

## Nursery

Can I count up to five items, recognising tha the last number said represents the total counted so far (cardinal principle)?

Can I explore using a range of their own marks and signs to which they ascribe mathematica meanings?

Through play and exploration, can I begin to learn that numbers are made up (composed) of smaller numbers

Can I begin to recognis that each counting number is one more than the one before

Can I begin to use understanding of number to solve practical problems in play and meaningful activities

Can I separate a group of three or four objects in different ways, beginning to recognis that the total is still the same?

Reception
Can I begin to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard appropriate) standard num

Can I show awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects?

In practical activities,
can I add one and subtracts one with numbers to 10 ?

Can I begin to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three?

Year 1
Can I represent and use number bonds and related subtraction facts to 20 ?

Can I add and subtract 1-digit and 2-digit numbers to 20 , including zero?

Can I read, write and interpret mathematical statements involving addition, subtraction and equals signs?

Can I solve one-step problems that involve addition and subtraction, using objects and pictoria representations?

Can I solve missing number problems?

Year 2
Can I recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 ?

Can I add and subtract mentally, including: a digit number and ones; 2-digit number and tens; Two 2-digit numbers; adding three 1-digit numbers?

Can I add and subtract numbers using concrete objects and pictoria representations, including: a 2-digit number and ones; a 2 digit number and tens; two 2-digit numbers; adding three 1-digit numbers?

Can I recognise and use the inverse relationship between addition and subtraction and use this o check calculations and missing number problems?

Can I solve problems with addition and subtraction using concrete objects and pictorial
representations,
including those involving numbers, quantities and measures?

Can I solve problems with addition and subtraction applying my increasing knowledge of mental and written methods?

Can I add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction? Can I estimate the answer to a calculation and use inverse operation to check answers?

Can I solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction? written methods of columnar addition and subtraction?

Can I estimate and use inverse operations to check answers in a calculation?

Can I solve addition and subtraction 2-step problems in contexts, deciding which
operations and methods to use and why?

Can I add and subtract numbers mentally with increasingly large numbers?

Can I add and subtract whole numbers with more than 4 digits, including using forma written methods?

Can I use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy?

Can I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why?

Can Iuse estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy?

Can I solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why?



## Fractions

|  |  | Can I recognise, find <br> and name a half of an <br> object, shape or <br> quantity? |
| :--- | :--- | :--- |


| Can I recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity? | Can I count up and down in tenths? | Can I count up and down in hundredths? | Can I recognise mixed numbers and improper fractions and convert from one form to the other? | Can I use common factors to simplify fractions and use common multiples to express fractions in the same denomination? |
| :---: | :---: | :---: | :---: | :---: |
| Can I write simple fractions? | Can I recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1 -digit numbers or quantities by 10 ? | Can I recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten? | Can I write mathematical statements $>1$ as a mixed number? | Can I compare and order fractions, including fractions $>1$ ? |
| Can I recognise the equivalence of $2 / 4$ and $1 / 2$ ? | Can I recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators? | Can I recognise and show using diagrams, families of common equivalent fractions? | Can I identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths? | Can I add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions? |
|  | Can I recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators? | Can I add and subtract fractions with the same denominator? | Can I compare and order fractions whose denominators are multiples of the same number? | Can I multiply simple pairs of proper fractions, writing the answer in the simplest form? |
|  | Can I recognise and show, using diagrams, equivalent fractions with small denominators? | Can I recognise and write decimal equivalents to $1 / 4,1 / 2$ and $3 / 4$ ? | Can I add and subtract fractions with the same denominator and denominators that are multiples of the same number? | Can I divide proper fractions by whole numbers? |
|  | Can I compare and order unit fractions and fractions with the same denominators? | Can I solve problems involving increasingly harder fractions and fractions to divide quantities, including non-unit fractions where the answer is a whole number? | Can I multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams? | Can I associate a fraction with division to calculate decimal fractions equivalents for a simple fraction? |
|  | Can I add and subtract fractions with the same denominator within one whole? |  | Can I read and write decimal numbers as fractions? |  |
|  | Can I solve problems involving fractions? |  | Can I recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents? |  |

