

How we teach Maths at High Littleton Primary School

We believe that mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. Our high-quality mathematics education aims to develop a love of mathematics, an understanding of its relevance in the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Our aim is that children will become **fluent** in the fundamentals of mathematics; will be able to **reason** mathematically using correct vocabulary; and **solve problems** by applying their mathematics to a variety of routine and non-routine problems.

How we organise and sequence our Maths learning

Each lesson is based on a **threshold concept** ie.

- number and place value,
- addition and subtraction,
- multiplication and division,
- fractions, decimals and percentages,
- measurement,
- properties of shapes,
- position and direction,
- statistics,
- ratio,
- proportion,
- algebra



Long Term Planning

We use the **White Rose Schemes of Learning** as a starting point and adapt them to suit the needs of our pupils if required.



Unit Planning

For each unit, we use the **Small Steps from White Rose**. We make links and connections between units whenever possible and where appropriate. We also make use of a range of extension resources including **I See Reasoning** to support our teaching of reasoning and problem-solving. All children will have opportunities to tackle R&PS questions each day.

EYFS use White Rose schemes of learning, planning a blend of adult led and child initiated learning, enabling an environment where children are given the opportunity to further explore mathematical concepts through use of manipulatives and independent discovery time. Staff observe, use and model correct mathematical language which children use in their own exploration. Any misconceptions are addressed at the point of learning, developing positive relationships. Additional opportunities are used for developing mathematics throughout the day including the use of tuff spots (related to White Rose Small Steps) incorporating both the indoor and outdoor environment, counting, chanting and singing number rhymes. Maths is contextualised and made real and relevant to the children and their own experiences e.g., number seen on front doors, counting accurately how many milks are needed, etc. Numberblocks series used as additional resources to further consolidate learning objectives. YR are given their own DoodleMaths account the first week they begin school full time. Progression is tracked through observations and end of block checkpoint activities.

Structure of a Lesson

Lessons begin with opportunities for children to **recall** prior learning using **Flashback 4** which takes children back to previous lessons/weeks/terms/years learning.

Teachers' questions explore misconceptions from the previous lesson. Sentence stems promote vocabulary.

We have an 'I do, we do, you do' approach to our teaching of maths.

We use a Concrete Pictorial Abstract approach throughout our schemes of learning.

We provide opportunities for more able pupils to explore mathematical concepts at a deeper level, while making sure no child falls behind.

TAs support specific children/ groups by using a range of manipulatives to reinforce learning. This happens during whole class teaching and independent learning.

I See Reasoning is used to provide extension to our lessons for children who are ready to deepen their understanding of the concepts taught.

Assessment and Feedback

Formative assessments take place during the lesson at the point of learning when teachers offer live feedback and marking to both individuals and the whole class. Teachers will use these opportunities to model a range of approaches to solve questions efficiently and systematically. Children will mark their own work using purple pens and any misconceptions will be corrected as well.



Summative assessments happen in years 1, 3, 4, and 5. NFER assessment will be used three times per year in Term 2, Term 4 and Term 6.

In years 2 and 6, SATs papers will be used during Term 2, 4 and the summer terms. This data allows teachers and senior leaders to track progress and this informs next steps for lessons and interventions.

Additional Learning

Interventions are bespoke to each class and will be designed in collaboration with Teachers and TAs. The Power of 1 & 2 is used for specific children on a 1-1 basis. Fluency Bees is used in KS1 to support children with the 'phonics of maths' building solid foundations and confidence in number.

White Rose Infinity is used in a range of ways to support learners. It can be used as a tool for pre-teaching; extension; intervention; consolidation; and building confidence and independence.

I Can Do Maths is used daily in upper KS2. Through differentiated, daily practice we provide opportunities for revisiting and recalling prior learning in a range of concepts whilst allowing children to improve mental arithmetic. Feedback, marking and misconceptions are addressed each week. teaching for whole-school success in numeracy.



A clear progression of **multiplication facts** is planned so that children can become fluent and confident before moving on to learn new facts.

Home Learning

Children are encouraged to use Doodle Maths and Doodle Tables regularly to improve their recall, fluency and reasoning skills. In addition, specific assignments are allocated to reinforce learning completed in school.