

Vision Statement for Mathematics

At Moss Valley Primary Academy, we aim to develop in children;

1. A positive attitude to mathematics and an enjoyment of the subject
2. An understanding of mathematics through a process of enquiry, reasoning and problem solving and application of skills
3. A range of learning strategies working both, collaboratively and independently
4. Confidence to express ideas fluently and use mathematical language
5. An understanding of the importance of mathematics in everyday life and in their futures

These aims reflect and are in line with our school values:

- RESPECT – valuing opinions of peers when working collaboratively
- RESILIENCE – rising to challenges and applying skills in problem solving
- HARDWORKING – enjoying mathematics and showing good behaviours for learning
- INDEPENDENCE – being confident in their knowledge and knowing the strategies they need to succeed

Mathematics National Curriculum Focus

The National Curriculum is a mastery curriculum. The emphasis is on depth and challenge rather than accelerating through the content.

All children should become fluent in the fundamentals of maths through varied and frequent practice.

Children develop their conceptual understanding and the ability to recall facts and apply that knowledge rapidly and accurately.

Children will be able to reason mathematically by following a line of enquiry, developing an argument, justification or proof using mathematical language.

Children will be able to solve problems by applying their mathematics to a range of problems. They will be able to break the problems down into smaller steps and persevere when seeking solutions.

Children who grasp concepts quickly will be challenged through new, increasingly complex problems and be encouraged to explain their reasoning.

How is Mathematics taught at Moss Valley Primary Academy?

Early Years

In Early Years, the environment provides opportunities for the children to develop a deep understanding of mathematical concepts as they learn through play and exploration. Activities are developed from the government's Development Matters guidance, with the aim being that the children achieve the Early Learning Goals in Mathematics by the end of Reception. In Reception, children will begin Power Maths lessons. Children will participate in discover, think together and challenge tasks. They will also have Power Maths Journals to record their work. Progress and attainment in mathematics is measured through both focus tasks and observations.

Years 1-6

In Years 1-6, the Power Maths - White Rose Edition - scheme is implemented to plan and deliver the Mathematics Curriculum. Mathematics is taught in content blocks, which allows children to gain a deep understanding of each concept taught. The small steps for progression in each block ensure that the children master a skill and can apply it through problem solving and reasoning. This ensures all children are challenged and supported and can succeed in maths lessons. The steps of progression link to the calculation policies which outline concrete, pictorial and abstract methods for all four operations of number. These policies show progression through year groups and recommend resources to aid teaching and learning. Progress and attainment in mathematics will be measured using termly Pixl assessments as well as half termly teacher judgements. Question level analysis will be used to inform future planning and highlight misconceptions which will be addressed through targeted interventions.

Flexible Approach to Curriculum Planning

Our mathematics prioritizes the balance between strategic curriculum planning and the necessity for flexibility in response to student needs. We uphold a mastery approach, recognizing that some concepts may require additional time for students to master fully. In ensuring that all students receive a broad and balanced curriculum, we conduct regular reviews of delivered content at the end of each term, making amendments to future sequencing as necessary to ensure that nothing is missed. Additionally, we have decided to deliver non-number content on a weekly basis, deviating slightly from the Power Maths approach. This decision is informed by the unique context of Moss Valley, where we identified the need for more regular repetition of concepts to enhance student retention. Our commitment to adaptability and balance ensures that every student has the opportunity to excel in mathematics.

What is Power Maths - White Rose Edition?

Power Maths - White Rose Edition – is a mastery scheme which is fully aligned with the White Rose schemes of learning from Y1 to Y6 and follows maths mastery guidance from the DfE and the NCETM (National Centre for Excellence in the Teaching of Mathematics).

The Power Maths mastery approach is about the children developing a real understanding and a richer, deeper learning of concepts above speeding through content. It is a whole-class approach which sees all children learning the same concept in small, cumulative steps, each finding and mastering challenge at their own level. In mastery maths, EVERYONE can do maths! Those who grasp a concept easily have time to explore and understand the concept at a deeper level. The whole class moves through the curriculum at broadly the same pace.

How are basic skills promoted at Moss Valley Primary Academy?

In addition to Mathematics lessons, all children in Year 1-6 spend one hour a week practising number fluency. Our fluency sessions are designed to develop the recall of basic number facts. This might include: number bonds, multiplication, division or number facts. Our Long Term Mathematics Fluency Plan shows which facts children need to learn in each year group, in each half term. Some of the teaching tools used in our fluency sessions are:

- Fast Maths
- Rapid Recall Boards
- Times Tables Rock Stars
- Concrete equipment – counters, tens frames, place value charts etc.

We believe that if children know their number facts, they will be able to delve deeper into mathematical concepts and solve problems more efficiently.