| Year | Autumn 1 Autumn 2 <br> Objectives | Spring 1 <br> Objectives Spring 2 <br> Objectives | Summer 1 <br> Objectives Summer 2 <br> Objectives |
| :---: | :---: | :---: | :---: |
| Nursery | 0-3 Yrs <br> Take part in finger rhymes with numbers. <br> React to changes of amount in a group of up to three items. <br> Count in everyday contexts, sometimes skipping numbers - '1-2-3-5.' <br> Compare sizes, weights etc. using gesture and language - <br> 'bigger/little/smaller', 'high/low', 'tall', 'heavy'. <br> Compare amounts, saying 'lots', 'more' or 'same'. <br> Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence. <br> 3-4 Yrs <br> Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. <br> Understand position through words alone - for example, <br> "The bag is under the table," -with no pointing. <br> Discuss routes and locations, using words like 'in front of' and 'behind'. Make comparisons between objects relating to size, length, weight and capacity. | 0-3 Yrs <br> Combine objects like stacking blocks and cups. Put objects inside others and take them out again. <br> Climb and squeeze themselves into different types of spaces. <br> Build with a range of resources. <br> Complete inset puzzles <br> Notice patterns and arrange things in patterns. <br> Count in everyday contexts, sometimes skipping numbers - '1-2-3-5.' <br> 3-4 Yrs <br> Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). <br> Begin to recite numbers past 5 . <br> Say one number for each item in order: 1,2,3,4,5. <br> Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5 . <br> Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. | 0-3 Yrs <br> Compare sizes, weights etc. using gesture and language - <br> 'bigger/little/smaller', 'high/low', 'tall', 'heavy'. <br> Notice patterns and arrange things in patterns. <br> Extend and create $A B A B$ patterns and may notice errors in patterns. <br> Say one number for each item in order: 1,2,3,4,5. <br> 3-4 Yrs <br> Describe a familiar route. <br> Discuss routes and locations, using words like 'in front of' and 'behind' <br> Extend and create ABAB patterns - stick, leaf, stick, leaf. <br> Notice and correct an error in a repeating pattern. <br> Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' <br> Recite numbers past 5. |
| Reception | - Getting to know you (Assessments \& Provision, RBA) <br> - Match Sort and Compare <br> Number: Match and sort. Compare amounts <br> - Talk about Measure and Patterns <br> SSM: Compare Size, Mass \& Capacity <br> - It's me 1, 2, 3 <br> Number: Representing 1,2,3 <br> Comparing 1,2,3 <br> Composition of 1,2,3 <br> - Circles \& triangles. <br> SSM: Positional language <br> - $1,2,3,4,5$ <br> Number: Representing numbers 0-5. One more, one less. <br> - Shapes within 4 sides <br> MSS: Shapes with 4 sides. Time | - Alive in 5 <br> Number: Introducing zero. <br> Comparing numbers to 5 <br> Composition of 4 \& 5 <br> - Mass and Capacity <br> MSS: Compare mass. Compare capacity <br> - Growing 6,7,8 <br> Number: 6, 7 \& 8 <br> Combining two amounts. Making pairs <br> - Length, Height and time <br> MSS: Length \& height. Time <br> - Building 9 and 10 <br> Number: Counting to 9 \& 10. Comparing numbers to 10 Bonds to 10 <br> - Explore 3D shapes <br> MSS: 3-D shapes. Spatial awareness Patterns | - To 20 and Beyond <br> Number: Build numbers beyond 10 <br> Count patterns beyond 10 <br> - How many now? <br> MSS: Spatial reasoning. Match, rotate, manipulate <br> - Manipulate, compose and decompose <br> Number: Adding more. Taking away <br> MSS: Spatial reasoning. Compose and decompose <br> - Sharing and grouping <br> Number: Sharing \& grouping. Even \& odd Number: Doubling <br> - Visualise, Build and map <br> MSS: Spatial reasoning. Visualise and build Spatial mapping. Mapping <br> - Make connections <br> Number: Deepening understanding MSS: Patterns \& relationships |
| Year 1 | Place Value (within 10) <br> - Sort objects. <br> - Count objects and represent objects. <br> - Count, read and write forwards from any number 0 to 10. <br> - Count, read and write backwards from any number 0 to 10. <br> - Count one more, count one less. <br> - One to one correspondence to start to compare groups. <br> - Compare groups using language such as equal, more/greater, less/fewer <br> - Introduce < > = symbols. <br> - Compare numbers. <br> - Order groups of objects. <br> - Order numbers. <br> - Ordinal numbers 1st, 2nd, 3rd. <br> - The number line. <br> Addition and subtraction (within 10) | Place Value (within 20) <br> - Count objects and represent objects. <br> - Count, read and write forwards from any number 0-20. <br> - Count, read and write backwards from any number 0-20. <br> - Count one more, count one less. <br> - One to one correspondence to start to compare groups. <br> - Compare groups using language such as equal, more/greater, less/fewer <br> - Introduce < > = symbols. <br> - Compare numbers. <br> - Order groups of objects. <br> - Order numbers. <br> - The number line. <br> - Tens and ones. <br> Addition subtraction (within 20) <br> - Add by counting on. | Multiplication and Division <br> - Count in $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s . <br> - Make equal groups. <br> - Add equal groups. <br> - Make arrays. <br> - Make doubles. <br> - Make equal groups - groupings. <br> - Make equal groups- sharing. <br> Fractions <br> - Find a half. <br> - Find a quarter. <br> Position and direction <br> - Describe turns. <br> - Describe position. |


