

Long Term Curriculum Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<p>Number, place value and rounding</p> <ul style="list-style-type: none"> ● <u>count to and across 100, forwards and backwards, beginning with 0 or 1</u> ● <u>count, read and write numbers to 100 in numerals</u> ● <u>given a number, identify one more and one less</u> ● <u>identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>compare, describe and solve practical problems for:</u> - lengths and heights [for example, long / short, longer / shorter, tall / short, double / half] - mass or weight [for example, heavy / light, heavier than, lighter than] - capacity / volume [for example, full / empty, more than, less than, half, half full, quarter] ● <u>recognise and use language relating to dates, including days of the week, weeks, months and years.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>given a number, identify one more and one less</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>represent and use number bonds and related subtraction facts within 20</u> ● <u>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>given a number, identify one more and one less</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>represent and use number bonds and related subtraction facts within 20</u> ● <u>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</u> ● <u>recognise and use language relating to dates, including days of the week, weeks, months and years.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</u> ● <u>count, read and write numbers to 100 in numerals</u> ● <u>given a number, identify one more and one less</u> ● <u>identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>compare, describe and solve practical problems for:</u> - lengths and heights [for example, long/short, longer/ shorter, tall/short, double/half] - mass or weight [for example, 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</u> ● <u>count, read and write numbers to 100 in numerals; count in multiples of twos and tens</u> ● <u>given a number, identify one more and one less</u> ● <u>identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>recognise and know the value of different denominations of coins and notes.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count, read and write numbers to 100 in numerals; count in multiples of twos and tens</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>recognise and know the value of different denominations of coins and notes.</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</u> ● <u>count, read and write numbers to 100 in numerals; count in multiples of twos and tens</u> ● <u>given a number, identify one more and one less</u> ● <u>identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>measure and begin to record the following:</u> - lengths and heights - mass/weight - capacity and volume ● <u>recognise and know the value of different denominations of coins and notes.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</u> ● <u>given a number, identify one more and one less</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</u> ● <u>represent and use number bonds and related subtraction facts within 20</u> ● <u>add and subtract one-digit and two-digit numbers to 20, including zero</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</u> ● <u>count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens</u> ● <u>given a number, identify one more and one less</u> ● <u>identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</u> ● <u>read and write numbers from 1 to 20 in numerals and words</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>measure and begin to record the following:</u> - lengths and heights - mass/weight - capacity and volume - time (hours, minutes, seconds) ● <u>recognise and know the value of different denominations of coins and notes</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</u> ● <u>given a number, identify one more and one less</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</u> ● <u>represent and use number bonds and related subtraction facts within 20</u> ● <u>add and subtract one-digit and</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</u> <p>Fractions</p> <ul style="list-style-type: none"> ● <u>recognise, find and name a half as one of two equal parts of an object, shape or quantity</u> ● <u>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>recognise and know the value of different denominations of coins and notes</u> ● <u>tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</u> <p>Fractions</p> <ul style="list-style-type: none"> ● <u>recognise, find and name a half as one of two equal parts of an object, shape or quantity</u> ● <u>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</u> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <u>recognise and name common 2-D and 3-D shapes, including:</u> - 2-D shapes [for example,

	<p>missing number problems such as $7 = \square - 9$</p> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>sequence events in chronological order using language</u> [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] ● recognise and use language relating to dates, including days of the week, weeks, months and years. 	<p>heavy/light, heavier than, lighter than]</p> <p>- capacity/volume [for example, full/empty, more than, less than, half, half full, quarter]</p> <p>- time [for example, quicker, slower, earlier, later]</p> <ul style="list-style-type: none"> ● recognise and use language relating to dates, including days of the week, weeks, months and years. <p>Number and place value</p> <ul style="list-style-type: none"> ● count to and across 100, forwards and backwards, ● beginning with 0 or 1, or from any given number ● given a number, identify one more and one less <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● represent and use number bonds and related subtraction facts within 20 ● solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$. 		<ul style="list-style-type: none"> ● solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ <p>Measurement</p> <ul style="list-style-type: none"> ● sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] ● recognise and use language relating to dates, including days of the week, weeks, months and years. <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> - 2-D shapes [for example, rectangles (including squares), circles and triangles] - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● describe position, direction and movement. 	<p>two-digit numbers to 20, including zero</p> <ul style="list-style-type: none"> ● solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ 	<p>rectangles (including squares), circles and triangles]</p> <ul style="list-style-type: none"> - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● describe position, direction and movement, <u>including whole, half, quarter and three-quarter turns</u>
