Autumn Term

| Nursery | Baseline <br> What do you know? | Sorting <br> sorting objects by colour sorting objects by type knowing that objects are different | Comparison identify when a group has more identify when a group has less use language of more and less compare 2 groups of objects- when the difference is large | Counting, cardinality and ordinality counting in order to 10. <br> Counting on from different starting points Saying which number comes next up to 10 . | Number 1 <br> Understanding what 1 means (numberblocks) Tagging one object Counting 1 sound Showing 1 finger repeat for 2 and 3 | Position <br> Understand positional words Use positional words to describe where something is | Length understand language of long and short compare long and short objects use language of long and short |  |
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| Reception | Subitising up to 3 <br> perceptually subitise within 3 <br> identify sub-groups in larger arrangements | Counting cardinality and ordinality <br> relate the counting sequence to cardinality, seeing that the last number spoken gives the number in the entire set <br> have a wide range of opportunities to develop their knowledge of the counting sequence, including through rhyme and song have a wide range of opportunities to develop 1:1 correspondence | Composition see that all numbers can be made of 1 s compose their own collections within 4. Repeat with 5 and beyond | Subitising up to 4 create their own patterns for numbers within 4 practise using their fingers to represent quantities which they can subitise experience subitising in a range of contexts | 2D shapes <br> name 2D shapes Use mathematical language to describe 2D shapes Select shapes appropriately | Length <br> Consolidate children's knowledge of language used to compare length Consolidate children's understanding of comparing length Children to use some informal methods to measure and compare length. | Weight <br> Consolidate children's knowledge of language used to compare weight Consolidate children's understanding of comparing weight Children to use some informal methods to measure and compare weight. Children solve problems relating to comparing weight. | Patterns <br> Extend and create ABAB patterns. <br> Notice and correct an error in repeating patterns. <br> Continue, copy and create patterns with varying rules. |
| Year 1 | Measures: Time chronological order tell time to hour and half past | Place Value <br> count to and across 100 <br> read and write numerals 1-20 identify one more, one less count in multiples of $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s | Addition and Subtraction read and interpret addition, subtraction and equal symbol number bonds to 20 add and subtract one and two digit | Measures: Money recognise and know the denominations of different coins and notes - no calculations | Measures: Mass compare and begin to measure mass and weight | Geometry: <br> Properties of shape 2D and 3D <br> recognise and name common 2D shape recognise and name common 3D shape |  |  |

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|  |  |  | numbers to and within 20 |  |  |  |  |  |
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| Year 2 | Measures: Time know the number of minutes in an hour and the number of hours in a day tell time to $1 / 4$ to and past | Place Value <br> recognise the place value of each digit in a two-digit number identify, represent numbers using different representations, including the number line compare and order numbers from 0 up to 100 read and write numbers to at least 100 | Addition and Subtraction add and subtract mental strategies for adding 10 or 1 number facts to 20 show commutative law | Measures: Money solve simple problems in a practical context involving addition of money of the same unit, including giving change | Multiplication and Division <br> calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(x)$, division ( $\div$ ) and equals (=) signs <br> show that multiplication of two numbers can be done in any order (commutative) | Geometry: <br> Properties of 2D shape <br> identify and describe the properties of 2-D shapes, including the number of sides, faces and line symmetry in a vertical line <br> compare and sort common 2-D everyday objects |  |  |
| Year 3 | Measures: Time know the number of seconds in a minute and the number of days in each month, year and leap year estimate and read time with increasing accuracy to the nearest minute tell and write the time from an analogue clock, including using Roman numerals from I to XII | Place Value <br> recognise the place value of each digit in a three-digit number (hundreds, tens, ones) compare and order numbers up to 1000 read and write numbers up to 1000 count from 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) | Addition and Subtraction <br> add and subtract numbers mentally, including: <br> a three-digit number and ones a three-digit number and tens a three-digit number and hundreds add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction | Measures: Length and Perimeter add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); measure the perimeter of simple 2-D shapes | Multiplication and Division <br> recall and use multiplication and division facts for the <br> 3,4 and 8 multiplication tables calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental methods write and calculate mathematical | Geometry: <br> Properties of shape <br> 2D <br> draw and recognise <br> 2-D shapes <br> identify horizontal and vertical lines and pairs of perpendicular and parallel lines. |  |  |

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| Year 5 | Measures: Time |
| :--- | :--- | Measures: Time

solve problems involving converting between units of time


|  | Addition and Subtraction add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) add and subtract numbers mentally with increasingly large numbers solve addition and subtraction multistep problems in contexts | Multiplication and Division <br> identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers multiply and divide numbers mentally drawing upon known facts multiply and divide numbers up to 4 digits by a one- or two-digit number using a formal written method | Fractions <br> add and subtract fractions with the same denominator recognise mixed numbers and improper fractions and convert from one form to the other multiply proper fractions by whole numbers, supported by materials and diagrams identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths compare and order fractions whose denominators are all multiples of the same number add and subtract fractions with denominators that are multiples of the same number multiply mixed numbers by whole numbers, supported by materials and diagrams | Geometry: <br> Properties of shape angles <br> know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (o) identify angles at a point and one whole turn (total 3600) angles at a point on a straight line and $1 / 2 a$ turn <br> 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. |  |  |
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|  | Addition and Subtraction perform mental calculations, including with mixed operations and large numbers | Multiplication and Division perform mental calculations, including with mixed operations and large numbers | Measures: conversions use, read, write and convert between standard units, converting measurements of length, mass, volume from a smaller unit of | Fractions <br> compare and order fractions, including fractions > 1 add and subtract fractions with different | Statistics <br> calculate and interpret the mean as an average. interpret and construct line graphs | Algebra <br> recognise that shapes with the same areas can have different perimeters and vice versa |

