Maths in our schools

Curriculum Drivers

Relevance: Mathematics is a skill for life, enabling children to have access to the world around them. We find examples of maths in real life where possible. Mathematics has high relevance across the curriculum and the logical reasoning used in maths can be used to solve everyday problems.

Curiosity: We give children time to explore the key concepts, and to be inquisitive about how mathematical concepts work. We aim to develop a sense of wonder through use of images and representations which give them the opportunity to question their thinking and that of others.

Knowledge: The key knowledge in mathematics in our schools is informed by the National Curriculum and Development Matters. We use White Rose Maths and the NCETM to sequence the knowledge in small steps.

Fluency: From NCETM: Efficient, accurate recall of key number facts and procedures is essential for fluency, freeing pupils' minds to think deeply about concepts and problems, but fluency demands more than this. It requires pupils to have the flexibility to move between different contexts and representations of mathematics, to recognise relationships and make connections, and to choose appropriate methods and strategies to solve problems.

This is what we aim to deliver to our pupils in our schools.

Sequencing of content

In the EYFS, we use the NCETM and White Rose to deliver the six key areas of early maths: cardinality and counting, comparison, composition, pattern, shape and space and measures.

White Rose mathematics small steps planning is used throughout KS1 and KS2 and adapted to the needs of the cohort.

In a maths lesson we will see: fluency, reasoning, problem solving, introduction of vocabulary, use of sentence stems to support oracy and varied representations.

Big ideas: NCETM TfM

Coherence: Material is designed to give pupils a deep understanding of concepts that can applied throughout the maths curriculum.

Mathematical thinking: Problem solving, reasoning and discussion are key to developing a deeper understanding of mathematical concepts. Pupils will communicate their ideas using precise mathematical language.

Representation and structure: Teachers carefully select representations of mathematics to expose mathematical structure.

Variation: We aim to draw close attention to mathematical concepts through varying some elements and keeping some constant.

Diversity

Mathematics knows no races or geographic boundaries; for mathematics, the cultural world is one country. We believe that mathematics is for everyone, and that everyone can be a mathematician and aim to foster a growth mindset. Misconceptions are a part of our learning.

We aim to expose children to positive role models in mathematics, and for them to see it as a positive part of their lives.

Retrieval practice

All lessons include an element of retrieval, as new knowledge is embedded by building on previous learning using flashback 4s.

We give children the chance to remember learning within a sequence, but also over time to support long term memory and foster connections between concepts.

We aim that over time as automaticity increases, so will speed of retrieval.