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<p>Year 2</p>	<p>Number, place value and rounding</p> <ul style="list-style-type: none"> ● <u>count in steps of 2 and 5 from 0 and in tens from any number, forward and backward</u> ● <u>recognise the place value of each digit in a two-digit number (tens, ones)</u> ● <u>identify, represent and estimate numbers using different representations, including the number line</u> ● <u>compare and order numbers from 0 up to 100</u> ● <u>read and write numbers to at least 100 in numerals</u> ● <u>use place value and number facts to solve problems</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>compare and order lengths, mass, volume / capacity</u> ● <u>compare and sequence intervals of time</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in tens from any number, forward and backward</u> ● <u>recognise the place value of each digit in a two-digit number (tens, ones)</u> ● <u>use place value and number facts to solve problems</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>solve problems with addition and subtraction:</u> <ul style="list-style-type: none"> – <u>using concrete objects and pictorial representations, including those involving numbers, quantities and measures</u> – <u>applying their increasing knowledge of mental methods</u> ● <u>recall and use addition and subtraction facts to 20 fluently</u> ● <u>add and subtract numbers using concrete objects, pictorial representations, and mentally.</u> 	<p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <u>identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line</u> ● <u>identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</u> ● <u>identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</u> ● <u>compare and sort common 2-D and 3-D shapes and everyday objects</u> <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● <u>order and arrange combinations of mathematical objects in patterns and sequences</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in steps of 2 and 5 from 0 and in tens from any number, forward and backward</u> ● <u>recognise the place value of each digit in a two-digit number (tens, ones)</u> ● <u>identify, represent and estimate numbers using different representations, including the number line</u> ● <u>compare and order numbers from 0 up to 100; use <, > and = signs</u> ● <u>read and write numbers to at least 100 in numerals</u> ● <u>use place value and number facts to solve problems</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>compare and order lengths, mass, volume / capacity and record the results using >, < and =</u> ● <u>compare and sequence intervals of time</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>recognise odd and even numbers</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and construct simple pictograms, tally charts, block diagrams and simple tables</u> ● <u>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</u> ● <u>calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs</u> ● <u>show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</u> ● <u>solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>recognise and use symbols for</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward</u> ● <u>recognise the place value of each digit in a two-digit number (tens, ones)</u> ● <u>identify, represent and estimate numbers using different representations, including the number line</u> ● <u>compare and order numbers from 0 up to 100; use <, > and = signs</u> ● <u>read and write numbers to at least 100 in numerals</u> ● <u>use place value and number facts to solve problems</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>choose and use appropriate standard units to estimate and measure length / height in any direction (m / cm); mass (kg / g); temperature (°C); capacity (litres / ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</u> ● <u>compare and order lengths, mass, volume / capacity and record the results using >, < and =</u> ● <u>compare and sequence intervals of time.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in tens from any number, forward and backward</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>solve problems with addition and subtraction:</u> <ul style="list-style-type: none"> – <u>using concrete objects and pictorial representations, including those involving numbers, quantities and measures</u> – <u>applying their increasing knowledge of mental methods</u> ● <u>recall and use addition and</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward</u> ● <u>recognise the place value of each digit in a two-digit number (tens, ones)</u> ● <u>identify, represent and estimate numbers using different representations, including the number line</u> ● <u>compare and order numbers from 0 up to 100; use <, > and = signs</u> ● <u>read and write numbers to at least 100 in numerals and in words</u> ● <u>use place value and number facts to solve problems</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>choose and use appropriate standard units to estimate and measure length / height in any direction (m / cm); mass (kg / g); temperature (°C); capacity (litres / ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</u> ● <u>compare and order lengths, mass, volume / capacity and record the results using >, < and =</u> ● <u>compare and sequence intervals of time</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and construct simple pictograms, tally charts, block diagrams and simple tables</u> ● <u>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in tens from any number, forward and backward</u> ● <u>recognise the place value of each digit in a two-digit number (tens, ones)</u> ● <u>use place value and number facts to solve problems</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</u> ● <u>calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs</u> ● <u>show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</u> ● <u>solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</u> <p>Fractions</p> <ul style="list-style-type: none"> ● <u>recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity</u> ● <u>write simple fractions for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>tell and write the time to five minutes, including quarter past / to the hour and draw the hands on a clock face to show these times</u> ● <u>know the number of minutes in an hour and the number of hours in a day.</u> <p>Geometry: properties of shape</p> <ul style="list-style-type: none"> ● <u>identify and describe the properties of 2-D shapes, including the number of sides</u>
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	<p>including:</p> <ul style="list-style-type: none"> - <u>a two-digit number and ones</u> - <u>a two-digit number and tens</u> - <u>adding three one-digit numbers</u> 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● solve problems with addition and subtraction: <ul style="list-style-type: none"> - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental methods ● recall and use addition and subtraction facts to 20 fluently, and <u>derive and use related facts up to 100</u> ● add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> - a two-digit number and ones - a two-digit number and tens - adding three one-digit numbers ● <u>show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</u> ● <u>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>recognise and use symbols for pounds (£) and pence (p): combine amounts to make a particular value</u> ● <u>find different combinations of coins to equal the same amounts of money</u> ● solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change <p>Statistics</p> <ul style="list-style-type: none"> ● ask and answer questions about totalling and comparing categorical data. 	<p>pounds (£) and pence (p); combine amounts to make a particular value</p> <ul style="list-style-type: none"> ● find different combinations of coins to equal the same amounts of money ● <u>tell and write the time to five minutes</u> ● <u>know the number of minutes in an hour and the number of hours in a day.</u> 	<p>subtraction facts to 20 fluently, and derive and use related facts up to 100</p> <ul style="list-style-type: none"> ● add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers ● show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot ● recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems <p>Measurement</p> <ul style="list-style-type: none"> ● recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value ● find different combinations of coins to equal the same amounts of money ● solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change <p>Statistics</p> <ul style="list-style-type: none"> ● ask and answer questions about totalling and comparing categorical data. 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● solve problems with addition and subtraction: <ul style="list-style-type: none"> - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental methods and written methods ● recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 ● add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers ● show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot ● recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems <p>Statistics</p> <ul style="list-style-type: none"> ● ask and answer questions about totalling and compare categorical data 	<p>and line symmetry in a vertical line</p> <ul style="list-style-type: none"> ● identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces ● identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] ● compare and sort common 2-D and 3-D shapes and everyday objects <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● order and arrange combinations of mathematical objects in patterns and sequences ● use mathematical vocabulary to describe position, direction and movement, including <u>movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)</u> <p>Fractions</p> <ul style="list-style-type: none"> ● recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
