

# MATHEMATICS

Early Years Curriculum: Progression of Skills

To see topic lead learning, please refer to our  
Curriculum Mapping Webs

# By the time children finish in the EYFS, we want them...

- ▶ To know a range of maths songs / rhymes
- ▶ To be able to have a go at solving mathematical problems and not be afraid to make mistakes
- ▶ To be able to explain their mathematical thinking and ideas using mathematical language and concepts
- ▶ To be able to count by subitising and using 1:1 correspondence
- ▶ To have an in depth knowledge of numbers to 10, including number bonds, odd and even numbers and some
  - ▶ doubles
- ▶ To know 2D and 3D shapes and make patterns
- ▶ To know days of the week, months of the year and seasons
- ▶ To be able to simply compare the weight, capacity or length of an object
- ▶ To know we use money to buy things and have an ideas of its importance in everyday life

# Autumn Term/ Term 1

## 2 to 3 Years-

Combine objects like stacking blocks and cups.

Put objects inside others and take them out again.

Climb and squeezing selves into different types of spaces.

Take part in finger rhymes with numbers.

Build with a range of resources

## Pre School-

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.

Show 'finger numbers' 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'.

## Reception-

Match pictures and objects

Sort objects

Compare amounts

Compare size, mass and capacity

Explore simple patterns

Copy and continue simple patterns

Create simple patterns

Find, subitise and represent 1-5

Identify one more and one less to 5.

Explore number composition of 1-5

Identify and compare circles and triangles, squares and rectangles

Identify shapes in the environment

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# Spring Term/ Term 2

## 2 to 3 Years-

React to changes of amount in a group of up to three items.

Complete puzzles.

Compare amounts, saying 'lots', 'more' or 'same'.

With adult support compare sizes, weights etc. using gesture and language – 'bigger/little/smaller', 'high/low', 'tall', 'heavy'.

## Pre School-

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'.

Make comparisons between objects relating to size, length, weight and capacity.

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'

Combine shapes to make new ones – an arch, a bigger triangle etc

## Reception-

Explore 0

Find, subitise and represent 0-5

Compose 0-5

Identify one more and one less than a given number

Explore mass and aapacity

Find, subitise and represent 6 -10

Identify doubles to 10

Combine two groups

Compare length and height

Identify different times of the day

Number composition to 10

Explore number bonds to 10

Identify odd and even numbers

Identify 3D shapes and their basic properties

# Summer Term/ Term 3

## 2 and 3 Years-

Counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence.

Compare sizes, weights etc. using gesture and language – 'bigger/little/smaller', 'high/low', 'tall', 'heavy'.

Count in everyday contexts, sometimes skipping numbers – '1-2-3-5.'

Notice patterns and arrange things in patterns.

## Pre-School-

Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc.

Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.

Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').

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.

Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'

## Reception-

Build numbers beyond 10

Continue patterns beyond 10

Counting pattern

Adding More

Taking Away

Rotate and manipulate shapes

Sharing and Grouping

Even and Odd

Patterns

Explore mapping

Deepen Understanding

Patterns and Relationships

# Early Learning Goal- Mathematics

## **ELG: Number**

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- 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.

## **ELG: Numerical Patterns**

- 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 the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

# Mathematics: Next steps (Year 1 National Curriculum)

## Number – Number and Place Value

- Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- Given a number, identify one more and one less
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words

## Number – Addition and Subtraction

- Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- Represent and use number bonds and related subtraction facts within 20
- Add and subtract one-digit and two-digit numbers to 20, including zero
- Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems

## Number – Fractions

- Recognise, find and name a half as one of two equal parts of an object, shape or quantity
- Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

## Number – Multiplication and Division

- Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

# Mathematics: Next steps (Year 1 National Curriculum)

## Measurement

- Compare, describe and solve practical problems for:
  - Lengths and heights [for example, long/short, longer/ shorter, tall/short, double/half]
  - Mass/weight [for example, heavy/light, heavier than, lighter than]
  - Capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
  - Time [for example, quicker, slower, earlier, later]

## Measurement

- Measure and begin to record the following:
  - Lengths and heights
  - Mass/weight
  - Capacity and volume
  - Time (hours, minutes, seconds)
  - Recognise and know the value of different denominations of coins and notes
  - Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
  - Recognise and use language relating to dates, including days of the week, weeks, months and years
  - Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

## Geometry – Properties of Shapes

- Recognise and name common 2-D and 3-D shapes, including:
  - 2-D shapes [for example, rectangles (including squares), circles and triangles]
  - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]

## Geometry – Position and Direction

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns