Trinity Church School

Statement of Intent for Maths

Learning Growing Believing Together

"Encourage one another and build each other up"
Thessalonians 5:11

Intent

Why do we teach this? Why do we teach it in the way we do?

We aim for children to be fluent, flexible, confident and creative mathematicians. Our approach to primary school mathematics teaching and learning is that it should be about exploring, reasoning and challenging thinking.

Our curriculum intent for maths reflects the purpose and aims of the national curriculum by helping our pupils to:

- become fluent in the fundamentals of mathematics, including through varied and frequent practise with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- 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

The Maths curriculum breadth is adapted to the context of our school by focusing on a progression of knowledge and skills from EYFS to Year 6. The most important subject content is organised through core strands which organise new knowledge systematically and ensure a logical progression.

The Mathematical threshold concepts are:

- Number and Place Value
- Addition and Subtraction
- Multiplication and Division
- Fractions, Decimals and Percentages
- Geometry (Shape)
- Geometry (Position, Direction and Movement)
- Measure
- Statistics
- Algebra

Any pupils who have gaps in their skills and knowledge, or any children who are socially disadvantaged, are ensured a rich maths curriculum through our teaching strategies, resources and knowledge of the importance of recall. Teachers model learning through clear explanations and instruction, scaffold tasks so that all children can work at the expected level and identify gaps in learning or misconceptions that children may have before a unit of work.

Additional Milestones

By the end of KS1
By the end of KS1 all children have developed their number sense to move from counting to calculating.

By the end of Year 4
Children are fluent in their times tables and division facts and can recall them at speed.

Implementation
What do we teach? What does this look like?

Coherence
Learning is broken down into small learning aims and steps. Explicitly connecting new ideas to concepts that have already been understood. Very carefully planning the order of learning to facilitate this.

Mathematical Thinking
Students work on ideas to develop deep understanding rather than passively receiving them. Students should be able to reason and discuss. This includes using mathematical terminology and notation as soon as it is relevant.

Fluency
Quick and efficient recall of facts and the ability to use them in different contexts in Mathematics.

Variation
Varying the way a concept is presented to a student is carefully thought about along with their individual practice questions to ensure children are exposed to subtle differences with a concept and misconceptions are explored.

Representation & Structure
Concrete, Pictorial and Abstract. Representations expose students to the mathematical structure so they truly understand why mathematical algorithms work and can therefore adapt to different scenarios.

Assessment
The children will be tracked at three points during the year to monitor attainment and progress. We also use diagnostic assessments to identify gaps for children working significantly below the ARE before teaching each block. This year we are also using a revised Number Sense Maths assessment to track progress and identify gaps.

Resources
Resources are carefully chosen to support the development of their fluency, reasoning and problem solving.

Lesson Structures
KS1

Number Sense	Retrieval - Flashback 4 WR	New Learning	Hinge question	Practice Group and individual work
15 minutes	10 minutes	Approx - 40 minutes		

Year 3 - Follow KS1 structure until the end of Term 3 - Review.

KS2

Daily Arithmetic	Retrieval - Flashback 4 WR	New Learning	Hinge question	Practice Group and individual work
10 minutes	10 minutes	Approx - 40 minutes		

Language

The curriculum design for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof; assisted in making their thinking clear to themselves as well as others, and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

Vocabulary is displayed on the maths working wall. Sentence stems are used within teaching.

Calculation Policy

The calculation policy maps out the school's consistent approach to methods, resources and vocabulary as they move from EYFS to year 6. It plots the children's journey through the four operations

Interventions

The importance of pre- and post-teaching is considered within mathematical interventions, so that children are familiar with the concepts and vocabulary expected of their age range.

Diagnostic assessments are used to monitor progress and identify gaps for children who are working significantly below. Teachers then target planning to fill gaps in knowledge to help children progress.

Impact

What will this look like? By the time children leave our school they will:

By the end of KS2 we aim for children to be fluent in the fundamentals of mathematics with a conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. They should have the skills to solve problems by applying their mathematics to a variety of situations with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios. Children will be able to reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.