



Mathematics at Meir Heath Academy

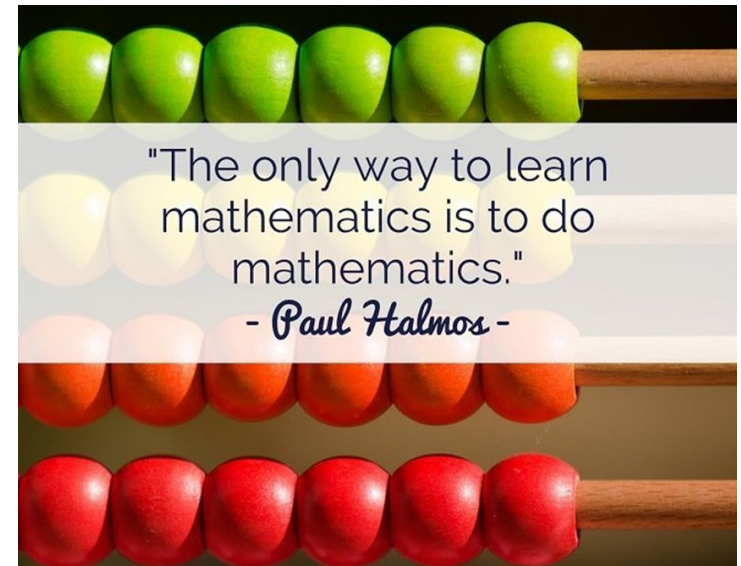


Vision and Intent

At Meir Heath Academy we believe that mathematics is essential to everyday life.

Teaching our pupils mathematics equips them with a powerful set of tools with which to understand and contribute to their world. These tools include logical reasoning, problem-solving skills and the ability to think in abstract ways. It can stimulate moments of happiness and wonder when a child solves a problem for the first time, discovers a more efficient solution to a problem or suddenly sees hidden connections.

Our intention and implementation has been developed as a result of the National curriculum recognising maths as a mastery subject, and outlines how we at Meir Heath Academy will deliver a consistent approach to the teaching of mathematics across the school.





AIMS

- * We aim to develop children who:
- * Have a positive attitude towards mathematics, becoming mathematical risk-takers and develop an awareness of the fascination of mathematics.
- * Are able to use and apply mathematics across the curriculum.
- * Understand the relevance of their learning in mathematics to real life situations.
- * Are competent and confident in mathematical knowledge, concepts and skills.
- * Have the ability to solve problems, to reason, to think logically and to work systematically and accurately.
- * Are able to carry out practical activities involving calculation, measurement, shape, data handling and money.
- * Develop an understanding of mathematics through a process of enquiry and experiment.
- * Are able to communicate mathematics.

Curriculum and Implementation

Through careful planning and preparation we aim to ensure that throughout the academy the children are given opportunities for:

- * Problem solving and reasoning activities
- * Practical investigations
- * Mathematical songs and rhymes
- * Open and closed tasks
- * A range of methods of calculating
- * Number fluency

Our staff have high expectations of all children and encourage them to be successful and achieve their full potential.

Differentiation is seen in maths lessons through varying levels of support and scaffolding through the CPA approach.

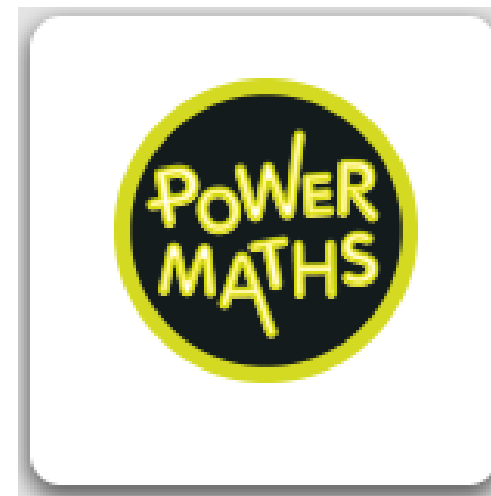
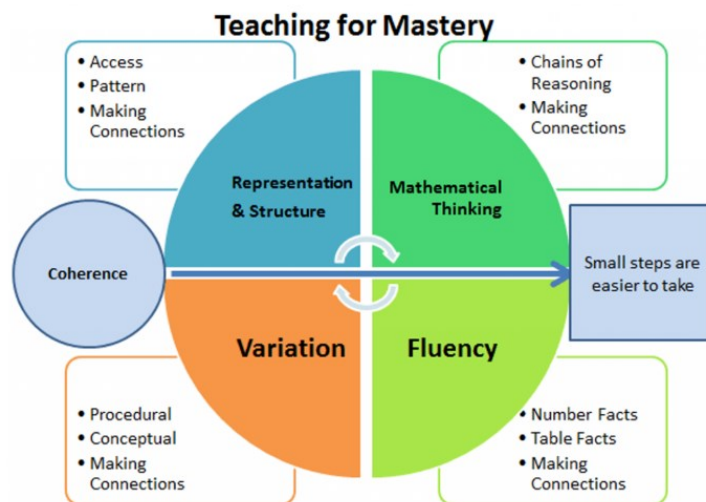


Curriculum and Implementation

Long term planning will include all of the programmes of study from Curriculum 2014. We have chosen to use the DfE approved Power Maths scheme of learning as our long term plan in maths across all phases. The scheme follows a mastery approach and develops declarative, procedural and conditional mathematical knowledge.

