Mathematics Curriculum Statement

Our Vision for Maths

Mathematics is an essential part of everyday life. It helps children make sense of the world around them and provides skills needed for science, technology, engineering, managing money and future employment. We want children to develop a secure understanding of mathematics, think logically, solve problems and develop a lasting enjoyment and curiosity about the subject.

At Laira Green Primary School, our mathematics curriculum reflects the aims of the National Curriculum. We aim for all children to:

- Become fluent in the fundamentals of mathematics, developing the ability to recall and apply knowledge accurately and efficiently.
- Reason mathematically by identifying patterns and relationships, making connections and explaining and justifying their thinking using appropriate mathematical language.
- Solve problems with increasing sophistication, applying their knowledge to a range of contexts, breaking problems into manageable steps and persevering to find solutions.

We recognise that mathematical concepts are interconnected and that children need to make links between different areas of learning. Our curriculum therefore provides opportunities for pupils to develop fluency, deepen their understanding and apply their knowledge in a variety of contexts.

Strong foundations in mathematics are particularly important in the early years, when children begin to develop their understanding of number, pattern, shape and measure. We aim to build these foundations from the outset, helping children develop the knowledge, language and confidence needed for future mathematical learning.

Early Years Foundation Stage

In Preschool, children develop early mathematical understanding through play, exploration and everyday experiences. They explore numbers to 10, counting, comparing quantities, recognising patterns and shapes, describing position, and comparing measures such as length, weight and capacity. These experiences develop mathematical language, problem-solving skills and confidence.

In Reception, children build on these foundations through the National Centre for Excellence in the Teaching of Mathematics (NCETM) early years mathematics materials, covering six key areas: cardinality and counting, comparison, composition, pattern, shape and space, and measures. Children develop accurate counting and subitising, learn number bonds and explore how numbers can be partitioned. They also compare quantities, investigate one more and one less, create and continue patterns, explore the properties of shapes, and estimate and compare measures.

Daily NCETM Mastering Number sessions further develop children's number sense and help secure the foundations needed for Key Stage 1.

Our Approach to Teaching Mathematics

Laira Green Primary School uses White Rose Hub Maths to support the planning and delivery of mathematics in Years 1 to 6. The carefully sequenced small steps help children build on prior learning and develop a connected understanding across key areas, including number, geometry, measurement and statistics.

Our teaching is underpinned by a mastery approach, which prioritises depth of understanding over acceleration. Children are given opportunities to explore concepts, make connections and apply their knowledge in different contexts. We consider a concept or skill to be mastered when a pupil can represent it in different ways, explain their thinking using appropriate mathematical language and independently apply their understanding to new and unfamiliar problems.

New concepts are introduced through practical experiences, using the concrete, pictorial and abstract approach:

- **Concrete:** Children use physical objects and manipulatives to explore mathematical ideas and explain their thinking.
- **Pictorial:** Children use pictures and visual representations to develop understanding and make connections.
- **Abstract:** Children progress to using numbers, symbols and mathematical methods, applying their understanding with increasing confidence.

This approach helps children develop secure conceptual understanding rather than relying solely on memorised facts and procedures.

Fluency, Reasoning and Problem-Solving

Fluency is developed through regular, carefully planned practice. Children learn to recall and apply mathematical knowledge accurately and efficiently, while also recognising relationships, making connections and moving between different representations and contexts. Fluency therefore involves more than memorising facts; it enables children to apply their knowledge flexibly and confidently.

Mathematical reasoning is an important part of daily teaching. We explicitly develop mathematical vocabulary and encourage children to explain their thinking in full sentences, justify their answers and describe how they know something is correct. Children are given opportunities to investigate patterns, make generalisations and discuss different approaches to solving problems.

Times tables are a particular focus throughout the primary years. Through regular practice, children develop rapid and accurate recall of multiplication facts and related division facts, as well as opportunities to apply this knowledge in different contexts. By the end of Year 4, pupils take part in the Multiplication Tables Check (MTC), which assesses their recall of multiplication tables up to 12 × 12. While we prepare children for this assessment, our wider aim is to secure knowledge that supports future learning in multiplication, division, fractions, ratio and problem-solving. Secure recall allows children to focus on more complex mathematical thinking.

Inclusion, Support and Challenge

At Laira Green Primary School, we maintain high expectations for all pupils and aim for children to progress through the curriculum at broadly the same pace. Our focus is on keeping up rather than catching up, with support provided promptly when children find concepts difficult.

Children who need additional support are given opportunities to revisit learning, practise key skills and consolidate their understanding. Teachers make appropriate adaptations to meet individual needs and help all pupils access the curriculum. Children who grasp concepts quickly are challenged through rich and sophisticated problems that deepen their understanding and encourage them to apply their knowledge in new ways.

Teachers' subject knowledge and practice are strengthened through ongoing professional development and guidance from subject leaders, helping to maintain appropriate subject knowledge and high-quality mathematics teaching.

Assessment

Assessment takes place throughout lessons to check children's understanding and inform next steps in teaching. Teachers use questioning, observation, marking, verbal feedback and follow-up tasks to identify misconceptions, address gaps in learning and support progress. End of unit assessments are used at the end of each block of learning to check pupils' understanding and identify areas that may need further teaching or consolidation.

Pupils in Years 1 to 6 complete NFER Mathematics assessments three times a year to monitor progress and identify gaps in understanding. We also prepare pupils for statutory Key Stage 2 assessments in Year 6 and non-statutory Key Stage 1 assessments in Year 2. Information from formative and summative assessment is used to inform future planning, provide appropriate support and ensure that children are suitably challenged.

Enjoyment of Mathematics

We want children to see mathematics as an engaging, worthwhile subject in which effort, curiosity and perseverance are valued. Pupils are encouraged to approach new concepts and challenging problems with confidence and enthusiasm, taking pride in their learning and achievements. During our weekly assembly, we celebrate children's achievements in times tables by awarding certificates that recognise both improved speed of recall and effort.

Children use practical resources purposefully to support their understanding and become increasingly independent as their knowledge develops. Mathematics is a valued part of classroom life, reflected in the care children take with their books, the use of working walls and their willingness to explain and share their thinking.

Mathematics Across the Curriculum

Children are encouraged to apply their mathematical knowledge across the wider curriculum so that they understand its relevance beyond mathematics lessons. In Science, they use measurement, calculations, data collection and presentation to identify patterns and interpret results. In PE, they apply measurement and use numbers to record and compare performance.

Online mathematics games and ICT resources are also used where appropriate to reinforce key skills and provide purposeful opportunities for practice. Across the curriculum, children are encouraged to present their work carefully, explain their thinking and recognise how mathematics helps them understand the world around them.