| 2-3 Years Old |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement- time | Measurement | Shape | Fractions | Decimals | Statistics |
| Reacts to changes of amounts in a group Of up to 3 objects <br> Takes part in finger rhymes with numbers <br> Says some counting words <br> Begins to say numbers in order, some of which are in the right order (ordinality | Beginning to compare and recognise changes in numbers of things, using words like more, lots or 'same' |  |  | Beginning to understand some talk about immediate past and future <br> Beginning to anticipate times of the day such as mealtimes or home time | Enjoys filling/emptying containers <br> Explores capacity by filling /emptying or containers, e.g. fits toys in a pram <br> Explores differences in size, length, weight and capacity <br> Investigates fitting themselves inside and moving through spaces <br> Enjoys using blocks to create simple structures \& arrangements | Beginning to select a shape for a specific space <br> Pushes objects through different shaped holes \& attempts to fit shapes into spaces on inset boards or puzzles <br> Enjoys using blocks to create simple structures \& arrangements <br> Recognises that two objects have the same shape <br> Responds to some spatial and positional language |  |  |  |


| 3-4 Years Old |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement- time | Measurement | Shape | Fractions | Decimals | Statistics |
| Beginning to count on their fingers. <br> Recites numbers past 5 / numbers to $10 \backslash$ secure _ <br> Quickly subitises one, two and three objects (without counting) <br> Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle) | Solve real life mathematical problems with numbers up to 5 <br> Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers <br> Beginning to recognise that each counting number is one more than the one before <br> Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same |  |  | Recalls a sequence of events in everyday life and stories | Explores differences in size, length, weight and capacity <br> Makes comparisons between objects relating to size, length, weight \& capacity <br> In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items | Responds to both informal language and common shape names <br> Talks about 2D \&3D shapes using informal \& mathematical language sides, corners <br> Shows awareness of shape similarities and differences between objects <br> Predicts, moves and rotates objects to fit the space or create the shape they would like <br> Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, |  |  |  |

## Reception

| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement- time | Measurement | Shape | Fractions | Decimals | Statistics |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subitises to 3/5/10 <br> Recites number sequence forwards to 10 / backwards from 10 <br> Recognises numerals and links to amounts - 1-5 / 1-10 <br> Counts out up to 10 objects from a larger group <br> Have a deep understanding of number to 10 , including the composition of each number; <br> Subitise (recognise quantities without counting) up to 5; <br> Verbally count beyond 20, recognising the pattern of the counting system; <br> Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; <br> Explore and represent patterns within numbers up to 10 , including evens and odds, double facts and how quantities can be distributed equally | Explores the composition of numbers to 10 - exploring partitioning in different ways with a wide range of objects <br> In practical activities, adds one and subtracts one with numbers to 10 <br> Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10 , including double facts. |  |  |  | Compares length / weight \} capacity_ <br> Becomes familiar with measuring tools in everyday experiences and play <br> Tackles problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy | Spots patterns in the environment, beginning to identify the pattern rule <br> Can continue/ copy \create __ alternating patterns <br> Uses mathematical terms to name and describe 2 D shapes <br> Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints |  |  |  |

