

Maths Curriculum Overview 2020-2021

Over the course of the year, every learning objective in Years 1-6 is visited at least once, with most learning objectives being visited multiple times. The first time a learning objective appears in years 1,3,4,5 it is underlined and then when it subsequently reappears, it is not underlined. For some half terms, there appear to be quite a few learning objectives, but those that are revisited may not need to be the main focus as they provide essential building blocks connecting new learning to previous experiences.

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Reception do not follow the Rising Stars Programme of Study. Units of maths content are organised in line with the Early Learning Goals and relevant content from Development Matters and is taught both discretely and across other areas of the EYFS curriculum.</p>						
<p>Year R</p>	<ul style="list-style-type: none"> *Baseline Assessment including number recognition and ordering and patterns *Count objects with 1:1 correspondence. *Know that the last number in the count is the total size of the group (cardinality) *Number recognition * One more/one less *Record, using marks that can be interpreted and explained (40-60 months) *Height and size *Time * Conceptual development of numbers 1-5 including part-part whole model *Positional vocabulary 	<ul style="list-style-type: none"> *Conceptual development of numbers 1-5 and subitising. *Identify and represent numbers using objects and pictorial representations *Objects can be counted in any order or can be moved around and there will still be the same number present (conservation) *Part-part whole *2D and 3D shape *Weighing *Positional language *Pattern 	<ul style="list-style-type: none"> *Ordinal numbers *Partitioning using the cherry model *Money *Conceptual development of numbers 6-10, inc bar and cherry models. *Positioning numerals on a number line *Compare and order numerals to 20. *Odd and even numbers *Combining two or more parts to make a whole and using the + symbol 	<ul style="list-style-type: none"> *Counting in 2's, 5's and 10's *Understanding the symbol = *Adding using number stories *Time *Addition and subtraction using + and – symbols. *2D and 3D shape 	<ul style="list-style-type: none"> *Distance *Subtraction *Addition and subtraction as inverse operations. *Count in 2's, 5's and 10's. *Doubling, Halving and Sharing including in problem solving contexts. 	<ul style="list-style-type: none"> * Addition and subtraction *Capacity *Money *Pattern *Doubling, Halving and Sharing *Estimating *Revisiting areas which need consolidating

	<ul style="list-style-type: none"> *Understand that anything can be counted including things that we cannot touch e.g. claps, jumps etc 					
Year 1	<ul style="list-style-type: none"> *<u>Numbers to 100.</u> *<u>One more/one less.</u> *<u>Representation of number including the number line.</u> *<u>length and heights,</u> *<u>mass or weight,</u> *<u>capacity or volume.</u> *<u>Dates, days of the week, weeks, months and years.</u> *<u>Number bonds and related subtraction facts to 20</u> *<u>One step addition and subtraction problems</u> *<u>Missing number problems</u> *<u>Sequencing in chronological order</u> *<u>2D and 3D shapes</u> *<u>Describe position , direction, movement</u> *<u>Count to and across 100 from any given number</u> 	<ul style="list-style-type: none"> * Numbers to 100. *One more/one less. *Representation of number including the number line. *Length and heights, *Mass or weight, *Capacity or volume. *Dates, days of the week, weeks, months and years.*Number bonds and related subtraction facts to 20 *One step addition and subtraction problems *Missing number problems *<u>Sequencing in chronological order</u> *<u>2D and 3D shapes</u> *<u>Describe position , direction, movement</u> *<u>Count to and across 100 from any given number</u> 	<ul style="list-style-type: none"> *<u>Read and write numbers 1-20 in numerals and words</u> * Numbers to 100. *One more/one less. *Representation of number including the number line. *Count to and across 100 from any given number *<u>Count in multiples of twos , fives and tens</u> *<u>Multiplication and division using concrete objects, pictorial representation and arrays</u> *<u>Time (hours, minutes, seconds)</u> *<u>Tell the time to the hour and half past the hour</u> *Describe position , direction, movement <u>including whole, half, quarter and three quarter turns</u> 	<ul style="list-style-type: none"> *Numbers to 100. *One more/one less. *Representation of number including the number line. *Count to and across 100 from any given number *Count in multiples of twos and tens *Number bonds and related subtraction facts to 20 *One step addition and subtraction problems *Missing number problems *Add and subtract 1 and 2 digit numbers to 20 including zero Maths statements that involve the +/-/= symbols *Sequencing in chronological order 	<ul style="list-style-type: none"> *2D and 3D shapes *Describe