Live life, Love learning, Guided by God

St Mary's C of E Primary and Nursery School

Chessington

Maths Policy 2022

Date policy produced	April 2022
Date policy agreed	April 2022
Next review date	September 2022

Intent:

At St Mary's C of E Primary School, we believe that Maths (fluency, problem solving and reasoning skills) are key to children's education. We follow the White Rose sequence of learning for our Maths curriculum to ensure that all children participate in learning that is sequential and builds upon prior learning. Lessons develop children's skills and knowledge in order to enable children to become lifelong learners. We aim for all children to engage with, and enjoy, the Maths curriculum; reducing barriers, no matter their age or stage of learning.

Aims:

1. To promote an interest and enjoyment of Mathematics for all pupil groups and learning abilities.
2. For all children to become independent mathematicians who are confident, logical thinkers in order to apply their knowledge to problem solving situations.

3. To provide stimulating and challenging learning opportunities for all pupil groups and learning abilities.
4. To embed White Rose learning sequence across the whole school setting.

At St Mary's Primary School we aim for children to:

- Access resources to support their own learning.
- Learn to work collaboratively listening to others.
- Discuss their methods and learning both with adults and other children.
- Enjoy learning opportunities that challenge thinking.
- Calculate mentally with increasing confidence.
- Think logically.
- Solve problems, by becoming secure in a number of different methods and selecting the one that is most appropriate.
- Reach their best potential and become independent learners

Teaching Sequences and building progression:

At St Mary's C of E Primary School we follow the White Rose sequence of learning. This supports children's abilities to develop fluency, problem solving and reasoning throughout each block of learning. Within a teaching block children have opportunities to problem solve and reason at a learning level appropriate to them.

Early Years Foundation Stage:
The programme of study for the Foundation stage is set out in the EYFS Framework 2021. Mathematics involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shape, spaces and measures.

Key Stage 1:

The principal focus of mathematics teaching in Key Stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources (e.g. concrete objects and measuring tools). At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of Year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value.

An emphasis on practice at this early stage will aid fluency.

Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at Key Stage 1.

Lower Key Stage 2:

The principal focus of mathematics teaching in lower Key Stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of Year 4, pupils should have quick recall of multiplication and division facts up to 12 x 12 and show precision and fluency in their work.

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

Upper Key Stage 2:

The principal focus of mathematics teaching in upper Key Stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems.

Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of Year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly.

Assessments and Records:

- Assessments are made in line with the school assessment policy. Teachers use effective assessment for learning on a daily basis and adapt learning for the next day where necessary.
- Next steps (where needed) and marking informs teachers of the children that may need a same day intervention, which is carried out to correct / support learning further.
- Target Tracker (our school tracking system) enables teachers to track progress and attainment across the school. This data is recorded termly.
- White Rose assessment booklets are used termly in Key Stages 1 and 2 to validate judgements of learning.

Reporting to parents:

Parents are informed formally of children's progress twice yearly at Parents' Meetings and through the end of year report. Meetings are arranged when needed if a teacher wishes to contact a parent for their child's extra support with Maths learning at home.