## Year 1

| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement- time | Measurement | Shape | Fractions | mals | Statistics |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Count to and across 100, forwards and backwards, forwards and backwards, any given number <br> Count numbers to 100 in numerals; count in multiples of two, fives and tens <br> Identify and represent numbers using objects and pictorial representation <br> Read and Write numbers to 100 in numerals <br> Read and write numbers from 1 to 20 in numerals and words <br> Given a number, identify one more and one less | Add and subtract one-digit and two-digit numbers to 20, including zero <br> Autumn 1 Spring 1 <br> Solve one-step problems that involve addition and $\begin{array}{lll}\text { subtraction, suing } & \text { concrete } \\ \text { objects and } & \text { pictorial }\end{array}$ representations <br> Missing number problems such as $7=?-9$ <br> Algebra <br> Solve one-step problems that involve addition and subtraction, using objects and $\begin{gathered}\text { concrete } \\ \text { pictorial }\end{gathered}$ representation, and missing number problems such as $7=$ -9 | Solve one-step problems involving multiplication and division, by calculating using concrete objects, pictorial with the support of the teacher <br> Summer 1 | Recognise and know the value of different denominations of of different den <br> Summer 5 | Compare, describe and solve practical problems for: <br> time <br> Measure and begin to record the following: time (hours, minutes seconds) <br> Summer 6 <br> $\begin{array}{lcr}\begin{array}{l}\text { Sequence }\end{array} & \text { events } & \text { in } \\ \text { chronological } & \text { order } & \text { using }\end{array}$ language <br> Recognise and use language relating to dates, including days of the week, weeks, <br> Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times | Compare, describe and solve practical problems for: engths and heights mass/weight capacity and volume <br> Measure and begin to record the following: length and heights mass/weight capacity and volume <br> Spring 3 Spring 4 | Recognise and name common 2D shapes (for example circles and triangles) <br> Spring 3 <br> Recognise and name common 3D shapes (for example, cuboids (including cubes), pyramids and spheres). <br> Autumn 3 <br> Describe position, direction, and movement, including whole, half, quarter, and three quarter turns <br> Summer 3 | Recognise, find and name a half as one of two equal parts of an object, shape or quantity <br> Recognise, find and name a quarter as one of four equal quantity <br> Summer 2 |  |  |

## Year 2

| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement-time | Measurement | Shape | Fractions | Decimals | Statistics |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Count in Steps of 2, 3, and 5 from 0 , and in tens from any number, forward and backward. <br> Read and write numbers to at least 100 in numerals and in words <br> Identify, represent and estimate numbers using different representations, including the number line <br> Recognise the place value of each digit in a two-digit number (tens, ones) <br> Compare and order numbers from 0 up to 100 Use <, > and = signs <br> Use place value and number facts to solve problems Autumn 1 | Add and subtract numbers using concrete objects and pictorial representations, and mentally including: <br> - A two-digit number and ones <br> - A two-digit number and tens <br> - Two two-digit numbers <br> - Adding three one-digit numbers <br> Autumn 2 <br> Solve problems with addition and subtract <br> - Using concrete objects and pictorial representations including those involving numbers, quantities, and measure Applying their increasing knowledge of mental and written methods <br> Algebra <br> Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems | Recall and multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers <br> Show that multiplication of two number can be done in any order (commutative) and division of one number by another cannot <br> Calculate mathematical statements for multiplication and division within the tables and write them using the multiplication, division and equals symbol <br> Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts <br> Autumn 4 Spring 2 | Recognise and use symbols for pounds and pence; combine amounts to make a particular value <br> Find different combinations of coins that equal the same amounts of money <br> Solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change. <br> Autumn 3 | Compare and sequence intervals of time <br> 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. <br> Know the number of minutes in an hour and the number of hours in a day. <br> Summer 3 | Choose and use appropriate standard units to estimate and measure/length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels <br> Compare and order lengths, mass, volume/capacity and record the results using $>,<$ and $=$ <br> Spring 5 <br> Summer 4 | Identify and describe the properties of 2D shapes, including the numb er of sides and line symmetry in a vertical line <br> Identify 2D shapes on the surface of 3D shapes, (for example, a circle on a cylinder and a triangle on pyramid) <br> Compare and sort common 2D shapes and everyday objects <br> Spring 3 <br> Recognise and name common 3D shapes (for example, cuboids, (including cubes), pyramids and spheres). <br> Compare and sort common 3D shapes and everyday objects <br> Spring 3 <br> Order and arrange combinations of mathematical objects in patterns and sequences <br> 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 anti-clockwise) | Recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity <br> Spring 4 <br> Recognise the equivalence of $2 / 4$ and $1 / 2$ Spring 4 <br> Write simple fractions for example, $1 / 2$ of $6=3$ <br> Spring 4 |  | Interpret and construct simple pictograms, tally charts, block diagrams and simple tables <br> Spring 2 <br> Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity <br> Ask and answer questions about totalling and comparing categorical data <br> Spring 2 |


