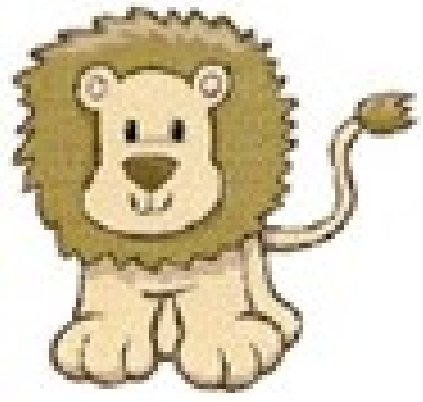
St Mark's Catholic Primary School

Maths Policy



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Statement of intent

Number and arithmetic are at the heart of our maths curriculum here at St. Mark's. We aim for all our children to become familiar with number in a variety of forms from an early age in order to develop confidence and understanding. Through maths games, activities and 'playing with number' our children enjoy the subject and learn key facts, which helps them in many other aspects of the subject. We intend to make lessons varied, practical, engaging and enjoyable, catering for different learning styles and giving children the opportunity to succeed and be challenged at the appropriate level. By making real-life links and through investigations, children see the value and importance of maths as well as having opportunities to solve problems and try different methods, which aids understanding of the reasoning behind each concept. Mistakes are encouraged, as they build resilience and help us learn. Through our varied curriculum which covers and then re-visits all aspects of maths, our children develop the required knowledge and skills to become confident and determined mathematicians who enjoy the subject and are ready to move onto the challenges of the subject at secondary school.

1. Legal framework

1.1. This policy has due regard to statutory guidance including, but not limited to, the following:

- DfE (2013) 'National curriculum in England: Mathematics programmes of study'
- DfE (2017) 'Statutory framework for the early years foundation stage'

2. Roles and responsibilities

2.1. The subject leader (Craig Ellicott) is responsible for:

- Preparing policy documents, curriculum overviews, progression of skills documents and schemes of work for the subject.
- Reviewing changes to the national curriculum and advising on their implementation.
- Monitoring the learning and teaching of maths, providing support for staff where necessary.
- Ensuring the continuity and progression from year group to year group.
- Encouraging staff to provide effective learning opportunities for pupils.
- Helping to develop colleagues' expertise in the subject.
- Organising the deployment of resources and carrying out an annual audit of all maths-related resources.
- Liaising with teachers across all phases.
- Communicating developments in the subject to all teaching staff.
- Leading staff meetings and providing staff members with the appropriate training.
- Organising, providing and monitoring CPD opportunities in the subject.
- Ensuring common standards are met for recording and assessing pupil performance.
- Advising on the contribution of maths to other curriculum areas, including cross-curricular and extra-curricular activities.
- Collating assessment data and setting new priorities for the development of maths in subsequent years.

2.2. The classroom teacher is responsible for:

- Acting in accordance with this policy.
- Ensuring progression of pupils' mathematical skills, with due regard to the national curriculum.
- Planning lessons effectively, ensuring a range of teaching methods are used to cover the content of the national curriculum.
- Liaising with the subject leader about key topics, resources and support for individual pupils.
- Monitoring the progress of pupils in their class, recording progress on SIMS and reporting this on an annual basis to parents.
- Reporting any concerns regarding the teaching of the subject to the subject leader or a member of the senior leadership team (SLT).
- Undertaking any training that is necessary in order to effectively teach the subject.

2.3. The special educational needs coordinator (SENCO) – Sara Dykes - is responsible for:

- Liaising with the subject leader in order to implement and develop maths throughout the school.
- Organising and providing training for staff regarding the maths curriculum for pupils with special educational needs and disabilities (SEND).
- Advising staff how best to support pupils' needs.
- Advising staff on the inclusion of mathematical objectives in pupils' individual education plans.
- Advising staff on the use of teaching assistants in order to meet pupils' needs.

3. Early years provision

3.1. Activities and experiences for pupils will be based on the seven areas of learning and development, as outlined in the DfE's 'Statutory framework for the early years foundation stage'.

3.2. Provision for early years pupils focusses on four specific areas:

- Literacy
- Maths
- Understanding the world

- Expressive arts and design

3.3. Activities will provide pupils with the opportunity to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems, and describing shapes, spaces and measurements.