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<p>Year 3</p>	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count from 0 in multiples of 100; find 10 or 100 more or less than a given number</u> ● <u>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</u> ● <u>compare and order numbers up to 1000</u> ● <u>identify, represent and estimate numbers using different representations</u> ● <u>read and write numbers up to 1000 in numerals and in words</u> ● <u>solve number problems and practical problems involving these ideas</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>add and subtract numbers mentally, including:</u> <ul style="list-style-type: none"> – <u>a three-digit number and ones</u> – <u>a three-digit number and tens</u> – <u>a three-digit number and hundreds</u> ● <u>add and subtract numbers with up to three digits</u> ● <u>estimate the answer to a calculation and use inverse operations to check answers</u> ● <u>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml)</u> ● <u>add and subtract amounts of money to give change, using both £ and p in practical contexts</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and present data using bar charts, pictograms and tables</u> ● <u>solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count from 0 in multiples of 4, 8, 50 and 100</i> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</u> ● <u>write and calculate mathematical statements for multiplication and division using the multiplication tables that they know</u> ● <u>solve problems, including missing number problems, involving multiplication and division including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</u> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <u>draw 2-D shapes, and make 3-D shapes using modeling materials; 3-D shapes in different orientations</u> ● <u>recognise that angles are a property of shape or a description of a turn</u> ● <u>identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</i> ● <i>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</i> ● <i>compare and order numbers up to 1000</i> ● <i>identify, represent and estimate numbers using different representations</i> ● <i>read and write numbers up to 1000 in numerals and in words</i> ● <i>solve number problems and</i> 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <i>add and subtract numbers mentally, including:</i> <ul style="list-style-type: none"> – <i>a three-digit number and ones</i> – <i>a three-digit number and tens</i> – <i>a three-digit number and hundreds</i> ● <i>add and subtract numbers with up to three digits</i> ● <i>estimate the answer to a calculation and use inverse operations to check answers</i> ● <i>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</i> <p>Measurement</p> <ul style="list-style-type: none"> ● <i>measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml)</i> ● <i>add and subtract amounts of money to give change, using both £ and p in practical contexts</i> <p>Statistics</p> <ul style="list-style-type: none"> ● <i>interpret and present data using bar charts, pictograms and tables</i> ● <i>solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.</i> <p>Number and place value</p> <ul style="list-style-type: none"> ● <i>identify, represent and estimate numbers using different representations</i> <p>Fractions</p> <ul style="list-style-type: none"> ● <i>count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or</i> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count from 0 in multiples of 4, 8, 50 and 100</i> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <i>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</i> ● <i>write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers</i> ● <i>solve problems, including missing number problems, involving multiplication and division including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</i> <p>Fractions</p> <ul style="list-style-type: none"> ● <i>count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10</i> ● <i>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</i> ● <i>solve problems that involve all of the above.</i> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <i>draw 2-D shapes, and make 3-D shapes using modeling materials; recognise 3-D shapes in different orientations and describe them</i> ● <i>recognise that angles are a property of shape or a description of a turn</i> ● <i>identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether</i> 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <i>add and subtract numbers mentally, including:</i> <ul style="list-style-type: none"> – <i>a three-digit number and ones</i> – <i>a three-digit number and tens</i> – <i>a three-digit number and hundreds</i> ● <i>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</i> ● <i>estimate the answer to a calculation and use inverse operations to check answers</i> ● <i>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</i> <p>Measurement</p> <ul style="list-style-type: none"> ● <i>measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml)</i> ● <i>add and subtract amounts of money to give change, using both £ and p in practical contexts</i> ● <i>record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m. / p.m., morning, afternoon, noon and midnight</i> ● <i>know the number of seconds in a minute and the number of days in each month, year and leap year</i> ● <i>compare durations of events, [for example, to calculate the time taken by particular events or tasks]</i> <p>Statistics</p> <ul style="list-style-type: none"> ● <i>interpret and present data using bar charts, pictograms and tables</i> ● <i>solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.</i> <p>Number and place value</p> <ul style="list-style-type: none"> ● <i>identify, represent and estimate</i> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count from 0 in multiples of 4, 8, 50 and 100</i> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <i>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</i> ● <i>write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</i> ● <i>solve problems, including missing number problems, involving multiplication and division; solve positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</i> <p>Fractions</p> <ul style="list-style-type: none"> ● <i>count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10</i> ● <i>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</i> ● <i>solve problems that involve all of the above.</i> <p>Measurement</p> <ul style="list-style-type: none"> ● <i>know the number of seconds in a minute and the number of days in each month, year and leap year.</i> <p>Geometry: properties of shape</p> <ul style="list-style-type: none"> ● <i>recognise that angles are a property of shape or a description of a turn</i> ● <i>identify right angles, recognise that two right angles make a</i>
