Early Years Mathematics
Intent, Implementation, Impact

Intent:
When developing our Mathematics curriculum for the Early Years we have drawn upon the latest research from The National Centre for the Excellence in the Teaching of Mathematics and the EEF research into the teaching of Early Years and Key Stage One Mathematics. The EEF report suggest five recommendations:

Develop practitioners subject knowledge of Mathematics - *We are working closely with the North West Maths Hub to develop a mathematics curriculum that is supported by the most up-to-date research, which in turn allows us to deliver high quality CPD for all Early Years Practitioners.*
Dedicate time to direct teaching of Mathematics- *We dedicate time daily to the teaching of mathematics and consolidate mathematics throughout our daily routines and enhancements within our learning environments.*
Use of manipulatives to develop understanding: We value the importance of Bruner's work (concrete, pictorial, abstract model) and take time to ensure our children have a secure understanding of numbers by using manipulatives such as Numicon and natural counting resources.
Ensure teaching builds on what children already know: We have developed a curriculum that is progressive and builds on what children already know. We use a number sense approach that allows for the teaching of Mathematics through a focussed number. This allows children to make connections and draw upon pre-existing knowledge.
Use targeted support: Our approach to the teaching of mathematics ensures that all children can access activities and where needed additional support can be provided.

Our Mathematical curriculum is progressive in the Mathematical concepts identified by the NCTEM (Cardinality and Counting, Comparison, Composition, Measure, Pattern and Shape and Space.)

Implementation

Pre-Nursery: We know that our youngest children develop mathematical concepts through play. In our Pre-Nursery setting, we adopt the understanding that mathematics is everywhere and encourage mathematical development through our interactions and routines (for example number songs, counting

children in and out, counting fruit at snack time, and talking about shapes in the indoor and outdoor environments) We allow children to explore mathematical enhancements such as inset puzzles, water, sand play and holistic play which allows children to freely explore sorting, size, and counting.

Nursery: Nursery mathematics sessions will consist of a short 5-minute input followed up by mathematical enhancements within the classroom provision or small group focused adult activities where appropriate.
Within the autumn term children will explore the fundamental mathematical concepts, such as classifying, comparing, matching and ordering.
We acknowledge the importance of children having a secure knowledge of the counting principles and provide opportunities for children to develop

- The one-one principle- one number name for each item- (touch counting)
- The stable order principle- the sequence of counting must be consistent (1,2,3)
- The cardinal number principle- The last number tells you how many in the set
- The abstraction principle- You can count anything whether tangible or not- (e.g 5 elephants is the same as 5 peas)
- The order of irrelevance principle- You can count in any order

During the Spring term children will explore the counting principles in relation to numbers 0-5 and then build on this as they consolidate the numbers 0-5 and shape, space and measure during the Summer term.Opportunities for children to explore shape, space and measure will be weaved into the Nursery provision throughout the year (NCTEM progression documents will be used to support this.)

Reception: Each day in Reception there will be a daily Mathematics session, this will take a mix of adult-directed and child-initiated activities. The session will be broken down into three segments
***Whole class/ small group adult directed input**
* **Linked Provision**- children will complete group activities that consolidate and extend taught skills as well as allowing children to practice previously taught skills.
***Adult directed activities/ mathematical enhancements in provision.**
When offering mathematical activities to the children we draw on the research of Jo Boaler and offer activities that have a 'low floor, high ceiling' to ensure that activities are accessible to all children and allow for natural progression.

Yearly Overview

	Autumn	**Spring**	**Summer**
Nursery	Early Mathematical concepts	**Early Number sense** Numbers 0-5 *focus on the counting principles*	Consolidation of concepts Numbers 0-5

Reception	Numbers 0-5	Numbers 6-10	Consolidation of concepts Numbers 0-10.

Impact

By the end of EYFS the majority of children (70% and above) will have achieved the mathematics Early Learning Goals