Maths in our school

Curriculum Drivers

Ambitious: We aim to enable children to have access to the world around them and apply their understanding of maths in real-life situations. We encourage all children to be ambitious and have the desire to challenge themselves to achieve highly. Our curriculum incorporates a range of reasoning opportunities to allow all children to master mathematics. Extension tasks linked to the curriculum are used where appropriate to nurture and develop curiosity and confidence for all.

Inclusive: We want every child to know that they can be mathematicians. We use a 'small-steps' approach along with a variety of techniques and resources to ensure that all children succeed at every level. We want maths lessons to be something all children look forward to and engage with.

Knowledge Rich: Our mathematics curriculum is informed by the National Curriculum. We use White Rose Maths and the NCETM to sequence the knowledge in small steps. We plan for lots of retrieval time to ensure children retain the knowledge they have learnt. Curriculum-linked activities are also used to encourage discussion, collaboration and exploring approaches to problem-solving

Fluency-Focused: From NCETM: Efficient, accurate recall of key number facts and procedures is essential for fluency, allowing 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 all children in our school.

We have a whole-school approach to ensure that all children become fluent in key number facts.

Sequencing of content

We use the White Rose scheme of work to deliver the mathematics curriculum. This ensures that small-steps are planned to enable children to deepen their understanding of mathematical concepts. Progression is considered throughout the curriculum as well as opportunities to revisit prior learning to enable children to confidently apply their knowledge in a range of contexts.

In a maths lesson we will see: an introduction of vocabulary; variation and fluency; reasoning and problem-solving; sentence stems to support oracy and representations to enable children to 'see the maths'.

Diversity

We believe that mathematics is for everyone, and that everyone can be a mathematician. We aim to foster a growth mindset and show all children that they can achieve. Misconceptions are a part of our learning, and we address these as they arise, we even highlight that sometimes teachers make mistakes too! We recognise we have a diverse cohort of children some with a variety of SEN need and aim to make maths a lesson that everyone can enjoy.

Big Ideas:

Coherence: Material is designed to give pupils a deep understanding of concepts that can be 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.

Retrieval practice

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

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 to ensure that key number facts are learned to automaticity; allowing children's retrieval speed to increase as their confidence and knowledge of number grows.