St Michael's Church of England Primary School

Maths Policy

Issue: December 2024
Review Date: December 2027

Our School Vision

As a school community, we aspire to develop life-long learners who have the confidence to explore the world around them and grow as unique individuals. We provide a safe family environment, inspired by Christian values, in which the flourishing of each enables the flourishing of all.

'This little light of mine, I'm going to let it shine!'

'Let your light shine before others, so that they may see your good works and give glory to your Father who is in heaven.' Matthew 5:15

Introduction

The Purpose of this Document
This policy reflects the school values and philosophy in relationship to the teaching and learning of Mathematics. It sets out the framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment, making sure that all children are challenged and mastery and greater depth learning opportunities are planned and taught consistently across the school. The policy should be read in conjunction with the Mathematics Curriculum 2014 and the school's White Rose Maths guided calculation policy, which sets out in detail what pupils in different year groups will be taught and which resources are used. This document is intended for all teaching staff and non-teaching staff with classroom responsibilities, School Governors, parents, Inspection teams, Trust advisors and interested others.

Subject Aims and Objectives
Mathematics is a core subject and is important to our school.
We aim to:

- follow the objectives set out in the 2014 mathematics curriculum
- promote positive attitudes towards mathematics and an enthusiasm for mathematics work within school
- use mathematics to analyse and communicate information across all areas of the curriculum
- develop mathematical understanding through practical tasks, enquiry and investigation wherever possible
- provide breadth, depth and balance of mathematical activities for all children
- create an awareness of the relevance of mathematics to all areas of the curriculum and life outside the classroom
- provide a differentiated mathematics curriculum to meet the needs of all the children through the continuity of experiences
- ensure a progressive development of mathematical concepts, knowledge, skills and attitudes in line with the 2014 mathematics curriculum

Children at St Michael's CE Primary School follow the structure of the 2014 Mathematics curriculum and White Rose Maths and work at levels appropriate to their ability. In the teaching and learning of Mathematics, we can identify a number of objectives which will enable children to apply knowledge and skills, solve problems of a practical and investigative nature, and communicate their ideas to others using appropriate mathematical language.
The children will:

- experience a balanced range of mathematical activities as an integral part of the whole school curriculum
- have opportunities to develop their mathematical skills, concepts, attitudes, and knowledge at an appropriate and challenging level through completing activities and explaining their thinking
- have opportunities to acquire, practise, develop and consolidate mathematical skills
- have opportunities to work in a variety of ways: class, group and individually, depending on the task
- have access to practical tasks which will enable them to develop their mathematical language and understanding
- be able to perform operations and apply them in a variety of situations
- be taught to understand the importance of having mathematical skills in regards to everyday life
- have the chance to develop their skills of generality in relation to identifying patterns within mathematics

White Rose Maths Formal Written Calculation Policies
This policy has been adopted to guide teachers (and inform parents) in the maintenance of a consistent approach to written calculations. This is to ensure progression within and between Year Groups. It is to be used alongside the 2014 National Curriculum.

Planning the Mathematics Curriculum
Planning is the responsibility of the class teacher with help from the mathematics coordinator as required. It is to be guided by the 2014 Mathematics Curriculum, White Rose Maths and the school's calculation policy mentioned above.
Planning is used to:

- set clear achievable goals
- ensure work is matched to pupils' abilities, experience and interests
- to provide challenge, mastery and greater depth opportunities
- ensure progression, continuity and subject coverage throughout the school
- provide criteria for the assessment and evaluation of teaching and learning

Differentiation
As the class teacher plans the teaching of mathematics, they will consider how the curriculum will be differentiated.
Consideration will be given to:

- pupil groupings, e.g. ability or mixed ability groups; or group, paired or individual activities

- resources, e.g. different equipment for different levels of ability; to provide a breadth of experiences
- pupil activity, e.g. different group tasks, different pupil roles and responsibilities
- different allocations of time and variation of pace within the lesson to meet the needs of different levels of ability
- pre-teaching and scaffolding
- other opportunities, e.g. extra-curricular activities, club links and interest groups for the development of excellence

Home Learning
Activities will reflect the learning that is taking place in the classroom; consolidating new skills and memorising number facts and tables and are sent home every other week in KS1 and KS2. In addition, superheroes times tables practice will be set each week in Y2 – Y4.