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Spring Term


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|  |  | subtraction using partitioning structure | counting and repeated addition Division through sharing and grouping |  | draw the hands on a clock |  |  |  |  |
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| Year 2 | Place Value <br> recognise the place value of each digit in a two-digit number (tens, ones | Addition and Subtraction add and subtract (no exchange )numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers | Multiplication and Division <br> solve problems involving multiplication and division, using materials, arrays, repeated addition, sharing and grouping | Fractions <br> recognise $1 / 2,1 / 4$ and $1 / 3$ s of lengths, shapes, sets of objects and quantities | Geometry: <br> Position and Direction | Measures: <br> Time |  |  |  |
| Year 3 | Place Value <br> recognise the place value of each digit in a three-digit number (hundreds, tens, ones) <br> 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 | Fractions <br> count up and down in tenths; not decimals compare and order fractions with the same denominators compare and order unit fractions add and subtract fractions with the same denominator within one whole recognise and show, using diagrams, equivalent fractions | Addition and Subtraction <br> 3-digt addition up to one exchange ensure 0 used as place holder | Measures: Money add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts | Measures: mass, capacity, volume measure, compare, add and subtract: mass (kg/g); volume/capacity ( $1 / \mathrm{ml}$ ) | Statistics <br> 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?' | Multiplication and Division multiply two-digit by one digit numbers - draw it Division by Grouping multiples on a place value grid | Fractions <br> recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators |  |
| Year 4 | Place Value <br> solve number and practical problems that | Fractions count up and down in hundredths; | Addition and Subtraction add and subtract numbers with up | Statistics <br> interpret and present discrete and continuous | Multiplication and Division multiply two-digit and three-digit | Fractions solve problems involving increasingly | Geometry: Position and Direction |  |  |

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|  |  |  |  | cubes)] and capacity [for example, using water] identify 3-D shapes, including cubes and other cuboids, from 2-D representations |  | numbers with up to three decimal places round decimals with two decimal places to the nearest whole number and to one decimal place | inches, pounds and pints |  |  |
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| Year 6 | Place Value use negative numbers in context, and calculate intervals across zero | Addition and <br> Subtraction <br> use their <br> knowledge of the <br> order of <br> operations to <br> carry out <br> calculations <br> involving the four <br> operations <br> solve addition and <br> subtraction multi- <br> step problems in <br> contexts, deciding <br> which operations <br> and methods to <br> use and why | Multiplication and Division use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places | Decimals <br> associate a <br> fraction with <br> division and <br> calculate decimal <br> fraction <br> equivalents [for <br> example, 0.375] <br> for a simple <br> fraction [for <br> example, 3/8) <br> identify the value <br> of each digit in <br> numbers given to <br> three decimal <br> places and <br> multiply and <br> divide numbers <br> by 10,100 and <br> 1000 giving <br> answers up to <br> three decimal <br> places <br> recall and use <br> equivalences <br> between simple <br> fractions, <br> decimals | Measures: <br> conversions <br> convert between <br> miles and <br> kilometres (as <br> starter) <br> recognise when it <br> is possible to use <br> formulae for <br> volume of shapes <br> (main concept) <br> calculate, <br> estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3 | Ratio and Proportion Percentages <br> solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360] and the use of percentages for comparison solve problems involving similar shapes where the scale factor is known or can be found | Statistics interpret and construct pie charts and line graphs and use | Geometry: <br> Position and Direction <br> draw 2-D shapes using given dimensions and angles recognise, describe and build simple 3-D shapes, including making nets compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons illustrate and name parts of circles, | Algebra <br> use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of two variables |

## Summer Term

| Nursery | Number 5 <br> Understand what 5 means (numberblocks) Tagging 5 objects Counting objects that cannot be moved | Counting, Cardinality and Ordinality <br> Collecting up to 5 objects Knowing the last number said is the total. | Comparison <br> Reasoning- that bear has 1 and that one has 4 - he has more. Sharing into equal amounts | Subitise <br> Subitise up to 3 . <br> Show finger numbers up to 3 . | Capacity <br> Use language of full and empty <br> Compare capacity <br> Understand language of full and empty. | Composition <br> Understand numbers can be made of 1's <br> Use stem sentence 1 and another 1 etc. makes... | Shapes <br> Consolidate children's knowledge of 2D and 3D shapes. Consolidate children's knowledge of the mathematical language used to describe the properties of 2D and 3D shapes. | Measures <br> Children to consolidate their understanding of comparing length, weight and capacity. Children to solve problems using their understanding of length, weight and capacity. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reception | Counting, Cardinality and Ordinality continue to develop verbal counting to 20 and beyond, including counting from different starting numbers continue to develop confidence and accuracy in both verbal and object counting. | Subitising continue to practise increasingly familiar subitising arrangements, including those which expose '1 more' or 'doubles' patterns | Composition consolidate the composition of 5 repeat with 10 | Comparison order sets of objects, linking this to their understanding of the ordinal number system. | Subitising <br> say the number of up to 4 clearly defined objects in different contexts, without counting? <br> say how many fingers on one hand they can see, quickly and consistently? | Recall <br> show numbers to 5 (without counting) on their fingers, using both hands or by using the Fingers up, Fingers down' method (repeat for 10 | Shape <br> Consolidate children's knowledge of 2 D and 3 D shapes. Consolidate children's knowledge of the mathematical language used to describe the properties of 2D and 3D shapes. Consolidate children's knowledge of 2 D and 3 D shapes. Consolidate children's knowledge of the mathematical language used to describe the properties of 2D and 3D shapes. | Measures <br> Children to consolidate their understanding of comparing length, weight and capacity. Children to solve problems using their understanding of length, weight and capacity. |
| Year 1 | Addition and Subtraction solve one-step problems that involve addition and | Measures: compare and order, compare, describe and solve practical problems | Multiplication and division <br> multiply and group and share using arrays no X symbol | Fractions <br> Recognise, find and name a quarter as one of four equal | Geometry: Position and Direction describe position, direction and movement, including | Measures: capacity and volume compare, describe and solve practical problems | Financial Literacy |  |


|  | subtraction, using concrete objects and pictorial representations, and missing number problems | for: lengths and heights |  | parts of an object, shape or quantity | whole, half, quarter and three-quarter turns |  |  |  |
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| Year 2 | Statistics <br> 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 category and sorting the categories by quantity ask and answer questions about totalling and comparing | Addition and Subtraction <br> add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers | Multiplication and division <br> solve problems involving multiplication and division, using materials, arrays, repeated addition calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(x)$, division $(\div)$ and equals (=) signs | Fractions <br> recognise, find, name and write fractions $1 / 3,1 / 2$ and $1 / 4$ of a length, shape, set of objects or quantity write simple fractions for example, $1 / 2$ of $6=$ 3 and recognise the equivalence of $2 / 4$ and $1 / 2$. | Geometry: <br> Properties of Shape <br> 2D and3D <br> identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] compare and sort common 2-D and 3-D shapes and everyday objects | Measures: compare and order choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature $\left({ }^{\circ} \mathrm{C}\right)$; capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels compare and order lengths, mass, volume/capacity and record the results using >, < and = | Measures: Time compare and sequence intervals of time | Financial Literacy |
| Year 3 | Place Value <br> 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 | Addition and Subtraction <br> 3-digit addition with 2 exchanges subtraction with more than one exchange | Measures: Time <br> tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12hour and 24-hour clocks estimate and read time with increasing accuracy to the nearest minute compare durations of events | Multiplication and division <br> recall and use multiplication and division facts for the 3,4 and 8 multiplication tables solve problems, including positive integer scaling problems multiply two-digit by one digit numbers write it | Fractions <br> 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 (decimals) | Addition and Subtraction <br> add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction estimate the answer to a calculation and use inverse operations to check answers | Geometry: <br> Properties of shape <br> Angles <br> draw 2-D shapes and make 3-D shapes using modelling materials; recognise $3-\mathrm{D}$ shapes in different orientations and describe them recognise angles as a property of shape or a description of a turn identify right angles | Financial Literacy |

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|  | in numerals and in words |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year 4 | Place Value <br> solve number and practical problems that involve all of the above and with increasingly large positive numbers round any number to the nearest 10,100 or 1000 | Addition and Subtraction <br> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition all 3 possibilities of exchange estimate and use inverse operations to check answers to a calculation | Decimals <br> count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $1 / 21 / 43 / 4$ find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places | Measures: Money <br> Convert between different units of measure (£and p) estimate, compare and calculate different measures, including money in pounds and pence | Multiplication and division <br> 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 commutativity in mental calculations solve problems involving multiplying and adding multiply two-digit and three-digit numbers by a onedigit number using formal written layout recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> Pupils practise to become fluent in the formal written method of short division with exact answers | Geometry: <br> Properties of shape <br> Angles <br> identify acute and obtuse angles and compare and order angles up to two right angles by size | Financial Literacy |  |
| Year 5 | Multiplication prime and square numbers | Measures: area <br> calculate and compare the area of rectangles (including squares), and including using | Addition and <br> Subtraction <br> solve addition and subtraction multistep problems in contexts, deciding | Multiplication and division Multiply and divide numbers up to 4 digits by a one- or two-digit number | Percentages recognise the per cent symbol (\%) and understand that per cent relates to 'number of parts per | Statistics <br> solve comparison, sum and difference problems using information | Position and Direction identify, describe and represent the position of a shape following a reflection | Financial Literacy |

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