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	<p><u>pictograms and tables.</u></p>	<p><i>practical problems involving these ideas</i></p> <p>Measurement</p> <ul style="list-style-type: none"> ● tell and write the time from an <u>analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks</u> ● <i>measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml)</i> <p>Fractions</p> <ul style="list-style-type: none"> ● <u>count up and down in tenths, recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</u> 	<p><i>quantities by 10</i></p> <ul style="list-style-type: none"> ● <u>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</u> ● <u>add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]</u> ● <u>compare and order unit fractions and fractions with the same denominator</u> ● <u>solve problems that involve all of the above.</u> 	<p><i>angles are greater than or less than a right angle</i></p> <ul style="list-style-type: none"> ● <u>identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</i> ● <i>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</i> ● <i>compare and order numbers up to 1000</i> ● <i>identify, represent and estimate numbers using different representations</i> ● <i>read and write numbers up to 1000 in numerals and in words</i> ● <i>solve number problems and practical problems involving these ideas</i> <p>Measurement</p> <ul style="list-style-type: none"> ● <i>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</i> ● <u>estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m. / p.m., morning, afternoon, noon and midnight</u> ● <u>know the number of seconds in a minute and the number of days in each month, year and leap year</u> ● <u>compare durations of events, [for example, to calculate the time taken by particular events or tasks]</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <i>interpret and present data using bar charts, pictograms and tables.</i> 	<p><i>numbers using different representations</i></p> <p>Fractions</p> <ul style="list-style-type: none"> ● <i>count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and dividing one-digit numbers or quantities by 10</i> ● <i>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</i> ● <u>recognise and show, using diagrams, equivalent fractions with small denominators</u> ● <i>add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]</i> ● <i>compare and order unit fractions and fractions with the same denominator.</i> ● <i>solve problems that involve all of the above.</i> 	<p><i>half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle</i></p> <ul style="list-style-type: none"> ● <i>identify horizontal and vertical lines and pairs of perpendicular and parallel lines</i> ● <u>measure the perimeter of simple 2-D shapes.</u>
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<p>Year 4</p>	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>count in multiples of 1000</u> ● <u>find 1000 more or less than a given number</u> ● <u>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</u> ● <u>order and compare numbers beyond 1000</u> ● <u>identify, represent and estimate numbers using different representations</u> ● <u>round any number to the nearest 10, 100 or 1000</u> ● <u>solve number and practical problems that involve all of the above and with increasingly large positive numbers.</u> <p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</u> ● <u>estimate and use inverse operations to check answers to a calculation</u> ● <u>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>estimate, compare and calculate different measures, including money in pounds and pence</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</u> ● <u>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count in multiples of 6, 7, 9, 25 and 1000</i> <p>Multiplication and divisions</p> <ul style="list-style-type: none"> ● <u>recall multiplication and division facts for multiplication tables up to 12 x 12</u> ● <u>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</u> ● <u>recognise and use factor pairs and commutativity in mental calculations</u> ● <u>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling and harder correspondence problems such as n objects are connected to m objects.</u> <p>Geometry: properties of shape</p> <ul style="list-style-type: none"> ● <u>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</u> ● <u>identify acute and obtuse angles and compare and order angles up to two right angles by size</u> ● <u>identify lines of symmetry in 2-D shapes presented in different orientations.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count in multiples of 1000</i> ● <i>find 1000 more or less than a given number</i> ● <u>count backwards through zero to include negative numbers</u> ● <i>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</i> ● <i>order and compare numbers</i> 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <i>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</i> ● <i>estimate and use inverse operations to check answers to a calculation</i> ● <i>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</i> <p>Measurement</p> <ul style="list-style-type: none"> ● <i>estimate, compare and calculate different measures, including money in pounds and pence</i> <p>Statistics</p> <ul style="list-style-type: none"> ● <i>interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</i> ● <i>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</i> <p>Fractions (including decimals)</p> <ul style="list-style-type: none"> ● <u>count up and down in hundredths: recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</u> ● <u>recognise and show, using diagrams, families of common equivalent fractions</u> ● <u>add and subtract fractions with the same denominator</u> ● <u>recognise and write decimal equivalents of any number of tenths or hundredths</u> ● <u>recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$</u> ● <u>find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count in multiples of 6, 7, 9, 25 and 1000</i> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>recall multiplication and division facts for multiplication tables up to 12 x 12</u> ● <u>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</u> ● <u>recognise and use factor pairs and commutativity in mental calculations</u> ● <u>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling and harder correspondence problems such as n objects are connected to m objects</u> <p>Fractions (including decimals)</p> <ul style="list-style-type: none"> ● <u>solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>solve problems involving converting from hours to minutes: minutes to seconds: years to months: weeks to days.</u> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <i>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</i> <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● <u>describe positions on a 2-D</u> 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <i>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</i> ● <i>estimate and use inverse operations to check answers to a calculation</i> ● <i>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</i> <p>Statistics</p> <ul style="list-style-type: none"> ● <i>interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</i> ● <i>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</i> <p>Fractions (including decimals)</p> <ul style="list-style-type: none"> ● <u>solve simple measure and money problems involving fractions and decimals to two decimal places</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <i>estimate, compare and calculate different measures, including money in pounds and pence</i> <p>Fractions (including decimals)</p> <ul style="list-style-type: none"> ● <u>count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</u> ● <u>recognise and show, using diagrams, families of common equivalent fractions</u> ● <u>add and subtract fractions with the same denominator</u> ● <u>recognise and write decimal equivalents of any number of tenths or hundredths</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <i>count in multiples of 6, 7, 9, 25 and 1000</i> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <i>recall multiplication and division facts for multiplication tables up to 12 x 12</i> ● <i>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers</i> ● <i>recognise and use factor pairs and commutativity in mental calculations</i> ● <u>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</u> ● <i>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling and harder correspondence problems such as n objects are connected to m objects.