|  | - Part-whole model. <br> - Additional symbol. <br> - Fact families- additional facts. <br> - Find number bonds for numbers within 10. <br> - Number bonds to 10. <br> - Compare number bonds. <br> - Addition - adding together, adding more. <br> - Finding a part. <br> - Subtraction - taking away, how many left? Crossing out, subtraction symbol, finding a part, the 8 facts, counting back. <br> Geometry - Shape <br> - Recognise and name 2D shapes, sort 2D shapes. <br> - Recognise and name 3D shapes, not 3D shapes. <br> - Patterns with 3D and 2D shapes. |  | - Find and make number bonds. <br> - Add by making 10. <br> - Subtraction - not crossing 10. <br> - Subtraction - crossing 10. <br> - Related facts. <br> - Compare number sentences. <br> Place Value (within 50) <br> - Numbers to 50. <br> - Tens and ones. <br> - Represent numbers to 50. <br> - One more, one less. <br> - Compare objects within 50. <br> - Compare numbers within 50. <br> - Order numbers within 50. <br> - Count in 2 s . <br> - Count in 5 s. <br> Length and Height <br> - Compare lengths and heights. <br> - Measure length. <br> Weight and Volume <br> - Introduce weight and mass. <br> - Measure mass. <br> - Compare mass. <br> - Introduce capacity and volume. <br> - Measure capacity. <br> - Compare capacity. |  | Place value (within 100) <br> - Counting forwards and backwar <br> - Partitioning numbers. <br> - Comparing numbers. <br> - Ordering numbers. <br> - One more, one less. <br> Money <br> - Recognising coins <br> - Counting coins <br> Time <br> - Before and after <br> - Dates <br> - Time to the hour, half hour <br> - Writing time <br> - Comparing time | ds within 100. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 2 | Place Value <br> - Recap Counting forwards and backwards within 20 <br> - Recap Tens and ones within 20 <br> - Recap Counting forwards and backwards within 50 (Numbers to 50) <br> - Recap Tens and ones within 50 <br> - Recap Compare numbers within 50 <br> - Count objects to 100 and read and write numbers in numerals and words <br> - Represent numbers to 100 <br> - Tens and ones with a partwhole model <br> - Tens and ones using addition <br> - Use a place value chart <br> - Compare objects <br> - Compare numbers <br> - Order objects and numbers <br> - Countin 2 s <br> - Count in 5 s <br> - Count in 10s <br> - Count in 3s | Addition \& subtraction <br> - Fact families - addition and subtraction bonds to 20 <br> - Check calculations <br> - Compare number sentences <br> - Know your bonds <br> - Related facts <br> - Bonds to 100 (tens) <br> - Add and subtract 1 s <br> - 10 more and 10 less <br> - Add and subtract 10 s <br> - Recap Add by making 10 <br> - Add a 2-digit and 1-digit number - crossing