| Year 3 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement- time | Measurement | Shape | Fractions | Decimals | Statistics |
| Count in 0 in multiples of 4,850 and 100 <br> Find 10 or 100 more or less than given number <br> Identify, represent and estimate numbers using different representations <br> Read and write numbers up to 1,000 in numerals and in words <br> Recognise the place value in a three digit number (hundreds, tens and ones) <br> Compare and order numbers up to 1,000 <br> Solve number problems and practical problems involving these ideas. <br> Autumn 1 | Add and subtract numbers mentally, including <br> - A three-digit number and ones <br> - A three-digit number and tens <br> - a three-digit number and hundreds <br> Add and subtract numbers with up to three digits using formal written methods of columnar addition and subtraction <br> Solve problems including missing number problems, using number facts, place value and more complex addition and subtraction. | Recall and use multiplication and division facts for 3, 4 and 8 multiplication tables <br> Multiply two-digit and threedigit numbers by a one-digit number using formal written layout <br> Solve problems involving multiplication and division including positive integer scaling problems and correspondence problems in which n objects are connected to m objects <br> Algebra <br> Solve problems, including missing number problems | Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts <br> Spring 2 | Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12 -hour and 24 -hour clocks <br> Estimate and read time with increasing accuracy to the nearest minutes; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, 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). <br> Summer 2 | Measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity ( $1 / \mathrm{ml}$ ) <br> Spring 4 <br> Summer 4 <br> Perimeter, Area and <br> Volume <br> Measure the perimeter of simple 2-D shapes <br> Spring 4 | Draw 2D shapes <br> Summer 3 <br> Make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. <br> Summer 3 <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 <br> 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> Summer 3 | Count up and down in tenths <br> Recognise that tenths arise from dividing an object into 10 equal parts and in dividing onedigit numbers or quantities by 10 <br> Recognise, find and write fractions of a discrete set of objects as unit fractions and non- unit fractions <br> Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators <br> Spring 5 <br> Recognise and show, using diagrams, equivalent fractions with small denominators <br> Compare and order unit fractions, and fractions with the same denominator <br> Summer 1 <br> Add and subtract fractions with the same denominator with one whole <br> Summer 1 <br> Solve problems that involve all the above |  | Interpret and present data using bar charts, pictograms, and tables <br> Spring 3 <br> 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 <br> Spring 3 |


| Year 4 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement- time | Measurement | Shape | Fractions | Decimals and Percentages | Statistics |
| Count in multiples of 6, 7, 9, 25 and 1000 <br> Count backwards through zero to include negative numbers <br> Identify, represent and estimate numbers using different representations <br> Read Roman numerals to 100 and know that the Roman numeral system evolved to include to zero <br> Find 1,000 more and less than a given number <br> Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) <br> Order and compare numbers beyond 1,000 <br> Round any number to the nearest 10,100 or 1,000 <br> Solve number and practical problems that involve all the increasingly large positive numbers <br> Autumn1 | Add and subtract numbers with more than 4 digits using the formal written methods of columnar addition and subtraction where appropriate <br> Solve addition and Subtraction two-step problems in context, deciding which operations and methods to use and why. | Recall multiplication and division facts for the multiplication tables up to 12 x 12 <br> Use place value, know and derived facts to multiply and divide mentally, including multiplying by 0 and 1 : dividing by 1 ; multiplying together three numbers. <br> Recognise and use factor pairs and commutativity in mental calculations <br> Multiply two-digit and three digit numbers by one-digit number using a formal written layout <br> Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integers scaling problems and harder correspondence problems such as n objects are connected to m objects <br> Autumn 4 <br> Spring 1 | Estimate, compare and calculate different measures, including money in pounds and pence <br> Summer 2 | Convert between different units of hour to minute <br> Read, write and convert time between analogue and digital 12- and 24-hour clocks <br> Solve problems involving problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. <br> Summer 3 | Convert between different units of measure (for example, kilometre to metre) <br> Estimate, compare and calculate different measures <br> Autumn 3 <br> Spring 2 <br> Perimeter, Area and Volume <br> Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres <br> Find the Area of rectilinear shapes by counting squares. <br> Autumn 3 Spring 2 | Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes <br> Identify lines of symmetry in 2D shapes presented in different orientations. <br> Summer 5 <br> Identify acute and obtuse angles and compare and order angles up to two right angles by size <br> Identify line of symmetry in 2D shapes presented in different orientations <br> Complete a simple symmetric figure with respect to a specific line of symmetry <br> Summer 5 <br> Describe position on a 2D grid as coordinates in the first quadrant <br> Describe movements between positions as translation of a given unit to the left/right and up/down <br> Plot specified points and draw sides to complete a given polygon <br> Summer 6 | Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten <br> Spring 3 <br> Recognise and show, using diagrams, families of common equivalent fractions <br> Spring 3 <br> Add and subtract fractions with the same denominator <br> Spring 3 <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> Spring 3 | Recognise and write decimal equivalents of any number of tenths or hundredths <br> Recognise and write decimal equivalent to $1 / 4,1 / 2,3.4$ <br> Spring 4 and Summer 1 <br> Round Decimals with one decimals place to the nearest whole number <br> Compare numbers with the same number of decimals places up to two decimal places <br> Summer 1 <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. <br> Spring 4 <br> Solve simple measure and money problems involving fractions and decimals to two decimal places <br> Spring 3, 4 and Summer 1 | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs <br> Summer 4 <br> Solve comparison, sum and difference problems using information presented in bar charts, picograms, tables and other graphs. <br> Summer 4 |