</i> <p>Fractions (including decimals)</p> <ul style="list-style-type: none"> ● <i>solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</i> <p>Measurement</p> <ul style="list-style-type: none"> ● <i>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</i> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <i>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</i>
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		<p>beyond 1000</p> <ul style="list-style-type: none"> ● identify, represent and estimate numbers using different representations ● round any number to the nearest 10, 100 or 1000 ● solve number and practical problems that involve all of the above and with increasingly large positive numbers ● read Roman numerals to 100 (I to C) and know that, over time, the numeral system changed to include the <u>concept of zero and place value.</u> 	<p>answer as ones, tenths and hundredths</p> <ul style="list-style-type: none"> ● <u>round decimals with one decimal place to the nearest whole number</u> ● <u>compare numbers with the same number of decimal places up to two decimal places</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>convert between different units of measure [for example, kilometre to metre].</u> 	<p>grid as coordinates in the first quadrant</p> <ul style="list-style-type: none"> ● <u>describe movements between positions as translations of a given unit to the left / right and up / down</u> ● <u>plot specified points and draw sides to complete a given polygon.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● count in multiples of 1000 ● find 1000 more or less than a given number ● count backwards through zero to include negative numbers ● recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) ● order and compare numbers beyond 1000 ● identify, represent and estimate numbers using different representations ● round any number to the nearest 10, 100 or 1000 ● solve number and practical problems that involve all of the above and with increasingly large positive numbers <p>Measurement</p> <ul style="list-style-type: none"> ● convert between different units of measure [for example, hour to minute] ● <u>read, write and convert time between analogue and digital 12- and 24-hour clocks</u> ● solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days <p>Statistics</p> <ul style="list-style-type: none"> ● solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 	<ul style="list-style-type: none"> ● recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$. ● find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths ● round decimals with one decimal place to the nearest whole number ● compare numbers with the same number of decimal places up to two decimal places <p>Measurement</p> <ul style="list-style-type: none"> ● convert between different units of measure [for example, kilometre to metre]. 	<ul style="list-style-type: none"> ● identify acute and obtuse angles and compare and order angles up to two right angles by size ● identify lines of symmetry in 2-D shapes presented in different orientations ● <u>complete a simple symmetric figure with respect to a specific line of symmetry</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</u> ● <u>find the area of rectilinear shapes by counting squares.</u>
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<p>Year 5</p>	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</u> ● <u>count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</u> ● <u>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000</u> ● <u>solve number problems and practical problems that involve all of the above</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]</u> ● <u>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</u> ● <u>round decimals with two decimal places to the nearest whole number and to one decimal place</u> ● <u>read, write, order and compare numbers with up to three decimal places</u> ● <u>solve problems involving number up to three decimal places</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)</u> ● <u>solve problems involving converting between units of time.</u> <p>Addition and subtraction</p>	<p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</u> ● <u>multiply numbers up to 4 digits by a one-digit number</u> ● <u>multiply and divide numbers mentally drawing upon known facts</u> ● <u>divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</u> ● <u>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</u> ● <u>solve problems involving multiplication and division including using their knowledge of factors and multiples</u> ● <u>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling.</u> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <u>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</u> ● <u>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</u> ● <u>draw given angles, and measure them in degrees ($^{\circ}$)</u> ● <u>identify:</u> <ul style="list-style-type: none"> – <u>angles at a point and one whole turn (total 360°)</u> – <u>angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)</u> – <u>other multiples of 90°</u> 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</u> ● <u>add and subtract numbers mentally with increasingly large numbers</u> ● <u>use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</u> ● <u>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>solve problems involving number up to three decimal places</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling</u> ● <u>measure and calculate the perimeter</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>solve comparison, sum and difference problems using information presented in a line graph</u> ● <u>complete, read and interpret information in tables, including timetables.</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>compare and order fractions</u> 	<p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>identify multiples and factors, including finding all factor pairs</u> ● <u>know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</u> ● <u>solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</u> ● <u>establish whether a number up to 100 is prime and recall prime numbers up to 19</u> ● <u>multiply numbers up to 4 digits by a one-digit number using a formal written method</u> ● <u>multiply and divide numbers mentally drawing upon known facts</u> ● <u>divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</u> ● <u>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</u> ● <u>recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)</u> ● <u>solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</u> ● <u>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$ and those with a denominator of a multiple of 10</u> 	<p>Addition and subtraction</p> <ul style="list-style-type: none"> ● <u>add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</u> ● <u>add and subtract numbers mentally with increasingly large numbers</u> ● <u>use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</u> ● <u>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$]</u> ● <u>add and