



Maths Overview

Number

Measurement

Shape (Geometry)

Nursery

- Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').
- Recite numbers past 5
- Say one number for each item in order: 1,2,3,4,5
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals.
- Solve real world mathematical problems with numbers up to 5.
- Compare quantities using language: 'more than', 'fewer than'

- Make comparisons between objects relating to size, length, weight and capacity.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'
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- 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'.
- Understand position through words alone – for example, "The bag is under the table," – with no pointing.
- Describe a familiar route.
- Discuss routes and locations, using words like 'in front of' and 'behind'.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc.
- Combine shapes to make new ones – an arch, a bigger triangle, etc.
- Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.
- Extend and create ABAB patterns – stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.

Reception

- Count objects, actions and sounds
- Subitise
- Link the number symbol (numeral) with its cardinal number value
- Count beyond 10
- Compare numbers
- Understand the 'one more than' / 'one less than' relationship between consecutive numbers
- Explore the composition of numbers to 10
- Automatically recall number bonds for numbers 0-5 and some to 10

ELG Number

- Have a deep understanding of number to 10 including the composition of each number
- Subitise (recognise quantities without counting) to 5
- Automatically recall (without reference to rhymes or other aids) number bonds to 5 (including subtraction facts) and some number bonds to 10 including double facts

ELG Numerical Pattern

- Verbally count beyond 20 recognising the pattern of the counting system
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as another quantity
- Explore and represent patterns within numbers up to 10 including even and odds, double facts and how quantities can be distributed equally

- Compare length, weight and capacity

- Select rotate and manipulate shapes in order to develop spatial reasoning skills
- Compose and decompose shapes so that children recognise a shape can have other shapes within it just like numbers can
- Continue, copy, create repeating patterns

Maths Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<p>Place Value (within 10)</p> <ul style="list-style-type: none"> Sort and count objects Recognise numbers as words Count on from any number Identify one more and one less of a given Count backwards within 10 Compare groups by matching Use the language of 'fewer, more, same, less than, greater than, equal to' Compare numbers Order objects and numbers Use a number line <p>Number – Addition and Subtraction (within 10)</p> <ul style="list-style-type: none"> Develop knowledge of part – whole models Read, write and interpret mathematical statements (+, - and =) 	<p>Number – Addition and Subtraction (within 10)</p> <ul style="list-style-type: none"> Number bond facts within 10 Number bond facts to 10 Addition (add together, add more, addition problems) Subtraction (find a part, take away, how many left?) Subtract on a number line <p>Geometry – Shape</p> <ul style="list-style-type: none"> Recognise and name common 2D and 3D shapes. Make patterns with 2D and 3D shapes 	<p>Place Value – (within 20)</p> <ul style="list-style-type: none"> Read, write and understand number 10- 20. Identify one more and one less than a given number. Complete a number sequence (forwards and backwards) 0-20 Estimate on a number line to 20 Order numbers to 20 Compare numbers to 20 <p>Addition and Subtraction – (within 20)</p> <ul style="list-style-type: none"> Add within 20 Number bond facts 20. Double numbers Near doubles Subtract within 20 Solve simple one-step problems involving addition and subtraction. Solve missing number problems 	<p>Place Value – (within 50)</p> <ul style="list-style-type: none"> Count from 20 to 50 Count in steps of 10 (20 to 50) Recognise the place value of numbers beyond 20 (tens and ones) Order numbers to 50 1 more than 1 less than <p>Measurement – Length and Height</p> <ul style="list-style-type: none"> Compare lengths and heights Measure length using objects Measure length in cm <p>Measurement – Mass and Volume</p> <ul style="list-style-type: none"> Use the language 'heavier, lighter, full and empty' Compare and measure mass, volume and capacity using non-standard units of measure 	<p>Number – Multiplication and Division</p> <ul style="list-style-type: none"> Count in steps of 2, 5 and 10 Make equal groups Add equal groups Make arrays Make doubles Make equal groups (grouping) Make equal groups (sharing) <p>Number - Fractions</p> <ul style="list-style-type: none"> Recognise, find and name a half as one of two equal parts of a quantity Recognise, find and name a quarter as one of four equal parts of a quantity. <p>Geometry – Position and direction</p> <ul style="list-style-type: none"> Describe position, direction and movements using half, quarter and three-quarter turns. 	<p>Number - Place Value (within 100)</p> <ul style="list-style-type: none"> Count to 100 by making tens Count forwards and backwards within 100 Partition numbers within 100 (tens and ones) Compare and order numbers within 100 1 more than 1 less than <p>Measurement – Money</p> <ul style="list-style-type: none"> Recognise and know the value of different coins and notes. Solve practical problems relating to money. <p>Measurement – Time</p> <ul style="list-style-type: none"> Use the language 'before and 'after' Sequence events in chronological order Recognise and use language relating to dates, including days of the week, weeks, months and years. Tell the time to the hour Tell the time to half hour Solve practical problems relating to time.