ten <br> - Recap Subtraction - crossing 10 <br> - Subtract a 1-digit number from a 2-digit number crossing ten <br> - Add two 2-digit numbers - not crossing ten - add ones and add tens <br> - Add two 2-digit numbers crossing ten - add ones and add tens <br> - Subtract a 2-digit number from a 2-digit number - not crossing ten <br> - Subtract a 2-digit number from a 2-digit number - | Money <br> - Recognising coins and notes <br> - Count money - pence <br> - Count money - pounds (notes and coins) <br> - Count money - notes and coins <br> - Select money <br> - Make the same amount <br> - Compare money <br> - Find the total <br> - Find the difference <br> - Find change <br> - Two-step problems <br> Multiplication \& division <br> - Recognise equal groups <br> - Make equal groups <br> - Add equal groups <br> - Multiplication sentences using the $x$ symbol <br> - Multiplication sentences from pictures <br> - Use arrays <br> - Recap Make doubles <br> - 2 times-table <br> - 5 times-table <br> - 10 times-table | Length \& height <br> - Recap Compare lengths and heights <br> - Recap Measure lengths (1) <br> - Measure length (cm) <br> - Measure length (m) <br> - Compare lengths <br> - Order lengths <br> - Four operations with lengths <br> - Problem solving with lengths <br> Mass, Capacity and Temperature <br> - Introduce weight and mass <br> - Recap Measure mass <br> - Compare mass <br> - Measure mass in grams <br> - Measure mass in kilograms <br> - Recap Introduce capacity and volume <br> - Recap Measure capacity <br> - Compare volume <br> - Millilitres <br> - Litres <br> - Four operations with mass <br> - Four operations with volume <br> - Activity Temperature <br> - Temperature | Fractions <br> - Make equal parts <br> - Recognise a half <br> - Find a half <br> - Recognise a quarter <br> - Find a quarter <br> - Recognise a third <br> - Find a third <br> - Unit fractions <br> - Non-unit fractions <br> - Equivalence of a half and 2 quarters <br> - Find three quarters <br> - Count in fractions <br> - Problem solving with fractions <br> Time <br> - Telling time to the hour <br> - O'clock and half past <br> - Quarter past and quarter to <br> - Telling time to 5 minutes <br> - Hours and days <br> - Find durations of time <br> - Compare durations of time | Statistics <br> - Make tally charts <br> - Make tally charts <br> - Draw pictograms (1-1) <br> - Interpret pictograms (1-1) <br> - Draw pictograms (2, 5 and 10) <br> - Interpret pictograms (2,5 and 10) <br> - Block diagrams <br> Position \& direction <br> - Describe position <br> - Problem solving with position <br> - Describe movement <br> - Describing turns <br> - Describing movement and turns <br> - Making patterns with shapes |


