The Intent of our Mathematics Curriculum

At Ribchester St. Wilfrid's, we strive to develop a love of all things mathematical. Every child is equally important and so our children are fully supported to enable them to develop at a level that is appropriate to them. As well as engaging our children through fun activities, our lessons focus on developing deeper thinking, rehearsing methods and learning new facts. Through challenging word problems, missing number tasks and open-ended problem solving where they explain their understanding, we challenge children to become masters of the subject. Children explain their answers rather than just giving a numerical answer and are encouraged to challenge others if they disagree and argue their case if they are convinced that they are correct.

We aim for our children to:

- develop a positive attitude and approach to maths.
- develop a secure understanding of the objectives being taught.
- appreciate that maths is fundamental to all areas of the curriculum and the real world.
- become confident at expressing their reasons and thinking using the correct mathematical language and vocabulary.
- challenge and be challenged by others in a safe environment.
- develop their fluency with the quick recall of the basic facts and procedures.
- be able to solve problems by applying their knowledge of different approaches.

The Implementation of our Mathematics Curriculum

In EYFS, children are immersed in mathematical language and encouraged to use it within their play. They experience activities where they explore number understanding and show critical thinking in tasks that they take part in. Every opportunity is taken to talk about and experience number and problem solving appropriate to our children. Mathematical experiences involve the use of games, practical manipulatives and mathematical models, following a mastery approach.

We strongly believe that a mastery approach is the best way for our children to learn maths. We feel that every child can achieve in maths and is able to develop a secure knowledge and understanding of the many areas covered in this subject. By striving to master maths, children will develop a deep, secure and adaptable understanding, feeling confident to problem solve and face new situations without immediately needing support.

We use the White Rose Small Steps to begin our learning journeys. Staff plan their learning journeys in a way that is relevant to the class of children that they are teaching. Learning will not move on until staff believe that the children have a sound and secure understanding of a concept.

Children who struggle with a concept will be supported through practical resources and adult support. Children who quickly grasp a concept will be challenged to think deeply and reason about their learning.

The mastery approach applies the five big ideas to the teaching of maths and our staff are currently working hard to implement these ideas into their delivery. We are undergoing training through our Maths Hub and are excited to see how our children develop and grow in confidence.

The Five Big Ideas

The Five Big Ideas, drawn from research evidence, underpin teaching for mastery.

Coherence

Lessons are broken down into small connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts.

Representation and Structure

Representations used in lessons are used to support the children in building up mathematical understanding and allowing them to apply their learning to a range on contexts and models. The overall aim is that children will eventually (when they are ready) use abstract ideas to solve their maths.

Mathematical Thinking

Children need to work hard to develop an understanding through reasoning, discussing with others, explaining their thinking and trying out new things.

Fluency

Quick and efficient recall of facts and procedures will ensure that children are not hindered by the simple mathematical knowledge such as times tables and bonds of numbers.

Variation

Variation is twofold. It is firstly about how the teacher represents the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow up practice, paying attention to what is kept the same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

The Impact of our Mathematics Curriculum

Assessment of impact forms an integral part of every maths lesson at Ribchester St. Wilfrid's. Staff continually look at the level of knowledge and understanding shown by the children being taught during every part of the maths lesson and make changes in their teaching to ensure that a solid knowledge and understanding are being developed. Linking with our mastery approach, staff ensure that confidence and resilience continually develop in each and every child, taking the small steps approach to ensure an understanding in every lesson. The way children explain their methods and understanding and the mathematical vocabulary play as big a part as getting the answer correct.

A formal assessment is carried out in Key Stage 1 and Key Stage 2 at the end of each block to ensure any gaps in learning are identified and then re-visited more than might be deemed necessary (due to the nature of the mastery approach, previous learning is revisited and underpins new learning). This assessment, as well as daily staff assessment, is used to provide focused teaching on those children that need it.