position , direction, movement Numbers to 100. *One more/one less. *Representation of number including the number line. *Count to and across 100 from any given number *Count in multiples of twos, tens and fives *Length and heights *Mass or weight *Capacity or volume *<u>Money and recognising different denominations of coins and notes</u> Number bonds and related subtraction facts to 20 *One step addition and subtraction problems 	<ul style="list-style-type: none"> *Count in multiples of twos, tens and fives *Multiplication and division using concrete objects, pictorial representation and arrays *Money and recognising different denominations of coins and notes *<u>Finding half and quarter of an object, shape or quantity</u> *2D and 3D shapes *Tell the time to the hour and half past the hour *Describe position , direction, movement including whole, half, quarter and three quarter turns

					<p>*Missing number problems</p> <p>*Add and subtract 1 and 2 digit numbers to 20 including zero</p> <p>Maths statements that involve the +/=/ symbols</p>	
<p>Year 2 do not follow the Rising Stars Programme of Study. Units of maths content are organised in line with the National Curriculum and taught both discretely and across domains to support fluency.</p>						
<p>Year 2</p>	<p>*Read and write numbers to at least 100 in numerals and words</p> <p>*Compare and order numbers from 0 up to 100; use \leq and \geq and = signs</p> <p>*Identify, represent and estimate numbers using different representations, including the number line.</p> <p>*Recognise odd and even numbers</p> <p>*Count in steps of 2, 3, 10 and 5 from 0 and in tens from any number, forward and backward</p>	<p>*Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line</p> <p>*Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces</p> <p>*Identify 2D shapes on the surface of 3D shapes</p> <p>*Compare and sort common 2D and 3D shapes and everyday objects</p> <p>*Interpret and construct simple</p>	<p>*Recall and use multiplication and division facts for the 2,5 and 10 multiplication tables</p> <p>*Calculate mathematical statements for multiplication and division using the \times, \div and = symbols</p> <p>*Show that multiplication of two numbers can be done in any order and division of one number by another cannot</p> <p>*Solve problems with addition and subtraction</p>	<p>*Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity</p> <p>*Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$</p> <p>*Compare and order lengths, mass, volume/capacity and record results using \leq and \geq and = signs</p> <p>*Choose and use appropriate standard units to estimate and measure length/height, mass,</p>	<p>*Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</p> <p>*Solve problems involving multiplication and division</p> <p>*Interpret and construct simple pictograms, tally charts, block diagrams and simple tables</p>	<p>The Summer term is used to revise and consolidate all key skills from the Autumn and Spring term.</p> <p>From teacher assessments from the Autumn and Spring term, year 2 teachers plan according to the needs of the year group.</p>

	<p>*Recognise the place value of each digit in a 2-digit number</p> <p>*Use place value and number facts to solve problems</p> <p>*Recall and use addition and subtraction facts to 20 and derive and use related facts up to 100</p> <p>*Show that addition of two numbers can be done in any order and subtraction of one number from another cannot</p> <p>*Solve problems with addition and subtraction</p> <p>*Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</p>	<p>pictograms, tally charts, block diagrams and simple tables</p> <p>*Ask and answer simple questions by counting the number of objects in each category and sorting the category by quantity</p> <p>*Ask and answer questions about totalling and comparing categorical data</p>	<p>*Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</p> <p>*Compare and sequence intervals of time</p> <p>*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</p> <p>*Know the number of minutes in an hour and the number of hours in a day</p> <p>*Use mathematical vocabulary to describe position, direction and movement</p> <p>*Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)</p> <p>*Recognise, find, name and write fractions $\frac{1}{3}$,</p>	<p>temperature, capacity using rulers, scales, thermometers and measuring vessels.</p> <p>*Recognise and use symbols £ and p to combine amounts to make a particular value</p> <p>*Find different combinations of coins to equal the same amounts of money</p> <p>*Count in steps of 2, 3, 10 and 5 from 0 and in tens from any number.</p>	<p>*Ask and answer simple questions by counting the number of objects in each category and sorting the category by quantity</p> <p>*Ask and answer questions about totalling and comparing categorical data</p> <p>*Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</p> <p>3*Recognise and use symbols £ and p to combine amounts to make a particular value</p> <p>*Find different combinations of coins to equal the same amounts of money</p>	
