Mathematics Vision

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.
(National Curriculum, 2014)

The aims of the National Curriculum are for our pupils to:
*B**ecome fluent in the fundamentals of mathematics**, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
***Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
*Can **solve problems by applying their mathematics** to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

- **OUR AIMS AT ST MARY'S IN MATHEMATICS:**
- To ensure that children are confident in using both mental arithmetic and written strategies to perform calculations efficiently and accurately.
- To ensure that children know and are able to recall number facts and multiplication facts quickly and confidently.
- To give children opportunities to develop their understanding and application of 'Concrete / Pictorial / Abstract'. The children use practical equipment to support their understanding of various areas of mathematics. Once children become more confident, they can then use pictorial representations before moving on doing this mentally.
- To allow children to 'master' different areas of mathematics through deeper levels of exploration, rather than simply pushing them on to another area once they have seemed to understand a concept.
- To constantly challenge our children through a combination of activities to improve their fluency and ability to reason and solve problems. We use 'sentence stems' to enable children to verbalise and record their reasoning in full sentences.
- To give lots of opportunities to solve problems for a variety of mathematical topics.