

A maths mastery curriculum at Hodge Hill Primary School

Our Maths philosophy.

When teaching Maths for mastery, the whole class moves through topics at broadly the same pace. Each topic is studied in depth and the teacher does not move to the next stage until all children demonstrate that they have a secure understanding of mathematical concepts.

Pupils are given time to think deeply about the maths and really understand concepts at a relational level rather than as a set of rules or procedures. This slower pace ensures that students are secure in their understanding and teachers don't need to revisit topics once they've been covered in depth.

Teaching maths for mastery offers all pupils access to the full maths curriculum. This inclusive approach, and its emphasis on promoting multiple methods of solving a problem, builds self-confidence and resilience in pupils.

Though the whole class goes through the same content at the same pace, there is still plenty of opportunity for differentiation. Those pupils who grasp concepts quickly are challenged with rich and sophisticated problems within the topic. Those children who are not sufficiently fluent are provided additional support to consolidate their understanding before moving on.

Resource materials to ensure progression and challenge

At Hodge Hill Primary School we use a number of resources to plan our Maths curriculum.

- Maths No Problem
- White Rose
- NCETM
- Testbase
- Nrich

These resources ensure that our pupils are truly fluent within their year group National Curriculum objectives and are confident at reasoning and problem solving within these objectives.

How we develop a deeper understanding through our maths teaching.

Concrete, Pictorial, Abstract (CPA) is our key approach to teaching pupils a deep and sustainable understanding of maths.

Concrete step of CPA

Concrete is the "doing" stage. During this stage, students use concrete objects to model problems. The CPA approach brings concepts to life by allowing children to experience and handle physical (concrete) objects.

Pictorial step of CPA

Pictorial is the "seeing" stage. Here, visual representations of concrete objects are used to model problems. This stage encourages children to make a mental connection between the physical object they just handled and the abstract pictures, diagrams or models that represent the objects from the problem. Building or drawing a model makes it easier for children to grasp difficult abstract concepts (for example, fractions).

Abstract step of CPA

Abstract is the "symbolic" stage, where children use abstract symbols to model problems. Students will not progress to this stage until they have demonstrated that they have a solid understanding of the concrete and pictorial stages of the problem. The abstract stage involves the teacher introducing abstract concepts (for example, mathematical symbols). Children are introduced to the concept at a symbolic level, using only numbers, notation, and mathematical symbols (for example, +, -, x, /) to indicate addition, multiplication or division.