Power Maths is structured to enable us teach concepts for longer and to go deeper. For each year group, the curriculum strands have been broken down into core concepts. These are taught in blocks of lessons so we can give

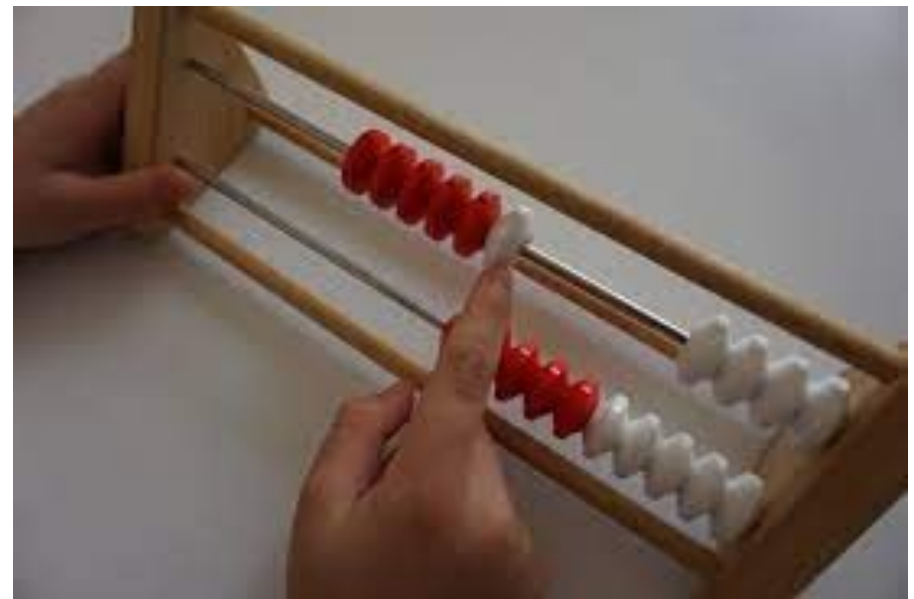
sufficient time to developing a deep and sustainable understanding of core maths concepts. Each concept has also been broken down into small steps (lessons). Each lesson and concept builds on prior knowledge to help children build a robust and deep understanding of the concept before moving on .



Planning in EYFS

Children in the foundation stage will be provided with opportunities for:

- * Child initiated learning in maths within all areas including role –play and outdoor provision
- * Provided with daily discrete maths sessions following The Power Maths Scheme of Learning
- * Develop number sense (counting, cardinality, composition and comparison) through the Mastering Number project (NCETM)
- * Sing songs and rhymes to remember KIRFs
- * Learn maths through a hands- on approach to problem solving
- * Have the opportunity to learn the next step as stated in the revised EYFS curriculum.



Number Fluency

At MHA, we believe that developing a strong sense of number, and understanding of number facts, will equip children with ability, agility and declarative knowledge to make connections across mathematical concepts and apply their thinking in a range of contexts. In addition to the daily maths lesson, children will be given daily opportunities to practice, rehearse and apply their number skills. In EYFS and KS1, this will be through the daily Mastering Number programme as well as through songs and rhymes. In Years 1-6, all children will have access to Times Table Rock Stars and daily practice of arithmetic skills and key instant recall facts.



Key Instant Recall Facts (KIRFs)

KIRFs are designed to support the development of mental maths skills that underpin much of the maths work in our school. They contain number facts such as number bonds and times tables that need constant practise and rehearsal, so children can recall them quickly and accurately.

Children in Years 1-Year 6 will focus on a set of KIRFs to practise and learn at home for the half term. They will receive a copy to keep in their homework book and practise at home. The KIRFs include practical ideas to assist your child in grasping the key facts and contain helpful suggestions of ways in which you could make this learning interesting and relevant. They will be practiced daily, and tested weekly, in school.



Times Table Rock Stars

Your child's username and password can be found on the sticker in the front cover of their homework book.



Assessment



Assessment at EYFS

EYFS assessment of children is carried out through a range of methods including observation and specific assessment activities which are used to inform each individual's progress and identify gaps in learning. A summative assessment of progress will be completed each half term.

Assessment at Key Stage 1 and 2

Assessment for Learning (formative)

Each teacher is responsible for monitoring the progress of pupils during maths lessons, sharing this information with children and using it in future lessons to maximize progress. This may be through:

- Guided teaching and independent tasks

- Observation

- Self, teacher and peer assessment

Summative Assessment

- Power Maths progress tests will be completed at the end of each 6 week block of learning

- An end of the year, assessment will be completed using Power Maths End of Year Assessments.

- KIRFs will be tested weekly

- Arithmetic tests will be completed every week