

# Mathematical Development at Rockwood Nursery School.

## What is it?

Maths is everywhere and can be real fun for children to explore, especially in their play and in everyday life such as shopping, setting the table, counting the stairs on the way up to bed, counting their toys back into a box, looking for shapes in everyday things etc. Mathematics is important in everyday life, many forms of employment, science and technology, medicine, the economy, the environment and development and in public decision-making.

As children become aware of shape and space and the sounds and rhythm of numbers, they will begin to understand what they are and what they mean. Children can then begin to solve their own problems and recognise shape and number when they are exposed to them through play. All of these skills are built up by giving children lots of experiences to explore shape, number and problem solving through repetition, practice and simple practical problems. Mathematics is a creative discipline. It can stimulate moments of pleasure and wonder when a pupil solves a problem for the first time, discovers a more elegant solution to that problem, or suddenly sees hidden connections.

(National Curriculum Orders 2000) We aim to increase each individual's confidence in maths so they are able to express themselves and their ideas; transferring their skills and using the language of mathematics within everyday life and throughout the curriculum.



**In the Revised EYFS Mathematical Development is broken down into two aspects:**

## Numbers



This aspect refers to how young children learn to first recognise numbers and use the language of numbers and counting e.g. saying and using the number names in familiar contexts such as stories, rhymes and songs, knowing their age etc. At Rockwood Nursery School children are taught numbers through providing a number rich environment, fun and stimulating games, rhymes and stories and using numbers and

counting in challenging, practical and meaningful contexts, such as exploring how many children are sat down and pieces of fruit are needed if they have one each. Using these techniques, children learn to count reliably and use their own developing mathematical ideas and methods to formulate and solve practical problems such as simple addition, subtraction and multiplication.

## Shape, Space and Measure

This aspect refers to how children make sense of the spaces and shapes that make up the world around them, and how children begin to understand and use the mathematical language for example to describe how much water a bucket holds, what makes a triangle a triangle, or when things happen. For young children, mathematical concepts develop through lots of experiences, modelling and practice, forming the pathways and foundations for future learning. Life is full of problem solving and reasoning skills. For example, the process of moving an object from one place to another or fitting a jigsaw piece into the correct space



takes a great deal of thought and reasoning to put into practice as children negotiate large objects and small spaces. As adults it is very easy to take our knowledge of this for granted. Young children begin to understand shape space and measure by looking at the basic shapes around them and simple problem solving and trial and error of trying to fit things into or through a gap. As concepts and understanding are developed, children can move on to more complex problem solving and build on their knowledge. Supportive adults, who are aware of children's capabilities, help them build on their skills.

### **What we do at Rockwood to support children's Mathematical Development**

At Rockwood Nursery School we are continually aiming to raise the standards of achievement of all children. Our aim is to enable each individual to develop within and beyond their capabilities; not only the mathematics skills and understanding required for later life, but also create an enthusiasm and fascination about mathematics itself.

- To enable children to become autonomous, independent users of Mathematical skills, gaining confidence and enjoyment from their activities.
- To provide a relevant, challenging and enjoyable curriculum for Mathematical development for all pupils.
- To develop a whole school approach to Mathematics ensuring continuity and progression in all strands of the Early Years Foundation Stage (EYFS) Outcomes and Development Matters documents.
- To respond to new developments in technology.
- To ensure ICT is used to teach Mathematics when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with EAL, SEN, disabilities or children who are Gifted and Talented.
- To provide children with opportunities to develop their Mathematical capabilities in all areas of the curriculum.
- To maximise effective and appropriate communication of how maths is taught at Rockwood Nursery School, including developing and maintaining links between other schools, the local community, parents and other agencies.

### **Maths in Forest school**

The children will be encouraged to develop, use and apply their mathematical knowledge when taking part in the woodland sessions. The children will develop maths skills within the natural environment. Examples of this include ; Number can be explored by counting objects which they need for projects. Shape, space and measure can be investigated through problem solving and identifying mathematical features within the woodland area.



Nursery staff at Rockwood Nursery School are experienced, enthusiastic and fully committed to promoting all children's Mathematical development, striving for children to achieve their full potential.

Mathematical Development occurs in all areas and is cross curricular but adult led plans ensure that children are provided with activities to meet their individual needs; at Rockwood Nursery School we work hard to provide a stimulating, rich environment for the children to enjoy with adults who enjoy spending time listening and talking to children, developing their mathematical concepts, knowledge and understanding as they play. Children work in small groups or individually and we aim to promote understanding and extend knowledge, concepts and vocabulary. The school regularly updates all Policies related to Mathematical Development and yearly reports are made to the governors on the progress of Mathematical Development to our Maths Link Governor.

