## Maths Curriculum Map




|  | - Exploring pattern- can copy, continue and create their own simple repeating patterns. <br> - Explore AB patterns in a range of contexts including shapes, colours, sizes, action and sounds. <br> Communication and Language: <br> - Use vocabulary to explain what they notice when comparing classroom objects. <br> - Learn new vocabulary. | - Match number names to numerals and quantities up to 5. <br> - Represents up to 5 objects on a 5 frame. <br> - Understand the 'one more than/one less than' relationship between consecutive numbers. <br> - One more and one less- uses 5 frame and predicts how many there will be if they add one more or take one away. <br> Measure, shape and spatial thinking: <br> - Circles and triangles- Knows a circle has one curved side and a triangle has 3 straight sides. <br> - Recognises circles and triangles in the environment, on everyday objects and items in the classroom and outdoors. <br> - Begin to use positional language to describe how items are positioned in relation to other items. <br> - Build journeys and obstacle courses, travelling through them. <br> - Knows that squares and rectangles have 4 sides and 4 corners. <br> - Recognises squares and rectangles in the environment, on everyday objects and items in the classroom and outdoors. <br> - Time- talks about night and day. <br> - Orders key events in their daily routines. <br> - Uses language to describe when events happen e.g. day, night, morning, afternoon, before after, today, tomorrow. <br> - Begins to measure time in simple ways e.g. counting the number of sleeps to an important event. | - Uses vocabulary related to mass- heavy, heavier than, heaviest, light, lighter than, lightest. <br> - Understands that items that are bigger are not always heavier. <br> - Compare capacity- builds on understanding of full and empty by learning about half full, nearly full and nearly empty. <br> - Explores capacity using a range of resources- water, sand, rice and beans. <br> - Uses a range of different sized and shaped containers. <br> - Uses language tall, thin, narrow, wide and shallow. <br> - Length and height- Begins to use language to describe objects length and height. <br> - Uses specific mathematical vocabulary relating to length (longer, shorter). <br> - Uses specific mathematical vocabulary relating to height (taller, shorter). <br> - Uses specific mathematical vocabulary relating to breadth (wider, narrower). <br> - Time- continues to order and sequence important times in their day using language such as now, before, later, soon, after, then and next. <br> - Uses vocabulary yesterday, today and tomorrow. <br> - Can describe significant events in their life. <br> - Can talk about events they are looking forward to. | - Explores similarities and differences between 3D shapes. <br> - Spatial awareness. <br> - Pattern- explores more complex patterns, using items more than once in each repeat, e.g. ABB, AAB, $A A B B, A A B B B$. | - Can explain why they have chosen a particular shape and why a different shape would not fit. <br> - Fits shapes together and breaks shapes apart. <br> - Explores different shapes they can make by combining a set of given shapes. <br> - Select, rotate and manipulate shapes to develop spatial reasoning skills. <br> - Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. | - Can use positional language to describe where objects are in relation to other items. <br> - Visualise and build. <br> - Mapping- understands we can make maps and plans to represent places. |
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| Year 1 | Number: Number \& Place Value (within 10) <br> - Count to ten, forwards and backwards, beginning with 0 | Number: Number \& Place Value (within 20) | Number: Addition \& Subtraction (within 20) | Measurement: Length \& Height <br> - Compare, describe and solve practical problems for: lengths and heights for | Number: Multiplication \& Division <br> - Count in multiples of twos, fives and tens. | Measurement: Money <br> - Recognise and know the value of different denominations of coins and notes. |

- Count, read and write numbers to 10 in numerals.
- Given a number, identify one more or one less.


## Number: Addition \& Subtraction

(within 10)

- Represent and use number bonds and related subtraction facts (within 10)
- Add and subtract one digit numbers (to 10), including zero.
- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.
- Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems
- Count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward.
- Recognise the place value of each digit in a two digit number (tens, ones)
- Count to twenty, forwards and backwards, beginning with 0 or 1 , from any given number.
- Count, read and write numbers from 1 to 20 in numerals.
- 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.


## Geometry: Shape

- Recognise and name common 2 D and 3 D shapes, including rectangles, squares, circles and triangles, cubes, cuboids, pyramids and spheres.

Represent and use number oonds and related subtraction facts within 20.

- Add and subtract one digit and two digit numbers to 20 , including zero.
- Read, write and interpret mathematical statements involving addition (+) subtraction (-) and equals (=) signs.
- Solve one step problems that involve addition and subtraction.


