li>- Recognise the place value of each digit in a 3 digit number</li> <li>- Compare and order numbers to 1000</li> <li>- Solve number problems and practical problems involving place value</li> </ul>	<ul style="list-style-type: none"> <li>- Add and subtract numbers mentally, including a three digit number and 1s/10s/100s</li> <li>- Add and subtract numbers with 3 digits using formal written methods of columnar addition/subtraction</li> <li>- Solve problems including missing number, place value, number facts, and complex addition/subtraction</li> </ul>	<ul style="list-style-type: none"> <li>- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two digit times one digit numbers using mental and progressing to formal written methods</li> </ul>
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**Resources/Activities**

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**Year 4**

<b>Number: Place Value</b>	<b>Number: Addition &amp; Subtraction</b>	<b>Measurement: Length &amp; Perimeter</b>	<b>Number: Multiplication &amp; Division</b>
<ul style="list-style-type: none"> <li>- Count in multiples of 6, 7, 9, 25 and 1000</li> <li>- Count backwards through 0 to include negative numbers</li> </ul>	<ul style="list-style-type: none"> <li>- Estimate and use inverse operations to check calculations</li> <li>- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>- Convert between different units of measure</li> <li>- Estimate, compare and calculate different measures</li> </ul>	<ul style="list-style-type: none"> <li>- Recall multiplication and division facts for multiplication tables to 12x12</li> <li>- Use place value, known and derived facts to multiply and divide mentally</li> </ul>

<ul style="list-style-type: none"> <li>- Identify, represent and estimate numbers using different representations</li> <li>- Read Roman Numerals to 100 (I to C), and know that over time, the numeral system changed to include the concept of zero and place value</li> <li>- Find 1000 less or more than a given number</li> <li>- Recognise the place value of each digit in a 4 digit number</li> <li>- Order and compare numbers beyond 1000</li> <li>- Round any number to the nearest 10, 100 or 1000</li> <li>- Solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<ul style="list-style-type: none"> <li>- Solve addition and subtraction two step problems in context, deciding which operations and methods to use and why</li> </ul>	<ul style="list-style-type: none"> <li>- Measure and calculate the perimeter of a rectilinear shape in centimetres and metres</li> <li>- Find the area of rectilinear shapes by counting squares</li> </ul>	<ul style="list-style-type: none"> <li>- Recognise and use factor pairs and commutativity in mental calculations</li> </ul>
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**Resources/Activities**

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**Year 5**

<b>Number: Place Value</b>	<b>Number: Addition &amp; Subtraction</b>	<b>Statistics</b>	<b>Number: Multiplication &amp; Division</b>	<b>Measurement: Perimeter and Area</b>
<ul style="list-style-type: none"> <li>- Count forwards or backwards in steps of powers of 10 for any given number to 1,000,000,</li> <li>- Count forwards and backwards with positive and negative whole numbers, including through zero</li> <li>- Read, write, order and compare numbers to 1,000,000, and determine the value of each digit</li> <li>- Read Roman numerals to 1000 and recognise years written in Roman numerals</li> <li>- Interpret negative numbers in context</li> <li>- Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000</li> <li>- Solve number and practical problems that involve all of the above</li> </ul>	<ul style="list-style-type: none"> <li>- Use rounding to check answers to calculations, and determine, in the context of a problem, levels of accuracy</li> <li>- Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</li> <li>- Add and subtract increasingly large numbers mentally</li> <li>- Solve addition and subtraction multi step problems in contexts, deciding which operations to use and why</li> <li>- Solve problems involving addition, subtraction, multiplication and division, and a combination of these, including understanding of the equals sign</li> </ul>	<ul style="list-style-type: none"> <li>- Complete, read and interpret information in tables, including timetables</li> <li>- Solve comparison, sum and difference problems using information presented in a line graph</li> </ul>	<ul style="list-style-type: none"> <li>- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</li> <li>- Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</li> <li>- Establish whether a number up to 100 is prime and recall prime numbers to 19</li> <li>- Recognise and use square numbers and cube numbers, and the notation for these</li> <li>- Multiply numbers up to 4 digits by 1 or 2 digit numbers using formal written method including long multiplication for 2 digit numbers</li> <li>- Multiply and divide numbers mentally using known number facts</li> <li>- Divide numbers up to 4 digits by a 1 digit number using the formal written method of short division and interpret remainders</li> </ul>	<ul style="list-style-type: none"> <li>- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</li> <li>- Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres and square metres, and estimate the area of irregular shapes</li> <li>- Estimate volume (for example, using 1cm cubed blocks to build cuboids) and capacity (for example, using water)</li> </ul>

			<ul style="list-style-type: none"> <li>- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</li> <li>- Solve problems involving multiplication and division, including using knowledge of factors, multiples, squares and cubes</li> <li>- Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</li> </ul>	
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<b>Resources/Activities</b>
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<b>Year 6</b>
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<b>Number: Place Value</b>	<b>Number: Addition, Subtraction, Multiplication &amp; Division</b>	<b>Number: Fractions</b>	<b>Geometry: Position &amp; Direction</b>
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<ul style="list-style-type: none"> <li>- Read, write, order and compare numbers to 10,000,000 and determine the value of each digit</li> <li>- Round any whole number to a required degree of accuracy</li> <li>- Use negative numbers in context and calculate intervals across zero</li> <li>- Solve number and practical problems that involve all of the above</li> </ul>	<ul style="list-style-type: none"> <li>- Perform mental calculation including with mixed operations and with large numbers</li> <li>- Use their knowledge of the order of operations to carry out calculations involving all four</li> <li>- Solve addition and subtraction multi step problems in contexts, deciding which operations to use and why</li> <li>- Identify common factors, common multiples and prime numbers</li> <li>- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</li> <li>- Multiply up to 4 digit numbers by a 2 digit whole number using formal written method of long multiplication</li> <li>- Divide numbers up to 4 digits by a 2 digit number using the formal written method of long division, and interpret remainders as whole number remainders, fractions or by rounding</li> <li>- Divide numbers up to 4 digits by 2 digit numbers using the formal written method of short division, interpreting remainders according to the context</li> <li>- Perform mental calculations including mixed operations and large numbers</li> </ul>	<ul style="list-style-type: none"> <li>- Use common factors to simplify fractions, use common multiples to express fractions in the same denomination</li> <li>- Compare and order fractions including fractions <math>&gt; 1</math></li> <li>- Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions</li> <li>- Multiply simple pairs of proper fractions, writing the answer in it's simplest form</li> <li>- Divide proper fractions by whole numbers</li> </ul>	<ul style="list-style-type: none"> <li>- Describe positions on the full coordinate grid (all 4 quadrants)</li> <li>- Draw and translate simple shapes on the coordinate plane, and reflect them in the axes</li> </ul>
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|                             | <ul style="list-style-type: none"><li>- Solve problems including all four operations</li><li>- Use knowledge of the order of operations to carry out calculations</li></ul> |  |  |
| <b>Resources/Activities</b> |   |  |  |
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**Resources/Activities**