subtract fractions with the same denominator and denominators that are multiples of the same number</u> ● <u>solve problems involving number up to three decimal places</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling</u> ● <u>solve problems involving converting between units of time</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>solve comparison, sum and difference problems using information presented in a line graph</u> ● <u>complete, read and interpret information in tables,</u> 	<p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>identify multiples and factors, including finding all factor pairs, and common factors of two numbers</u> ● <u>know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</u> ● <u>establish whether a number up to 100 is prime and recall prime numbers up to 19</u> ● <u>multiply numbers up to 4 digits by a one- or two-digit number using a formal written method including long multiplication for two-digit numbers</u> ● <u>multiply and divide numbers mentally drawing upon known facts</u> ● <u>divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</u> ● <u>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</u> ● <u>recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)</u> ● <u>solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</u> ● <u>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</u> ● <u>solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</u> <p>Fractions (including decimals and percentages)</p>
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<ul style="list-style-type: none"> ● <u>add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</u> ● <u>add and subtract numbers mentally with increasingly large numbers</u> ● <u>use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</u> ● <u>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>solve comparison, sum and difference problems using information presented in a line graph</u> ● <u>complete, read and interpret information in tables including timetables.</u> 	<ul style="list-style-type: none"> ● <u>use the properties of rectangles to deduce related facts and find missing lengths and angles</u> ● <u>distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</u> ● <u>count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</u> ● <u>interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero</u> ● <u>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000</u> ● <u>solve number problems and practical problems that involve all of the above</u> ● <u>read Roman numerals to 1000 (M) and recognise years written in Roman numerals</u> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]</u> ● <u>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</u> ● <u>round decimals with two decimal places to the nearest whole number and to one decimal place</u> ● <u>read, write, order and compare numbers with up to three decimal places</u> ● <u>solve problems involving number up to three decimal places</u> 	<p>whose denominators are all multiples of the same number</p> <ul style="list-style-type: none"> ● <u>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $\frac{2}{5} + \frac{1}{5} = \frac{3}{5} = 1\frac{1}{5}$]</u> ● <u>read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]</u> ● <u>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</u> ● <u>recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100, and as a decimal</u> ● <u>identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.</u> 	<p>or 25</p> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling.</u> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <u>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</u> ● <u>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</u> ● <u>draw given angles, and measure them in degrees ($^{\circ}$)</u> ● <u>Identify:</u> <ul style="list-style-type: none"> – angles at a point and one whole turn (total 360°) – angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) – other multiples of 90° ● <u>use the properties of rectangles to deduce related facts and find missing lengths and angles</u> ● <u>distinguish between regular and irregular polygons based on reasoning about equal sides and angles</u> <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● <u>identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● <u>read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</u> ● <u>count forwards or backwards in steps of powers of 10 for</u> 	<p>including timetables.</p> <p>Multiplication and division</p> <ul style="list-style-type: none"> ● <u>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>compare and order fractions whose denominators are all multiples of the same number</u> ● <u>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $\frac{2}{5} + \frac{1}{5} = \frac{3}{5} = 1\frac{1}{5}$]</u> ● <u>read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]</u> ● <u>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</u> ● <u>recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100, and as a decimal.</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre].</u> 	<ul style="list-style-type: none"> ● <u>identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths</u> ● <u>multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</u> ● <u>solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$ and those with a denominator of a multiple of 10 or 25</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation including scaling</u> ● <u>understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</u> ● <u>solve problems involving converting between units of time.</u> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <u>use the properties of rectangles to deduce related facts and find missing lengths and angles</u> ● <u>distinguish between regular and irregular polygons based on reasoning about equal sides and angles</u> <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● <u>identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed</u>
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		<p>Measurement</p> <ul style="list-style-type: none"> ● convert between different units of measure (e.g. kilometre and metre; metre and centimetre; centimeter and millimetre; kilogram and gram; litre and millilitre) ● solve problems involving converting between units of time. 		<p>any given number up to 1 000 000</p> <ul style="list-style-type: none"> ● interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero ● round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 ● solve number problems and practical problems that involve all of the above <p>Multiplication and division</p> <ul style="list-style-type: none"> ● multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● compare and order fractions whose denominators are all multiples of the same number ● recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example, $\frac{2}{5} + \frac{1}{5} = \frac{6}{5} = 1\frac{1}{5}$] ● read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$] ● recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents ● round decimals with two decimal places to the nearest whole number and to one decimal place ● read, write, order and compare numbers with up to three decimal places ● solve problems involving number up to three decimal places <p>Measurement</p> <ul style="list-style-type: none"> ● convert between different units of measure (e.g. kilometre and metre; metre and 		<p>Measurement</p> <ul style="list-style-type: none"> ● measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres ● <u>calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes</u> ● <u>estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water].</u>
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				<p>centimetre; centimeter and millimetre; kilogram and gram; litre and millilitre)</p> <ul style="list-style-type: none"> ● solve problems involving converting between units of time. 		
