

Mathematics Policy

This policy reflects the school values and philosophy in relation to the teaching and learning of Mathematics at Grimsargh St Michael's CofE Primary school. The aim of the policy document is to provide guidance and clarification of the teaching of Mathematics and to ensure curriculum continuity and pupil progression throughout the school. The structures and principles within the National Curriculum for Mathematics (2014) complement the teaching ideals outline within this policy document. The responsibility for the implementation of this policy falls upon: the governing body, the subject leader, Headteacher, teaching and support staff.

The Nature of Mathematics

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. (National Curriculum 2014)

The purpose of our Mathematics Curriculum is to develop:

- a positive attitude towards mathematics
- a creative subject that is inherent in other curriculum areas and allowing for a broad and balanced curriculum
- to provide children with the skills necessary to carry out problems, that link in with everyday life.
- to develop the mind and encourage the learner to understand more about the world in which he/she lives
- an ability to solve problems, to reason, to think logically and to work systematically and accurately.
- an ability to work both independent and with others
- competence to draw upon mathematical concepts, skills and knowledge.

The Breadth of Study

All children are different and so are the ways in which they learn. In order to cater for this, teachers use a variety of teaching approaches to enhance children's learning in mathematics. Children are challenged to achieve their potential whatever their ability; by being encouraged to participate in all lessons and engage in independent, paired or group activities learning with peers.

Through careful planning, we aim to ensure that throughout the school, children are given opportunities for:

- problem Solving
- reasoning
- fluency
- open ended investigations
- practical activities and maths games
- using the outdoors

- skills practice, mental calculation and recall of facts

Teachers Planning and Organisation

Each class teacher is responsible for the mathematics learning in their classroom and should ensure there is a daily maths lesson taught every day. These lessons should involve:

- revisiting previous learning as part of a warm up activity
- a clearly focused teaching that will build upon previous learning and ensure progression
- an emphasis on embedding fluency
- the opportunity to reason and problem solve

Each lesson should last between 45-60 minutes.

In EYFS, the teacher will ensure that children are given the opportunity to build upon their previous knowledge and explore their next steps both within adult guided activities and child initiated activities. Opportunities for mathematics learning will be available in continuous provision, both inside and outside, and adults will question children to move their learning forward.

Long Term Planning

Long term planning for mathematics taught in the school is provided by The National Curriculum for Mathematics 2014, Development Matters and the Early Learning Goals (Number, Shape Space & Measure). Teachers also use the Lancashire KLIPS document to ensure all skills are being taught.

Medium Term Planning

Teachers in Y1-6 use White Rose Hub as a starting overview for structuring the learning. These are then adapted and modified to include opportunities from different resources such as Busy Ants, NCETM, Nrich and Maths of the Day. Teachers should use the Lancashire LAPS documents to ensure a progression of skills alongside the school overview progression of skills. EYFS planning is based on Development Matters and the Early Learning Goals (Number, Shape Space & Measure) and linked to the Lancashire LAPS document.

Short Term Planning

Lessons are planned using the teachers planning of choice; this can be White Rose Hub, Busy Ants Planning or the teachers own preferred planning format. Planning must include:

- a key learning objective
- key vocabulary to be addressed
- outline of the warm up activity
- outline of the main teaching
- how the children will apply the skills they have learnt
- opportunities for problem solving and reasoning

These plans are collected by the Headteacher and can be reviewed by the subject leader during monitoring. EYFS planning is based on the children's next steps, individual lesson plans are written, and opportunities are highlighted within the continuous provision planning.

Special Educational Needs

Children with Special Educational Needs are identified as early as possible and these needs are catered for in accordance with the school's SEN policy. Each daily mathematics lesson are inclusive of all children and teachers should consider what is needed to support each child, this could be use of manipulatives, a different activity or adult support. Where required, children's IEP targets should incorporate objectives from the National Curriculum and these can be taught through daily lessons or in 1:1 (or group) interventions outside of the maths teaching time.

Within the daily mathematics lesson teachers must not only provide differentiated activities for those with Special Educational Needs but should also consider those that rapid graspers and need a challenge to ensure they are given the opportunity to progress.