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			<p>$\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity</p> <p>*Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$</p>			
Year 3	<p>*Count in multiples of <u>100</u></p> <p>*Place value of 3-digit numbers</p> <p>*Numbers up to 1000</p> <p>*Representations of number including estimation</p> <p>*Number problem solving</p> <p>*Addition and Subtraction up to 3 digits</p> <p>*Inverse operations</p> <p>*Length (m/cm/mm)</p> <p>*Mass (kg/g)</p> <p>*Volume/capacity (l/ml)</p> <p>*Add and subtract money both £ and p and give change</p> <p>*Bar charts, pictograms and tables</p> <p>*solve one step and 2 step questions using information from bar</p>	<p>*Count in multiples of <u>4, 8, 50, 100</u></p> <p>*Multiplication and division facts for 3, 4, 8 times tables</p> <p>*Multiplication and division statements</p> <p>*Multiplication and division problem solving using scaling and correspondence</p> <p>*2D shapes</p> <p>*Modelling 3D shapes</p> <p>*Angles as a property of a shape or a description of a turn.</p> <p>*Right angles to make a quarter, half, three quarters and whole turn.</p> <p>*Angles greater than or less than a right angle</p>	<p>*Count in multiples of 4, 8, 50, 100; find <u>10 or 100 more or less than a given number</u></p> <p>*Place value of 3-digit numbers</p> <p>*Numbers up to 1000</p> <p>*Representations of number including estimation</p> <p>*Number problem solving</p> <p>*Tell and write the time from an analogue clock, 12 hour and 24 hour clocks</p> <p>*Use Roman Numerals I to XII on analogue clocks</p> <p>*Length (m/cm/mm)</p> <p>*Mass (kg/g)</p> <p>*Volume/capacity (l/ml)</p> <p>*Count up and down in tenths</p>	<p>*Representations of number including estimation</p> <p>*Count up and down in tenths</p> <p>*Recognise and use fractions as numbers: <u>unit fractions and non-unit fractions with small denominators</u></p> <p>*Add and subtract fractions with the same denominator within one whole</p> <p>*Compare and order unit fractions and fractions with the same denominator</p> <p>*Fraction problem solving</p> <p>*Count in multiples of 4, 8, 50, 100; find 10 or 100 more or less than a given number</p> <p>*Multiplication and division facts for 3, 4, 8 times tables</p>	<p>*2D shapes</p> <p>*Modelling 3D shapes</p> <p>*Angles as a property of a shape or a description of a turn.</p> <p>*Right angles to make a quarter, half, three quarters and whole turn.</p> <p>*Angles greater than or less than a right angle</p> <p>*Identify horizontal and vertical lines and pairs of perpendicular and parallel lines</p> <p>*Count in multiples of 4, 8, 50, 100; find 10 or 100 more or less than a given number</p> <p>*Place value of 3-digit numbers</p> <p>*Numbers up to 1000</p>	<p>*Representations of number including estimation</p> <p>*Count up and down in tenths</p> <p>*Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</p> <p>*Recognise and show, using diagrams, equivalent fractions with small denominators</p> <p>*Add and subtract fractions with the same denominator within one whole</p> <p>*Compare and order unit fractions and fractions with the same denominator</p> <p>*Fraction problem solving</p> <p>*Count in multiples of 4, 8, 50, 100; find 10 or</p>

	<p><u>charts, pictograms and tables</u></p>		<p>*Addition and Subtraction up to 3 digits *Inverse operations *Add and subtract money both £ and p and give change *Bar charts, pictograms and tables *Solve one step and 2 step questions using information from bar charts, pictograms and tables</p>	<p>*Multiplication and division statements *Multiplication and division problem solving using scaling and correspondence <u>*Recognise, find and write fractions of a discrete set of objects</u></p>	<p>*Representations of number including estimation *Number problem solving *Tell and write the time from an analogue clock, 12 hour and 24-hour clocks *Use Roman Numerals I to XII on analogue clocks <u>*Read time to the nearest minute.</u> <u>Record and compare times using seconds, minutes, hours</u> <u>*Compare duration of events.</u> <u>*Know numbers of seconds in a minute, number of days in each month, year, leap year</u> *Bar charts, pictograms and tables *Solve one step and 2 step questions using information from bar charts, pictograms and tables *Addition and Subtraction up to 3</p>	<p>100 more or less than a given number *Multiplication and division facts for 3, 4, 8 times tables *Multiplication and division statements <u>using mental and progressing to formal written methods</u> *Multiplication and division problem solving using scaling and correspondence *Know numbers of seconds in a minute, number of days in each month, year, leap year *Angles as a property of a shape or a description of a turn. *Right angles to make a quarter, half, three quarters and whole turn. *Angles greater than or less than a right angle *Identify horizontal and vertical lines and pairs of perpendicular and parallel lines <u>*measure the perimeter of simple 2D shapes</u></p>
