



MATHS

Intention, Implementation Impact

Intention

At Stonelow, our intent for mathematics is to teach a rich, balanced and progressive curriculum using maths to reason, problem solve and develop fluent conceptual understanding in each area. Our curriculum allows children to better make sense of the world around them by making connections between mathematics and everyday life. Our policies, resources and schemes support our vision and clearly outline where maths can be incorporated across different curriculum areas. The structure of the mathematics curriculum across school shows clear progression in line with age related expectations and to challenge at every opportunity. Teaching curriculum content in blocks allows children to explore skills and knowledge in depth and gain a secure understanding of particular subject matter. Key knowledge and skills are also revisited regularly (sticky learning and quick maths) allowing repetition to embed learning. A concrete, pictorial, abstract approach provides children with a clear structure in which they can develop their depth of understanding of mathematical concepts. We aim to ensure that mathematics is a high profile subject which children view positively and with a 'Can do' attitude.

Implementation

Our curriculum is frequently reviewed to ensure that it is current and effective and teachers are supported and aided in their teaching of mathematics through appropriate high quality CPD ensuring confidence in the skills and knowledge that they are required to teach. We continually strive to build upon the excellent understanding of the expectations of the curriculum that our staff have. We achieve this through regular quality CPD which is provided through the subject leader, external courses and collaborative lesson study. All staff are encouraged to raise questions, seek support and request further training if needed in order to ensure everyone is confident in what they teach. Good practice is always shared between staff and all CPD is used to inform teaching and learning across school. Resources and equipment are audited regularly so that children have materials of high quality and accuracy to support their learning. Our resources allow us to better use models and images to support learning in each area and enable the progression from concrete to pictorial to abstract. Children are familiar with these resources and can access most of them independently where needed. Curriculum maps are based on the Government programme of study and are set out clearly in the NCETM progression table. Yearly overviews which set the curriculum out in blocks enabling children to get to grips with different areas of maths through extended periods of time. Although not prescriptive, we have access to Mathshed for our teaching resources. These are supplemented with other resources to provide a rich and varied learning experience. These include, NCETM, NRich, TTRockstars and Twinkl to name a few. Teachers also implement the schools agreed calculation policies for progression in written and mental calculations. Correct mathematical vocabulary is used by all teachers and this is discussed with and explained to children who are then encouraged to use it independently when talking about maths. Vocabulary is displayed clearly on working walls and is referred frequently in lessons. Timetabled interventions for maths are in place for children with SEND; all other children receive regular group support as part of their maths lessons with further support for individuals or small groups where a need is identified. Fluency is developed through repeating (sticky learning and quick maths), reinforcing and revising key skills; regular arithmetic takes place in all classes. Children are given time to practice and perfect their calculation strategies including giving pupils the opportunity to make appropriate decisions when estimating, calculating and evaluating the effectiveness of their chosen methods. Feedback is given in a variety of ways to ensure pupils are well informed and making visible progress. Discussion is essential to learning and children are encouraged to discuss their thoughts, ideas and methods with a partner, group or the teacher. Task types are varied to suit different pupils and their learning preferences; developing reasoning remains one of our key focuses. Investigative tasks are designed to allow pupils to follow lines of enquiry and develop their own ideas, justifying and proving their answers.

Children work both collaboratively and independently when solving problems which require them to persevere and develop resilience ensuring they apply growth mindset.

Impact

The impact of our mathematics curriculum is that children understand the relevance and importance of what they are learning in relation to real world concepts. Children know that maths is a vital life skill that they will rely on in many areas of their daily life. Children have a positive view of maths due to learning in an environment where maths is promoted as being an exciting and enjoyable subject in which they can investigate and ask questions; they know that it is reasonable to make mistakes because this can strengthen their learning through the journey to finding an answer. Children are confident to 'have a go' and choose the equipment they need to help them to learn along with the strategies they think are best suited to each problem. Our children have a good understanding of their strengths and targets for development in maths and what they need to do to improve. Our maths books evidence work of a high standard of which children clearly take pride; the components of the teaching sequences demonstrate good coverage of fluency, reasoning and problem solving. Our feedback and interventions support children to strive to be the best mathematicians they can be, ensuring a high proportion of children are on track or above. Our school standards are high, we moderate our books both internally and externally and children are achieving well.