## Number: Number \& Place Value

## (within 50)

- Count to 50 forwards and backwards, beginning with 0 or 1 , or from any number.
- Count, read and write numbers from 1-50 in numerals.
- Identify and represent numbers using objects and pictorial representations.
- Count in 2's and 5's


## Number: Addition \& Subtraction

- $\quad$ Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their

Measurement: Money pounds ( $£$ ) and pence ( $p$ ); combine amounts to make a particular value

- Find different combinations of coins that equal the same amounts of money.
example, long/short, louber/short
- Measure and begin to record lengths and heights.


## Measurement: Weight \&

## Volume

- Compare, describe and solve practical problems for mass/weight [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
- Measure and begin to record mass/weight, capacity and volume.
- Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial epresentations and arrays with the support of the teacher


## Number: Fractions

- Recognise, find and name a half as one of two equal parts of an object, shape or quantity.
- Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.


## Geometry: Position \& Direction

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns.


## Number: Number \& Place Value <br> <br> (with 100)

 <br> <br> (with 100)}- Count to and across 100 forwards and backwards, beginning with 0 or 1 , or from any given number.
- Read and write numbers from 1 to 20 in words.
- Count, read and write numbers from 1-100 in numerals.
- Read and write numbers from 1 to 20 in numerals and words.
- Count in multiples of 2 's, $5^{\prime}$ s and 10 's.
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than, most, least.


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- Estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ) using rulers.
- Compare and order lengths using $>$, < and =

Statistics

- 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

Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.

## Measurement: Time

- Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- Recognise and use language relating to dates, including days of the week, weeks, months and years
- Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening
- Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.
- Ask and answer simple questions by counting the number of objects in each
- Identify, represent and using different representations including the number line.
- Compare and order numbers from 0 up to 100; use <, > and = signs.
- Read and write numbers to at least 100 in numerals and words.
- Use place value and number facts to solve problems


## Number: Addition \& Subtraction

- 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: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one digit numbers.
- $\quad$ Number \& Place Value om 0 in multiples of $4,8,50$ and 100.
- Find 10 or 100 more or less than a given number.
- Recognise the place value of each digit in a three digit number (hundreds, tens, ones).
- Compare and order numbers up to 1000
- Identify, represent and estimate numbers using different representations.
- Read and write numbers up to 1000 in numerals and in words.
- Solve number problems and practical problems involving these ideas.

Number: Addition \& Subtraction
ncreasing knowledge of metal and written methods.

- 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.


## Geometry: Properties of Shapes

- Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line.
- Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.
- Identify 2D shapes on the surface of 3D shapes
- Compare and sort common 2D and 3 D shapes and everyday objects.

Number: Multiplication \& Division

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Calculate mathematical statements for multiplication and division using the multiplication tables that they know including for two-digit numbers times one-digit numbers using the multiplication ( x ), division ( $\div$ ) and equals (=) signs.
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context.
- Show that multiplication of two numbers can be done in any order (commutative) and

Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change

## Number: Multiplication \& Division

- Recall and use multiplication and division facts for the 2,5 and 10 times tables, including recognising odd and even numbers.
- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(\times)$, division ( $\div$ ) and equals ( $=$ ) signs.
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.
- Multiply and divide by $2 / 5 / 10$

Number: Multiplication \& Division - Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

- Solve problems including missing number problems involving multiplication and division, positive integer scaling problems.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for twodigit numbers times one-digit numbers, using mental methods and progressing to formal written methods.
- Divide 2 digits by 1 digit


## Measurement: Lengths \& <br> Perimeter

Measurement: Mass, Capacity \&

## Temperatur

- Choose and use appropriate standard units to estimate and measure capacity (itres/ml) and temperature $\left({ }^{\circ} \mathrm{C}\right)$ to the nearest appropriate unit, using thermometers and measuring vessels.
- Choose and use appropriate standard units to estimate and measure mass (kg/g) to he nearest appropriate unit, using scales.
- Compare and order mass and volume/capacity using , < and =

Number: Fraction

- Recognise simple fractions (quarter, half, third)
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
- Count in fractions
- 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 - Equivalent fractions

Measurement: Mass \& Capacity

## Measurement: Time

- 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
- Know the number of minutes in an hour \& the number of hours in a day
- Compare and sequence intervals of time

Number: Fraction

- Recognise and show, using diagrams, equivalent fractions with small denominators.
- Add and subtract fractions with the same denominator within one whole $\left(\frac{5}{7}+\frac{1}{7}=\frac{6}{7}\right)$
- Compare and order unit fractions, and fractions with the same denominators.
- Solve problems that involve all of the above.

Measurement: Money

- Add \& subtract amounts of money.
- Workout change.
- Use $£$ and $p$ in practical contexts.
- Record pounds and pence separately.
ategory and sorting the
categories by quantity.
- Ask and answer questions about totalling and comparing categorical data.


