Thrussington C of E Primary School

Mathematics Policy



Updated: June 2021

Next Review: June 2023

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| **Date** | **Review Date** | **Subject Leader** | **Nominated Governor** |
| **June 2021** | **June 2023** | **Mrs Castilla.** |  |

**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 for our pupils 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 numeracy and literacy within all 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:

* practical activities and games using a variety of resources
* problem solving to challenge thinking
* individual, paired, group and whole class learning and discussions
* purposeful practise where time is given to apply their learning through open and closed tasks
* a range of methods of calculating e.g. mental, pencil & paper and using a calculator
* 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 all 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**

Years Foundation Stage -6 use the White Rose Maths Hub schemes of learning as 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 for EYFS to Year 6 comes from White Rose, teachers can use their discretion to choose which materials they use to deliver lessons. We have a wide range of textbooks and schemes which teachers can use as well as practical equipment to develop conceptual understanding.

EYFS pupils have their main teaching input daily using number sense techniques learnt through the Maths Hub CPD, 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.

**Gifted and Talented**

In exceptional cases, where a child is identified as gifted and talented in Maths and would be both emotionally and academically hindered by being restricted to the subject matter for their year group, even when going into greater depth, a teacher may teach some areas of Maths from a higher year group. This should be done only following a discussion with the Maths subject lead, the headteacher and the child’s parents. The child’s additional needs should be documented.

**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.

**Differentiation**

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 but differentiation will aid in ensuring that all children can access the material through teaching styles, resources and support.

Differentiation must reflect the learning objective and 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.

**Lessons**

In all lessons, learning objectives and success criteria are clearly displayed and discussed. The emphasis in lessons is to make teaching interactive and lively, to engage all children encouraging them to talk about mathematics. Lessons involve elements of:

* 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;
* Consolidating;
* Use of I-pads to re-enforce fluency in number;
* Reflecting and evaluating responses – identifying mistakes and using them as positive teaching points;
* Summarising – reviewing mathematics that has been taught enabling children to focus on next steps.

**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. In Years 1 to 6, all pupils have their own Maths book. In EYFS, independent learning is recorded in each child’s Learning Journey book. In addition, EYFS have Maths folders to record focussed, adult-led work. Years 1 and 2 also have a Learning Journey which shows evidence of understanding out of the context of the lesson.

**Feedback**

Feedback of children’s work is essential to ensure they make further progress. Work is marked against success criteria, in line with the school marking policy. Feedback is given verbally during the lesson or through whole class feedback at the start 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. Children are encouraged to self-assess their work and they are given time, where needed, to make corrections or improvements.

**Assessment**

Teachers will:

* + carry out continuous assessment for learning;
	+ use low stakes quizzes/tests matched to the teaching objectives to adjust their planning;
	+ make comments in pupils’ books if this will move the child’s learning on;
	+ 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 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

**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 link governor;
* ensure compliance with the legal requirements of the National Curriculum;
* encourage parents to take an active role in curriculum development;
* provide leadership and vision in respect of equality;
* 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
* Complete and evaluate action plans.

**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

**Role of Parents / Carers**

* be encouraged to take an active role in the life of the school by attending:
* parents and open evenings
* curriculum development workshops
* encourage effort and achievement;
* encourage completion of homework and return it to school;
* provide the right conditions for homework to take place;
* expect their child to hand in homework on time;
* join the school in celebrating success of their child's learning.

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| **Headteacher:** | Mrs.Hannah Roddy | **Date:** | 26.6.21 |
| **Chair of Governing Body:** | Mr Patrick Rendall | **Date:** | 26.6.21 |
| **Subject Leader:** | Mrs Louise Castilla | **Date:** | 26.6.21 |