Equal Opportunities

Each child regardless of age, race or gender has entitlement to the Maths curriculum at an appropriate level, if they are to achieve their full potential in the subject. Mathematical language, knowledge and skills are introduced in the school from the Early years onwards. We endeavour to deliver the mathematical content through materials, which represent the world to children, as they understand it. The school tries to address the needs of all children with regard for their culture, gender, ethnic origin and lifestyle, ensuring that we do not present examples in a stereotypical way.

Pupils Records of Work

Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording. In EYFS, children's progress is recorded informally within the setting. E.g. drawings, physical activities or on whiteboards. Pictures are taken for children's learning journeys and a maths book is kept to track learning with expectation of one piece of work a week. In KS1, children's work is recorded in their maths books, which are a mixture of 2cm and 1cm books depending on confidence to use the squares. Children's work is also evidenced in photo form when using manipulatives, engaging in problem solving tasks, group work or when outdoor learning has taken place. In Year One a specific group objective must be stuck by the picture to explain the learning that has taken place and some engagement from the child e.g. a face, a traffic light spot. In Year Two, for Autumn Term photos staff will complete their photos like Year One, however from Spring children will begin to comment on their photos like KS2. In KS2, children's work is recorded in maths books of 1cm squares (Y3-5) and 7mm squares (Y6) Children. All children are encouraged to work tidily and neatly when recording their work. A digit should be used in each square. Photo evidence can be used to evidence group work, problem solving activities, outdoor learning and work with manipulatives. Children must respond to the pictures by writing a statement about what learning has taken place and how they feel about it.

Marking

Maths work is marked before the next lesson to ensure teachers are aware of any difficulties or misconception that will need to be addressed within the next session. Where marking has taken place during the lesson and verbal feedback given, this needs to be indicated on the page. The children themselves can mark exercises, which involve routine practice with support and guidance from the teacher. Next step challenges should be included in each child's book at least once a week and responded to before the next session.

For more detail, see the Marking Policy.

Monitoring

The maths subject leader is responsible for monitoring the delivery of maths across the school. Planning can be monitored to ensure progression and will follow a purpose linked to the school development plan. A termly 'book scrutiny' provides an overview of learning within maths and observations are taken place in line with the school improvement plan.

Assessment

Teachers make daily assessments of children and their progress and adapt their planning accordingly to ensure misconceptions are addressed and extra opportunities are made available to meet an objective. Feedback is given to children to promote pupil confidence through positive and engaging interaction. Teachers assess children against the Lancashire KLIPS to ensure key learning is being met.

Termly assessments are carried out across the school (Y1-6) These materials are to be used alongside judgements from class work to form a teacher assessment for each child. These judgements are then inputted into the Pupil Tracker.

Y2 and Y6 to complete SATs assessments every May.

In EYFS, the children are assessed against the development matters objectives. Baseline assessments are made on entry to school and progress is tracked termly.

Parental Involvement

Parents are informed of their children's progress in maths through the twice-yearly parent/teacher meetings. Reports are given before the end of the summer term and teacher assessments are shared with parents. Parents are informed whether their child has met the expected standard, working below the expected standard or working at a greater depth. Parents can make an informal appointment during class surgery times to discuss the progress of their child in maths. Targets (Y1-6) are also set and shared with parents in their home/school records.

Homework

Maths homework is encouraged by teachers and is generally set on a weekly basis. As far as it is possible the content of homework supports work carried out within the classroom or as a revision of previous learning. These can take the form of games, quick written tasks or the use of an interactive program such as Mathletics, Education City or Times Tables Roxx Star.

Staff Development

Staff are encouraged to develop, assess and improve their teaching of mathematics by and are supported, where possible, by:

- attending staff meetings for updates led by the subject leader
- providing resources
- given the opportunity to attend maths courses
- provide the opportunity to work with peers

Resources

Classroom resources should be easily accessible for children and they should be encouraged to choose their resources independently. Displays should be meaningful for the children and contain content that is currently being covered. Children should be encouraged to look at the displays and use them as a reminder of skills and concepts. Resources that are not used regularly are kept in the cupboard in the hall. These resources are clearly labelled and a resources list is given to each staff member.

Governors

The school has a Maths governor who meets with the subject leader to discuss the teaching and progress in mathematics. He/she will discuss the aims of the following year with the subject leader and feed this back in the curriculum meeting.

This policy was adopted by the Governing Body

Signature of Governor: _____

Date: _____