



Maths

"Pure mathematics is, in its way, the poetry of logical ideas."
(Albert Einstein)

Intent:

Across the Saints Federation we believe that all children can develop independence, confidence and competence to become successful mathematicians. In order to reach their full potential, we encourage all children to be active contributors - sharing ideas and discussing strategies to deepen their understanding.

We deliver the three aims of the National Curriculum by putting fluency, reasoning and problem solving at the heart of our mathematics planning, teaching and learning. We make rich connections across a range of mathematical ideas and contexts, encouraging learners to develop confidence, competence and efficiency; the application of conceptual understanding; independence and resilience.

Spiritual Development

We encourage our children to creatively solve problems and reason about Maths, allowing the children to develop their sense of wonder and spirituality. Reasoning will help pupils make informed decisions related to their lives and future careers. It helps pupils to critically understand and assess issues surrounding mercy, equality and justice and make fair decisions to combat inequalities and injustices they identify.

Implementation:

We recognise mathematics as a subject in which the understanding of many new concepts is highly dependent upon the secure understanding of others. We place a high value on the importance of mathematical mastery, so that children are secure in their understanding, before they are ready to progress onto new concepts. We use the Ready to progress criteria published by the DfE to support this process.

Every class across the federation, from EYFS to Y6, follows the White Rose long-term plan, which emphasises the National curriculum's identification of the importance of mastering mathematical concepts. Individual lessons may be personalised to address the individual needs and requirements for a class but the triumvirate aims of fluency, reasoning and problem solving will be promoted in all lessons. Children will be given the opportunity to work collaboratively and independently. They will be encouraged to break down problems into a series of simpler steps and to persevere in seeking solutions.

We use a range of planning resources including those provided by the NCETM, White Rose and NRICH to enrich our children's learning experience.

Our curriculum builds on the concrete, pictorial, abstract approach. To support us, we have a range of mathematical resources in classrooms including Numicon, Base 10, Place Value counters, Place Value Grids and Ten Frames (manipulatives).

When introduced to a new concept for the first time, all children are encouraged to build physical representations. Objects and pictures are then used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

By using all three, the children can explore and demonstrate their mathematical learning. Together, these elements help to cement knowledge so children truly understand what they have learnt.

Through effective questioning and careful observation, we continuously monitor pupils' progress against expected attainment for their age, making formative assessment notes where appropriate and using these to inform our teaching. Summative assessments are completed at the end of each of the White Rose learning blocks (identified within the long-term plan). This is used to monitor progress and, alongside the DfE 'Ready to Progress Criteria,' helps to ensure that pupils are ready to move on to their next steps. A Rising Stars PUMA summative assessment is completed at the end of each term to provide a more holistic picture of progress and attainment. Results are recorded on Target Tracker. The main purpose of all assessment is always to help us to monitor progress and identify gaps in order to ensure that we are providing excellent provision for every child.

Impact:

By the time children leave the Saints Federation, they know how and why Maths is used in the outside world and in the workplace. They find out about different ways that Maths can be used to support their future potential.

Mathematical concepts or skills are mastered when a child can show it in multiple ways, using mathematical language to explain their ideas and the independent application of concepts to new problems in unfamiliar situations.

Children develop a quick recall of key facts and procedures, including the recollection of times tables.

Pupils use mathematical vocabulary in Maths lessons. They learn the skills to use methods independently and the resilience required to tackle complex problems.

Children develop the flexibility and fluidity to move between different contexts and representations of Maths. They have the chance to develop the ability to recognise relationships and make connections in Maths lessons.

All children secure long-term, deep and adaptable understanding of Maths which they can apply in different contexts (Mastery).