

Herons' Moor Academy

Intent – Mathematics

I am a mathematician. I am curious and wish to solve problems but I know the answer is only the beginning. I recognise that getting stuck is part of problem-solving and that it helps me develop the resilience and strategies to persevere.

In order to become fluent in recognising, representing and communicating about mathematical concepts, I actively explore and analyse them through talk with others; making conjectures, justifying my ideas and generalising from specific examples to create an increasingly efficient and connected understanding. I apply this understanding and mathematical habits of mind to find patterns that help me break into, make sense of and break down novel problems to find solutions.

I reflect on what I have done to improve my strategies, collaborating with others to construct a shared understanding that increasingly helps us to make sense of the world, giving us enjoyment, agency and a sense of self and place.

At Herons' Moor Academy we have a mastery approach to the teaching of Mathematics. It is a core concept of our approach that all children can achieve in Maths. We believe this can be accomplished by promoting sustained and deepened understanding of key concepts through a variety of Mastery strategies.

The Mastery approach provides all children with full access to the curriculum, enabling them to achieve confidence and competence in Mathematics as well as giving them regular opportunities to explore their Mathematical thinking at a greater depth.

Our Mathematics curriculum from Nursery to Year 6 uses small steps to build cumulative skills and knowledge through a range of fluency, problem solving and reasoning tasks.

Key features of our Maths Mastery curriculum:

- High expectations for every child
- Fewer topics; greater depth
- Number sense and place value come first
- Objects and pictures always before numbers and letters
- Calculate with confidence– understand why it works

We aim to create independent mathematicians who are well equipped to apply their learning to the wider world.

Implementation – Mathematics

Curriculum

At Herons' Moor we use the Curriculum Prioritisation materials to plan our lessons. This ensures that the curriculum we provide the children with focuses on the key knowledge and skills they need to make progress and builds on prior knowledge.

We supplement this in Reception, Year 1 and Year 2 with the Mastering Number programme to ensure children leave Key Stage 1 with a secure understanding of number.

Children in Years 3 and 4 follow the FunKey Maths to build their fluency in multiplication and division facts.

Assessment

Teachers formatively assess children throughout lessons and units of work, addressing misconceptions and planning for these accordingly. We focus, not only on key knowledge, but also assessing children as mathematicians using our Reasoning Rubric, focussing on the key mathematical skills of analysing, conjecturing & generalising, convincing, justifying & proving. Summative assessments are undertaken at the end of Reception (statutory EYFS profile), Year 2 optional SATS, in Year 5 in preparation for Year SATS and in Year 6. Years 1, 3 and 4 moderate their teacher judgements alongside colleagues from the next year group and facilitated by a member of the Maths team. Children's progress is updated on the CLF tracking DOOYA system throughout the year and monitored through pupil progress meetings with SLT.

Wider opportunities

We engage in the CLF Big Day of Maths once a year where we promote the learning behaviours of a mathematician.

Impact – Mathematics

2022- 2023

EYFS –

KS1 – 77% expected, 20% greater depth

Y4 MTC - 22.3 average, 50% full marks

KS2 – 82% expected, 18% greater depth