

Maths 2021-2022

Intent

When teaching Mathematics at The Horsell Village School, we intend to provide a curriculum which caters for the needs of all individuals. We intend to deliver a curriculum that allows pupils to be part of creative and engaging lessons. 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 step. We incorporate sustained levels of challenge through high quality activities which make 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. 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.

As much as possible, we aim to make purposeful Maths links across the school curriculum so that children's learning is in context and links to everyday life experiences.

Implementation

Our whole 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. We follow the Learning cycle in all our lessons where children will develop inquisitive minds, creative thinking and problem solving skills. Our children will be active and engaged learners, experiencing a first-class education with a high achievement culture.

In EYFS, we follow the Development Matters curriculum and in KS1 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. As a school, we place emphasis upon a Mastery approach and are currently taking part in NEHS (North East Hants and Surrey) Maths Hub, NCETM "Mastering Number Programme." In addition to daily Maths lessons, children take part in daily sessions following the planning provided by the NCETM. Fluency and accuracy of key mathematics number skills are developed during these sessions and provide an opportunity to revisit and review misconceptions and deepen previously taught criteria.

We follow the White Rose Maths Schemes of Learning and will supplement this with resources from NCETM Mastery Documents and Spines, Maths No Problem and Power Maths. We 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. Children are equipped with the skills to recognize shapes, and their properties and measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

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.

Our classroom learning walls reflect the learning that is taking place in the classroom and promotes reasoning questions. 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.

Impact

Curriculum

A variety of methods are used to find out what the children know and understand. Lesson activities are scaffolded to suit the different abilities and learning styles. Maths lessons allow for collaborative learning and thus encourage children to talk in pairs, small groups or through class discussion, to share learning. For those children who grasp concepts rapidly, they will be challenged through a range of problems, whilst those not sufficiently fluent will be provided with opportunities to consolidate their understanding through additional practice and first response intervention. Children's understanding of taught concepts will be assessed using end of block assessment tasks which provide opportunities for children to demonstrate their understanding fully. Evidence of the children's learning journey through each Maths topic will be recorded in Maths books, working walls and assessment folders.

We use Maths learning checklists that are differentiated for each lessons. Children in the EYFS will be assessed against the Early Learning Goals and Children in Year 2 will be assessed against the End of Year 2 Assessment Framework. Children across the school are using stem sentences to explain their knowledge and reasoning.

Maths monitoring includes learning walks and/or lesson observations, book looks, pupil voice interviews in order to ascertain correct curriculum coverage, the quality of teaching and learning as well as the children's attitudes to and retention of Maths learning. This information is then used to inform further curriculum developments and provision is adapted accordingly.

Skills for Life

During our Maths lessons we develop:

- 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.
- Self-motivation – expressing a desire to know more, learn more and do more whilst displaying independence with approaches to aspects of the lesson.