3.4. All activities will adhere to the objectives set out in the framework.

3.5. During the early years foundation stage, pupils will be taught to:

- Count with numbers from 1 to 20, placing them in order and naming the number that is one more or less than a given number.
- Use quantities and objects to add and subtract two single-digit numbers, and count forwards or backwards to find the answer.
- Solve problems, including doubling, halving and sharing.
- Use everyday language to talk about size, weight, capacity, position, distance, time and money in order to compare quantities and objects, and solve problems.
- Recognise, create and describe patterns.
- Use mathematical language to describe everyday objects and shapes.

3.6. Emphasis will be placed on regular opportunities to 'play with number' using resources and discovering patterns and relationships.

4. The National Curriculum

4.1. The national curriculum is followed and provides a full breakdown of the statutory content to be taught within each unit. Each objective is assessed and recorded on SIMS, with all objectives covered at least twice during each academic year. We broadly follow the structure recommended by White Rose, but with some flexibility in order to reinforce understanding in any identified areas of development.

4.2. In Year 1, pupils will be taught:

- **Number and place value**
- **Addition and subtraction**
- **Multiplication and division**
- **Fractions**
- **Measurement**
- **Properties of shapes**
- **Position and direction**

4.3. In addition to the above, Year 2 pupils will be taught:

- **Statistics**

4.4. In Key Stage 2, the following additional units are eventually added, whilst continuing with all of the above too:

- **Position and direction (Year 4)**
- **Fractions including decimals and percentages (Year 5)**
- **Ratio and proportion (Year 6)**
- **Algebra (Year 6)**

5. Cross-curricular links

5.1. Wherever possible, the maths curriculum will provide opportunities to establish links with other curriculum areas.

5.2. English

- Mathematical terminology is used, where appropriate.
- Maths-based texts are sometimes used in English lessons and in guided reading sessions.

5.3. Science

- Pupils' data collection and analysis skills are further developed through the conduction of physical experiments, using units of measurement, calculating averages and interpreting results.
- Pupils record their finding using charts, tables and graphs.

5.4. Humanities

- Data analysis, pattern seeking and problem-solving skills are developed through the teaching of geography.
- Pupils' understanding of time and measurements of time are developed through discussions of historical events.

5.5. Computing

- Pupils have opportunities to use calculators and other electronical devices, gaining confidence throughout their school experience.
- ICT will be used to enhance pupils' maths skills through the use of online resources and the creation of spreadsheets.
- ICT will be used to record findings, using text, data and tables.

6. Implementation - Teaching and Learning

6.1. Maths is taught daily in each class across the school. Throughout the week, children have opportunities to develop their fluency, reasoning and problem solving skills within the subject.

6.2. One lesson each week is dedicated purely to number and arithmetic, as this is the key to so much of mathematics. In addition, there are further opportunities each day for quick, fun maths games or activities in each class, or just opportunities to play with and explore number. This helps children increase their competence, confidence and enjoyment of maths.

6.3. Each class utilises a range of resources and equipment daily in order to cater for and engage all learners. Where possible, real life links are made and opportunities are given within the lesson to challenge children further to extend their knowledge, investigate or solve problems related to the topic.

6.4. A maths mastery approach is taken to the curriculum, in which fluency comes from deep knowledge and practice. This means that structured questioning is used to ensure that pupils develop fluent technical proficiency and think deeply about the underpinning mathematical concepts.

6.5. Lessons are differentiated to meet the needs of all children, with additional adults and resources utilised to support and challenge individuals and groups.

7. Planning

7.1. Throughout St Mark's Catholic Primary School maths is taught daily as a discrete lesson and as part of cross-curricular themes when appropriate.

7.2. St Mark's subscribe to White Rose Maths and use this scheme as our main resource to aid planning and the structuring of units. 4 out of the 5 lessons each week follow this scheme, whilst the fifth lesson is a specific number based / 4 operations lesson to ensure children continue to develop key skills. Mental maths strategies are embedded into daily lessons. In addition to White Rose, staff have access to resources on My Maths, TT Rockstars, Numbots and various text books within school too. Teachers may use their professional discretion to vary the resources used in order to suit the needs of their children and keep lessons varied and engaging.

7.3. Teachers will use the key learning content in the DfE's statutory guidance 'National curriculum in England: mathematics programmes of study', published in 2014.

