

NURSERY MATHEMATICS LONG TERM OVERVIEW

Our Daily Diet
Self-registration Exposure to using a five frame and subitising
Daily calendar Exposure to sense of time and duration
Songs and rhymes Exposure to the relationship between counting and number
Snack time Exposure to size and comparative language and counting
Lining up Knowledge and exposure to ordinal numbers
Classroom environment Exposure to number and number representations

Organise a teddy bears picnic	
Milestone 1: Children can explore everyday objects in their imaginative play and stories.	Through stories and role play, children begin to gain an understanding of what a picnic entails. They explore patterns, foods and everyday objects using informal language such as 'spotty', 'blob' etc. to describe them. Children are able to recognise small sets of objects of up to two or three and begin to say the counting sequence.
Milestone 2: Children are able to use appropriate vocabulary to make comparisons and choices in real and imaginary contexts.	As children's understanding of mathematical vocabulary and the cardinality of numbers up to 5 develops, they are able to make comparison between objects and foods relating to size, quantity, capacity, length and weight in their play. Real-life experiences (e.g. a walk to the shop) and stories (e.g. The Enormous Turnip) support them with solving real world mathematical problems. Children are able to make appropriate choices when preparing a healthy snack with adult support.
Milestone 3: In a small group, children are able to follow a sequence of steps to plan and prepare for a party, with adult support.	Building on children's prior knowledge of number, food preparation, pattern, sequencing and mathematical vocabulary, they are able to follow a series of steps to prepare for a party with adult prompting and guidance.

Six Key Areas of Early Mathematics
Cardinality and Counting
Comparison
Composition
Pattern
Measure
Shape and Space

Documents to support Medium Term Plan and planning are saved on TDrive.

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Organise a teddy bears picnic

Milestone 1: Children can explore everyday objects in their imaginative play and stories.

Shape awareness: developing shape awareness through construction documents.

Number Blocks - 1

One, Another one, Two, Three, One, two, three!

Developing spatial awareness: experiencing different viewpoints.

Fast recognition of up to 3 objects, without having to count them individually ('subitising').

Subitising: recognising small quantities without needing to count the all.

Counting: tagging each object with one number word.

Misconception moment

Missing out an object or counting an object twice.

Misconception moment

When objects in a group are rearranged, the child recounts them to find how many there are.

Counting: Knowing the last number counted gives the total so far.

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

Number Blocks - 1

How to count

Conservation: knowing that the number does not change if things are rearranged (as long as none have been added or taken away).

Misconception moment

When asked how many cars are in a group of four, simply recounting, without concluding that there are four cars in the group.

Experiment with their own symbols and mark as well as numerals.

Describing properties of shapes.

Identifying similarities between shapes.

Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wall paper. Use informal language like 'point', 'spotty', 'blobs', etc.

Pattern – spotting around us.

Number Blocks - 3

Building blocks, Pattern palace

Misconception moment

When copying a pattern changing it before making repeats.

Copying an AB pattern.

Continuing an AB pattern.

Extend and create ABAB patterns – stick, leaf, stick, leaf.

Notice and correct an error in a repeating pattern.

Make their own AB pattern.

Misconception moment

Identifying an error but not being able to correct it.

Making a pattern which repeats around a circle.

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Milestone 2: Children are able to use appropriate vocabulary to make comparisons and choices in real and imaginary contexts.

Number Blocks - 1

The whole of me

Say one number for each item in order: 1, 2, 3, 4, 5.

Part-whole: identifying smaller numbers with a number (conceptual subitising).

Show 'finger numbers' up to 5.

Number Blocks - 1

Stampolines

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

Numerals meanings.

Identifying groups with the same number of things.

More than / less than.

Misconception moment

Children not comparing the numerosity of the group and considering more in terms of size.

Number Blocks - 3

Blockzilla

Compare quantities using language: 'more than', 'fewer than'.

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

Showing awareness of comparison in estimating and predicting.

Comparing numbers and reasoning.

Misconception moment

Children not comparing the numerosity of the group and considering more in terms of size.

Developing spatial awareness.

Understand position through words alone – for example, "The bag is under the table," with no pointing.

Developing spatial vocabulary.

Discuss routes and locations, using words like 'in front of' and 'behind'.

Recognising attributes

Beginning to use units to compare things.

Comparing amounts of continuous quantities.

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Milestone 3: In a small group, children are able to follow a sequence of steps to plan and prepare for a party, with adult support.

Recite numbers to 5.

A number can be partitioned into different pairs of numbers.

Number Blocks - 3
Fruit salad

Misconception moment
Children suggesting that a larger number than the total is hidden.

A number can be partitioned into more than two numbers.

Number Blocks - 3
Number blocks express

Misconception moment
Children suggesting that a larger number than the total is hidden.

Inverse operations.

Misconception moment
Children suggesting that a larger number than the total is hidden.

Solve real world mathematical problems with number up to 5.

Describe a familiar route.

Number Blocks - 3
Flatland

Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal language: 'sides', 'corners', 'straight', 'flat', 'round'.

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

Showing awareness of properties of shapes.

Goal: Children plan and organise a teddy bears picnic in a small group, deciding what they need to take and what they want to eat and drink.