Decimals

|  |  |  |  | Can I recognise and write decimal number of tenths or hundredths? <br> with one decimal plan to the nearest whole number? <br> Can I compare numbers with the same number 2 decimal places? <br> Can I find the effect of dividing a 1 -digit or 2- digit number by 10 and 100 , identifying the value of the digits in the and hundredths? <br> Can I solve simple problems involving to 2 decimal placimals | Can I round decimal with 2 decimal plac the nearest whole number and 1 decimal place? <br> and coad, write, order and compare numbers places? <br> Can I solve problems involving numbers up to 3 decimal places? | Can I identify the value of each digit to 3 decimal places? <br> Can I multiply and to 3 decimal places by 10,100 and 1000 givin places? up to 3 decima Can I multiply 1 -digit decimal places by whol numbers? <br> Can I use written division methods in cases where the answer places? <br> Can I solve problems which require answers secified degrees accuracy? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentages |  |  |  |  |  |  |
|  |  |  |  |  | Can I recognise the understand and relates to 'number parts per hundred'? <br> Can I write percentages as a fraction with denominator hundred and as a decimal? <br> Can I solve problems which require knowing percentage and decima $1 / 5,2 / 5,4 / 5$ and those fractions with a multiple of 10 or 25 ? |  |




|  | Nursery | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In meaningful contexts, can I find the longer or shorter, heavier or lighter and more/less full of two items? | Can I tackle problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy? <br> Am I becoming familiar with measuring tools in everyday experiences and play? | Can I compare, describe and solve practical problems for lengths and heights; mass/weight; capacity and volume; and time? <br> Can I measure and begin to record lengths and heights; mass/weight; capacity and volume; and time (hours, minutes, seconds)? | Can I compare and order lengths, mass, volume/capacity and record the results using > < and =? <br> Can I choose and use standard units to estimate and measure length/height in any direction (m/cm); mass ( $\mathrm{g} / \mathrm{kg}$ ); temperature ( ${ }^{\circ} \mathrm{C}$ ); capacity ( $\mathrm{m} / \mathrm{l}$ ) to the nearest unit using a range of equipment? | Can I compare and measure: lengths using m, cm \&mm; mass using kg \& g; volume/capacity using I \& ml ? <br> Can I add and subtract :lengths using $\mathrm{m}, \mathrm{cm}$ \& mm ; mass using kg \& g; volume/capacity using I \& ml ? | Can I compare, estimate and calculate different measures? <br> Can I convert between different units of measurements? | Can I use all four operations to solve problems involving measure using decimal notation, including scaling? <br> Can I convert between different units of metric measure? <br> Can I show an understanding of, and use approximate equivalences between, metric units and common imperial units, such as inches, pounds and pints? | Can I 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 of up to 3 decimal places? <br> Can I convert between miles and kilometres? <br> Can I solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate? |
|  | Money |  |  |  |  |  |  |  |
|  |  |  | Can I recognise and know the value of different denominations of coins and notes? | Can I recognise and use symbols for $£$ and $p$ and combine amounts to make a particular value? <br> Can I find different combinations of coins that equal the same amount of money? <br> Can I solve simple problems in a practical context involving addition and subtraction of money of the same units, including giving change? | Can I add and subtract amounts of money to give change, using both $£$ and $p$ in a practical context? | Can I compare, estimate and calculate different measures, including money in $£$ and p ? | Can I use all four operations to solve problems involving money? |  |

Time

| Can I recall a sequence <br> of events in everyday <br> life and stories? | Am I increasingly able <br> to order and sequence <br> events using everyday |
| :--- | :--- |
| language related to |  |
| time? |  |$\quad$| Can I begin to |
| :--- |
| experience measuring |
| time with timers and |

Can I tell the time to the
hour and half past the
hour and draw hands
on a clock face to show these times?