## Geometry: Position \& Direction

- Order and arrange combinations of mathematical objects in patterns and sequences.
- Use mathematical vocabulary to describe position, direction and movement, including 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 anticlockwise).

Geometry: Properties of Shapes

- Recognise angles as a property of shape or a description of a turn.
- 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 reater than or less than a right angle.
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
- Draw 2-D shapes and make 3D shapes using modelling materials.
- Recognise 3-D shapes in different orientations and describe them. formal written methods of columnar addition and subtraction.
- Estimate the answer to a calculation and use inverse operations to check answers.
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
- Measure the perimeter of simple 2-D shapes. subtract: mass (kg/g); volume/capacity ( $1 / \mathrm{ml}$ ).
- Continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed units (for example, 1 kg and 200 g ) and simple equivalents of mixed units ( $5 \mathrm{~m}=500 \mathrm{~cm}$ ).

Number: Multiplication \& Divis

- Multiply and divide by 10
- Multiply and divide by 100
- Multiply two-digit and threedigit numbers by a one-digit number using formal written layout.


## Number: Multiplication \& Division

- Recall and use multiplication and division facts for multiplication tables up to $12 \times$ 12.
- 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.
- Recognise and use factor pairs and commutatively in mental calculations.
- Multiply and divide by $3,6,9,7$
- Factor pairs.
- Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problem uch as $n$ objects are connected to m objects.
- 11 and 12 times table.


## Measurement: Length \& Perimeter

- Convert between different units of measure eg kilometre to metre.
- Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m .
- Continue to be fluent in recognising the value of coins.
- Convert pounds and pence.


## Measurement : Tim

- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, 12-hour and 24-hour clocks.
- 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, am/pm, morning, afternoon, noon and midnight.
- Know the number of seconds in a minute and the number of days in each month, year and leap year.
- Compare durations of events [for example calculate the time taken by particular events or tasks].


## Number: Decimal

- Round decimals with one decimal place to the nearest whole number.
- Order and compare numbers with the same number of decimal places up to two decimal place.
- Solve simple measure and money problems involving fractions and decimals to two decimal places.


## Money

- Add \& subtract amounts of money.
- Give change
- Four operations
- Estimate, compare and calculate different measures, including money in pounds and pence.


## Time

- Convert between different units of measure, e.g. hour to minute.


## Statistics

- Interpret and present data using bar charts, pictograms and tables.
- 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.
- Pupils understand and use simple scales (for example, 2, 5,10 units per cm ) in pictograms and bar charts with increasing accuracy.

Geometry: Properties of Shapes

- Identify acute and obtuse angles and compare and order angles up to two right angles by size.
- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
- Identify lines of symmetry in 2D shapes presented in different orientations.
- Complete a simple symmetric figure with respect to a specific line of symmetry.


## Geometry: Position \& Direction

- Describe positions on a 2-D grid as coordinates in the first quadrant.
- Describe movements between positions as translations of a given unit to the left/right and up/down.

Number: Addition \& Subtraction

- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation.
- Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.
Year 5 Number: Number \& Place Value
- Read, write, order and compare numbers to at least $1,000,000$ and determine the value of each digit.
- Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.
- 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 $100,1000,10000$ and 100000
- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
- Solve number problems and practical problems that involve all of the above


## Number: Addition \& Subtraction

- Add and subtract numbers mentally with increasingly large numbers.
- Add and subtract whole numbers with more than 4 digits, including using forma written methods (columnar addition and subtraction)

Estimate, compare and calculate different measures.

- Perimeter on a grid

Number: Multiplication \& Division

- Multiply and divide numbers mentally drawing upon known facts.
- Multiply and divide whole numbers and those involving decimals by 10,100 and 1000 .
- Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers.
- Establish whether a number up to 100 is prime and recal prime numbers up to 19.
- Identify multiples and factors, including finding all facto pairs of a number, and common factors of two numbers.
- Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3)


## Number: Fractions

- Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.
- Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements.

Number: Multiplication \& Division

- 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.
- 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.
- Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cube
- Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
- Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.


## Number: Fractions

- Compare and order fractions whose denominators are multiples of the same number.
- Add and subtract fractions with the same denominator

Recognise and write decimal equivalents to half, quarter and three quarters.

- Find the effect of dividing a one or two digit number by 10 or 100 , identifying the value of the digits in the answer as ones, tenths and hundredths.
- Read, write \& convert time between analogue and digital 12 and 24 hour clocks.
- Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.


## Number: Decimals \&

## tages

- Read, write, order and compare numbers with up to three decimal places.
- 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
- 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.
- Solve problems which require knowing percentage and decimal equivalents of simple fractionsand those fractions with a denominator of a multiple of 10 or 25 .