7.4. Lesson plans will demonstrate a balance of interactive and independent elements used in teaching, ensuring that all pupils engage with their learning.

7.5. Medium-term plans will identify weekly topics or themes, key learning objectives to be assessed, the mental maths strategies to focus on and the 4 operations / number specific lesson to be taught each week.

7.6. Medium-term plans will be shared with the **subject leader** to ensure there is progression between years. Support will be provided to individual staff by the subject leader where appropriate.

7.7. Short-term weekly planning is the responsibility of the teacher, following a set format decided upon by the maths lead. This is achieved by building on their

medium-term planning, taking into account pupils' needs and identifying the method in which topics could be taught.

7.8. All lessons will have clear learning objectives (WALTs), which are shared and reviewed with pupils. Where children don't meet the WALT that lesson, additional support is provided to help those individuals make progress in that area. This could include working with an adult, going through an additional question or supporting children to correct questions they struggled with.

7.9. Homework will be set on a **weekly** basis. My Maths can be used to complete homework electronically, or homework can be set to be completed in maths homework books. Homework should build on recent learning in lessons.

7.10. In addition to My Maths, all children have access to TT Rockstars and Numbots to support them with their knowledge of number bonds and times tables. Rewards are regularly given out by the maths coordinator to encourage use of this resource. Additionally, parents are encouraged to download the White Rose '1-minute maths' app, which supports key learning covered in school.

8. Assessment and reporting

8.1. Pupils are constantly assessed each lesson. Assessment for learning means that activities can be differentiated to meet the needs of all pupils so progress can be made by all. Formative assessment ensures that children's progress is tracked on SIMS and areas for development are identified and addressed. Termly summative assessment is reflected upon alongside other data, helping to inform future planning and interventions.

8.2. An EYFS Profile will be completed for each pupil in the final term of the year in which they reach age five.

8.3. The progress and development of pupils within the EYFS is assessed against the early learning goals outlined in the 'Statutory framework for the early years foundation stage'.

8.4. Assessment will be undertaken in various forms, including the following:

- Talking to pupils and asking questions
- Discussing pupils' work with them
- Marking work against the learning objectives
- Pupils' self-evaluation of their work
- Classroom tests and formal exams

8.5. Parents will be provided with a written report about their child's progress during the Summer term every year. These will include information on the pupil's

attitude towards maths, understanding of mathematical terminology, investigatory skills and the knowledge levels they have achieved.

8.6. Verbal reports will be provided at parents evening meetings and any further information can be provided or discussed upon request.

8.7. The progress of pupils with SEND will be monitored by the SENCO.

9. Resources

9.1. The subject leader is responsible for the management and maintenance of maths resources and the maths budget, as well as for liaising with the head teacher in order to purchase further resources.

9.2. Some maths resources will be stored in each classroom, as well as a central store of additional resources in the maths cupboard.

9.3. Display walls will be utilised and updated regularly, in accordance with the area of maths being taught at the time.

9.4. Maths equipment and resources will be easily accessible to pupils during lessons. We aim to make lessons engaging with links to real life, aided by resources. This is particularly important in the Early Years and in KS1, as well as for those pupils who have SEND.

9.5. The subject leader will undertake an audit of maths equipment and resources on an annual basis.

10. Equal opportunities

10.1. All pupils will have equal access to the maths curriculum.

10.2. Gender, learning ability, physical ability, ethnicity, linguistic ability and/or cultural circumstances will not impede pupils from accessing all maths lessons. All efforts will be made to ensure that cultural and gender differences will be positively reflected in all lessons and teaching materials used.

11. Monitoring and review

11.1. This policy will be reviewed on an bi-annual basis by the subject leader.

11.2. The subject leader will monitor teaching and learning in the subject, ensuring that the content of the national curriculum is covered across all phases of pupils' education.

11.3. A named member of the governing body is briefed to oversee the teaching of numeracy, and meets with the subject leader to review progress.

11.4. Any changes made to this policy will be communicated to all teaching staff.

12. Appendices

12.1. This policy works alongside the 'Addition and Subtraction Calculation Policy', the 'Multiplication and Division Calculation Policy', the 'National Curriculum Progression Document' and the 'Primary Maths Terms Glossary'. These are all attached and are also available via links on our school website.

Signed by:

Maths Coordinator Date:

Headteacher Date:

Chair of governors Date: