

Hucknall National  
Church of England  
Primary School



Mathematics Policy  
2025-2026

## Intent

Mathematics 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 alongside a sense of enjoyment and curiosity about the subject.

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

- Become fluent in the fundamentals of mathematics, including a varied and frequent practice with increasingly complex problems over time enabling pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Children can 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.

In order to achieve this, children need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly difficult problems. They should also apply their mathematical knowledge to science and other subjects. The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on. (National Curriculum 2014)

## Aims

At Hucknall National C of E Primary School we aim to:

- Foster positive attitudes, fascination and excitement of discovery through the teaching and learning of mathematical concepts.
- Develop a 'can do' attitude in our children.
- Broaden children's knowledge and understanding of how mathematics is used in the wider world.
- Enable our pupils to use and understand mathematical language and recognise its importance as a language for communication and thinking.
- Implement White Rose Maths Hub materials to deliver the Foundation stage curriculum and National curriculum to our children.





## Implementation

Hucknall National C of E Primary school has adopted the White Rose Maths Hub Scheme of work which systematically builds maths knowledge, skills and understanding. Teaching will cover each of the following areas of mathematics from the National Curriculum 2014. This includes; number calculations, fractions, decimals, percentages, measurement, geometry and statistics. The focus of our learning is based on the use of concrete, pictorial and abstract methods using the mastery maths approach through the use of fluency, reasoning and problem solving questions that enable children to progress their understanding with greater depth knowledge.

Planning begins from a thorough understanding of children's needs gleaned through AFL assessments and tracking, combined with high expectations and ambition for all children to achieve. All staff are required to complete weekly short term maths planning identifying the aspect of the curriculum being covered. Medium and Long term frameworks have been adopted from the White Rose Maths Hub schemes of work to ensure consistency and quality for our children. Within short term planning, clear success criteria for each learning objective taught should be created and presented within the children's learning.

Maths in Early Years, teachers in the foundation stage also follow the White Rose Maths Schemes of learning. The Early Years is a time for exploration and investigation in maths and the learning environment promotes mathematical thinking. Children develop their understanding through a rich variety of activities both self-selected and adult led. Adults encourage the children to explore, enjoy, learn, practise and talk about their developing understanding which they can use to solve problems, generate questions and make connections across other areas of learning.

In Key Stage 1 and 2, four levels of differentiation are planned, to ensure that learning is developmental, this allows challenge for all and follows the mastery maths approach. Here is an example of how our differentiated objectives look for the same lesson:

LO: I can find fractions of amounts	
	I can find fractions of amounts using objects to help me (CONCRETE)
	I can find fractions of amounts using pictures to help me (PICTORIAL)
	I can find fractions of amounts using multiplication and division (ABSTRACT)
	I can solve problems to find fractions of amounts (MASTERY)

The simplest level of learning is **CONCRETE** which means the children have physical objects to help them understand the concept. The next level is **PICTORIAL**, where children draw diagrams or pictures to help them understand the mathematical concept. The third level is **ABSTRACT** which means the children understand the learning with the independence to use materials if they need to, this creates independence and shows a sense of knowledge around their learning. The final level expects the children to apply their understanding in different contexts and with a greater understanding. This will enable the class teacher to follow a clear and systematic teaching sequence which allows all children to access the objective being taught. In every lesson we also

expect all children to apply their learning to a problem in order to help develop their reasoning skills.

Mastering number is project that aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention will be given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support success in the future. This is taught 4x a week within Reception, Year 1 and Year 2.

### **SEND Provision**

Children with additional needs are supported by using practical resources and differentiated activities where needed. They are also further supported by additional support staff whenever possible. Where applicable, children's provision maps will incorporate suitable objectives from the National Curriculum or the EYFS curriculum and teachers keep these objectives in mind when planning work. In addition to quality first teaching, interventions also take place during the afternoons and focus on those children who may need more specific targeted input.

### **Providing a context for calculation:**

It is important that any type of calculation is given a real life context or problem solving approach to help build children's understanding of the purpose of calculation. Also, to help them recognise when to use certain operations and methods when faced with day to day problems. This must be a priority within calculation lessons to help children flourish and have a broad knowledge in understanding the world around them.

### **Cross-Curricular Teaching of Mathematics**

Class teachers should regularly plan for opportunities for children to apply their maths skills to different problems within maths lessons and across the curriculum. This will also allow children to revisit, practise and consolidate different areas of maths and apply them within different contexts.

### **6 in 5**

In order to help develop children's fluency with different calculations children will be given 6 in 5. This is where the children are presented with 6 arithmetic questions to answer within 5 minutes. It allows daily opportunities for children to revisit key concepts to ensure that these are firmly embedded to allow children to build on these, year on year. These are stuck in the back of books to allow children to keep going back and revising previous knowledge when needed. Questions are selected from gap analysis and teacher AFL to ensure that less-secure topics are visited frequently. 6 in 5 is implemented from Year 2 to 6 throughout the year and introduced in Year 1 from Spring Term. The 6 in 5s are presented on squared paper, as they would be seen in a SATs paper to help children feel confident when faced with an assessment allowing them to give a true representation of their abilities.

## Times Tables

Effective understanding and recall of times tables is a fundamental element within Maths and the curriculum puts an expectation on having knowledge up to  $12 \times 12$  by the end of Year 4. From the 2019/20 academic year onwards, all state-funded maintained schools and academies in England will be required to administer an online multiplication tables check (MTC) to Year 4 pupils. The purpose of the MTC is to determine whether pupils can recall their times tables fluently, which is essential for future success in mathematics. It will help schools to identify pupils who have not yet mastered their times tables, so that additional support can be provided. In order to support children with getting ready for the multiplication check, all children from Year 2 to 6 have online access to Times Table Rock Stars (TT Rock Stars) which is taught weekly within school and home tasks set for children to enjoy. TT Rock Stars is a fun and challenging programme designed to help students master the times tables for both fluency and accuracy as incorrect answers are corrected immediately in front of the pupil so that they start to associate the correct answer to every question. The programme also calculates which times tables facts children consistently take longer to answer and then it gradually starts to present these facts more frequently until they have mastered them. Every week in the schools FAB assembly there is a prize for a child in each class for using TT Rockstars. This supports putting an emphasis on the importance of regular times tables practise in our school.

At Hucknall National CofE Primary School, we expect the children to know the following times tables in each year group:

Year 1 – introduce counting in 2s, 5 and 10s

Year 2 –  $\times 2$ ,  $\times 5$ ,  $\times 10$

Year 3 –  $\times 3$ ,  $\times 4$ ,  $\times 8$ ,  $\times 11$

Year 4 –  $\times 6$ ,  $\times 7$ ,  $\times 9$ ,  $\times 12$

Year 5 & 6 – apply times table knowledge to other calculations e.g.  $15 \times 3 = 10 \times 3 + 5 \times 3 = 45$

## Subject Leader Responsibilities- Maths lead Samantha Smith

It is the responsibility of the maths lead:

- To lead in the development of maths throughout the school.
- To monitor the planning, teaching and learning of mathematics throughout the school.
- To help raise standards in maths.
- To provide teachers with support in the teaching of mathematics.
- To provide staff with CPD opportunities in relation to maths within the confines of the budget and the School Improvement Plan
- To monitor and maintain high quality resources.
- To keep up to date with new developments in the area of mathematics