St John and St James Mathematics

Jesus said, 'I have come that you will have life, life in all its fullness.'

CURRICULUM INTENT

At St John and St James we want our Mathematics curriculum to ensure it teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. We understand mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. At St John and St James, children are encouraged to make mistakes in a safe and supportive environment. They are supported to discuss these misconceptions with their peers and staff alike. Use of appropriate vocabulary is modelled throughout lessons by both staff and children, allowing everyone to 'talk like a mathematician'. Once a child can articulate their understanding of a concept, they can truly begin to make connections within their learning.

IMPLEMENTATION

In school we ensure we follow 'The National Curriculum programmes of study for Mathematics 2014' and The Development Matters statements linked to Maths: Number, and Maths: Shape, Space and Measures in the Early Years Foundation Stage. We use the White Rose Maths scheme of learning as a guide for small steps in learning and to help teachers in the resourcing of this subject. The scheme is sequenced, structured and ensures full National Curriculum coverage in full and in manageable, logical steps. The White Rose calculation policy is used within school to ensure a consistent approach to teaching the four operations over time. White Rose has been influenced, inspired and informed by the work of leading maths researchers and practitioners across the world and is based on the latest pedagogical research. All lessons begin with a task for retrieval practice. Often used is the White Rose Math's 'Flashback 4' – a short assessment to support retrieval practice and develop long-term memory, and the 'Infinity' online quizzing tool. However, in some instances, teachers may use their professional judgement to create another form of retrieval. Children are taught through clear modelling and have the opportunity to develop their knowledge and understanding of mathematical concepts. Our approach incorporates using concrete objects, pictures, words and numbers to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding at all levels. Children move through the different stages of their learning at their own pace. Reasoning and problem solving are integral to the activities children are given to develop their mathematical thinking. Resources are readily available to assist demonstration of securing a conceptual understanding of the different skills appropriate for each year group. At our school, the majority of children will be taught the content from their year group only. They will spend time becoming true masters of content, applying and being creative with new knowledge in multiple ways.

Children's understanding is assessed through the workbooks (completed during every lesson) and a short summative assessment at the end of each block of work.

MULTIPLICATION TIMES TABLES AND TIMES TABLES CHECK

We use Times Tables Rockstars from Year 2 to Year 6 to support children's learning of times tables facts. This is a fun online platform which also offers resources that can be used in the classroom.

Children in Year 4 take the statutory MTC test in the Summer term. The purpose of the MTC is to determine whether pupils can recall their times tables fluently, which is essential for future success in mathematics.

IMPACT

Children at St John and St James understand and value the importance of Mathematics; this is evident through pupil voice and monitoring which takes place by the Subject Leader. We want children to be confident mathematicians as a result of developing fluency, mathematical reasoning and competence in solving increasingly sophisticated, contextual problems. Through quality first teaching, guidance and effective feedback, children will:

- Clearly explain their reasoning and justify their thought processes
- Quickly recall facts and procedures
- Have the flexibility and fluidity to move between different contexts and representations of mathematics
- Have the ability to recognise relationships and make connections in mathematics
- Be happy, confident, articulate and autonomous learners with a life-long passion for learning
- Leave our school at the end of KS2 prepared for the next step in their mathematical education