Year 6	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</u> ● <u>round any whole number to a required degree of accuracy</u> ● <u>solve number and practical problems that involve all of the above</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places</u> ● <u>convert between miles and kilometres.</u> <p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>use their knowledge of the order of operations to carry out calculations involving the four operations</u> ● <u>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</u> 	<p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> ● <u>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</u> ● <u>divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context</u> ● <u>divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context</u> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>identify common factors, common multiples and prime numbers</u> ● <u>use their knowledge of the order of operations to carry out calculations involving the four operations</u> ● <u>solve problems involving addition, subtraction, multiplication and division</u> ● <u>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>multiply one-digit numbers with up to two decimal places by whole numbers</u> ● <u>use written division methods in cases where the answer has up to two decimal places</u> 	<p>Number and place value</p> <ul style="list-style-type: none"> ● <u>use negative numbers in context, and calculate intervals across zero</u> <p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>use their knowledge of the order of operations to carry out calculations involving the four operations</u> ● <u>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</u> ● <u>solve problems involving addition, subtraction</u> ● <u>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>solve problems which require answers to be rounded to specified degrees of accuracy</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> ● <u>enumerate possibilities of combinations of two variables</u> <p>Measurement</p>	<p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> ● <u>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</u> ● <u>divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context</u> ● <u>divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context</u> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>identify common factors, common multiples and prime numbers</u> ● <u>use their knowledge of the order of operations to carry out calculations involving the four operations</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</u> ● <u>solve problems which require answers to be rounded to specified degrees of accuracy</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> ● <u>enumerate possibilities of combinations of two variables</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation and conversion of units of measure, using decimal</u> 	<p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>use their knowledge of the order of operations to carry out calculations involving the four operations</u> ● <u>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</u> ● <u>solve problems involving addition, subtraction, multiplication and division</u> ● <u>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication</u> ● <u>divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context</u> ● <u>divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context</u> ● <u>perform mental calculations, including with mixed operations and large numbers</u> ● <u>identify common factors, common multiples and prime numbers</u> ● <u>use their knowledge of the order of operations to carry out calculations involving the four operations</u> ● <u>solve problems involving addition, subtraction, multiplication and division</u> ● <u>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]</u> 	

<ul style="list-style-type: none"> ● <u>solve problems involving addition, subtraction</u> ● <u>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>solve problems which require answers to be rounded to specified degrees of accuracy</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> ● <u>enumerate possibilities of combinations of two variables</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate</u> ● <u>use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and construct pie charts and line graphs and use these to solve problems.</u> 	<p>Ratio and proportion</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> ● <u>enumerate possibilities of combinations of two variables.</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate</u> ● <u>use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and construct pie charts and line graphs and use these to solve problems</u> ● <u>calculate and interpret the mean as an average.</u> <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● <u>draw 2-D shapes using given dimensions and angles</u> ● <u>recognise, describe and build simple 3-D shapes, including making nets</u> ● <u>compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</u> 	<ul style="list-style-type: none"> ● <u>solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate</u> ● <u>use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and construct pie charts and line graphs and use these to solve problems.</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>use common factors to simplify fractions; use common multiples to express fractions in the same denominator</u> ● <u>compare and order fractions, including fractions >1</u> ● <u>associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]</u> ● <u>recall and use equivalences between simple fractions, decimals and percentages, including in different context</u> ● <u>identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> 	<p><u>up to two decimal places by whole numbers</u></p> <ul style="list-style-type: none"> ● <u>use written division methods in cases where the answer has up to two decimal places</u> <p>Ratio and proportion</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</u> ● <u>solve problems involving the relative sizes of two quantities, where missing values can be found by using integer multiplication and division facts</u> ● <u>solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> ● <u>enumerate possibilities of combinations of two variables</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate</u> ● <u>use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places</u> ● <u>convert between miles and kilometres</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and construct pie</u> 	<p><u>notation to three decimal places where appropriate</u></p> <ul style="list-style-type: none"> ● <u>use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places</u> <p>Statistics</p> <ul style="list-style-type: none"> ● <u>interpret and construct pie charts and line graphs and use these to solve problems</u> ● <u>calculate and interpret the mean as an average.