MUNTHAM HOUSE SCHOOL

# MATHS

# POLICY

# Maths Policy

## Overview

The mathematics curriculum at MHS intends to develop and promote pupils' independence and resilience skills, impacting their transition to and success in adulthood.

Key Stages 1 and 2 lay the foundation for numeracy skills for each pupil's early mathematical understanding, later built upon in greater depth in Key Stages 3 and 4. In POST-16, mathematics is provided to facilitate GCSE retakes or a Functional Skills Level 1 or 2 course to ensure that all pupils leave MHS with a qualification in mathematics. POST-16 also teaches pupils to apply their Maths skills in real-life situations, such as money management and timekeeping, such as reading a bus or train timetable. This is taught to aid and promote independence skills for the evolving demands of work and adult life and to broaden and develop pupil exploration and understanding of the world around them.

Study of mathematics includes:

- The development of numeracy skills, a proficiency that involves confidence and competence with numbers and measures.
- Understanding of the links between mathematical concepts.
- Development of problem-solving through strengthening resilience and self-assessment.
- Linking mathematical concepts to everyday life to promote independence in adulthood
- Teaching and learning of mathematical concepts found in the National Curriculum.
- Extension of able pupils beyond the GCSE curriculum.
- Support to strengthen the foundations of numeracy in less-able pupils.
- An inclusive curriculum and teaching methods that allow progress and enjoyment for all.

## Intent

The intent behind the mathematics, planning, teaching, and learning is:

- To develop an enthusiasm for and fascination with mathematics.
- To equip pupils with a powerful mathematical tool that provides:
    - A precise means of communication using numbers, symbols and shapes;
    - A universal language used to explain, predict and tackle problems.
- To increase the confidence of each pupil in mathematics to enable them to apply the knowledge and skills with assurance.
- To work with local mainstream schools and national SEND placements to share good practices to improve this policy.
- To provide pupils with the numeracy skills needed to enable social mobility so that none are disadvantaged when entering adulthood and looking for full-time work.

## Implementation

Mathematics is taught as a discrete subject but is also integrated into the other subject topic areas across the school. It is integrated into the planning of all subjects and applied across the whole curriculum. Through this, pupils learn the place of mathematics in the world around them and gain greater insight into the practical benefits of developing their mathematical understanding.

Teachers use a range of learning and teaching styles, incorporating individual, paired, whole-class, and group work into lessons. Pupils are taught through discussion, practical activity, games, investigations, problem-solving, recording, practice, and consolidation. The teaching style and methods are varied according to the topic and the pupils being taught.

Pupils develop mathematics through various methods: mental strategies, practical activity, written calculations, problem-solving, use of mathematical tools, discussion, and application of basic skills.

The outcome and the differentiation of activities supported pupils of different ability levels. Pupils work in flexible ability groups that allow for transition between the groups as they improve their skills. Differentiation means that **all** pupils are taught an age-appropriate curriculum.

Teachers model how to tackle failure and frustration within the classroom through overt discussions and asking questions that cover incorrect or alternative methods or answers, often using the phrase 'I wonder if…'. This seeks to create a classroom ethos of acceptance and learning where pupils are not afraid to articulate their thinking, share their methods, or verbalise an answer which might not be correct. When confident, pupils are encouraged to take the lead in explaining concepts and methods.

Resources used to support, promote and explore the full range of mathematical concepts in mathematics teaching include but are not limited to, White Rose Maths, MyMaths, Freckle, Accelerated Maths, and Times Table Rockstars. Using these resources and programmes is matched to pupil ability using a 'stage not age' model of thinking; for example, Freckle & Times Table Rockstars is more suited to primary-age learners but is accessible and supportive for secondary pupils of a lower ability.

**Curriculum**

Curriculum planning across the school follows the map laid out by White Rose Maths and is split into long-, medium-, and short-term planning, as follows:

Long-Term Planning:
Intent: As a whole school overview, long-term planning sets out the intended coverage of key topics and skills across the six half terms of each school year. It is appropriate that the same topics are taught in each year group, with a rolling increase in the development of concepts, skills, and level of application. White Rose Maths is one of several schemes of work used to inform Muntham House School's long-term planning across both Primary and Secondary phases.

Mid-Term Planning:

Implementation: Mid-term planning sets out each learning topic and breaks it down into quarter-termly chunks of learning.

It informs teaching and learning in greater detail without the specificity of lesson-by-lesson plans. It is a working document and guides what should be taught in each period. As with every curriculum subject across the school, coverage of the teaching and learning set out in mid-term planning is guided by the speed at which our pupils learn, the teaching of

‘missing foundation knowledge, and the developmental stage of each pupil.

Short Term Planning

Short-term planning sets out the objectives to be covered in each mid-term plan and allows for daily lesson planning and the bespoke adjustments needed to differentiate for each pupil on a ‘stage, not age’ basis. It enables teachers and support staff to implement bespoke learning for each pupil, considering their mental state and well-being when they enter the classroom. Measurement against objectives achieved is one method of gauging the impact of teaching and learning.

**Impact**

Through the implementation of the maths policy and teaching, we seek to ensure that every pupil leaves Muntham House School with a formal maths qualification (for example, a GCSE or Functional Skills) and the ability to:

- Be financially independent.
- Be able to access public transport.
- Manage time effectively.
- Access the wider world of work or go on to further study.

Additionally, each pupil's progress and skills gained in POST-16 are recorded and measured on Muntham House School’s Work-Life Ready Wheel.

Each pupil’s progress is formally and informally assessed during lessons using formative and summative assessments. Formal assessment is completed at the end of every block of work (usually each quarter-term), half-termly, and at the end of each school term. Assessment in Key Stages 1 and 2 includes the use of White Rose Maths and Accelerated Maths, which are used as diagnostic tools to find gaps in learning and skills and to inform the direction of interventions and future bespoke teaching. As pupils move through the school into Key Stages 3 and 4, assessment is made against Assessment Objectives 1, 2, and 3 as set out by Ofqual and the AQA exam board with reference to subject knowledge and skills needed for Year 11 GCSE exams.