Mathematics at Windmill Hill Academy







At Windmill Hill Academy we endeavor to teach our children a rich and progressive curriculum. We believe that Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems.

In our school we use a teaching and learning approach, where all children are encouraged to succeed and are challenged every day. Our teachers deliver high-quality maths teaching to encourage children to become "numerate, creative, independent, inquisitive and confident" people.

We use a range of concrete sources and images and endeavor to make real life links to make sure that all children:

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 in a variety of problems

reason mathematically by developing their mathematical thinking- conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

can 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 smaller steps and showing tenacity in seeking solutions

develop confidence to approach challenges, considering what they already know or what they notice, and broaden their and broaden their own understanding through selecting different representations and aiming to apply efficient methods.

The National Curriculum for primary mathematics has three aims that are at the heart of how we interpret the content of the curriculum.

• Conceptual understanding

In developing children's skills through enhancing their factual, conceptual and procedural knowledge, we allow them to deepen their mathematical understanding and be able to apply what they know to help them to solve problems.

• Mathematical reasoning

The progression and development of mental calculations and efficiency in strategies will provide children with the skills which will allow them to communicate and present their findings effectively using appropriate mathematical language.

• Problem solving

At Windmill Hill Academy, Mathematics is integral to all aspects of life and it is with this in mind that we endeavour to ensure that children develop self-confidence in their ability to approach a range of mathematical problems.

By taking a 'mastery' approach to teaching and learning and providing opportunities to apply their mathematical skills in different contexts and across a range of subject areas, children will be able to work systematically to organise information, find patterns and ultimately solutions through independent and collaborative learning.

Teaching of Mathematics follows the National Curriculum and reflects changes introduced in 2014 for Key Stages 1 and 2 and the Curriculum for EYFS.

Assessment

- In the EYFS, children's achievements are on-going and are assessed against the Early Learning Goals.
- Children are assessed according the end of year age related expectations as set out in the new curriculum.
- Assessment for learning is well established throughout the school and the use of questioning, observation and marking will continue to be key parts of formative assessment. KS2 pupils will also complete half termly formative assessment papers.
- Statutory assessments take place at the end of Year 2 and Year 6.

Monitoring

Mathematics is led by a subject lead teacher. A governor has specific responsibility for mathematics and the leader will update the curriculum governors on priorities and progress. Monitoring is delivered by the subject leader, WHA SLT and An Daras MAT leaders and representatives.

Moderation takes place within the school and across the An Daras MAT.