Can I recognise and use language relating to dates, including days, weeks, months and years?

Can I sequence events in chronological order using language?

| Can I compare and <br> sequence intervals of <br> time? | Can I tell and write the <br> time from an analogue <br> clock (12 hour clock/24 <br> bour/Roman numerals)? |
| :--- | :--- |
|  | Can I demonstrate <br> knowledge of the <br> number of minutes in an <br> hour and hours in a <br> day? |
| Can I estimate and read <br> time with increasing <br> accuracy to the nearest <br> minute? |  |
|  |  |

Can I read, write and convert time between analogue and digital 12 and 24 hour clocks?

## Can I solve problems

 involving converting from hours to minutes; minutes to seconds; years to months; weeks to days?Can I measure and calculate the perimeter of a rectilinear figure in cm and m ?
compare the area
rectangles (incl. squares), and including using standard units $\left(\mathrm{cm}^{2}\right.$ and $\mathrm{cm}^{3}$ ) to estimate the area of irregular shapes? Can I estimate volume and capacity?

Can I measure and calculate the perimeter of composite rectilinear shapes in cm and m ?

Can I recognise when it is possible to use the formulae for the area of formulae
shapes?

Can I calculate
estimate and compare volume of cubes and cuboids, using standard units?

Can I recognise when it is possible to use the formulae for the volume of shapes?

Can I recognise that shapes with the same areas can have different perimeters and vice versa?


|  | Nursery | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Can I recognise that angles are a property of shape or a description of a turn? <br> Can I identify right angles? <br> I recognise that two right angles make a half-turn \& three make a three quarter turn? <br> Can I identify whether angles are greater than or less than a right angle? | Can I identify acute and obtuse angles and compare and order angles up to two right angles by size? | Can I show an understanding that angles are measured in degrees? <br> Can I estimate and compare acute, obtuse and reflex angles? <br> Can I identify angles at a point and one whole turn; angles at a point on a straight line and $1 / 2$ a turn? <br> Can I identify other multiples of $90^{\circ}$ ? <br> Can I draw given angles and measure them in degrees? | Can I find unknown angles in any triangles, quadrilaterals and regular polygons? <br> Can I recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles? Can I illustrate and name parts of circles, including radius, diameter and circumference? <br> Can I demonstrate that the diameter of a circle is twice the radius? |
|  | Can I respond to and uses language of position and direction? <br> Can I predict, move and rotate objects to fit the space or create the shape they would like? | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  | Can I use spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints? | Can I describe position, directions and movement, including half, quarter and threequarter turns? | Can I order and arrange combinations of mathematical objects in patterns and sequences? <br> Can I 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)? |  | Can I describe movements between positions as translations of a given unit to the left/right and up/down? | Can I 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? | Can I draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes? |
|  |  | Can I investigate turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning)? |  |  |  | Can I describe positions on a 2D grid as coordinates in the first quadrant? |  | Can I describe positions on the full co-ordinate grid (all four quadrants)? |
|  |  | Can I make simple maps of familiar and imaginative environments, with landmarks? |  |  |  | Can I plot specified points and draw sides to complete a given polygon? |  |  |


|  | Nursery | Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Can I interpret and construct simple pictograms, tally charts, block diagrams and simple tables? | Can I interpret and present data using bar charts, pictograms and tables? | Can I interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs? | Can I complete, read and interpret information in tables (incl. timetables)? | Can I interpret and construct pie charts and line graphs and use these to solve problems? |
|  |  |  |  | Can I ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity? | Can I solve one-step and two-step questions using information presented in scaled bar charts, pictograms and tables? | Can I solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs? | Can I solve comparison, sum and difference problems using information presented in a line graph? | Can I calculate and interpret the mean as an average? |
|  |  |  |  | Can I ask and answer questions about totalling and comparing categorical data? |  |  |  |  |

