



# Mathematics Policy

**July 2021**

# Mathematics Policy

This policy outlines the teaching, organisation and management of mathematics taught and learnt at Thorpe Acre Infant School.

At Thorpe Acre Infant School we use the National Curriculum for Mathematics (2014) as the basis of our mathematics programme. We supplement this with the White Rose Maths Hub Scheme of work and a Calculation Policy adapted from Discovery Schools Academy Trust.

## Developing Mastery

We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education. Our Mathematics curriculum reflects a greater emphasis on mastery of the key skills of mathematics to ensure children have adequate time to develop their fluency and understanding before moving onto a new concept. Assessment for Learning, an emphasis on investigation, problem solving and the development of mathematical thinking and a rigorous approach to the development of teacher subject knowledge are therefore essential components of our approach to this subject.

## **AIMS AND PURPOSES OF MATHS**

Children should:

- develop basic mathematical concepts and skills according to their ability;
- become fluent mathematicians with a solid understanding of the concepts in mathematics;
- develop an ability to reason and problem solve;
- progress and develop clear and logical thought;
- learn to use and apply mathematical knowledge, skills and vocabulary in different contexts;
- learn that mathematics has meaning and relevance to their own lives.

## **PLANNING, TEACHING AND MANAGEMENT**

### **The Foundation Stage**

Maths is taught as part of the Area of Learning designated as 'Mathematics' in the EYFS Curriculum. The new EYFS Curriculum (Sept. 2021) is made up of two strands: Number and Numerical Patterns with the aim being to develop a strong grounding in number. The children will receive some whole class and adult led maths teaching and they have access to independent child initiated maths activities daily. Children are given opportunities to work on maths activities both indoors and outdoors. These activities are planned based on the main areas as outlined in the EYFS curriculum. As in the rest of the school, the Maths planned builds on previous learning and allows time for children to develop

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'mastery' in the key areas of Mathematics without moving onto a new concept too quickly.

Planning is updated regularly taking into account previous learning. This ensures the maths activities are appropriate and relevant to the children's learning needs and their interests. Maths activities in Continuous Provision are planned taking into account both the children's interests and curriculum coverage.

## Key Stage 1

### Planning

The National Curriculum has several strands

- Number: number and place value, addition and subtraction, multiplication and division, fractions, percentages (Yr 5 & 6 only)
- Measure
- Geometry: properties of shape, position and direction
- Statistics (Year 2 onwards)
- Algebra (Yr 6 only)
- Ratio and Proportion (Yr 6 only)

Short term plans are produced by individual class teachers in the form of a PowerPoint presentation or Smart Notebook File. These plans include opportunities to review, teach, practise and apply skills in all strands.

### Teaching

In Key Stage 1 children have a daily mathematics session of approximately 45- 60 minutes. Teachers also plan and provide opportunities for children to use and apply maths knowledge and skills in other areas of the curriculum.

A typical lesson in Key Stage 1 consists of a mixture of whole class teaching, paired and individual work which is taught in a 'ping pong' style approach. Lessons consist of a series of small steps which classes move through together. Lessons often end with a 'Golden Challenge' which offers further depth and challenge.

### Higher Attaining pupils and those with Special Educational Needs(SEN)

Our school provides a fully inclusive maths curriculum where teaching and learning meets the needs of all learners with challenge for all. All children will access the same curriculum content relevant to their year group.

### **SEN Provision**

If a child has a specific difficulty relating to maths, they may be given extra time, differentiated tasks or additional support with a teacher or LSA to address their specific needs and to support and develop their maths knowledge and skills accordingly.

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### **Provision for Higher Attainers**

Where children are excelling in an area of maths, they will be given further opportunities to deepen their understanding and apply higher order thinking skills through carefully planned questioning and tasks.

### **EAL Provision**

Care is taken to diagnose when an error is caused by language proficiency or a mathematical difficulty. When language is the barrier to learning, mathematics is made 'clearer' and opportunities are provided to enable EAL pupils to engage with the learning and convey and develop their mathematical ability.

### **Intervention**

In line with the mastery approach to teaching Maths rapid intervention happens in class during lessons. However, if further support is required teachers plan for interventions which provide short term targeted support to address misconceptions and enable these learners to be ready to access the next day's learning. These interventions are carefully monitored by class teachers and happen outside of the Maths lesson. Some children may receive support outside of the daily Maths lesson from a Pupil Premium teacher.

### **ASSESSMENT**

Class teachers are responsible for assessing individual children's attainment in maths in line with the school's Assessment and Recording policy. Progress is reported to parents at least annually.

Maths assessment happens in 2 forms:

- Formative – the day to day assessment that takes place continually and informs teacher's short term planning e.g. work samples, observation notes.
- Summative – formal assessment that takes place at the end of a strand of learning or a whole year taking into account all evidence gathered through formative assessments e.g. work in books, end of unit reviews, SATS tests (Year 2)

The data from formative assessments is used to judge children's attainment at the end of each term or year.

### **Assessment records**

Assessment records are kept by all class teachers. In the Foundation Stage teachers continually update children's 'Learning Journeys' with observations, photographs and work samples which details the children's progress in maths. Class teachers also keep more formal records directly relating to learning objectives and Early Learning Goals in the children's maths books.

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In Key Stage 1 teachers records may include annotated planning, notes on observations, photographs and written work recorded in maths books. Target Tracker is updated termly detailing what children are achieving in Maths and how well they are achieving it.

### **AfL in maths**

Children are also expected to assess their own learning in maths. This can take different forms depending on the age and ability of the children. In the early stages of AfL, children will be expected to talk about their learning by identifying what they are good at and what they find hard and what they need to get better at. As children move through the school they will begin to talk in more detail about their learning and areas for improvement.

## **MONITORING AND EVALUATION**

The policy will be monitored and reviewed in line with the school's monitoring and review practices.

The work undertaken will be monitored and evaluated by the curriculum leader with responsibility for Maths This will be in line with the school's monitoring and evaluation practice e.g. sampling teacher's planning, samples of work (recorded using audio tape, video tape and written), discussion with children and observations.

## **PARENTAL SUPPORT**

### **Homework**

At the Autumn Term parents evening leaflets are given out to inform parents of how they can help at home and what the end of year expectations are.

In EYFS children receive homework tasks as and when they are appropriate. Parents are encouraged to celebrate their child's achievement using the 'wow' moments cards.

Children in Key Stage 1 are given weekly Maths homework appropriate to their ability, linked to class work.

### **Role of Subject Leader**

The Maths subject leader is responsible for the development and monitoring of the maths curriculum to ensure a coherent Maths strategy for the school. They can help teachers with their planning and are responsible for developing the school's policy. The subject leader will assist teachers by leading staff meetings, planning and leading INSET activities, providing consultancy and advice and by supporting them in the classroom. The subject leader also ensures that all staff access relevant CPD. The Head teacher / Subject Leader will scrutinise planning, Maths work, and assessments. They will also gather the views of children in pupil discussions.

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### **Role of the Governing Body**

The purpose of the Governing Body is to ensure the implementation of the Early Years Foundation Stage Framework, the National Curriculum and to review the policy. Additional meetings may be held to discuss Maths priorities across the school and to gain an overview of the teaching and learning of Maths.

### **Policy Review**

This policy was written by the Maths Leader.

It is due for review during the summer term of 2023.

**Signed** ..... **Chair of Governors**

**Signed** ..... **Head teacher**

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