|  |  | crossing ten - subtract ones and subtract tens <br> - Recap Find and make number bonds <br> - Bonds to 100 (tens and ones) <br> Properties of shape <br> - Recognise 2-D and 3-D shapes <br> - Activity Make 2-D and 3-D shapes <br> - Count sides on 2-D shapes <br> - Count vertices on 2-D shapes <br> - Draw 2-D shapes <br> - Lines of symmetry <br> - Lines of symmetry - draw the whole <br> - Sort 2-D shapes <br> - Make patterns with 2-D shapes <br> - Count faces on 3-D shapes <br> - Count edges on 3-D shapes <br> - Count vertices on 3-D shapes <br> - Sort 3-D shapes <br> - Make patterns with 3-D shapes | - Recap Make equal groups - sharing <br> - Make equal groups sharing <br> - Recap Make equal groups - grouping <br> - Make equal groups grouping <br> - Odd and even numbers <br> - Divide by 5 <br> - Divide by 10 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 3 | Number and place Value <br> - Identify, represent and estimate numbers using different representations. <br> - Find 10 or 100 more or less than a given number. <br> - Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). <br> - Compare and order numbers up to 1000 <br> - Read and write numbers up to 1000 in numerals and in words. <br> - Solve number problems and practical problems involving these ideas. <br> - Count from 0 in multiples of $4,8,50$ and 100 <br> Addition and Subtraction <br> - Add and subtract numbers mentally, including: a threedigit number and ones; a three-digit number and tens; a three digit <br> - number and hundreds. <br> - Add and subtract numbers with up to three digits, using formal written methods of columnar | Multiplication and division <br> - Count from 0 in multiples of 4 , 8,50 and 100 <br> - Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. <br> - Write and calculate mathematical statements for <br> - multiplication and division using the multiplication tables they know, including for twodigit <br> - numbers times one-digit numbers, using mental and progressing to formal written methods. <br> - Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and <br> - correspondence problems in which $n$ objects are connected to m objectives. | Number - multiplication and division <br> - Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. <br> - Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for twodigit numbers times onedigit numbers, using mental and progressing to formal written methods. <br> - 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 $m$ objectives. <br> Measurement - length and perimeter | Outcomes Number - fractions Objectives: <br> - Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing onedigit numbers or quantities by 10 Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. <br> - Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Solve problems that involve all of the above. <br> Measurement - mass and capacity <br> - Measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity ( $\mathrm{l} / \mathrm{ml}$ ). | Number - fractions <br> - Recognise and show, using diagrams, equivalent fractions with small denominators. <br> - Compare and order unit fractions, and fractions with the same denominators. <br> - Add and subtract fractions with the same denominator within one whole [for example, $57+17=67$ ] <br> - Solve problems that involve all of the above. <br> Measurement - money <br> - Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts. <br> Measurement - time <br> - Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24hour clocks. <br> - Estimate and read time with increasing accuracy to the nearest minute. <br> - Record and compare time in terms of seconds, minutes and hours. | Geometry - properties of shape <br> - Recognise angles as a property of shape or a description of a turn. <br> - 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. <br> - Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. <br> - Draw 2-D shapes and make 3-D shapes using modelling materials. <br> - Recognise 3-D shapes in different orientations <br> Statistics <br> - Interpret and present data using bar charts, pictograms and tables. <br> - Solve one-step and two-step questions [for example, ‘How many more?' and 'How many fewer?'] using information presented in |