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					<u>digits using formal written methods of columnar addition and subtraction</u> *Inverse operations *Length (m/cm/mm) *Mass (kg/g) *Volume/capacity (l/ml) *Add and subtract money both £ and p and give change	
Year 4	<u>*Count in multiple of 1000</u> <u>*Find 1000 more/less from any given number</u> <u>*Place value of 4-digit numbers</u> <u>*Order and compare numbers beyond 1000</u> <u>*Representations of number including estimation</u> <u>*Round any number to the nearest 10,100, 1000</u> <u>*Solving number problems</u> <u>*Addition and Subtraction up to 4-digits using formal written methods of columnar addition and subtraction</u> <u>*Inverse operations</u>	<u>*Count in multiples of 6,7,9,25 and 1000</u> <u>*Find 1000 more/less from any given number</u> <u>*Place value of 4-digit numbers</u> <u>*Order and compare numbers beyond 1000</u> <u>*Representations of number including estimation</u> <u>*Round any number to the nearest 10,100, 1000</u> <u>*Solving number problems</u> <u>*Count backwards through zero to include negative numbers</u> <u>*Recall multiplication and division facts for multiplication tables up to 12x12</u>	*Addition and Subtraction up to 4-digits using formal written methods of columnar addition and subtraction *Inverse operations *Addition and subtraction 2-step problems *Estimate, compare and calculate different measures, including money in £ and p *Interpret and represent discrete and continuous data using appropriate graphical methods, including bar charts and time graphs *Solve comparison, sum and difference problems using	*Count in multiples of 6,7,9,25 and 1000 *Recall multiplication and division facts for multiplication tables up to 12x12 *Multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers *Recognise and use factor pairs and commutativity in mental calculations *Solve addition and multiplication problems using distributive law and integer scaling. <u>*Solve problems involving increasingly harder fractions to calculate quantities,</u>	*Count in multiple of 1000 *Find 1000 more/less from any given number *Place value of 4-digit numbers *Order and compare numbers beyond 1000 *Representations of number including estimation *Round any number to the nearest 10,100, 1000 *Solving number problems *Convert between different units of measure <u>*Read, write and convert time</u>	*Count up and down in hundredths *Recognise and show, using diagrams, families of common equivalent fractions *Add and subtract fractions with the same denominator *Recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ *Divide a one or two-digit number by 10 and 100, identifying the value of the digits in the answer *Round decimals with one decimal place to the nearest whole number *Compare numbers with the same number

	<p><u>*Addition and subtraction 2-step problems</u> <u>*Estimate, compare and calculate different measures, including money in £ and p</u> <u>*Interpret and represent 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>	<p><u>*Multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers</u> <u>*Recognise and use factor pairs and commutativity in mental calculations</u> <u>*Solve addition and multiplication problems using distributive law and integer scaling.</u> <u>*Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value</u> <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 2D shapes presented in different orientations</u></p>	<p>information presented in bar charts, pictograms, tables and other graphs. <u>*Count up and down in hundredths</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 to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$</u> <u>*Divide a one or two-digit number by 10 and 100, identifying the value of the digits in the answer</u> <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> <u>*Convert between different units of measure (e.g. Kg to g)</u></p>	<p><u>and fractions to divide quantities, including non-unit fractions where the answer is a whole number</u> <u>*Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</u> <u>*Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</u> <u>*Describe positions on a 2D grid as coordinates in the first quadrant</u> <u>*Describe movements between positions as translations of a given unit to the left/right and up/down</u></p>	<p><u>between analogue and digital 12 and 24-hour clocks</u> <u>*Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</u> <u>*Interpret and represent 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> <u>*Addition and Subtraction up to 4-digits using formal written methods of columnar addition and subtraction</u> <u>*Inverse operations</u> <u>*Addition and subtraction 2-step problems</u></p>	<p>of decimal places up to two decimal places <u>*Convert between different units of measure</u> <u>*Count in multiples of 6,7,9,25 and 1000</u> <u>*Recall multiplication and division facts for multiplication tables up to 12x12</u> <u>*Multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers</u> <u>*Recognise and use factor pairs and commutativity in mental calculations</u> <u>*Solve addition and multiplication problems using distributive law and integer scaling.</u> <u>*Multiply two-digit and three-digit numbers by a one-digit number using formal written layout</u> <u>*Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions</u></p>
