Maths

Intent
When teaching Mathematics at The Horsell Village School, we intend to provide a curriculum which caters for the needs of all individuals. We ensure that the curriculum design allows for small secure steps and acknowledges the importance of the children being secure and fluent in a concept before moving on to the next level. We incorporate sustained levels of challenge through high quality activities which make our children think. Our Maths curriculum places a focus on fluency, reasoning and problem solving through the Maths Mastery approach. Pupils are required to explore and investigate Maths in depth, using mathematical vocabulary to reason and explain their workings. We encourage children to explore a wide range of mathematical problems demonstrating fluency and understanding by acknowledging and explaining that mathematical questions may have multiple answers and that incorrect answers are as important as correct answers. Our classroom learning walls reflect the learning that is taking place in the classroom. A wide range of mathematical resources are used in lessons and pupils are taught to show their workings using concrete materials, before establishing ways of pictorially and formally representing their understanding. Pupils are encouraged to explain their mathematical thinking and develop their mathematical reasoning skills through questioning and modelling. We encourage children to respond positively to challenge, developing resilience in all aspects of maths learning as well as self-reflection in order to identify next steps in their learning. There is a Number focus in day-to-day teaching and learning as we want pupils to develop confidence and mental fluency with whole numbers, counting and place value; the thread that runs through the teaching and learning of the four operations. We use the Mastering Number program from NCETM (National Centre for Excellence in the Teaching of Mathematics) to embed number sense. As much as possible, we aim to make purposeful Maths links across the school curriculum so that children's learning is in context, is purposeful and links to everyday life experiences.
Implementation
Our curriculum is shaped by our school vision which is that our children will be happy, secure and confident individuals that ask questions, challenge thinking and are motivated to learn. Our children will be active and engaged learners, experiencing a first-class education with a high achievement culture. We teach the National Curriculum, supported by a clear skills and knowledge progression document. This ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children. We use White Rose Maths scheme as a basis for our planning and staff will adapt these to suit the needs of our children. We have access to Numicon Firm Foundations to enhance our learning experiences. All staff follow the school's calculation progression document when teaching the 4 operations. Maths opportunities (e.g. Shape, measure, data handling) are built into the curriculum and purposeful links are made. The subject progression document which reflects the National Curriculum for Mathematics is followed by all year groups to support planning and ensure curriculum coverage. Children have access to maipulatives in lessons to support their understanding and these are used before we move to pictorial methods.

A progressive approach to child self-selection of challenges is introduced as the children move through the school. Support is determined during each lesson to ensure secure understanding based on the needs of the child.

Impact

Curriculum

Clear progression of children's knowledge and skills across the school.

Children are able to talk about and employ the resources that help them with their Maths learning and can select the resources they need with increasing independence and confidence.

Reasoning – Developing the ability to explain why they have done something and presenting their working out in a variety of ways. To understand that a 'null' result is as important as a 'correct' result.

Comprehension – Using a variety of mathematical vocabulary and stem sentences in order to explain clear thinking and using the vocabulary in context.

Skills for Life

Teamwork and listening skills – Working collaboratively to discuss and solve a problem and listening to their peer's methods to solve a problem.

Persistence and resilience – Using different methods to overcome a problem and understanding that there are a variety of methods to reach the desired outcome.