

Intent

At William Stockton and Wimboldsley Primary Schools, we aim to develop life-long mathematicians equipped with the skills, enthusiasm and resilience to overcome the challenges they encounter throughout their education and life beyond.

At William Stockton and Wimboldsley Primary Schools, we recognise the importance of building long lasting learning through an ambitious connected curriculum accessible to all pupils in our school. It builds on the progressive acquisition of mathematical knowledge and skills. We also recognise that mathematics is the building blocks to understanding how the world works. Children will be able to explore how mathematics affects them in their everyday lives, learn skills that enable them to reason about both physical and abstract problems and then use these skills in their interconnected subjects.

Interconnected links are made between different subjects that the children are learning, which means that they see maths with a real purpose and use this to help develop strong and meaningful schema to help them to know more and remember more.

Throughout our curriculum we believe that, the children should be able to:

- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas.
- Make real-life connections between mathematical concepts by making links to real life situations.

Implementation

In Nursery and Reception we explore maths focussing on each number individually and learning everything about that number. From Year 1 to Year 6, our curriculum follows the Power Maths scheme, and builds progressively each year to deepen understanding. Across the school, new mathematical concepts are introduced using a 'Concrete, Pictorial and Abstract' approach; enabling all children to experience hands-on learning when discovering new mathematical topics. This also ensures that mathematics lessons are accessible to all learners in our school.

We use a range of varied fluency questions to allow children to become secure with a new strategy and solve a range of problems.

When solving problems, children use the term VP (Vocabulary, Prove it) to help them develop their understanding and explanations of mathematical problems using consistent, precise mathematical vocabulary in order to consolidate their understanding. Children are encouraged to reason, and explain their mathematical thinking from when they start school.

Maths is connected to real-life experiences wherever possible to allow pupils to make links between their wider world. Children are encouraged to use the outdoor environment to support their mathematical learning.

Impact

Children will develop a passion for mathematics; enjoying their lessons and approaching the challenges they face with confidence.

By the end of Year 6, we aspire that all children will have developed a bank of efficient mathematical skills that will allow them to calculate effectively. Our skills will have been underpinned by our 'Concrete, Pictorial, Abstract' approach so that children fully understand their chosen strategy.

- Children will understand the importance of maths in their secondary education and life beyond.
- Children will be engaged in maths lessons and have developed a resilience for problem solving.
- Children will develop strong mathematical schema and see the relationship between other subjects and maths.
- Our structured conversations allow children to make great progress, whilst providing on the spot feedback to address any misconceptions.
- Children will be able to use different representations of mathematical concepts.