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<p>Year 5</p>	<p><u>*Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</u> <u>*Count forwards and 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 and place value problems</u> <u>*Multiply and divide whole numbers and those involving decimals by 10, 100, 1000</u> <u>*Read and write decimal numbers as fractions</u> <u>*Recognise and use thousandths and relate them to tenths, hundredths and decimals 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</u></p>	<p><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 1-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 1-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, 1000</u> <u>*Solve problems involving multiplication and division including using their knowledge of factors and multiples</u> <u>*Solve problems involving addition, subtraction,</u></p>	<p>* Add and subtract whole numbers with more than 4 digits including using formal written methods. Use rounding to check answers to calculations and determine levels of accuracy *Solve addition and subtraction multi-step problems in context *Solve problems involving number up to three decimal places *Use all four operations to solve problems involving measure using decimal notation including scaling *Solve comparison, sum and difference problems using information presented in a line graph *Complete, read and interpret information in tables, including timetables *Multiply and divide whole numbers and those involving decimals by 10, 100, 1000</p>	<p>*Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers <u>*Know and use the vocabulary of prime numbers, prime factors and composite numbers</u> <u>*Solve problems involving multiplication and division including scaling by simple fractions</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 1-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 1-digit number using the formal written method of short division and interpret remainders appropriately for the context</u></p>	<p>*Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit <u>*Count forwards and 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 and place value problems</u> <u>*Multiply and divide whole numbers and those involving decimals by 10, 100, 1000</u> <u>*Compare and order fractions whose denominators are all multiples of the same number</u></p>	<p>*Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers <u>*Know and use the vocabulary of prime numbers, prime factors and composite 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 1 or 2 digit number using a formal written method including long multiplication for 2-digit numbers</u> <u>*Multiply and divide numbers mentally drawing upon known facts</u> <u>*Divide numbers up to 4 digits by a 1-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</u></p>
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	<p><u>up to three decimal places</u> <u>*Solve problems involving number up to three decimal places</u> <u>*Convert between different units of metric measure</u> <u>*Solve problems involving converting between units of time</u> <u>* Add and subtract whole numbers with more than 4 digits including using formal written methods.</u> <u>Use rounding to check answers to calculations and determine levels of accuracy</u> <u>*Solve addition and subtraction multi-step problems in context</u> <u>*Use all four operations to solve problems involving measure using decimal notation including scaling</u> <u>*Solve comparison, sum and difference problems using information presented in a line graph</u> <u>*Complete, read and interpret information in</u></p>	<p><u>multiplication and division and a combination of these, including understanding the meaning of the equals sign</u> <u>*Identify 3D shapes from 2D 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</u> <u>*Identify angles at a point and one whole turn; angles at a point on a straight line and a ½ turn; other multiples of 90 degrees</u> <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>	<p><u>*Read and write decimal numbers as fractions</u> <u>*Recognise and use thousandths and relate them to tenths, hundredths and decimals equivalents</u> <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 to the other</u> <u>*Recognise the percent symbol and understand that percent relates to number of parts per hundred and write percentages as a fraction with a denominator of 100 and as a decimal</u> <u>*Identify and name equivalent fractions of a given fraction, represented visually including