

Thrussington C of E Primary School

Mathematics Policy



Updated: September 2023

Next Review: September 2025

Date	Review Date	Subject Leader	Nominated Governor
September 2023	September 2025	Mrs Castilla.	Mr Leanders

Introduction

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. (National Curriculum 2014)

The aims of the 2014 National Curriculum are for our pupils 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 develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Ensure that all pupils reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Ensure that all pupils 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 addition, we aim to:

- Develop an enthusiasm for and fascination with mathematics.
- Increase the confidence of each pupil in mathematics to enable them to apply the knowledge and skills with assurance.
- Promote the teaching of Maths literacy within all relevant subjects.
- Share good practice within the school.
- Work with other schools to share good practice in order to improve this policy.

The National Curriculum sets out year-by-year programmes of study for key stages 1 and 2. This ensures continuity and progression in the teaching of mathematics.

The EYFS framework is structured differently to the National Curriculum - Maths is organised into Number and Numerical patterns. We work towards the Early Learning Goals in the EYFS statutory framework and this is supported by the non-statutory guidance in '2020 Development Matters'.

Breadth of study

Careful planning and preparation ensure that throughout the school, children engage in:

- problem solving to challenge thinking
- individual, paired, group and whole class learning and discussions
- purposeful retrieval practice where time is given to revisit and apply their learning
- a range of methods of calculating e.g. mental, pencil & paper and using a calculator
- practical activities and games using a variety of resources
- working with computers as a mathematical tool

Through our creative approach to teaching and learning we also seek to explore and utilise further opportunities to use and apply mathematics across other subject areas.

Teachers planning and organisation

Long term planning

The National Curriculum for Mathematics 2014 and the Early Learning Goals provide the long term planning for mathematics taught in the school.

Medium term planning

All years use the White Rose Maths Hub schemes of learning as the basis of their medium term planning documents. These schemes provide teachers with exemplification for maths objectives and are broken down into fluency, reasoning and problem solving, key aims of the National Curriculum. They support a mastery approach to teaching and learning. They ensure teachers have a clear understanding of the expectations for each year group and support the ideal of depth before breadth. They support pupils working together as a whole group and provide opportunities to build reasoning and problem solving elements into the curriculum.

EYFS planning stems from the 2020 Development Matters, identifying where the children are now and what steps they need to take next.

Short term planning

Although Medium Term planning is based upon White Rose, teachers can use their discretion to choose from quality materials such as from NCETM and N-rich to deliver lessons in addition to the White Rose resources.

EYFS pupils have their main teaching input from the teacher and in addition to that, they ensure that the children learn through a mixture of adult led activities and child-initiated activities both inside and outside of the classroom.

Special Educational Needs and Disabilities (SEND)

We want pupils with identified special educational needs to have full access to all subjects of the National Curriculum with teachers planning lessons that have no barriers to pupils achieving and with appropriate targets relating to the subject.

Where required, children's IEP's incorporate suitable objectives from the National Curriculum for Mathematics and teachers keep these in mind when planning work. These targets may be worked upon within the lesson as well as on a 1:1 basis outside the mathematics lesson. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by support staff and overseen by the SENDCO and/or the class teacher.

Equal Opportunities

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics.

The aim is to ensure that everyone makes progress and gains positively from lessons and to plan inclusive lessons.

Teaching for Mastery

We acknowledge that this is a 'mastery' curriculum in which pupils are expected to master the attainment targets set out in the 2014 curriculum. On mastering the target, pupils should be given the opportunity to explore them in more depth and not move on to the content of the following year group. The expectations for all children in a year group are the same however, children can access the material through teaching styles, resources and support.

This will be achieved through scaffolding the lesson in different ways such as choosing between giving work which is concrete, pictorial or abstract or through working independently, in pairs or with an adult.

(Due to the nature of mixed age classes, there will be some incidental exposure of the previous / next year's teaching.)

Lessons

In all lessons, learning objectives are communicated and discussed. Lessons can involve elements of:

- Retrieval practice e.g. Flashback 4

- Instruction – giving information and structuring it well;
- Demonstrating – showing, describing and modelling mathematics using appropriate resources and visual displays;
- Explaining and illustrating – giving accurate and well-paced explanations;
- Questioning and discussing;
- Use of I-pads to re-enforce fluency in number;
- Reflecting and evaluating responses – identifying mistakes and using them as positive teaching points.

Pupils' Records of work

Children are taught a variety of methods for recording their work and are encouraged and helped to use the most appropriate and convenient. Children are encouraged to use mental strategies and their own jottings before resorting to more formal written methods. Children's own jottings to support their work is encouraged throughout all year groups. All pupils have their own Maths book. Additionally, in EYFS and KS1, independent learning is recorded in each child's Learning Journey book.

Feedback

Feedback of children's work is essential to ensure they make further progress. Backed up by research and in line with the school marking policy, feedback is ideally given verbally during the lesson although where misconceptions have been identified, whole class feedback may be used at the beginning of the next lesson. Some pieces of work in mathematics can be marked by children themselves, with support and guidance from the teacher – particularly in years 5 & 6. When able, children are encouraged to consider, through strategies such as rounding or using an inverse method, if their answers seem plausible.

Assessment

Teachers will:

- carry out assessment for learning throughout the lesson;
- use low stakes quizzes/tests matched to the teaching objectives to inform their planning;
- administer national tests and assessment in Y2 and Y6;
- administer the multiplication check at the end of Y4;
- complete the EYFS baseline at the beginning of the academic year and the profile at the end;
- carry out standardised tests 3 times a year in line with our monitoring and assessment timetable;
- inform parents and carers of their child's progress and targets through parents' evenings and school reports.

Role of the Subject Leader

To lead in the development of maths throughout the school.

To monitor the effectiveness of this policy by:

- observing teaching and learning
- learning walks and work trawls
- discussions with pupils and members of the school council

To attend network meetings whenever possible.

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 keep the Maths Padlet updated in order to reflect the development of Maths

To monitor and maintain high quality resources.

Role of the Head Teacher

The Headteacher will:

- ensure all school personnel are aware of and comply with this policy;
- work closely with the subject leader and the maths' governor;
- ensure compliance with the legal requirements of the National Curriculum;
- encourage parents to take an active role in their children's learning;
- provide leadership and vision in respect of equality.

Role of the Nominated Governor

- work closely with the Headteacher and the subject leader;
- ensure this policy and other linked policies are up to date;
- ensure that everyone connected with the school is aware of this policy;
- annually report to the Governing Body on the success and development of this policy

Headteacher:	Mrs.Hannah Roddy	Date:	
Chair of Governing Body:	Mr Patrick Rendall	Date:	
Subject Leader:	Mrs Louise Castilla	Date:	