| Year 5 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement- time | Measurement | Shape | Fractions | Decimals and Percentages | Statistics |
| Count forwards or backwards in steps of powers of 10 for any given number up to $1,000,000$ <br> Count forwards and backwards with positive and negative whole numbers, including zero <br> Read and write numbers to at least 1,000,000 and determine the value of each digit <br> Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. <br> Order and compare numbers to $1,000,000$ and determine the value of each digit. <br> Interpret negative number in context <br> Round any number up to 1,000,000 to the nearest 10 , $100,1,000,10,000$, and 100,000 <br> Solve number problems and practical problems that involve all the above. <br> Autumn 1 | Add and subtract whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction) <br> Add and subtract numbers mentally with increasingly large numbers <br> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why <br> Solve problems involving addition, subtraction, multiplication and division and a combinations of these, including the meaning of the equals sign. | Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers <br> Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers <br> Establish whether number up to 100 is prime and recall prime numbers up to 19 <br> Recognise and use square numbers and cube numbers, and the notation for squared and cubed. <br> Multiply numbers up to 4 digits by a one-digit or two-digit number using a formal written method, including long multiplication for two-digit numbers <br> Multiply and divide number mentally drawing upon known facts <br> Divide numbers up to 4 digits by one-digit number using the formal written method of short division and interpret remainders appropriately for the context <br> Multiply and vide whole numbers and those involving decimals by 10,100 and 1000 . <br> Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes <br> Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. <br> Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign <br> Autumn 4 <br> Spring 1 <br> Summer 1 | Use all operations to solve problems involving measure <br> Summer 1 | Solve problems involving converting between units of time. | Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gra and kilogram; litre and millilitre) <br> Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints <br> Use all four operations to solve problems involving measure (for example, length, mass volume, money) using decimal notation, including scaling. $\qquad$ <br> Perimeter, Area and Volume <br> Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres <br> 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 <br> Estimate volume (for example using 1 cm 3 blocks to build cuboids (including cubes) and capacity (for example, using water) <br> Autumn 5 <br> Summer 5 | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles <br> Use the properties of rectangles to deduce related facts and find missing lengths and angles <br> Summer 2 <br> Identify 3D shapes, including cubes and other cuboids, from 2D representations. <br> Summer 2 <br> Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles <br> Draw given angles, and measure them in degrees <br> Identify: <br> - Angles at a point and one whole turn (total $360^{\circ}$ ) <br> - Angles at a point on a straight line and $1 / 2$ a turn (total $180^{\circ}$ ) <br> - Other multiples of $90^{\circ}$ <br> Summer 2 <br> 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 <br> Summer 3 | Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <br> 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, $2 / 5+4 / 5=6 / 5=11 / 5$ ) <br> Spring 2 <br> Compare and order fractions whose denominators are all the multiples of the same number <br> Spring 2 <br> Add and subtract fractions with the same denominator that are multiples of the same number <br> Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams <br> Spring 3 | Read and write decimal numbers as fractions ( $0.71=$ 71/100) <br> Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. <br> Spring 3 <br> Round decimals with two decimal places to the nearest whole number and to one decimal place <br> Read, write, order and compare numbers with up to three decimals places <br> Spring 3 <br> Solve problems involving number up to three decimal places <br> Summer 1 <br> Recognise the per cent symbol (5) and understand that per cent relates to 'number of part per hundred', and write percentages as a fraction with denominator 100, and as a decimal <br> Solve problems which require knowing percentage and decimal equivalents of $1 / 2,1 / 4$, $1 / 5,2 / 5,4 / 5$ and those fractions with a denominator of a multiple of 10 or 25 <br> Spring 3 | Complete, read and interpret information in tables, including timetables <br> Autumn 3 <br> Solve comparison, sum and difference problems using information presented in a line graph <br> Autumn 3 |