tenths and hundredths</u></p>	<p><u>*Multiply and divide whole numbers and those involving decimals by 10, 100, 1000</u> <u>*Recognise and use square numbers and the correct notation</u> <u>*Solve problems involving multiplication and division including using their knowledge of factors, 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 which require knowing percentage and decimal equivalents of ½ ¼ 1/5 2/5 4/5 and those with a denominator of a multiple of 10 or 25</u> <u>*Use all four operations to solve</u></p>	<p><u>*Recognise mixed numbers and improper fractions and convert from one to the other</u> <u>*Add and subtract fractions with the same denominator and denominators that are multiples of the same number</u> <u>*Read and write decimal numbers as fractions</u> <u>*Recognise and use thousandths and relate them to tenths, hundredths and decimals 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> <u>*Recognise the percent symbol and understand that</u></p>	<p><u>decimals by 10, 100, 1000</u> <u>*Recognise and use square numbers and cube numbers and the correct notation</u> <u>*Solve problems involving multiplication and division including using their knowledge of factors, 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>*Identify and name equivalent fractions of a given fraction, represented visually including tenths and hundredths</u> <u>*Multiply proper fractions and mixed numbers by whole number, supported by materials and diagrams</u> <u>*Solve problems which require knowing percentage and decimal equivalents of ½ ¼ 1/5</u></p>
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	<p><u>tables, including timetables</u></p>	<p>*Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit *Count forwards and backwards in steps of powers of 10 for any given number up to 1 000 000 <u>*Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</u> <u>*Read Roman numerals to 1000 (M) and recognise years written in Roman numerals</u> *Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 *Solve number and place value problems *Multiply and divide whole numbers and those involving decimals by 10, 100, 1000</p>		<p>problems involving measure *Identify 3D shapes from 2D representations *Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles *Draw given angles and measure them in degrees *Identify angles at a point and one whole turn; angles at a point on a straight line and a ½ turn; other multiples of 90 degrees *Use the properties of rectangles to deduce related facts and find missing lengths and angles *Distinguish between regular and irregular polygons based on reasoning about equal sides and angles <u>*Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the</u></p>	<p>percent relates to number of parts per hundred and write percentages as a fraction with a denominator of 100 and as a decimal *Convert between different units of metric measure *Solve problems involving converting between units of time * Add and subtract whole numbers with more than 4 digits including using formal written methods. Use rounding to check answers to calculations and determine levels of accuracy *Solve addition and subtraction multi-step problems in context *Solve problems involving number up to three decimal places *Use all four operations to solve problems involving</p>	<p>2/5 4/5 and those with a denominator of a multiple of 10 or 25 *Use all four operations to solve problems involving measure *Solve problems involving converting between units of time <u>*Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</u> *Use the properties of rectangles to deduce related facts and find missing lengths and angles *Distinguish between regular and irregular polygons based on reasoning about equal sides and angles *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>*Measure and calculate the perimeter of</u></p>
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		<ul style="list-style-type: none"> *Read and write decimal numbers as fractions *Recognise and use thousandths and relate them to tenths, hundredths and decimals 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 *Convert between different units of metric measure *Solve problems involving converting between units of time 		<u>shape has not changed.</u>	measure using decimal notation including scaling *Solve problems involving converting between units of time *Solve comparison, sum and difference problems using information presented in a line graph *Complete, read and interpret information in tables, including timetables	<u>composite rectilinear shapes in cm an m</u> <u>*Calculate and compare the area of rectangles (including squares) using standard units and estimate the area of irregular shapes</u> <u>*Estimate volume and capacity</u>
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Year 6 do not follow the Rising Stars Programme of Study. Units of maths content are organised in line with the National Curriculum and taught both discretely and across domains to support fluency.