## Measurement: Perimeter \& Area

- Measure and calculate the perimeter of composite rectilinear shapes in cm and m .
- Calculate and compare the area of rectangles (including

Geometry: Properties of shapes

- Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.
- Know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles.
- Draw given angles and measure them in degrees ( ${ }^{\circ}$ ).
- Identify: - angles at a point and one whole turn (total $360^{\circ}$ ) -angles at a point on a straight line and $1 / 2$ a turn (total $180^{\circ}$ )
other multiples of $90^{\circ}$
- 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.


## Geometry: Position \& Directio

- 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.
lot specified points and draw sides to complete a given polygon.


## Statistics

- Interpret and present discrete and continuous data using appropriate graphica methods, including bar charts and time graphs.
- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.


## Number: Decimals

- Adding decimals
- Subtracting decimals
- Adding and subtracting decimals with a different number of decimal places
- Decimals and wholes
- Multiplying decimals by 10,100,1000
- Solve problems involving number up to three decimal places.


## Measurement: Converting units

- Convert between different units of metric measure (for example, km and $\mathrm{m} ; \mathrm{cm}$ and m ; cm and mm ; g and kg ; and ml ).
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
- Solve problems involving converting between units of time.


## Measures: Volume

- Estimate volume (for example using 1 cm 3 blocks to build cuboids (including cubes) and capacity (for example, using water)).
- Use all four operations to solve problems involving

|  | - Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. <br> - Solve addition and subtraction mult-istep problems in contexts, deciding which operations and methods to use and why. | Statistics <br> - Complete, read and interpret information in tables, including timetables. <br> - Solve comparison, sum and difference problems using information presented in a line graph. | and denominators that are multiples of the same number. <br> - Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. <br> - Read and write decimal numbers as fractions. | squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes. | - Draw on a grid | measure (eg. Length, mass, volume, money, money) using decimal notation, including scaling. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 6 | Number: Number \& Place Value <br> - Read, write, order and compare numbers up to 10000000 and determine the value of each digit. <br> - Round any whole number to a required degree of accuracy. <br> - Use negative numbers in context, and calculate intervals across zero. <br> - Solve number and practical problems that involve all of the above <br>  <br> Subtraction, Multiplication \& Division <br> - Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. <br> - Multiply multi-digit number up to 4 digits by a two-digit whole number using the formal written method of long multiplication. <br> - 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. <br> - 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. | Number: Fractions <br> - Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. <br> - Compare and order fractions, including fractions > 1 <br> - Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. <br> - Multiply simple pairs of proper fractions, writing the answer in its simplest form. <br> - Divide proper fractions by whole numbers <br> Measurement: Using Measures <br> - Convert between miles and kilometres <br> - Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate <br> - 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 up to three decimal places. | Number: Fractions, Decimals \& Percentages <br> - Identify the value of each digit in numbers given to three decimal places and multiply numbers by 10,100 and 1000 giving answers up to 3 decimal places. <br> - Multiply one-digit numbers with up to two decimal place by whole numbers. <br> - Associate a fraction with division and calculate decimal fraction equivalents (eg. 0.375 ) for a simple fraction (eg. $\frac{3}{8}$ ). <br> - Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts <br> - Use written division methods in cases where the answer has up to two decimal places. <br> - Solve problems which require answers to be rounded to specified degrees of accuracy. <br> - Solve problems involving the calculation of percentages [for example, of measures such as $15 \%$ of 360 ] and the use of percentages for comparison <br> Number: Algebra <br> - Use simple formulae. <br> - Generate and describe linear number sequences. <br> - Express missing number problems algebraically. <br> - Find pairs of numbers that satisfy an equation with two unknowns. <br> - Enumerate possibilities of combinations of two variables. | Measurement: Perimeter, Area \& Volume <br> - Recognise that shapes with the same areas can have different perimeters and vice versa. <br> - Recognise when it is possible to use formulae for area and volume of shapes. <br> - Calculate the area of parallelograms and triangles. <br> - Calculate, estimate and compare volume of cubes and cuboids using standard units, including $\mathrm{cm} 3, \mathrm{~m} 3$ and extending to other units (mm3, km3). <br> Number: Ratio and proportion <br> - Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. <br> - Solve problems involving similar shapes where the scale factor is known or can be found. <br> - Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. <br> - Solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360 ] and the use of percentages for comparison. <br> Statistics <br> - Interpret and construct pie charts and line graphs and use these to solve problems. | Geometry: Properties of Shapes <br> - Draw 2D shapes using given dimensions and angles. <br> - Recognise, describe and build simple 3-D shapes, including making nets. <br> - Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. <br> - Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. <br> - Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. <br> Geometry: Position \& Direction <br> - Describe positions on the full coordinate grid (all four quadrants). <br> - Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. | Post SATS consolidation |



