

# Mathematics Policy

## Meir Heath Academy



**Approved by:**

Mrs. M Southern

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## **Introduction**

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 Policy 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.

## **Objectives**

- To make the teaching of mathematics fun, practical and relevant
- To teach through a mastery approach in all lessons by providing opportunities for problem solving and reasoning
- To teach the declarative, procedural and conditional knowledge needed to be successful in maths
- To teach through cross-curricular links at regular opportunities
- To set appropriate challenges for all levels, with high expectations of all

### **Teaching and Learning**

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 eg. Mental, jottings, informal and formal written methods.
- Develop number fluency

### **Differentiation**

Our staff have high expectations of all children irrespective of ability 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.

### **Planning at Key Stage 1 and 2**

Long term planning will include all of the programmes of study from Curriculum 2014.

Medium term plans will take a mastery approach based on the Power Maths Scheme of learning. Children in EYFS, Y1 and Y2 will take part in daily NCETM 'Mastering Number' sessions.

Weekly plans will follow the structure of the Power Maths Scheme of learning, providing opportunities for:

- Clear learning objectives matched to the levels of all children
- Methods and progression as stated in the Meir Heath Academy calculations policy
- Differentiated learning opportunities for all children through CPA and rich and sophisticated problems
- Daily opportunities to deepen understanding and apply learning through problem solving and reasoning activities.
- Have regular feedback through self, peer and teacher assessment.

### **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.

### **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 maximise 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 block of learning
- An end of year assessment will be completed using Power Maths End of Year Assessments
- Scores for all Power Maths assessments are inputted singularly to the database to identify gaps in learning/areas for development
- Arithmetic tasks will be completed daily, with instant feedback given to children

### **Homework**

We value the role of parents as co-educators, so homework will include opportunities to develop fluency within mathematics.

Children will be asked to learn the KIRFs relevant to each year group, and these will be updated every half term. Homework will also include opportunities for problem solving and reasoning skills, linked to current Power Maths units.

### **Inclusion**

We aim to provide a broad and balanced curriculum that gives every child the opportunity to reach their maximum potential regardless of race, age, gender or ability.

Children identified as SEND will be given the opportunity to access and progress within mathematics in line with their IEP. All children, regardless of academic ability, have access to concrete materials to enhance and support their mathematical skills and thinking.

### **Monitoring and Evaluation**

The maths lead will monitor mathematics across the school through learning walks, lesson observations, planning and book scrutiny, pupil voice, staff discussions and data analysis.

Training will be provided as a result of monitoring outcomes.