Early Years Mathematics
Intent, Implementation, Impact

Intent:
When developing our Mathematics curriculum for the Early Years we have drawn upon the latest 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.

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 explore numbers 6-10 during the Summer term. Opportunities for children to explore shape, space and measure will be weaved into the Nursery provision through the year (The National Centre for Teaching of mathematics progression documents will be used to support this.)

Reception: An hour of the Reception timetable will be dedicated to mathematics each day, this will take a mix of adult-directed and child-initiated activities.
***15-20 minutes*:** Whole class/ small group adult directed input
20 minutes: Linked Provision- children will complete group activities that consolidate and extend taught skills as well as allowing children to practise previously taught skills.
***20 minutes*:** 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	Numbers 0-5 Early Number sense - focus on the counting principles (see number sense planning)	Numbers 6-10 Early Number sense - focus on the counting principles (see number sense planning)

Reception	Numbers 0-5 (see number sense planning)	Numbers 6-10 (see number sense planning)	Consolidation of Numbers 0-10.

Impact

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