

St Mary's Catholic Federation, Carshalton Learning, playing and growing together in the love of Jesus

Maths Policy (Curriculum) (Bi-Annual)

This policy is to be read in conjunction with the following policies: Assessment, Teaching & Learning, Inclusion, Health and Safety, Equal Opportunities and Safeguarding & Child Protection policies as well as the Curriculum Overview statement.

Author: Maths Subject Leads Committee: SLT Date Prepared: February 2023 Date Approved: March 2023 Date of Review: February 2025

Approved by Full Governing Body Date: July 2023

Chair of Governors.....

Safeguarding Statement

This school takes notice of and adheres to all the national and local policies and guidance in regard to Safeguarding Children and Young People.

Lead Safeguarding Person Junior School: Mrs M Kenny

Lead Safeguarding Person Nursery & Infant School: Mrs M Quinn

Safeguarding Deputies: (Infants) Mrs S Hulme & Mrs E Heath (Juniors) Mrs S Hulme, Mrs F Black & Mr S Pratsis

Governor designated safeguarding officer: Mr T Richmond



"St Mary's is committed to being a Rights Respecting School to inspire and support the children, parents and school governors in school and the wider community."

Intent:

Through a mastery approach pupils become confident and independent mathematicians growing strong fluency and problem solving skills that are applied to maths lessons and daily life.

The mathematics teaching at St Mary's School is geared towards enabling each pupil to develop within their capabilities; not only the mathematics skills and understanding required for later life, but also an enthusiasm and fascination about maths itself.

We aim to increase pupil confidence in maths so they are able to express themselves and their ideas using the language of maths with assurance.

We are continually aiming to raise the standards of achievement of the pupils at St Mary's.

"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". (DFE 2013)

We endeavour to maintain an awareness of, and to provide for equal opportunities for all our pupils in mathematics. We aim to take into account cultural background, gender, EAL and Additional Educational Needs.

Implementation:

- Mathematics is a core subject in the National Curriculum, and we use the National Curriculum in conjunction with Maths Mastery principles in key stages 1 and 2 and the Development Matters document in EYFS. LTP and MTP have been created and adapted to suit the school and each cohort.
- We use computing skills to enhance the teaching and learning of mathematics in daily maths lessons, ensuring children's E-safety at all times.
- It is important to establish a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. When teaching written calculations we follow the White Rose Hub written calculations policy which mimics the appendixes in the national curriculum.
- Mathematics is taught mainly as a separate subject, with the exception of statistics which is taught in context through foundation subjects. For example, the skill of scaling may be taught, followed by the use of scaling to draw a graph. We identify the mathematical possibilities across the curriculum at the planning stage. We also draw children's attention to the links between maths and other curricular work so children see that maths is not an isolated subject.
- Children are taught to use and apply their mathematical knowledge through a variety of methods including problems solving and investigative work, both inside and outside of the classroom.
- Children use concrete resources from Nursery to Year 6 to help support their mathematical understanding.

- Each year group has a store of mathematical learning aids, such as base 10, place value counters and place value cards to name a few. Children are encouraged to choose their own equipment and return it with care.
- Supporting maths work is carried out by focus groups and interventions planned and decided by the class teacher, using assessment for learning.
- Displays of mathematical language and visual representations are encouraged throughout the school. For example:
 - Number squares
 - Number lines
 - Place value charts
 - Classes could display large numbers (i.e. millions, billions) where appropriate.
- Interactive displays are a useful teaching aid and are encouraged where possible.
- Working walls are present in every classroom and link to the current teaching that is happening.
- We follow a Maths Mastery pedagogy approach throughout the school.
- In EYFS children are taught through a variety of mathematical activities, e.g. whole-class teaching for a main input and with a range of child-initiated mathematical provision in the indoor and outdoor learning environments.
- In Key Stage 1 and 2, maths is taught daily.
- If children are highlighted to not understand a lesson they are identified for immediate intervention that day which takes place before the next lesson or at the start of the next lesson.
- Teaching is by class in mixed ability, unless a need is identified where more able/less able streaming is appropriate. This is a decision made in discussion with the SLT during progress meetings.
- Most classes deliver 'chunked' daily maths lessons, using fluency, varied visual representations, problem solving and reasoning. Maths lessons can be fluid and flow over days, where the challenge level is raised in layers.
- Partner talk is used to encourage children to explain their thinking about a range of practical, written and mental activities. All contributions are valued. We expect teachers to model and children to respond using the correct mathematical vocabulary (I do it, we do it, you do it).
- Children are shown Stem Sentences during teaching which are modelled by the class teacher to enable children to put their thinking into words and provide reasoning to questions.
- The teachers aim to use the children's oral responses diagnostically to inform their teaching during the lesson.
- Use of Maths of the Day (Active Maths from Teach Active) is encouraged, where the opportunity arises, to develop the link between active maths and maths in context, as well as for home learning tasks.
- The children use Barvember from White Rose Maths every November in KS2 to try and solve word problems using bar models.
- Mathuary is a whole school approach taken up in January and February, where past teaching is recapped quickly each day at the start of a day or lesson.
- Fluent in Five has been introduced in the juniors as a daily lesson starter for enhancing base knowledge of the four rules and (as students get older) fractions, decimals and percentages. Year 1 and Year 2 are looking to introduce this soon.
- Key Stage 2 pupils use 'Times Tables Rock Stars' to aid their recall of time tables facts to be secure by the end of year 4. Number Shark and Maths Whizz are also used to support Mathematical learning, either for pre-teaching or intervention. The provision of programmes and games on Google Drive Classrooms provide support at home, ensuring children's E-safety at all times.

Planning, assessment, recording and reporting

<u>Planning</u>

The Maths leaders have created Long and Medium Term Plans with reference to the unit block suggested by White Rose Hub, but have adapted these for most effective practice within school.

Teachers also use their assessment of the children to inform their teaching and planning.

Short Term Planning is done on a weekly basis. The LO is matched to specific activities. Planning shows; key vocabulary, key questions, steps to success, resources and differentiated activities. Planning sheets are annotated to inform future teaching using + and - or colour coding.

More able, or Pupil Profile children, are identified at the beginning of the Planning folder, ability groups are also recorded at the front of Planning folders.

A range of published teaching resources are used to provide practice for mathematical concepts.

<u>Assessment</u>

White Rose Hub provides teachers with a learning overview for each mathematical concept 'block' or 'unit', assessment for learning questions, reasoning and challenge and various other links to resources, such as Nrich. Assessments are also done at the end of each term using White Rose to monitor progress at the end of each term.

SATs Past Papers are used in Year 2 and Year 6 (three times in Year 6, for example) to give baseline data and assess progress throughout the year.

Feedback in Maths

Feedback is given <u>orally and written</u> in maths lessons in order to pick up misconceptions and allow children to improve their work during the same lesson. Teachers do this through discussion, question and answer sessions and mini-plenaries when working with individuals or with a group. In EYFS feedback is instant and verbal so children can work on their next steps straight away. Teachers may also make comments in books for individuals with specific areas of need. When work is being discussed as a class, acknowledgement marking or self/peer marking/feedback may be appropriate as following school policy.

Impact

Monitoring and evaluation will be by the Maths Subject Leader, Senior Management Team and the Head Teacher in line with the assessment policy.

The Maths Subject Leader will monitor maths in school using:

- Weekly plans
- Samples of children's work
- Pupil Conferencing
- Maths working walls
- Lesson observations
- Termly data and evaluation documents
- Writing subject monitoring reports

Results of monitoring and evaluation are reported termly to the Governing Body.

Maths end of Key stage results are analysed and used for action planning that feeds into the school improvement plan.

Children leave St Mary's confident mathematicians.