</u> <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● <u>use common factors to simplify fractions; use common multiples to express fractions in the same denominator</u> ● <u>compare and order fractions, including fractions >1</u> ● <u>associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]</u> ● <u>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</u> ● <u>identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>solve problems involving the</u> 	<ul style="list-style-type: none"> ● <u>divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]</u> ● <u>multiply one-digit numbers with up to two decimal places by whole numbers</u> ● <u>use written division methods in cases where the answer has up to two decimal places</u> <p>Ratio and proportion</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</u> ● <u>solve problems involving the relative sizes of two quantities, where missing values can be found by using multiplication and division facts</u> ● <u>solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</u> <p>Algebra</p> <ul style="list-style-type: none"> ● <u>use simple formulae</u> ● <u>generate and describe linear number sequences</u> ● <u>express missing number problems algebraically</u> ● <u>find pairs of numbers that satisfy an equation with two unknowns</u> ● <u>enumerate possibilities of combinations of two variables</u> <p>Measurement</p> <ul style="list-style-type: none"> ● <u>solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate</u> ● <u>use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places</u>
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of each digit ● round any whole number to a required degree of accuracy ● use negative numbers in context, <u>and calculate intervals across zero</u> ● solve number problems and practical problems that involve all of the above <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 given answers up to three decimal places <p>Measurement</p> <ul style="list-style-type: none"> ● use, read, write and convert 	<p>Measurement</p> <ul style="list-style-type: none"> ● solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate ● use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places <p>Statistics</p> <ul style="list-style-type: none"> ● interpret and construct pie charts and line graphs and use these to solve problems. 	<p>charts and line graphs and use these to solve problems</p> <ul style="list-style-type: none"> ● calculate and interpret the mean as an average. <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● draw 2-D shapes using given dimensions and angles ● recognise, describe and build simple 3-D shapes, including making nets ● compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons ● illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius <p>Geometry: position and direction</p> <ul style="list-style-type: none"> ● <u>describe positions on the full coordinate grid (all four quadrants)</u> ● <u>draw and translate simple shapes on the coordinate plane, and reflect them in the axes</u> <p>Algebra</p> <ul style="list-style-type: none"> ● use simple formulae ● express missing number problems algebraically ● find pairs of numbers that satisfy an equation with two unknowns ● enumerate possibilities of combinations of two variables <p>Measurement</p> <ul style="list-style-type: none"> ● calculate the area of parallelograms and triangles ● recognise when it is possible to use the formulae for area and volume of shapes ● <u>calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimeters</u> 	<p>calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate</p> <ul style="list-style-type: none"> ● use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places <p>Statistics</p> <ul style="list-style-type: none"> ● interpret and construct pie charts and line graphs and use these to solve problems. 	<p>Statistics</p> <ul style="list-style-type: none"> ● interpret and construct pie charts and line graphs and use these to solve problems ● calculate and interpret the mean as an average. <p>Geometry: properties of shapes</p> <ul style="list-style-type: none"> ● draw 2-D shapes using given dimensions and angles ● recognise, describe and build simple 3-D shapes, including making nets ● compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons ● illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius ● recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles <p>Geometry: position, direction, motion</p> <ul style="list-style-type: none"> ● describe positions on the full coordinate grid (all four quadrants) ● draw and translate simple shapes on the coordinate plane, and reflect them in the axes <p>Algebra</p> <ul style="list-style-type: none"> ● use simple formulae ● express missing number problems algebraically ● find pairs of numbers that satisfy an equation with two unknowns ● enumerate possibilities of combinations of two variables <p>Measurement</p> <ul style="list-style-type: none"> ● recognise that shapes with the same areas can have different
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		<p><i>between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places.</i></p>		<p><u>(cm³) and cubic metres (m³) and extending to other units, [for example, mm³ and km³]</u></p> <p>Ratio and proportion</p> <ul style="list-style-type: none"> ● <u>Solve problems involving similar shapes where the scale factor is known or can be found.</u> <p>Number and place value</p> <ul style="list-style-type: none"> ● read, write, order and compare numbers up to 10 000 000 and determine the value of each digit ● round any whole number to a required degree of accuracy ● use negative numbers in context, and calculate intervals across zero ● solve number problems and practical problems that involve all of the above <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> ● use common factors to simplify fractions; use common multiples to express fractions in the same denomination ● compare and order fractions, including fractions >1 ● identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places <p>Measurement</p> <ul style="list-style-type: none"> ● use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to three decimal places ● convert between miles and kilometres. 		<p><i>perimeters and vice versa</i></p> <ul style="list-style-type: none"> ● calculate the area of parallelograms and triangles ● recognise when it is necessary to use the formulae for area and volume of shapes ● calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimeters (cm³) and cubic metres (m³) and extending to other units, [for example, mm³ and km³] <p>Ratio and proportion</p> <ul style="list-style-type: none"> ● solve problems involving similar shapes where the scale factor is known or can be found.
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