



# Thorpepark Academy

## Mathematics Policy



1	Summary	Maths policy			
2	Responsible person	Early Years Foundation Stage – Katie Thompson KS1 – Emily Mortimer KS2 – Steph Crawford			
3	Accountable SLT member				
4	Applies to	<input checked="" type="checkbox"/> All staff <input type="checkbox"/> Support staff <input type="checkbox"/> Teaching staff			
5	Who has overseen development of this policy	Katie Thompson Emily Mortimer Steph Crawford			
6	Who has been consulted and recommended policy for approval	Caroline Knight			
7	Approved by and date	Head of School September 2022			
8	Version number	3			
9	Available on	Every	<input type="checkbox"/> Y <input type="checkbox"/> N	Trust website Academy website SharePoint	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Y <input type="checkbox"/> N
10	Related documents (if applicable)	N/A			
11	Disseminated to	<input type="checkbox"/> Trustees/governors <input type="checkbox"/> All staff <input type="checkbox"/> Support staff <input type="checkbox"/> Teaching staff			
12	Date of implementation (when shared)	September 2022			
13	Consulted with recognised trade unions	<input type="checkbox"/> Y <input type="checkbox"/> N			



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## 1. Introduction/ intent

This document is a statement of the aims, principles and strategies for the teaching and learning of Mathematics at Thorpepark Academy. Mathematics is a core subject and this policy has been written in accordance with its statutory requirements.

At Thorpepark Academy, we believe that Maths is essential to everyday life and provides a foundation for understanding the world. We want to ignite a sense of curiosity of maths in our children and ensure that they enjoy the subject.

Our aim in Maths is to ensure that the children become fluent in the fundamentals, can reason mathematically, and can solve problems by applying their learning to varied situations with confidence. We want our children to see that maths is an interconnected subject, to make connections across the different areas to develop their fluency. The idea is introduced in the Foundation Stage, developed through work in Years 1-5 and embedded in Year 6. At the same time, we unlock a passion for the subject, motivating the children to learn; encourage the children to believe that they can and will achieve in Maths; and produce lifelong learners of the subject.

*'Mathematics is a creative and highly inter-connected discipline...a high-quality mathematics education should provide 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.'* (National Curriculum for Mathematics, 2014)

## 2. Implementation of the policy

All teachers follow a termly overview plan and are encouraged to design lessons using a range of resources, including, but not limited to, the White Rose Maths Scheme of Learning. A typical Maths lesson, at Thorpepark Academy, provides the opportunity for all children, regardless of their ability, to become confident and capable learners. We are committed to building on prior learning and enabling our children to demonstrate a deep, conceptual understanding of each topic that they can develop over time. They are encouraged to develop fluency in their recall of key facts, Flashback 4 and Fast Facts, and a whole school approach to the teaching of calculation strategies is deployed across the school. This ensures a consistent and progressive approach and prepares our children for the upper Key Stage 2 curriculum. Reasoning and problem-solving skills are explicitly taught to enable children to become independent learners who are prepared to take risks. Additional time is allocated to arithmetic to ensure key skills in calculation are retained. The teaching of multiplication facts continues to be a discrete focus, where the applications of these skills are essential for accessing other areas of mathematics. To make the learning relevant, cross-curricular links are made wherever possible and children are encouraged to apply skills from all areas to complete real-life challenges and give learning a sense of purpose.

## 3. Curriculum Impact

Teachers assess mathematics on a daily basis using objective stickers and the statements beginning, developing and secure. This is used towards summative assessment as the end of each half term. There will be 5 assessment points over the school year where children's knowledge against end of year expectations will be



assessed then inputted onto Otrack and used to assess achievement. Pupil progress meeting will be held termly to assess the progress of all children including key groups of children (girls, boys, disadvantaged, other and EAL).

#### **4. Early Years Maths**

In EYFS the White Rose scheme of learning is used to deliver a curriculum which embeds mathematical thinking and talk. The curriculum is extremely supportive of the ethos within EYFS whilst at the same time enabling teachers to create a mathematically rich curriculum. Additionally, it allows for further key mathematical concepts to be revised and developed further across the year. The EYFS curriculum provides excellent opportunities to develop the understanding of number, shape, measure and spatial thinking.

#### **5. Maths within Key Stage 1**

In Years 1 and 2, the focus of Maths is to ensure the children develop confidence and mental fluency with whole numbers, counting and place value. This often involves working with numerals, words and the four operations (+ - x ÷). The children should be precise in using and understanding place value and know number bonds to 20. The children also develop their ability to recognise, describe, draw, compare and sort different shapes. The children use a range of measures to describe and compare different quantities (such as length, mass, capacity/volume, time and money).

#### **6. Maths within Key Stage 2**

In lower Key Stage 2, Years 3 and 4, the focus is to ensure the children become increasingly fluent with whole numbers and the four operations (including number facts and place value). Pupils begin to develop efficient written and mental calculations with increasingly large whole numbers. They begin to develop their ability to solve a range of problems, including simple fractions and decimal place value. The children develop mathematical reasoning to help them analyse shapes and their properties and confidently describe their relationships. By the end of Year 4, children should have memorised their multiplication tables up to and including the 12 times table and be able to show precision and fluency in their work.

In upper Key Stage 2, Years 5 and 6, the focus of Maths is to ensure that children extend their understanding of the number system and place value to include larger integers. Pupils should be able to make connections between multiplication and division with fractions, decimals, percentages and ratio. Children should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems that demand the use of efficient written and mental methods of calculation. Children are introduced to algebra as a means for solving a variety of problems. The children's understanding and knowledge in geometry and measures consolidates and extends the knowledge they have developed in number; children should be able to classify shapes with increasingly complex geometric properties, using the vocabulary they need to describe them with accuracy and confidence.

#### **7. Special Educational Needs and Disabilities.**

Children at Thorpepark Academy with additional needs are supported with a personalised learning approach, Steps. Their personalised lessons use more practical resources and have differentiated activities when needed. 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.

### **8. Roles and Responsibilities including monitoring of standards**

Senior leaders are responsible for ensuring time, resources and support is provided so leaders can carry out their role effectively.

Subject leaders are responsible for the monitoring and evaluation of maths across the school. This will include:

- Supporting staff with planning and delivering maths
- Providing CPD opportunities either in house or through different services
- Lesson visits and drop ins
- Working with subject leaders across the trust to develop subject
- Reporting to the Head of school and governors termly