Bledlow Ridge School
Maths
Intent, Implementation and Impact

Intent

Bledow Ridge School strives to give all children the opportunity to learn and develop key mathematical skills which they can apply to everyday life. We instil a resilient attitude to Maths, to ensure children feel confident to apply their skills to a range of different contexts across the curriculum and beyond. We provide a coherent, structured Mathematics curriculum that leads to a sustained mastery and a greater depth of understanding of the mathematical skills. All children will have the opportunity to apply their knowledge of the key concepts to solve unfamiliar word problems, undertake complex reasoning and use appropriate mathematical reasoning.

At Bledlow Ridge School, we use The White Rose Planning scheme from Reception to Year 6 to structure and support our lesson design and delivery. We consistently use this across the school to ensure skills are progressive across each year group. The resources provide the children with opportunities to develop and deepen their understanding of mathematical procedures and key concepts. The learning sequences are organised in such a way that small, coherent steps are able to be taken to ensure our pupils have secure pre-conceptual understanding before introducing new skills. Teachers will use their professional judgement about when it is appropriate to move the class on.

Implementation

The Implementation of Teaching Maths at Bledlow Ridge School

EYFS Maths

In the statutory framework for EYFS, the focus of the teaching is on Number and Number Patterns. Children will be taught in a purposeful, practical way and they will use play and exploration to acquire the relevant mathematical skills to solve them.

A large majority of mathematical work is practical, and learning will happen in many different contexts around the classroom and outside. Some mathematical concepts will be teacher led and children can also freely explore these concepts through a variety of different activities and resources set up each day. Learning is repeated using different resources and representations to embed understanding.

At Bledlow Ridge School, the teaching and learning of Mathematics in our Reception class takes place inside and outside of the classroom through a wide range of well-planned, practical and hands-on activities. The staff use their strong subject knowledge to plan for a high-quality learning environment which provides lots of opportunities for children to explore a range of mathematical concepts in an open-ended way. These activities are planned with careful consideration of the current learning that is introduced in whole class Maths sessions, as well as providing opportunities for children to embed prior learning and challenge themselves to take their learning deeper. The children are keen to independently access and engage with these Maths activities.

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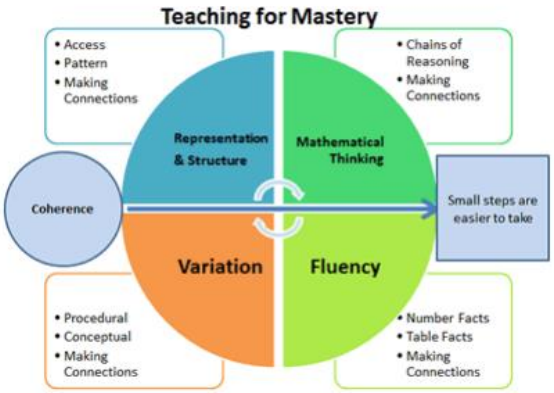
Mastering Number

Since September 2023, our children in Reception, Year One and Year Two have been working on the Mastering Number Programme delivered by the NCETM. This programme aims to build firm foundations of number sense. Through these sessions, our children develop their understanding, confidence and flexibility with numbers.

Mastery

The Mastery in Mathematics approach is characterised by the principles that all pupils are capable of achieving their potential in Mathematics and that pupils progress through the curriculum at the same pace. Differentiation is achieved by emphasising deep knowledge through scaffolding, intervening and individual support.



(NCETM - Teaching for Mastery - The 5 Big Ideas)

How Maths is taught at Bledlow Ridge School

We refer to the "5 Big Ideas" when we are designing and delivering our Maths lessons. These key principles provide opportunities for all pupils to achieve high standards in Maths whilst moving through the curriculum at the same pace. In lessons pupils have the chance to, either, consolidate and deepen their understanding by answering questions independently or have guided support and intervention if they are finding it more challenging. We plan small, guided steps throughout a lesson to ensure children have the preconceptual understanding needed before moving on to new learning. Our pupils are exposed to a wide range of representations, in the form of concrete and pictorial resources, alongside the abstract calculation to ensure their understanding is embedded and secure. When children are finding it more challenging to master a concept or skill, we use immediate intervening to ensure they are supported in securing the skill and are ready to progress to the next step in their learning.

Modelling

Throughout our lessons, teachers demonstrate high quality modelling skills for the children to mirror in their independent learning. Children are taught how to solve problems through explicit modelling of how to accurately use concrete resources, pictorial and abstract representations and key mathematical vocabulary to support them when mastering a skill or concept.

Questioning

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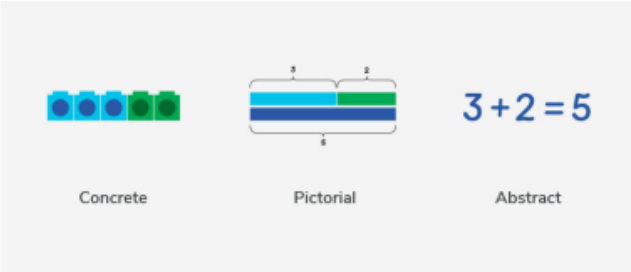
Questioning is recognised as an excellent tool for Assessment for Learning and our teachers carefully consider how they can use a variety of questioning strategies to assess their pupils as well as challenge them to think more deeply about their learning.

Concrete, Pictorial and Abstract model

The 'Concrete, Pictorial and Abstract' (CPA) model is embedded in our Maths lessons and is used as a continuous, fluid cycle to support, sustain and challenge our learners in their Maths lessons. The concrete stage is when learners use physical objects to support them to understand key Mathematical concepts. When using a pictorial approach, children will draw a representation or image to support them with their learning. The abstract element is solving problems using numbers and symbols. Our pupils are empowered to represent their thinking in a variety of ways using this model as a reference point.



Differentiation

Differentiation in Maths lessons at Bledlow Ridge School is achieved through pre-teaching sessions, well-planned scaffolds, and targeted intervening. All our pupils work as a class to achieve age related expectations and above in every lesson. In order for every pupil to be successful and able to access these tasks, our teachers plan for the misconceptions and barriers to learning that their class may have in a lesson and create scaffolds to support children with their independent learning. These scaffolds could be specific number facts that the children may need to use, they may be concrete manipulatives for the children, or a variety of different representations that suit our individual learners.

Challenge and Greater Depth

Following the Mastery approach to Mathematics, at Bledlow Ridge School, every child has the opportunity to challenge themselves within a Maths lesson. When children complete the main task of the lesson, challenge and 'Greater Depth' activities are planned for children to complete. These activities encourage children to apply their understanding from the main task to solve a problem or answer a question that encourages them to think more deeply about the concept. When working at Greater Depth, children would be expected to explain their mathematical thinking using key vocabulary, make sensible choices with methods and work systematically to solve a problem most efficiently.

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Impact

During the children's learning journey at Bledlow Ridge School, our intended impact of the Maths curriculum is to ensure that children:

- have a secure knowledge of number facts (including number bonds and multiplication tables) and a good understanding of the four operations.
- are able to use this knowledge and understanding to carry out calculations mentally and to apply general strategies when using one-digit and two-digit numbers and particular strategies to special cases involving bigger numbers.
- make use of diagrams and informal notes to help record steps and part answers when using mental methods that generate more information than can be kept in their head
- have an efficient, reliable, compact written method of calculation for each operation that pupils can apply with confidence when undertaking calculations that they cannot carry out mentally.