



Mathematics Policy

St. Matthew's Church of England Primary School's mission statement

We aim to provide a positive learning experience in a safe and respectful environment. We strive to teach an inspiring and inclusive curriculum that promotes a love of learning. As a Christian school, we endeavour to develop the spiritual and moral values of all members of the St. Matthew's family, and a meaningful, loving relationship with God. We want our children to be cheerful and independent individuals who reach their potential and are proud of their achievements. We hope to develop confident, caring citizens who are well prepared to enjoy happy and rewarding lives.

Our motto: Live, Love, Learn

May 2021

Aims and Objectives

The 2014 national curriculum for Mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of Mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason Mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their Mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions
- meet the statutory requirements of the New National Curriculum 2014
- develop positive attitudes towards mathematics and lifelong learning
- use the 'language' of mathematics
- develop the ability to use and apply mathematics across the curriculum and in real life

The National Curriculum for Mathematics

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The 2014 National Curriculum programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Teaching

Teachers use a range of teaching strategies to engage pupils in maths and ensure progress is made by all pupils within a class; no set formula is used. A typical lesson would include:

- Both teaching input and pupil activities,
- A balance between whole class, guided grouped and independent work, (groups, pairs and individual work). In a typical lesson there is a balance between learning basic mathematical skills and thinking and reasoning.

Sometimes the focus for the session is new learning, at other times pupils may be practising, to master the application of a concept they have learned earlier. The focus of the session may vary for different pupils depending on their learning needs.

At times there may be opportunities to develop skills and understanding of mathematics through additional activities, some of which may take place at home. The school has invested in the

'Mathletics' website which is an accessible learning platform that can be used to set differentiated homework for pupils.

Teachers plan learning that is differentiated to meet the needs of all pupils, whether they have a specific learning difficulty in maths or whether they are particularly able. However, the National Curriculum has been designed so that the content of the curriculum is the same for all age groups. In other words, all Year 4 would be working on fractions at the same time, for example. However, the tasks will be differentiated to support the needs of all abilities.

Teachers endeavour to differentiate learning appropriately for high attaining, middle attaining and low attaining pupils – possibly with individual work for an SEN pupil at one end of the achievement spectrum, to individual work for a gifted pupil at the other. Differentiation may also be shown through the use of rich mathematical tasks. These tasks have a low threshold but a high ceiling. Differentiation when following the mastery approach to teaching mathematics may be through questioning and outcome.

Pupils are given extra support, in addition to the daily maths lesson, if needed, in order to close the gap. This may include 1 to 1 tuition, Maths intervention, First Class at number or any other intervention that the teacher decides to use, to close the gap.

Please refer to the Calculations Policy for teaching methodology.

Cross curricular

Mathematics teaches pupils how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It is a core subject with a range of cross-curricular links but most often, is best taught discretely, using opportunities from other subjects to rehearse skills in a context. Numeracy involves developing confidence and competence in number work; shape, space and measure; handling data and the using and applying of these skills.

ICT

Information and Communication Technology can enhance the teaching of Mathematics significantly. It has ways of impacting on learning that are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that pupils understand concepts more quickly. A range of software and resources are available to support work with the computers. Each child at St. Matthew's C of E Primary School, from Year 1 to Year 6, has their own username for the maths website Mathletics. This is an award winning interactive site that aims to improve pupils' maths skills through fun activities linked to the National Curriculum.

Assessment and recording

Assessment for Learning is fundamental to raising standards and enabling pupils to reach their potential. Assessment in Mathematics takes place daily using a range of strategies such as marking and feedback of work and verbal discussions with pupils. This information informs subsequent planning and next steps in teaching and learning. Planning is annotated to demonstrate adaptations and provide feedback about pupils' individual/group progress.

Targets are set at the beginning of each year and progress towards them are regularly reviewed throughout the year. Records are collated to inform the school's School Development Plan (SDP)

and Maths Action Plan. This tracking also includes termly tracking of standards for each child. Teachers input this data into the school's tool for assessing pupils and tracking their progress (*Target Tracker*). This data is used by the Maths Subject Leader and Head Teacher to review progress towards end of year targets.

The outcomes of regular assessments are also recorded in Target Tracker. This data is then accessed by the maths leader.

Formal assessments specific to year groups:

Year	Assessment
Foundation stage	Attainment on entry (Baseline) Attainment on exit (Foundation Stage Profile)
Year 1	Teacher assessment
Year 2	KS1 SATs
Years 3, 4, 5	Teacher assessment
Year 6	KS2 SATs

Reporting

Parent consultation evenings are held in the Autumn and Spring terms where pupils' progress and achievement will be discussed. All parents receive a termly written report on which there is a summary of their child's achievements and progress.

Resources

All classrooms have ample maths resources including Numicon and Base Ten equipment. Topic specific resources (such as weights and scales) are located in well labelled central Maths storage area. There is a whole school Calculation Policy for teachers to follow.

Equalities

We believe that equality at our school should permeate all aspects of school life and is the responsibility of every member of the school and wider community. We will always strive to ensure equality of access to maths for all pupils irrespective of their gender, ethnicity, disability, religious beliefs/faitn tradition, sexual orientation, age or any other of the protected characteristics (Single Equalities Act 2010)

Inclusion

Wherever possible we aim to fully include all pupils in maths teaching. Through our maths teaching we provide learning opportunities that enable **all** pupils to make progress. We set suitable learning challenges and respond to each child's individual needs.

Health and Safety

Equipment will be used safely and appropriately. Specifically:

- Short pencils on compasses
- Pupils will not lift heavy objects or multiple weights to avoid strain to back muscles.
- Food products will be in date.

Roles and Responsibilities

The Headteacher

- To actively support and encourage staff, praising good practice and supporting staff development, in-service training and resources.
- To recognise staff that may need additional support in their subject knowledge and to provide appropriate opportunities for them to improve their knowledge, if necessary.
- To monitor teaching and learning through lesson observations, learning walks and book review analysis and to give informative and constructive feedback.
- Support staff development through training and provision of resources.
- To encourage the subject leader, in particular, to keep up-to-date with the latest research available in relation to the teaching of mathematics and to provide opportunities for the maths leader to disseminate new information to all staff members.

Subject Leader

- To work with the Headteacher and the Senior Leadership Team to monitor, plan and develop the subject to allow for progression, continuity and high standards of attainment in Mathematics.
- To support colleagues in the teaching of Mathematics and provide a strategic lead and direction in the subject.
- To undertake regular book reviews to ensure the curriculum is being covered and the Teaching and Learning policy is adhered to.
- To meet regularly with the Nominated Governor for Mathematics, keeping them abreast of standards and progress against the subject's action plan.
- To monitor progress in Mathematics, highlight and plan actions required.
- To take responsibility for auditing and organising Mathematics resources.
- To keep up to date with developments in Mathematics education, including the latest available research, and to inform colleagues as appropriate.
- To draw up annual action plan for Mathematics.
- To review the school policy for Mathematics as appropriate.

The Class Teacher

- To be responsible for the planning and teaching of Mathematics
- To manage and supervise their class' use of Mathematics equipment.
- To ensure that every child is given every opportunity to meet the national expectation for their age and to work at an even greater depth if they have the aptitude to do so.

The Governors

- To appoint a nominated governor who has responsibility to oversee Mathematics. They meet with the subject leader on a termly basis to review development plans and monitor standards in the subject.

Mr W. Ulhaq
Mathematics Subject Leader
May 2021