| Year 6 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counting and Place Value | Addition and Subtraction | Multiplication and Division | Measurement- money | Measurement-time | Measurement | Shape | Fractions | Decimals, Percentages Ration and Proportion | Statistics |
| Read and write numbers up to 1,000,000 and determine the place value of each digit <br> Order and compare numbers up to $10,000,000$ and each digit <br> Round any number to required degree of accuracy <br> Use negative numbers in context and calculate intervals across zero <br> Solve Number and practica the above. | Perform mental calculations, induding with mixed operations and large numbers <br> Use their knowledge of the order of operations to carry out calculations involving the four operations. <br> Solve addition and subtraction multi-step problems in contexts, deciding which and why |  |  | Use, read, witte and convert between standard $\begin{aligned} & \text { units, } \\ & \text { converting } \\ & \text { measurements of }\end{aligned}$ of time from a smaller unit of measure to a larger unit, and vice versa. <br> Year 5 Summer 4 | Solve problems involving the calculation and conversion of notation up to three decimal places where appropriate <br> Use, read, write and convert between standards units, length, mass, volume and time from smaller unit of measure to larger unit and vice versa, using decimal places <br> Convert between miles and kilometres. <br> Spring 4 <br> Perimeter, Area and Volume <br> Recognise that shapes with the same area can have differe perimeters and vice versa <br> Recognise when it is possible to use formulae for area and volume of shapes <br> Calculate the areas of parallelograms and triangles <br> Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and extending to other units (for example, mm£, and km3) | Draw 2D shapes using given dimensions and angles <br> Compare and classify geometric shapes based properties and sizes <br> Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius <br> Summer 1 <br> Recognise, describe and build simple 3D shapes, including make nets make nets <br> Summer 1 <br> Find unknown angles in any triangles, quadrilaterals, and regular polygons <br> Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles <br> Summer 1 <br> Describe positions on the full coordinate gird (all four quadrants) <br> Draw and translate simple shapes on the coordinate axes. <br> Autumn 4 | Use common factors to simplify fractions <br> Use common multiples to express fractions in the same <br> Compare and order fractions including fraction >1 <br> Add and subtract fractions with different denominators 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> Autumn 3 | Identify the value of each digit in numbers given to three decimal places <br> Spring 1 <br> Multiply and divide numbers by 10,100 , and 1000 giving answers up to three decimal places <br> Multiply one-digit numbers with up to two decimal places by whole numbers <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> Spring 1 <br> Associate a fraction with division and calculate decimal fraction $\begin{aligned} & \text { equivalents (for } \\ & \text { example } \\ & 0.375 \text { ) for a simple }\end{aligned}$ fraction (for example 3/6) <br> Recall and use equivalences between simple fractions, including in different contexts. <br> Spring 1 and 2 <br> Solve problems involving the relative sized of two quantities where missing values found by using integer multiplication and division facts <br> Solve problems involving the of 360) and the use of percentages for comparison <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> Spring 6 | Interpret and construct pie charts and line graphs and use these to solve problems <br> Summer 3 <br> Calculate and interpret the mean as an average <br> Summer 3 |

