



Whole School Curriculum Design: Maths INTENT – IMPLEMENTATION - IMPACT



Intent

In Maths, our provision is designed to ensure that all pupils:

1. Become 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
2. Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
3. 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.
4. Become confident with maths language; to be able to present their thinking and reasoning through the use of maths vocabulary.

SMSC

We strive to enable each of our students to explore the connections between their numeracy skills and every-day life. Developing deep thinking and an ability to question the way in which the world works promotes the spiritual growth of our children. Problem solving skills and teamwork are fundamental to mathematics through creative thinking, discussion, explaining and presenting ideas. Children are always encouraged to explain concepts to each other and support each other in their learning. In this manner, students realise their own strengths and feel a sense of achievement which boosts confidence.



Implementation

We use the White Rose Schemes of Learning to guide our teaching of maths from Reception to Year 4. In EYFS there are two main strands to learning - 'number' and 'numerical patterns'. Within number, children develop an in depth knowledge of numbers to ten, recognising quantities to 5 and number bonds to 5. Within numerical patterns, children will learn to count beyond 20, compare quantities up to 10 and explore and represent patterns.

White Rose is based on the mastery approach which aims to challenge each child across school to be the best they can be. It breaks the curriculum down into small, manageable steps that all children work on in a daily lesson together. Those that need support are given additional teaching or structuring, this may be before, during or after the lesson as appropriate. Those that need further challenge are given rich tasks and deeper problems to build a more profound understanding.

The schemes interleave prior content in new concepts. For example, when children look at measurement, there are lots of questions that practice the four operations and fractions. This helps children make links between topics and understand them more deeply.

There is a distinct focus on number work. Children who have an excellent grasp of number make great mathematicians. Spending longer on mastering key topics will build a child's confidence and help secure understanding. We look to reinforce number fluency throughout the year. This is done as mental and oral starters or in additional maths time during the day.

Reasoning and problem solving are integral to the schemes and to our approach. We expect each lesson to have an element of applying knowledge and skills. It is through such activities that children see the real purpose of maths, and gain the most enjoyment and satisfaction.

Times tables are practised regularly both at school and at home and are assessed weekly. We use interactive, exciting resources such as Times Tables Rockstars to support exploration, progression and fluency through various ICT and manipulatives including online games and platforms.

We encourage opportunities for exploring and investigating maths across the curriculum, outdoors and in the wider world.

Impact - We believe that the impact of using our personalised Maths curriculum and progressive units will ensure:

- Children who enjoy Maths and strive to be the best they can be.
- Engaged children who are all challenged.
- Confident children who can all talk about Maths and their learning and the links between Mathematical topics.
- Lessons that use a variety of resources to support learning.
- Different representations of mathematical concepts.
- Learning that is tracked and monitored to ensure all children make at least good progress and become confident mathematicians.