Year 2

Number - Place Value

- Counting forwards and backwards to 20, 50
- Count numbers to 100 by making 10s
- Recognise the place value of each digit in a 2-digit number (Tens/Ones)
- Use a place value chart
- Partition numbers to 100
- Read and write numbers to 100 in numerals and in words
- Flexibly partition numbers to 100
- Write numbers to 100 in expanded form
- Explore numbers to 100 on a number line
- Estimate numbers on a number line
- Use place value and number facts to solve problems
- Compare objects and numbers to 100
- Count in multiples of 2, 5 and 10
- Count in multiples of 3

Number - Addition and Subtraction

- Addition and subtraction to 10 (bonds)
- Addition and subtraction to 20 (bonds)
- Compare number sentences Bonds to 100 (tens)
- Add and subtract 1
- Add by making 10
- Add three 1-digit numbers

Number - Addition and Subtraction

- Add take away numbers not crossing 10
- Add and subtract numbers crossing 10
- 10 more than 10 less than
- Add and subtract numbers using concrete objects, pictorial representations and mentally including: a 2-digit number and ones; a 2-digit number and tens; 2, 2-digit numbers
- Compare number sentences
- Missing number problems

Geometry – properties of shapes

- Recognise 2D and 3D shapes
- Describe the properties of 2d shapes (including the number of sides and vertices)
- Draw 2D shapes
- Draw Lines of symmetry
- Use lines of symmetry to complete shapes
- Sort 2D shapes
- Describe the properties of 3D shapes, including the number of edges, vertices and faces
- Sort 3D shapes
- Make patterns with 2D and 3D shapes

Measurement – Money

- Recognise coins (p and £)
- Recognise notes
- Count money (coins and notes)
- Add coins together
- Make amounts/totals
- Use p and £ sign
- Compare money
- Understand the value of coins
- Find the difference/give change
- 2 Step word problems

Number - Multiplication and Division

- Recognising, making and adding equal groups
- Complete multiplication sentences
- Use arrays
- Making and sharing equal groups
- 2 Times tables
- Divide by 2
- Double numbers
- Odd and even numbers
- Times table 5, 10
- Divide 5, 10

Measurement - Length and Height

- Measure length (cm and M)
- Compare length and height
- Order lengths and heights
- Complete 4 operations (+, -, x /) with length and heights

Measurement – Mass, capacity and temperature

- Compare mass
- Measure in g and kg
- Complete 4 operations (+, -, x /) with mass
- Compare volume and capacity
- Measure in ml and l
- Complete 4 operations (+, -, x /) with volume and capacity
- Develop understanding of temperature
- Measure and compare temperature in C

Number – Fractions

- Work with parts and wholes
- Make equal parts
- Recognise and find half
- Recognise and find a quarter
- Recognise and find a third
- Develop understanding of unit and non-unit fractions
- Recognise equivalent fractions $\frac{1}{2}$ and $\frac{2}{4}$
- Find $\frac{3}{4}$
- Count in fractions
- Solve problems including fractions

Measurement – Time

- Tell time to the hour
- Tell time to half hour
- Tell time to $\frac{1}{4}$ and $\frac{3}{4}$ to
- Tell time to 5 minutes
- Write the time
- Understand hours and days
- Compare durations of time

Statistics -

- Making tally charts
- Interpret tally charts
- Draw and interpret pictograms 1-1
- Draw and interpret pictograms 2,5,10
- Complete block diagrams

Geometry – Position and Direction

- Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line. (Position and movement)
- Distinguish between rotation as a turn and in terms of right angles for quarter, half and $\frac{3}{4}$ turns (clockwise and anti-clockwise)
- Making patterns with shapes

SELECTION
ACADEMY