



MATHS POLICY

2022-2023

Effective Date: June 2021

Last Reviewed: June 2022

Reviewed by: Miss H Hinson

Next Review Date: June 2023

Our vision

Through well-structured lessons in a caring and supportive school environment, we provide children the opportunity to reach their potential in all subjects and get ready for their next steps in education.

Rationale/Intention

Maths is a subject that is intrinsic to understanding and changing the world around us. It provides useful tools to be used in a range of subjects across the curriculum. These tools include problem solving skills, logical reasoning and the ability to think in abstract ways. We strive to provide many opportunities for children to practise and apply the skills that they have learned in maths lessons in practical problem-solving situations.

The national curriculum for mathematics describes what should be taught in each year group, which combined with Moggerhanger Primary School Calculation Policy, ensures progression and high expectations in mathematics.

The aims of teaching mathematics are:

- To encourage and promote a love of learning through a variety of creative, imaginative practical activities, discussions and explorations
- To become fluent in the fundamental concepts of maths, including a well-developed sense of number and know relevant number facts, such as number bonds and multiplication tables, doubles and halves
- Draw on a range of calculation strategies to calculate efficiently
- To promote mathematical confidence
- To develop the ability to problem-solve through reasoning and decision making using known mental facts
- To explain their mathematical reasoning, conjecturing relationships and generalisations, developing a justification for their working using the correct mathematical terms
- To develop a practical understanding of the ways that information is gathered and presented and explain and make predictions from graphs, tables and diagrams
- Develop an understanding of the properties of 2D and 3D shapes.

Provision/Implementation

Provision

Maths is planned with objectives taken from the national curriculum. Teachers use planning from Abacus and White Rose maths to ensure full coverage of the national curriculum and acts as a framework for allocating time to different areas of the curriculum. Teachers adapt this planning by including mastery activities from sources such as Nrich to provide opportunities for reasoning and problem-solving. This real-life application of maths they have learnt encourages children to broaden their numeracy skills and develop mastery of maths. Teachers adapt planning to ensure it meets the needs for all pupils.

Children are taught maths using a range of resources, both concrete, pictorial, abstract and online. They are taught daily and are assessed daily against the success criteria for each lesson. Children are given a variety of opportunities to develop and extend their skills in maths including whole class teaching, working in small pupil or adult led groups, 1:1 support and interventions (e.g. Numbershark).

During maths lessons and other maths-based activities within school, children engage in written methods of calculation, having mathematical discussions and completing problem solving tasks, developing mental strategies, consolidating basic skills and number facts, and playing maths games.

A typical maths lesson would include a mixture of teacher input, balanced with whole class, guided group and individual work. These tasks are differentiated by ability and adult support allocated to ensure that all children achieve to the best of their ability. Lessons may be planned individually for SEND or gifted pupils. During lessons teachers encourage pupils to ask and answer mathematical questions using talking partners to support and extend their learning. Teachers continuously use formative assessment methods to assess children's understanding and adapt lessons as needed to ensure children achieve all the aims of teaching mathematics.

Opportunities for learning mathematics are not limited to maths lessons. Other subjects give ample room for mathematical investigations, including creating tables and graphs in science lessons and studying historical number systems for numeracy and time.

Resources

Each classroom has a bank of resources, including Numicon and cubes, teacher made maths resources and mathematical equipment, such as protractors and calculators, where necessary.

Weekly maths homework is sent home, and the children have access to Times Tables Rock Stars, which they can access at any time to practise numeracy skills. The children are also directed to websites such as BBC Bitesize, where there are many numeracy games that they can complete.

Target setting

Teachers set individual targets for each child which are shared with parents in school reports and on parents evening. They allow children to focus on an area of mathematics that would allow them to progress more efficiently. Teachers share success criteria for each lesson with the children, who provide feedback on their confidence in the learning in that lesson compared to the success criteria

Assessment/Impact

Formative

Teachers use a range of formative assessment strategies including effective questioning with feedback and responses.

Teachers provide success criteria for every maths lesson taught, which is used to assess understanding of the topics covered in that lesson and used to inform future planning to ensure there are no gaps in maths knowledge.

Summative

Teachers use half termly tests from Pearson to inform summative assessment in mathematics, as well as being informed by teacher assessments from individual lessons against success criteria.

National curriculum tests are used at the end of KS1 and KS2, and teachers use examples of past test papers to prepare children for these exams and inform their assessments. Data is collected against all the national curriculum objectives for mathematics and sent to members of senior leadership for analysis at the end of every half term.

EYFS

We follow the EYFS guidance for mathematics. We strive to ensure that the children develop a confident sense of number and have a good understanding of the key concepts of mathematics, initially exploring the numbers to 20. Children will begin to encounter and develop models and images for numbers to act as a foundation for their future learning in mathematics.

Role of the Subject Leader:

- To provide leadership in mathematics
- To evaluate the effectiveness of teaching and learning in mathematics and progress towards meeting agreed targets across the school
- To secure, in collaboration with the Executive Principal and senior colleagues, high standards of teaching and learning in mathematics
- Leads by example by setting high standards in their own teaching
- Prepares, organises and leads CPD and joint professional development
- Works with the SENCO and Intervention Co-coordinator
- Observes colleagues from time to time with a view to identifying the support they need
- Attends CPD
- Keeps parents informed about mathematics issues
- Discusses regularly with the Executive Principal and the mathematics governor the progress of implementing national curriculum for mathematics in school
- Deploys support staff to address mathematics related needs within the school
- Monitors and evaluates mathematics provision in the school by conducting regular work scrutiny, learning walks and assessment data analysis.