

## **Mathematics**

Maths at Great Dalby Primary School, is taught following a mastery approach. In line with the National Curriculum 2014 all children are expected to:

- Become **fluent** in the fundamentals of mathematics;
- **Reason mathematically** by following a line of enquiry;
- **Solve problems** by applying their mathematics to a variety of routine and non-routine problems.

Our children develop a deep understanding of mathematics through a range of teaching approaches including:

- The use of manipulatives;
- The use of concrete, pictorial and abstract representations of number;
- Developing a growth mindset;
- Using correct mathematical vocabulary;
- Building rich mathematical connections to develop number sense.

We plan mathematics using the National Curriculum 2014, in conjunction with the Bradgate Education Partnership Calculation Policy.

Our mathematics curriculum equips pupils with tools that include the ability to calculate securely in all four operations, a comprehensive understanding of the number system, problem-solving skills, and the ability to think in abstract ways. It is designed to enable children to learn key skills, practise, consolidate, apply in a range of contexts and then to master them. Children learn about mathematics wherever possible in a context so that they understand how it relates to real life.

During the Early Years Foundation Stage (EYFS) Curriculum, mathematics forms part of many interactive learning experiences. Pupils develop their knowledge and understanding of mathematics through play, exploration and discussion. They learn to count, read, write and order numbers to 20 using songs and rhymes, which is extended to 100 and beyond during Key Stage 1. They work with shapes, learning their properties; use language to give positional clues and compare quantities, identify and recreate patterns. Mathematics in EYFS is very practical and includes indoor and outdoor learning.

During Key Stage 1, mathematics lessons include mental mathematics starters which are designed to be faster paced and enable children to calculate mentally quickly and efficiently. In the main part of the lesson, they learn how the number system works, place value and learn strategies for calculating with all four operations. Additionally they learn about shape and space, through practical activity which builds on their understanding of their immediate environment. They develop their use of mathematical language, using it to talk about their methods and explain their reasoning when solving problems.

During Key Stage 2, children become more fluent at calculating mentally with all four number operations, moving to formal written methods throughout the Key Stage. Children use a wider range of mathematical language and are expected to articulate their reasoning about mathematics clearly, using precise mathematical language. A significant focus is on problem solving in all areas of the mathematics curriculum, reasoning skills are developed and built upon.