Mathematics across the Curriculum
In Mathematics, English skills of reading, writing, speaking and listening are extremely important and are actively promoted. We encourage children to read and interpret problems to identify the maths involved. Children are challenged to justify their thinking and provide reasons to answers within their work. In KS1, children enjoy stories and rhymes linked to counting and sequencing and in KS2 children are challenged with mathematical vocabulary, graphs and charts when reading non-fiction texts. After open ended investigations, children are expected to write about their findings and how they approached the problem.

In Science, children are able to use their data handling skills to read, complete and make graphs, charts and tables. They apply their knowledge to draw conclusions on data and when using scientific equipment, they are challenged with reading scales and using measuring devices in real-life situations.

Children can use and apply their mathematical knowledge in a variety of ways when using computing. Younger children can use computing to support learning tables, number bonds and displaying data. Older children can use computing to communicate results of investigations, produce charts, analyse data and consolidate their learning through interactive games.

Mathematics can be used within the creative curriculum, for example: timelines, investigating money from other periods of time or cultures and roman numerals. It is up to the class teacher to plan activities that engage the children mathematically throughout the school week.

The Role of the Mathematics Coordinator
The Mathematics Co-ordinator is responsible for the development and monitoring of the Mathematics curriculum. They will support staff in the delivery of maths lessons through, monitoring planning, modelling lessons and teaching alongside colleagues, book scrutiny and pupil interviews. The maths coordinator has responsibility for monitoring maths by observing lessons, scrutinising and analysing data, delivering inset and evaluating the impact, alongside the leadership team, of the actions on the School Improvement Plan. They will liaise with the Mathematics Governor to keep the Governors informed about developments within the subject, to enable them to monitor the teaching.

Learning of Mathematics within the school.
The maths coordinator will maintain a positive ethos for the subject, through support and encouragement of staff, children and parents. In monitoring and evaluating, they will analyse pupils' access to the subject; review teachers' plans; observe classroom practice and monitor levels of achievement in the subject.

Resources
A variety of Mathematics resources are available in school for teachers to use and children to access. Each year group has a dedicated set of essential resources including, clocks, dice, money and other small apparatus including maths dictionaries. Calculators will be available when their use is appropriate.

Our resources room contains larger sets of equipment, games and tools to support mathematical challenge within the classroom.

Our computer network contains a range of interactive resources for children to access and use as well as planning tools for the teachers to use.

Equal Opportunities
All children have the same access to mathematical activities regardless of their gender, race or cultural background.

Special Educational Needs
In accordance with the Special Needs Policy, children with special educational needs are included in all lessons. Wherever possible provision will be made for pupils with special educational needs where it affects their ability to take part in Mathematics lessons. They may have sensory difficulties, physical difficulties, cognitive limitations, and/or emotional and behavioural disorders. It is the responsibility of the class teacher to ensure that any special equipment for a lesson is available to such children. If teachers need any special equipment, they must bring this to the attention of the mathematics coordinator and the special needs coordinator. It is important to concentrate on pupils' abilities and needs, not on their disabilities. Everything will be done to avoid highlighting the disabilities of any particular child. Pupils who attain a lower level will need constant reassurance and patience to help improve their confidence. Suitable intervention materials are available to support children who are attaining at a lower level. More able pupils are given the opportunity to widen their experiences within mathematics, using open ended investigations where the children can be challenged. In Years 4, 5 and 6 more able pupils can represent the school in maths competitions against other schools.

Classroom organisation and teaching style
Within the school pupils are taught as a class, as a group and individually according to the learning intention and task. A variety of teaching styles are utilised for each lesson. Teachers recognise that children need to use a variety of learning styles to enable full access to the curriculum.

Assessment and Record Keeping
Ongoing teacher assessment has always been an integral part of good practice. It is important to remember that the main reason for assessment is to enable the teacher to match the tasks set to the abilities and needs of the pupils as they progress. Class teachers assess pupil progress on a daily basis and make judgements on attainment each term.

Y1 and Y3-Y5 complete NFER assessments in the Autumn (excluding Year 1), Spring and Summer terms. Y2 and Y6 use SATs papers in the Autumn, Spring and Summer terms. At half termly pupil progress meetings, pupils in need of intervention or those who need to make accelerated progress are identified and appropriate targeted provision is planned. Records of Mathematics work in the form of photographs, samples of a range of work and Foundation Stage Profile Information are also kept.