Our Lady Star of the Sea Catholic Primary School

Rationale for Mathematics Curriculum

Mathematics is an essential discipline that enables us to understand and interpret the world around us. At Our Lady's, our aim is that all pupils develop a deep, secure and adaptable understanding of mathematics. We are committed to the belief that all pupils can succeed in mathematics and that depth of understanding is prioritised over speed of coverage.

We strive to ensure that pupils:

- become fluent in the fundamental aspects of mathematics
- reason mathematically by developing arguments, justifications and proofs using accurate, stage-appropriate mathematical vocabulary
- solve problems by applying their learning confidently to a range of contexts

We use Maths — No Problem! to support the achievement of these aims.

The Maths - No Problem! mission statement:

"We believe that every child can master an understanding and love of maths with the right kind of teaching and support. We want you to join our mission to build the confidence of the nation's maths teachers and learners." Maths No Problem (2016).

Implementation

Early Years Foundation Stage (EYFS)

In Nursery and Reception, mathematics is embedded across all areas of learning and carefully sequenced to ensure coherent progression throughout the Early Years and into Key Stage 1.

Nursery

In Nursery, children develop early mathematical understanding through high-quality adult interactions, continuous provision and purposeful play. Mathematical concepts are woven throughout the learning environment so that pupils encounter number, pattern, shape and measure in meaningful contexts. In Nursery, we use First4Maths planning.

Staff carefully model mathematical language and provide opportunities for children to:

- explore number through practical experiences
- notice patterns and relationships
- develop early counting skills
- talk about their mathematical thinking

Provision is designed to build firm foundations that prepare children for the structured mastery approach in Reception.

Reception

In Reception, mathematics continues to be embedded across all areas of learning and is also taught through a structured mastery approach using **Maths — No Problem!** alongside the NCETM Mastering Number Programme.

Carefully planned whole-class lessons enable children to develop a deep, secure and adaptable understanding of early mathematical concepts. Teaching follows the concrete–pictorial–abstract (CPA) approach, providing children with opportunities to explore mathematical structures using a range of manipulatives and representations.

Children are encouraged to:

- work independently and with their learning partner
- use concrete resources to explore mathematical ideas
- explain and share their thinking with the class
- compare different strategies and approaches

The Mastering Number sessions further strengthen pupils' fluency and number sense. This coherent approach ensures children develop confidence, mathematical language and secure foundations ready for Key Stage 1 mathematics.

Key Stage 1 and Key Stage 2

At Our Lady's, we use the **Maths — No Problem!** curriculum to teach mathematics through a mastery approach. This develops fluency, reasoning and problem solving without reliance on rote learning. Teaching is underpinned by the concrete–pictorial–abstract (CPA) approach and the use of bar modelling to reveal mathematical structure.

Maths — No Problem! is a textbook-based programme aligned with the 2014 English National Curriculum and has been judged by the Department for Education's expert panel to meet the core criteria for a high-quality mastery textbook.

Teaching Approach

Lessons are carefully structured to promote deep and connected understanding. They typically:

- begin with an engaging problem that is accessible to all pupils
- use manipulatives and representations to expose mathematical structure
- promote purposeful mathematical talk and collaborative thinking
- explore and compare different strategies and methods
- provide time for reflection through discussion and journaling
- move from guided practice to independent application

Carefully designed variation within the textbooks enables pupils to practise concepts in different ways, strengthening understanding rather than accelerating content.

Support and Challenge

All pupils learn together and are supported to achieve depth of understanding.

- Pupils who need additional support access concrete resources, scaffolded questioning and structured peer dialogue.
- Pupils who grasp concepts rapidly are challenged through tasks that deepen conceptual understanding rather than moving prematurely to new content.

Journals are used to develop mathematical communication and to make thinking visible. Pupils record their refined understanding through diagrams, written explanations and abstract notation.

Arithmetic

All classes allocate additional time within the timetable to develop fluency. These sessions focus on securing key number facts and developing efficient calculation strategies in order to reduce cognitive load and support success across the wider mathematics curriculum.

Arithmetic sessions provide regular opportunities for retrieval practice, rehearsal of prior learning and consolidation of written and mental methods. This ensures that pupils develop automaticity alongside conceptual understanding.

Mastering Number

The NCETM Mastering Number Programme is implemented in Years 1, 2, 4 and 5.

These sessions are designed to develop strong number sense, fluency and flexibility with number. Teaching focuses on:

- deep understanding of number relationships
- securing additive and multiplicative structures
- fluent recall of key number facts
- flexibility in mental calculation

Mastering Number sessions complement our core Maths — No Problem! lessons and strengthen pupils' foundational understanding, enabling them to access age-related content with confidence.