



Caslon Primary Community School, Beecher Bear Daycare and Nursery, Beech Tree SEMH Base and Tree Acre (Early Years Inclusion Hub)

Maths Policy

September 2024-25

Purpose of Policy

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Intent

The National Curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

- Within Beech Tree SEMH Base, pupils will be taught a broad curriculum which will cover age and stage appropriate skills. Staff discretion will be used to determine the approaches used to teach these skills and always aim to build on prior learning. Although it will be the intention to cover as much of the National Curriculum content as possible, meeting the pupils' SEMH needs will take priority.

Implementation

There are six main areas that collectively underpin children's early mathematical learning, and which provide the foundations for the maths that children will encounter as they progress through the years in primary school.

They are:

Cardinality and Counting: understanding that the cardinal value of a number refers to the quantity, or 'howmanyness' of things it represents

Comparison: understanding that comparing numbers involves knowing which numbers are worth more or less than each other

Composition: understanding that one number can be made up from (composed from) two or more smaller numbers

Pattern: looking for and finding patterns helps children notice and understand mathematical relationships

Shape and Space: understanding what happens when shapes move, or combine with other shapes, helps develop wider mathematical thinking

Measures: comparing different aspects such as length, weight and volume, as a preliminary to using units to compare later

Children are encouraged to use mathematical language, problem solve and reason in a broad range of practical contexts and throughout their play. The Daycare, Nursery and Reception overviews are available in subject leaders folder.

Our Maths Curriculum

We aim to support the children's understanding of mathematical concepts, operations and relationships. The children develop efficient recall of the basic number facts such as number bonds, times tables, doubling and halving through maths lessons as well as homework tasks. In order to develop the children's procedural fluency, we teach a range of procedures and spend a lot of time discussing and exploring the most efficient procedure to use so that when children come across a question in a different context, they can apply their knowledge and skills in the most efficient way possible

We use the **White Rose Scheme of Learning** to inform our planning. Our Maths curriculum is planned and sequenced so that new knowledge and skills build on what has been taught before. We dedicate more time to teaching each

area of mathematics so that we can ensure that the relevant knowledge, skills and understanding are embedded. Children's chances of success are maximised if they develop deep and lasting understanding of mathematical procedures and concepts we therefore ensure that learning is deep and sustainable.

White Rose Maths incorporates objects, pictures, words, numbers and symbols to help children to explore and demonstrate mathematical ideas (This can be seen in our Calculation Policy) All pupils, when introduced to a new concept, should have the opportunity to build competency in this topic by using the CPA approach. Pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

Concrete: children have the opportunity to use concrete resources to help them to understand and explain what they are doing. Children might begin by handling real objects, such as apples, and then move on to using physical representations of those objects, for example counters.

Pictorial: children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems. Drawings act as a bridge between the concrete objects that the children have been using and the abstract symbols that they must learn to use.

Abstract: With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence

Planning and Calculations

We follow the medium term and long term Year 1- 6 ready to progress resources from White Rose Maths and have adopted their Calculations policy for Year 1 to Year 6. Reception access and use the White Rose Maths early years scheme to explore mathematical opportunities.

Times Tables

The National Curriculum expectation for Primary Schools across the UK is that, by the end of Year 4, pupils can recall all 12 times tables up to 12×2 . With this in mind, we ensure that by the end of year 2, children are able to recall multiplication facts for the 2, 3, 5 and 10 times table accurately and promptly. By the end of year 3, we expect children to build on their multiplication knowledge from year two and recall multiplication facts for the four and eight times tables as well as the 2, 3, 5 and 10 times table.

The children have access to Timetables RockStars. This is used to support children's accuracy and prompt recall of multiplication facts. All of the children in year two, three, four, five and six have access to TT Rockstars and their username and password can be found in their planner. You can access TT Rockstars through the tile on our RM Unify platform.

Towards the end of the academic year, children in year four will complete the Multiplication Tables Check. The online check will test the children on their multiplication tables up to 12×12 . There are twenty-five questions in total and the children will have six seconds to answer each question, there will be a three seconds between questions