

Maths at Wilbarston

Maths- The Curriculum

Maths plays a central role within the curriculum at Wilbarston and is fundamental to our wider trust mission of creating an aspirational, knowledge-rich curriculum for our pupils. We aim to provide a high-quality mathematics education which will provide a foundation for understanding the world, to develop an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. Maths at Wilbarston is underpinned by methodical, coherent, curriculum design created by White Rose and supported by carefully crafted lessons and resources to foster deep conceptual understanding and procedural knowledge. The curriculum design enables children to build on their previous learning in each new step in their learning journey. As a result of the of the accumulation of essential knowledge and skills our pupils will leave our school as confident, resilient mathematicians, demonstrating conceptual and procedural fluency, with the ability to reason mathematically and efficiently solve problems. Effective Maths is delivered weekly in order to support children's fluency with number. In KS1 the NCETM Mastering Number program is delivered to encourage children to gain a deeper understanding of place value and number bonds.

At the end of Foundation at Wilbarston School:

Children count confidently and have a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. Children will have developed their spatial reasoning skills across all areas of mathematics including shape, space and measures and will have positive attitudes and interests in mathematics.

At the end of Key Stage 1 at Wilbarston School:

Pupils have developed their confidence and fluency with whole numbers, counting and place value. Pupils work fluently with number facts to 20 and have explored all four operations. Pupils describe properties of shapes, and also compare and describe different quantities such as length, mass as well as time and money.

At the end of Key Stage 2 at Wilbarston School:

Pupils have extended their knowledge of the number system and place value to larger integers. Pupils make connections between fractions, decimals, percentages and ratio. Pupils use efficient written and mental methods for calculation when solving problems. Pupils also use mathematical vocabulary correctly, when articulating and explaining how they solved the problem.

Pedagogy: How the curriculum is Taught

Within our Maths curriculum we have the following elements:

Whole class teaching is in mixed attainment classes and in mixed attainment learning partners. We work with the assumption that all pupils can achieve a high standard in mathematics. Pupil work is not differentiated by task. Instead, children who require more support are provided with additional structures to enable them to access the learning (such as working with concrete resources for longer or being provided with focused pre-teaching or same day intervention) There is a big focus on developing children's mathematical vocabulary and language. Teachers use whole class chorusing, stem sentences and repetition of key words and sentences to ensure pupils develop fluency with using mathematical vocabulary and develop precise explanations. Fluency has dedicated teaching time, where the focus is on developing automaticity with number facts, and applying number facts to mental arithmetic strategies as well as formal arithmetic procedures. The focus of fluency lessons is on efficiency, accuracy and flexibility. Pupils are encouraged to notice the numbers before beginning a calculation, and to identify patterns, relationships or structures which may lead to an efficient calculation strategy. Children who grasp concepts quickly will be challenged to think about particular aspects more deeply and to work on more complex problems within the same curriculum content.

Assessment

At the start of each White Rose unit children complete an assessment. The children then complete another at the end of each unit to check for progression. Regular retrieval practise is used through our Flashback 4 activities and the use of live marking and feedback allows for misconceptions and errors to be dealt with. PiXL assessments are completed each term.

Cultural Capital

Enrichment, is an essential part of the Wilbarston Maths Curriculum which provides pupils with extended time to focus and deepen their learning.

We use a multi-faceted approach to enrichment within Maths:

- Celebrating NSPCC Number Day
- Mastering Number NCETM
- Times Tables Rockstar Tournaments
- Extra curricular trips e.g. Bletchley Park, Enigma Machine

Career Professional Development

We develop strong subject knowledge amongst all staff which is achieved through; comprehensive middle leadership development, a focus on developing all teachers' subject knowledge and Maths pedagogy. All staff benefit from implementing the high-quality planning resources provided by White Rose yet amended to meet the needs of all pupils. Below is a summary of the CPD activities bespoke to Maths:

- Learning walks and feedback
- Team teaching
- Effective Maths training
- Mastering Number CPD