



## Mathematics Policy 2022 - 2023

### St. Michael in the Hamlet Primary School

#### Context

Mathematics teaches children 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 practise and hone skills in a context. Mathematics involves developing confidence and competence in number work; shape, space and measure; handling data and the using and applying of these skills. We aim to support children in achieving economic wellbeing by equipping children with a range of computational skills and the ability to solve problems in a variety of contexts.

#### Intent

We aim to inspire all of our pupils, irrespective of their ability, to reach their full academic potential in all subjects. We recognise that mathematics is a critical area of skill and knowledge that impacts on the quality and value of the lives we lead. Therefore, our objectives in the teaching of the maths curriculum include:

- the promotion of the enjoyment of learning through practical activity, exploration and discussion;
- the development of confidence and competence with numbers and the number system;
- developing the ability to solve problems through decision-making and reasoning in a range of contexts;
- the development of a practical understanding of the ways in which information is gathered and presented;
- the exploration of the features of shape and space, and developing measuring skills in a range of contexts;
- helping children to understand the importance of mathematics in everyday life.

#### Teaching and Learning Style

We use a variety of teaching and learning styles in mathematics. Our principal aim is to develop children's knowledge, skills and understanding. During our daily lessons we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources, such as number lines, number squares, digit cards and small apparatus to support their work. All classrooms have a wide range of appropriate small apparatus which are readily available for children to use. ICT is used in mathematics lessons to provide visual models and methods. A range of software is available to support work with ipads & laptops. Wherever possible, we encourage the children to apply their learning to everyday situations.

The teaching of mathematics is delivered by a qualified teacher within the classroom and may be supported by Learning Support Assistants (LSA) within the class during the maths lesson or at other times in the day through interventions. The level of LSA support is determined by the needs of the pupils. Pupils not in line to achieve age related expectations by the end of Key Stage 1 and Key Stage 2 are prioritised for additional intervention.

## Implementation of our S.M.I.T.H. Mathematics Curriculum

Mathematics is a core subject in the National Curriculum, and we use our agreed syllabus guided by the National Curriculum as the basis for implementing the statutory requirements of the programme of study for mathematics. We carry out the curriculum planning in mathematics in three phases (long-term, medium-term and short-term). The New 2014 Curriculum for teaching mathematics gives a detailed outline of what we teach in the long term, while our yearly teaching programme identifies the key objectives we teach to in each year.

Our medium-term mathematics plans, which are adopted from the National Curriculum, and give details of the main teaching objectives for each term, define what we teach. They ensure an appropriate balance and distribution of work across each term. These plans are reviewed by the curriculum leader.

It is the class teacher (and Year Group Colleague) who completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives and expected outcomes for each lesson, and give details of how the lessons are to be taught.

At SMH we use the Abacus scheme of work across the school as the backbone of teaching and learning in mathematics. This ensures continuity across keys stages and ensures the appropriate mastery while avoiding unnecessary repetition. The use of Abacus as a framework for mathematics teaching across the school also makes sure that there is full curriculum coverage in line with the National Curriculum.

This scheme meets the requirements of the 2014 National Curriculum. It has a large bank of creative resources and activities and integrates problem solving throughout. The online planning tool has a bank of differentiated and structured planning documents which can be adapted by staff, if required, to suit the needs of the individual classes.

Teachers set wither weekly homework online, using the Abacus homework tool or give pupils Maths worksheets to help consolidate their learning at home.

## Mastery and Greater Depth

The terms 'mastery' and 'mastery with greater depth' are used at St Michael in the Hamlet to acknowledge that all pupils require depth in their learning, but some pupils will go deeper still in their learning and understanding.

Common features of mastery include:

- An expectation that **all children** can succeed in maths, often achieved by keeping the class together.
- Giving children a secure and sustainable understanding of mathematical concepts by developing consistent models and images throughout.
- Ensuring children are fluent in mathematical procedures and number facts by rehearsing these in systematic ways.
- Children who master a concept easily are expected to deepen their understanding, for example by applying it to solve problems embedded in mathematical investigations or more complex contexts.
- Children who do not master an objective with the rest of the class should be supported to enable them to gain more experience and achieve mastery, for example through same-day intervention, plus longer-term help if necessary.

## Cross-Curricular Mathematics

We teach mathematics because it has applications in a range of contexts. As well as being a subject in its own right; with its own patterns, principles and procedures, mathematics is a subject that can be applied.

We aim to make links in the context of:

- science and technology
- the arts
- history and geography
- real life and society

## Impact

Teachers assess children's work in mathematics from three aspects (long-term, medium-term and short-term). We use short-term formative assessments to help us adjust our daily plans. These short-term assessments are closely matched to the teaching objectives. We make medium-term summative assessments to measure progress against the key objectives, and to help us plan the next unit of work.

We make long-term assessments towards the end of the school year, and we use these to assess progress against school and national targets. We can then set targets for the next school year and make a summary of each child's progress before discussing it with parents. We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We make the long-term assessments with the help of end-of-year tests and teacher assessments. We use the national tests for children in Year 2 and Year 6, plus the optional national tests for children at the end of Years 3, 4 and 5.

## Monitoring and review

Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues in their teaching, being informed about current developments in the subject, and providing a strategic lead and direction for mathematics in the school. The subject leader gives the head-teacher a termly summary in which she evaluates strengths and weaknesses in the subject, and indicates areas for further improvement in line with the School Improvement Plan.

A named member of the school's governing body is briefed to oversee the teaching of mathematics. At certain review points within the year, this governor meets with the subject leader to discuss progress.

**Reviewed:** September 2022

**Next Review:** September 2023