Curriculum Statement: Maths

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 Stowford School, 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 in both maths and other subjects across the curriculum e.g. STEM and science. 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 Stowford School 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

Differentiation is achieved by emphasising deep knowledge and through individual support and intervention.

- teaching is underpinned by methodical curriculum design and supported by carefully crafted lessons and resources to foster deep conceptual and procedural knowledge
- practice and consolidation play a central role. Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts.
- teachers use precise questioning in class to test conceptual and procedural knowledge and assess children regularly to identify those requiring intervention, so that all children keep up.

To ensure whole consistency and progression, the school uses the White Rose maths scheme, with the addition of certain aspects of 'Maths No Problem ' and

resources from the NCETM .The school's ongoing engagement with the DFE funded Maths Hubs programme continues to ensure that staff at all levels understand the pedagogy of the approach.

New concepts are shared within the context of an initial related problem, which children are able to discuss in partners. This initial problem-solving activity prompts discussion and reasoning, as well as promoting an awareness of maths in relatable real-life contexts that link to other areas of learning. In KS1, these problems are almost always presented with objects (concrete manipulatives) for children to use. Children may also use manipulatives in KS2. 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. Independent work 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 phase provides the means to achieve greater depth, with more able children being offered rich and sophisticated problems, as well as exploratory, investigative tasks, within the lesson as appropriate.

Impact

The school has a supportive ethos and our approaches support the children in developing their collaborative and independent skills, as well as empathy and the need to recognise the achievement of others. Children can under perform in mathematics because they think they can't do it or are not naturally good at it. The development of a Growth Mindset has been helpful in this. 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 and a high proportion of children demonstrating greater depth, at the end of each phase.