|  | - addition and subtraction. <br> - Estimate the answer to a calculation and use inverse operations to check answers. <br> - Solve problems, including missing number problems, using number facts, place value, <br> - and more complex addition and subtraction. | - Measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity ( $1 / \mathrm{ml}$ ). <br> - Measure the perimeter of simple 2D shapes. | - Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. <br> - Know the number of seconds in a minute and the number of days in each month, year and leap year. <br> - Compare durations of events [for example to calculate the time taken by particular events or tasks]. | scaled bar charts and pictograms and tables |
| :---: | :---: | :---: | :---: | :---: |
| Year 4 | Number: Place Value <br> - count in multiples of $6,7,9,25$ and 1,000 <br> - find 1,000 more or less than a given number <br> - count backwards through 0 to include negative numbers <br> - recognise the place value of each digit in a four-digit number $(1,000 \mathrm{~s}$, $100 \mathrm{~s}, 10 \mathrm{~s}$, and 1s) <br> - order and compare numbers beyond 1,000 <br> - identify, represent and estimate numbers using different representations <br> - round any number to the nearest 10,100 or 1,000 <br> - solve number and practical problems that involve all of the above and with increasingly large positive numbers <br> - read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value <br> Number: Addition and Subtraction <br> - add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate <br> - estimate and use inverse operations to check answers to a calculation <br> - solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why <br> Measure: Area <br> - find the area of rectilinear shapes by counting squares <br> Number: Multiplication and Division <br> - recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> - use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 | Number: Multiplication and Division <br> - recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> - use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together 3 numbers <br> - recognise and use factor pairs and commutativity in mental calculations <br> - multiply two-digit and three-digit numbers by a one-digit number using formal written layout <br> - Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as $n$ objects are connected to $m$ objects <br> Measurement: Length and Perimeter <br> - convert between different units of measure [for example, kilometre to metre; hour to minute] <br> - measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres <br> Number: Fractions and Decimals <br> - recognise and show, using diagrams, families of common equivalent fractions <br> - count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 <br> - 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 <br> - add and subtract fractions with the same denominator <br> - recognise and write decimal equivalents of any number of tenths or hundreds <br> - recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ <br> - 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 | Decimals <br> - round decimals with 1 decima <br> - compare numbers with the sa decimal places <br> - solve simple measure and mo decimals to 2 decimal places <br> Measurement: Money and Time: <br> - estimate, compare and calcula money in pounds and pence <br> - read, write and convert time b 24-hour clocks <br> - solve problems involving conv minutes to seconds, years to <br> Geometry: Properties of Shape <br> - compare and classify geometri and triangles, based on their p <br> - identify acute and obtuse ang to 2 right angles by size <br> - identify lines of symmetry in 2 orientations <br> - complete a simple symmetric of symmetry <br> Statistics <br> - interpret and present discrete appropriate graphical method graphs <br> - solve comparison, sum and dif presented in bar charts, pictog <br> Geometry: Position and Direction <br> - describe positions on a 2-D grid <br> - describe movements between unit to the left/right and up/d <br> - plot specified points and draw | to the nearest whole number ber of decimal places up to 2 <br> blems involving fractions and <br> rent measures, including <br> analogue and digital 12- and <br> rom hours to minutes, weeks to days <br> s, including quadrilaterals es and sizes compare and order angles up <br> es presented in different <br> with respect to a specific line <br> ntinuous data using ding bar charts and time <br> problems using information tables and other graphs <br> ordinates in the first quadrant ns as translations of a given <br> o complete a given polygon |
| Year 5 | Place value <br> - read, write, order and compare numbers to at least 1000000 <br> - Determine the value of each digit count forwards or backwards in steps of powers of 10 for any given number up to 1000000 . <br> - Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including | Multiplication and division (Part B) <br> (refer to multiplication and division) <br> Fractions (Part B) <br> - multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Properties of shape <br> - identify 3-D shapes, including representations <br> - know angles are measured in acute, obtuse and reflex angle | nd other cuboids, from 2-D : estimate and compare |

