

Mathematics at Exwick Heights Primary School

Intent

The 2014 National Curriculum for maths aims to ensure that all children:

- Become fluent in the fundamentals of mathematics
- Are able to reason mathematically
- Can solve problems by applying their mathematics



At Exwick Heights Primary, these skills are embedded within maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy mathematics and to experience success in the subject, with the ability to reason mathematically. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of mathematics.

Implementation



The content and principles underpinning the 2014 mathematics curriculum and the maths curriculum at Exwick Heights reflect those found in high-performing education systems internationally, particularly those of east and south-east Asian countries such as Singapore, Japan, South Korea and China. These principles and features characterise this approach and convey how our curriculum is implemented:

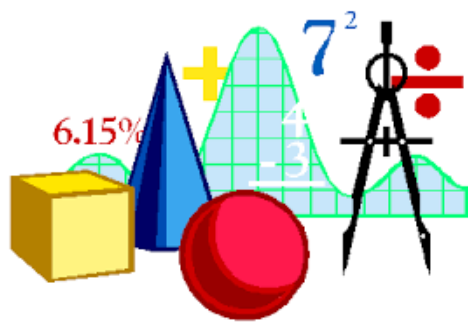
- Teachers reinforce an expectation that all children are capable of achieving high standards in mathematics.
 - The large majority of children progress through the curriculum content at the same pace. This is achieved by emphasising deep knowledge, through scaffolding, pre-teach, individual keep-up support and bespoke interventions.
 - Teaching is underpinned by methodical curriculum design and supported by carefully crafted lessons and resources to foster deep conceptual and procedural knowledge.
 - Practice, regular review and consolidation play a central role in children's progress. Carefully implemented variation within this builds fluency and understanding of underlying mathematical concepts.
 - Teachers use precise questioning to check conceptual and procedural knowledge; they use formative and summative assessment to identify those requiring intervention, so that all children keep up.

To ensure whole school consistency and progression, the school uses a range of recommended mastery resources e.g. 'Power Maths' which is fully aligned with the

White Rose Maths guidance. School leaders, subject leads, year group leads and teachers work together: The school's ongoing engagement since completing the Mastery Workgroup for Year 1-6 (2019-2021 - Jurassic Maths Hub) and the Early Years Mastery Workgroup for Foundation and Year 1 (2020-2022 - CODE Maths Hub) is an example of this. Problem solving promotes an awareness of maths in relatable real-life contexts that link to other areas of learning. Using the Concrete, Pictorial, Abstract approach, manipulatives and concrete materials are used throughout the school. Teachers use careful questions to draw out children's discussions and their reasoning. The class teacher then leads children through strategies for solving the problem, including those already discussed. Work set through the small step approach provides the means for all children to develop their fluency further, before progressing to more complex related problems. Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. Each lesson provides the means to achieve greater depth, with higher attainers being offered rich and sophisticated problems, as well as exploratory, investigative tasks, within the lesson as appropriate.

Impact

The school has a supportive ethos; our approaches scaffold the children by developing



their collaborative and independent skills, as well as empathy and the need to recognise the achievement of others. Our curriculum builds confidence by ensuring that all children experience challenge and success in Mathematics by developing a growth mindset. Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of

each child. These factors ensure that we are able to maintain high standards, with achievement at the end of KS2 well above the national average over the last ten years and a high proportion of children demonstrating greater depth, at the end of each phase.

Mathematics lessons aim to ensure that all pupils become fluent in the fundamentals of mathematics, reason mathematically and solve problems. Pupils will be able to make rich connections across mathematical ideas and apply their knowledge to science and other subjects. A high-quality mathematics education therefore provides pupils with a foundation for understanding the world, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. Pupils will be taught number, measurement, geometry and statistics with increasing challenge as they progress through the school.