Year 6	*Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	*Use the order of operations to carry out calculations involving the four operations	*Divide numbers up to 4 digits by a 2-digit number using the formal written method of long division and	*Describe positions on the full coordinate grid *Draw and translate simple shapes on the coordinate plane and	The Summer term is used to revise and consolidate all key skills from the Autumn and Spring term.
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	<ul style="list-style-type: none"> *Round any whole number to a required degree of accuracy *Use negative numbers in context and calculate intervals across zero *Identify the value of each digit in numbers given to three decimal places *Multiply and divide numbers by 10, 100, 1000 giving answers up to 3 decimal places *Calculations with mixed operations and large numbers *Solve problems involving addition, subtraction, multiplication and division *Multiply numbers up to 4 digits by a 2-digit number using the formal written method of long multiplication *Multiply 1-digit numbers with up to two decimal places by whole numbers *Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division and 	<ul style="list-style-type: none"> *Identify common factors, common multiples and prime numbers *Recognise, describe and build simple 3D shapes, including making nets *Compare and classify geometric shapes based in on their properties and sizes *Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius *Calculate, estimate and compare volume of cubes and cuboids using standard units *Use common factors to simplify fractions *Use common multiples to express fractions in the same denomination *Compare and order fractions *Add and subtract fractions with different denominators and mixed numbers, using 	<ul style="list-style-type: none"> interpret remainders as whole numbers, fractions, or by rounding, as appropriate for the context *Use, read, write and convert between standard units, converting measurements of length, mass and time, using decimal notation up to three decimal places *Convert between miles and kilometres *Solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate *Solve problems which require answers to be rounded to specified degrees of accuracy *Recall and use equivalents between simple fractions, decimals and percentages. *Solve problems involving the 	<ul style="list-style-type: none"> reflect them in the axes *Use simple formulae *Generate and describe linear number sequences *Express missing number problems algebraically *Find pairs of numbers that satisfy an equation with two unknowns *Enumerate possibilities of combinations of two variables *Recognise when it is possible to use the formulae for area and volume of shapes *Solve problems involving similar shapes where the scale factor is known or can be found *Interpret and construct pie charts and line graphs and use these to solve problems *Calculate and interpret the mean as an average *Solve problems involving the relative 	<p>From teacher assessments from the Autumn and Spring term, year 6 teachers plan according to the needs of the year group.</p>
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	<p>interpret remainders as whole numbers, fractions, or by rounding, as appropriate for the context</p> <p>*Use written division methods in cases where the answer has up to 2 decimal places</p> <p>*Recognise shapes with the same areas can have different perimeters and vice versa</p> <p>*Calculate the area of parallelograms and triangles</p>	<p>the concept of equivalent fractions</p> <p>*Multiply simple pairs of proper fractions, writing the answer in its simplest form</p> <p>*Divide proper fractions by whole numbers</p>	<p>calculation of percentages</p> <p>*Associate a fraction with division and calculate decimal fraction equivalents</p> <p>*Draw 2D shapes using given dimensions and angles</p> <p>*Compare and classify geometric shapes based in on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons</p> <p>*Recognise angles where they meet at a point, are on a straight line, or at vertically opposite and find missing angles.</p>	<p>sizes of two quantities where missing values can be found by using integer multiplication and division facts</p> <p>*Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</p>	
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