- Solve number problems and practical problems that involve all of the above read Roman numerals to $1000(\mathrm{M})$ and recognise years written in Roman numerals.


## Addition and subtraction

- Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- subtract numbers mentally with increasingly large numbers use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.


## Multiplication and division (Part A)

- identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19
- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digi numbers
- multiply and divide numbers mentally drawing upon known facts 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
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 recognise and use square numbers and cube numbers, and the notation for squared ( 2 ) and cubed (3) solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
ractions (Part A)
- Compare and order fractions whose denominators are all multiples of the same number
- 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 $>1$ as a mixed number [for example, $52+54=56=151$ ]
- add and subtract fractions with the same denominator and denominators that are multiples of the same number


## Place value

- Numbers to 10,000
- Numbers to 100,000
- Numbers to 1 million
- Numbers to ten million
- Compare and Order any number
- Equival Fractions
- Equivalent fractio
- Mixed fractions
- Improper fractions to mixed fractions
- mixed numbers to improper fractions


## $=10071$ ]

## Decimals and percentages

- 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 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 $21,41,51,52,54$ and those fractions with a denominator of a multiple of 10 or 25 .


## Perimeter and area

- convert between different units of metric measure (for example kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres ( m 2 ) and estimate the area of irregular shapes
- estimate volume [for example, using 1 cm 3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
- solve problems involving converting between units of time
- use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.


## Statistics

- Solve comparison, sum and difference problems using information presented in a line graph complete, read and interpret information in tables, including timetables.


## Ratio and scaling

- Using ratio language
- ratio and fractions
- ratio symbol
- calculating ratio
- using scale factors
- calculating scale factors


## Perimeter, area and volume

- Perimeter of shapes
- perimeter and area
- area of a triangle
- area of a parallelogram
- Volume
- volume of a cuboid
draw given angles, and measure them in degrees (0)
identify: angles at a point and one whole turn (total 360o ) angles at a point on a straight line and 21 a turn (total 1800) other multiples of 900
- 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.


## Position and direction

- 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


## Decimals

- Use known facts to add and subtract decimals within
- Complements to 1
- Add and subtract decimals across 1
- Add decimals with the same number of decimal places
- Subtract decimals with the same number of decimal places
- Add decimals with different numbers of decimal places
- Subtract decimals with different numbers of decimal places
- Efficient strategies for adding and subtracting decimals
- Decimal sequences
- Multiply by 10,100 and 1,000
- Divide by 10,100 and 1,000
- Multiply and divide decimals - missing values

Measurement- Converting units

- Kilograms and kilometres
- Millimetres and millilitres
- Convert units of length
- Convert between metric and imperial units
- Convert units of time
- Calculate with timetables


## Negative Numbers

- Understand negative numbers
- Count through zero in 1 s
- Count through zero in multiples
- Compare and order negative numbers
- Find the difference


## Measurement-Volume

- Cubic centimetre
- Compare volume
- Estimate volume
- Estimate capacity


## Properties of Shape

- Measure with a protracto


## Themed Projects, Consolidation \&

 problem solving- draw lines and angle accurately
- angles on a straight line
- angles around a point
- Round any number
- Negative numbers


## Four operations

- Add whole numbers with more than 4 digits.
- Subtract whole numbers with more than 4 digits
- Inverse operations
- Multi Step addition and subtraction problems
- Addition and subtraction Integers
- Multiply 4 digits by 1 digit
- Multiply 2 digits by 2 digits
- Multiply 3 digits by 2 digits
- Multiply 4 digits by 2 digits
- Divide 4 digits by 1 digit
- Divide with remainders
- Short division
- Division using factors
- Long division
- common factors/ factors
- Common multiples
- Prime numbers
- Squared and cubed numbers
- order of operations
- Mental calculations \& estimations.
compare and order fractions add and subtract fractions
- add and subtract mixed numbers
- multiply fractions by integers
- four rules with fractions
- fractions of an amount


## Measurement- Converting Units

- Metric measures
- Convert metric measures
- Calculate with metric measures
- Miles and kilometres
- Imperial measures
ratio and proportion problems.

Algebra

- Find a rule of Algebraone step.
- Find a rule of Algebratwo step.
- forming expressions
- substitution
- formulae
- forming equations
- solve simple one and two step problems
- find pairs of values
- Enumerate possibilities


## Fractions, decimals and

percentages

- Decimals up to 2 decimal places
- to understand
thousandths
- multiply by 10,100 \& 1000
- divide by 10,100 \& 1000
- multiply decimals by integers
- divide decimals by integers
- use division to solve problems
- decimals as fractions
- fractions to decimals
- Understand percentages
- fractions to percentages
- equivalent fractions, decimals and percentages
- order of FDP
- percentage of an amount
- percentages-missing values
calculate angles
- vertically opposite angles
- angles in a triangle
- angles in special quadrilaterals
- angles in regular polygons
- draw shape accurately
- draw 3D nets of shapes

Geometry- position and direction

- The first quadrant
- four quadrants
- translations
- reflections

