St. George's Mission Statement

'We learn, we love, we look after our world.
We strive to be the best that we can be,
following in the footsteps of Jesus.'

St. George's Catholic Primary School
Mathematics Policy

At St. George's Catholic Primary School, we value Mathematics as a creative and inter-connected discipline that is essential to everyday life. A high-quality maths education 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.

Aims of Mathematics

We aim to provide pupils with a mathematics curriculum and high-quality teaching to produce individuals who are numerate, creative, independent, inquisitive, enquiring, and confident. The aims of the 2014 National Curriculum are for our pupils to:

- Become fluent in the fundamentals of mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically, follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems. Breaking problems into simpler steps and persevering in answering.

Planning:

Principles of planning:

- Planning begins from a thorough understanding of pupils' needs gleaned through effective and rigorous assessment and tracking, combined with high expectations and ambition for all pupils to achieve.
- Medium term planning will outline the areas of mathematics that will be taught during the term to ensure coverage of the National Curriculum.
- Within short term planning, clear success criteria for each learning objective taught should be

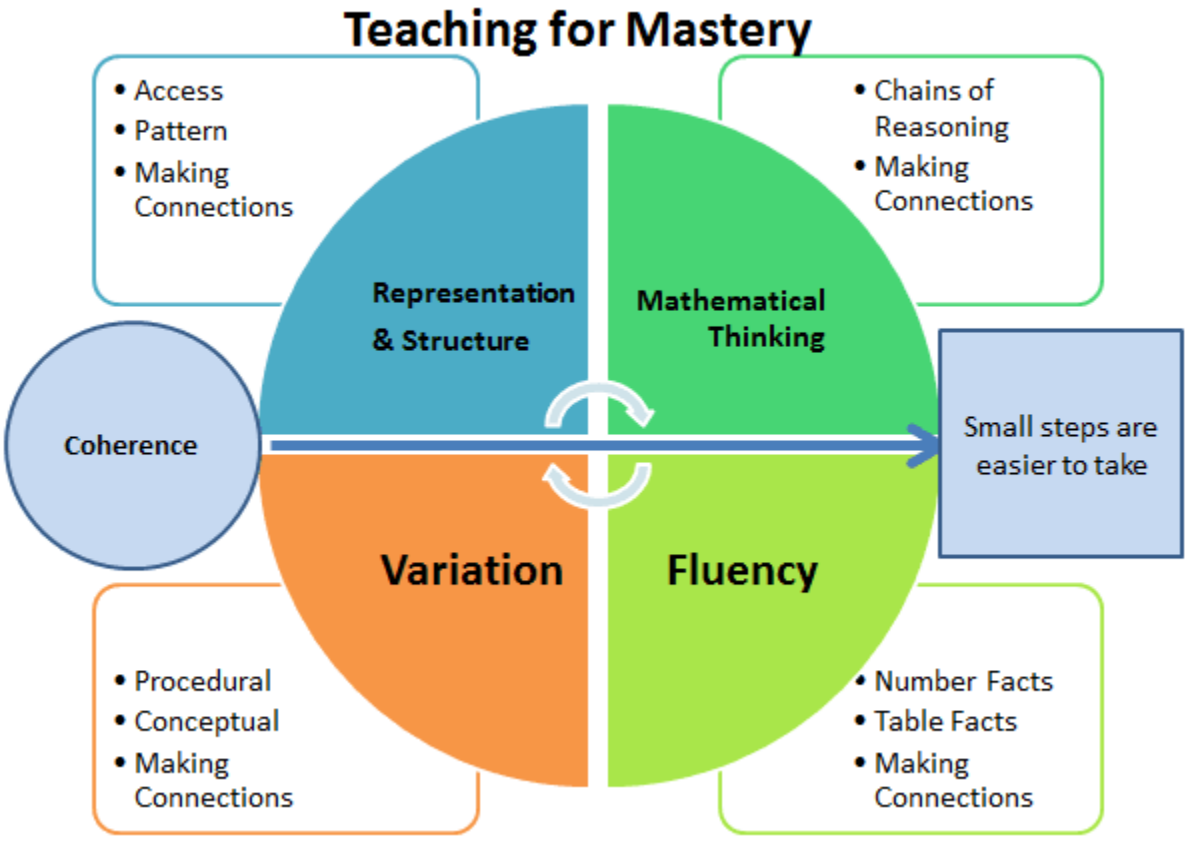
created. This will enable the class teacher to follow a clear and systematic teaching sequence.

- Planning should involve real life contexts for Maths, where pupils are problem solving with a purpose in mind.

St George's Catholic Primary School uses the Scheme of Work from the White Rose Maths Hub. Class teachers use the adaptable White Rose Small Steps and their understanding of what pupils need to learn to produce weekly short-term plans.
Maths should be taught every day for 45-50 minutes in Key Stage 1 and 60 minutes in Key Stage 2.
The White Rose resources are supplemented by a range of resources to best fit learning objectives.

Teaching:

Teachers use a range of teaching strategies to engage the children in Maths and ensure progress is made by all children within a class. As a member of the Boolean Maths Hub (2019-2020) and the Mobius Maths Hub (2020 onwards), St George's Catholic Primary School adopts the 'Teaching for Mastery' approach.



A typical lesson at St George's Catholic Primary School will include:

- Both teaching input and pupil activities,

- A balance between whole class, guided grouped and independent work,
- Effectively differentiated activities and appropriate challenge.

The principles of 'Teaching for Mastery' are coherence, representation and structure, mathematical thinking, fluency, and variation.
In the Foundation Stage, pupils are given the opportunity to develop their understanding of number, measurement, pattern, and shape and space through a combination of short, formal teaching as well as a range of planned structured play situations. These give plenty of scope for exploration.
Throughout St George's Catholic Primary School:

- **Coherence**: Pupils will learn through small steps that build a progression towards mastery of a topic. They will develop efficient written methods of calculation and apply them consistently, following the school's Calculation Policy.
- **Fluency**: Pupils will become competent 'counters' so that their fluency with the number system provides a foundation for mathematical understanding. Pupils will become confident with key number facts, particularly number bonds and times tables. These are taught and practised at school with support sought from parents through home learning activities. An award scheme encourages children to achieve in their number bonds and times tables facts.
- **Representation and Structure**: Maths learning builds from a concrete understanding of concepts where pupils are manipulating objects. When pupils are able to see concepts this way, they then need to understand the same concepts represented pictorially. Pupils are then ready for abstract representation before being able to apply their knowledge to different situations.
- **Mathematical Thinking**: Pupils should be encouraged at all times to communicate their understanding of maths so that it clarifies their thoughts. They should use stem sentences and explain their reasoning in full sentences.
- **Variation**: Pupils will receive carefully planned lessons that use conceptual and procedural variation of non-essential aspects to enable them to achieve mastery of the essential objective.

Although the nature of lessons will be different depending on the needs of each class, pupils at St George's Catholic Primary School will be:

- Active;
- Practising skills they haven't yet mastered;
- Learning something new or learning to apply their knowledge in different contexts;
- Working at a good pace and being productive, 'doing' very quickly;
- Communicating their thoughts and methods, and connecting their own and others' ideas;
- Pupils are encouraged to use Tower Hamlets Language Structures to support with this;
- Solving problems by drawing, 'guess and check', being systematic, reasoning logically, looking for patterns and working backwards.

Assessment:

Teachers integrate the use of formative assessment strategies such as effective questioning, clear learning objectives and effective feedback and response in their teaching. Summative assessment involves using Rising Stars Assessments, where pupils are assessed termly against National Curriculum objectives. National Curriculum tests are used at the end of Key Stage 1 and Key Stage 2. All assessments inform teachers' understanding of a child's attainment in Maths.
Assessment for learning occurs throughout the entire lesson, enabling teachers and learning support assistants to adapt their teaching to meet the needs of pupils. In each lesson, pupils should know when they are meeting their learning objectives and what they need to do to make further progress.
Pupils' work is marked in line with the Feedback and Marking Policy.
Assessment is used in order that pupils who are not making good progress over time can be targeted for support. The support will depend upon the child's needs. It may be a simple strategy within whole class teaching or further support in interventions including pre-teaching. In the short term, assessment for learning is used so that gaps can be quickly closed as they appear.

Where possible, this is through same-day intervention so that children keep-up rather than need to catch-up. Pupils' performance is examined at termly pupil progress meetings held with class teachers and members of the school's Senior Leadership Team.

Displays and Resources

In classrooms, age-appropriate resources are on display or easily accessible. These include concrete and pictorial apparatus to support pupils to grasp concepts. Mathematical vocabulary is displayed so that pupils use this in the communication of their understanding. Maths working walls are relevant to the block of learning for the class.

Monitoring

Monitoring of pupils' progress begins with pupil progress meetings and continues with the Mathematics Subject Leader evaluating further evidence. This monitoring happens through examination of pupils' books, pupil interviews, lesson observations, analysis of assessment results and other means depending on the information required.

Following monitoring activities, feedback is given to staff about how they can strengthen their practice and professional development opportunities where it is appropriate.

Other policies and documents to be read in conjunction with this policy:

- Calculation Policy: Appendix A
- Scheme of Work: Appendix B
- Teaching and Learning Policy
- Feedback and Marking Policy
- SEN Policy

Reviewed by Teaching Staff: June 2020
Approved by Governors:
Next Review Date:
Approved by Governors: