



Maths in Witchampton CofE First School

The National Curriculum aims to ensure that all pupils become fluent mathematicians, can reason mathematically and can solve mathematical problems.

Ofsted guidance for Outstanding maths teaching and learning states that pupils should:

- understand important concepts, make connections and apply what they know
- show exceptional independence, perseverance and confidence
- embrace learning from mistakes
- reason, generalize and make sense of solutions
- be fluent in mental and written calculations
- be accurate in mathematical language and symbols in their recorded work and in discussions
- be passionate and committed to maths

The new approach Witchampton C of E First School is taking in maths to meet the above criteria is based on 3 fundamental areas:

1. Identifying and addressing gaps in Key Skills in previous year group curriculums
2. Using the research from Bruner (Concrete, Pictorial, Abstract approach), Vygotsky (rich discussion & peer talk), Piaget (thinking processes rather than outcomes), Dienes (exploration before structure and a variety of methods) and Skemp (making links).
3. Offering all children Greater Depth opportunities

Maths No Problem Lesson Structure:

At Witchampton CofE First School we use the Maths No Problem (MNP) scheme. This approach to developing a mastery approach to mathematics develops pupils' mathematical ability and confidence without having to resort to memorising procedures to pass tests - making mathematics more engaging and interesting.

We split the class into year groups.

In Focus task

This begins each lesson. It allows children time to explore a concept. They are encouraged to use multiple methods and explain their thinking to one another as well as adults. As a class, we gather ideas before having an opportunity to return to math's journals to record additional methods/answers.

Guided Practice

Children can consolidate their understanding. This gives children further opportunity to work collaboratively.

Workbook:

Children then complete their workbook, independently. Children self-assess their work, by using mark sheets or calculators to mark their work, in pink and green pens.



Greater Depth:

There are always Greater Depth opportunities which are accessed after completing the workbook, by those who are able.

At the start of the year, we started to assess and address gaps using the Key Skills assessments. As soon as the Place Value gaps from previous year curriculums are secure, we quickly moved on to teaching the Age Related Expectations curriculum: Chapter 1 Place Value. Alongside this, we address any gaps in the Mental and then Formal methods of addition and subtraction, so that these are secure before we teach Chapter 2, Calculations. This process is continued with Multiplication and Division and Fractions – this being the last of the Key Skills.

Once all these Key Skills are secure, the other areas of the Math's curriculum is taught. The speed at which each class moves through this process depends on the needs of the children in the class. In Year 2, before moving onto Fractions, we cover word problems, to further consolidate and apply key skills of addition and subtraction.

Teachers and children will be continuously assessing the learning and any misconceptions are addressed during the lesson or as soon after as possible. Pace will be rigorous, but with attention to addressing misconceptions before moving on.

Teachers regularly update a Math's Tracker to identify and address gaps in children's learning. They use the children's books, their knowledge of the children, key skills assessments and Chapter Reviews from the MNP scheme to inform the tracker. This enables teachers to identify children's gaps which are then addressed in interventions or in class as needed.

In all year groups five lessons a week have been allocated for Maths. These go alongside interventions which are carefully planned to address each child's specific needs.

Times tables:

Children in Year 2 upwards will be taking times table challenges, which will enable them to build their fluency and speed, to ensure they are proficient to up to 12 x12 by the time they leave Witchampton CofE First School. They move through the times table challenges at their own pace, ensuring they are fluent in one times table before moving to another. These challenges occur regularly, depending on the needs of the class.

Maths in EYFS:

In Early Years Foundation Stage, children are taught Maths discreetly. In addition to this, children have open access to maths resources in their independent learning areas, both inside and outside. To ensure a smooth transition into Maths No Problem in Year 1, elements of the approach are included in the Foundation Stage, with children using some equipment and formats that are also used in Year 1, such as tens frames and 'part part whole' diagrams. Teachers use Maths No Problem style questions, such as 'Is there another way?' and 'How do you know?' Teachers have attended moderations and training to find out more about the approach.



Transition

Teachers work closely with middle school colleagues to ensure a smooth transition for students moving to Year 5. The middle schools within the Trust have access to the Year 4 assessment trackers. We also meet with the Middle School Math's Leads to complete a thorough handover in the summer term.

Middle Schools outside of the Trust also come into school to meet with the Year 4 class teacher and children to ensure important information is handed over in the summer term.