Pray, Learn, Achieve and Celebrate Together

Maths Policy

I can do all things through Christ which strengtheneth me.

Philippians 4:13

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Curriculum Intent

Here, at St. Gabriel's Catholic Primary School, we believe that children should understand that Maths is important in everyday life. We want children to enjoy Maths so that they can acquire the knowledge and skills, which they will be able to use for the rest of their lives.

We recognise that unlocking mathematical fluency is an essential. We believe that equipping children with the skills to recall mathematical facts quickly, become fluent in mental and written calculations and being able to explain their thinking using mathematical language from an early age, allows children to feel confident and able to solve problems and reason mathematically in a range of different contexts.

Our aim is to provide a Maths curriculum which provides the opportunity to revisit knowledge, concepts and skills across the year in order to produce strong, secure learning. As a school, we recognise that the key to unlocking the potential in our children is the use of concrete resources and pictorial representations at all ages. This will enable children to fully understand the concepts and principles, when presented with abstract calculations and questions.

Aims and Objectives:

Through the teaching of Maths we aim to develop:

- A positive attitude to maths and an awareness of the relevance of maths in the real world.
- The ability to think clearly and logically and tackle problems and challenges with perseverance.
- Fluency, confidence and competence with numbers and the number system, through the quick recall of mathematical facts (Learn Its) and daily counting.
- Children's sense of number so that pupils can recognise mathematical patterns and make links between known facts to help them solve complex calculations or problems.
- Children's understanding of mathematical vocabulary so they can explain their reasoning.
- An efficient method of mental and written calculations for all four operations.
- The ability to select effective and efficient methods appropriate to the task, and to know when it is best to work mentally or with a written method.
- The ability to solve problems through decision making and reasoning in a range of contexts.
- A practical understanding of the ways in which information is gathered, presented and interpreted.
- An understanding of the features of shape and space and develop measuring skills in a range of contexts.
- The ability to transfer mathematical skills to other subjects and apply them in real life situations.

Legal framework

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

- DfE (2014) National Curriculum in England: Mathematics
- DfE (2021) Statutory framework for the Early Years Foundation Stage.

Planning

There are three phrases of curriculum planning – long, medium and short term.

Long term planning

The National Curriculum for Mathematics 2014 and Early Years Development Matters document (2021) provide the basis for implementing the statutory requirements of the programmes of study. They ensure progression across the full range of mathematical skills and practices. At St Gabriel's, the yearly overview details the key mathematical areas that will be taught in 'blocks of learning', over the year. Blocks of learning are revisited each term to ensure that key mathematical knowledge, skills and understanding can be mastered by the end of the year.

Medium term planning

Medium term teaching sequences detail the main teaching objectives to be covered and the order of blocks to be taught across each of the three terms. Blocks of learning and key objectives have been sequenced to create a 'spiral curriculum'. This is to ensure that objectives are continuously revisited, learning reinforced and links in learning can be made across previously taught blocks of work. The time allocated to each block of learning is flexible and dependent upon the needs of the pupils.

New learning for the term is highlighted in green

Links in learning are highlighted in red. This is to encourage teachers to make connections across mathematical ideas and build upon prior learning.

Short term planning

Short term plans detail the content of the daily lesson and is completed weekly by staff. All staff will indicate the learning objective for each group within class, as well as identifying differentiated tasks and key resources needed. There should be evidence that staff have used previous learning to inform and adjust their daily planning to meet the needs of all children in the class.

All classes have a daily mathematics lesson. In Early Years sessions are up to 25 minutes. In Key Stage 1 lessons are 45- 60 minutes and in Key Stage 2 60 minutes. Each session should also incorporate daily counting or continuous learning opportunities for recall of facts.

For **mental and written calculations**, St. Gabriel's staff have worked together to create our own written calculation policies for each of the four operations. This is to ensure progression and consistency throughout school for each calculation and ensure the appropriate mental strategies are taught in each year group. The aim is that by the end of Year 6, children are confident in using short written calculations for all four operations and will be able to choose the most efficient mental strategy from the range of strategies taught.

Early Years

Activities and experiences for pupils will be based upon the seven areas of Learning and development, as outlined in the DfE's statutory framework for the Early Years Foundation Stage. The children have the opportunity to explore maths activities practically, through both adult directed and child initiated activities, using both their indoor and outdoor learning environments. Children are given opportunities to develop their understanding of number, calculation, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics. Children will also have key number facts (Learn Its) which they will need to know by the end of Reception.

At the end of Reception, children's progress is judged against the Early Learning Goals and the Early Years Foundation Stage Profile (EYFSP) is completed for each child.

Teaching Styles in Maths:

The school uses a variety of learning and teaching styles and employs strategies that cater for different types of learners, such as:

- teacher exposition
- use of models and images
- effective questioning
- whole class interaction
- peer - peer work
- children asking and answering questions, explaining their thinking
- pupil demonstration

We recognise that in all classes children have a wide range of knowledge, skills and understanding in Maths, and we seek to provide suitable learning opportunities for all children by matching the challenge to the ability of the child. We achieve this by:

- Setting tasks which are open-ended and can have a variety of responses;
- Grouping children by ability in the room and setting tasks of increasing challenge for each ability group;
- Providing resources of different complexity, depending on the ability of the child;
- Pre-learning tasks/interventions (led by classroom assistants or teachers);
- Children working independently, adult-led groups, paired work, groups and as a whole class.

The Wider Curriculum and Maths

The teaching of Mathematics contributes significantly to children's understanding of other curriculum areas. Links are planned and taught appropriately.

Inclusion in Maths

At St Gabriel's we are committed to ensure all pupils, whatever their ability or individual need will have equal access to the Maths curriculum. Our aim is to provide pupils with the same level of opportunities as others through quality first teaching and adaptive lessons. In order to ensure pupils with SEND achieve to the best of their ability, we adapt the challenge of the task to the child's ability. Practical resources and a variety of models and images are also used to adapt learning for the varying needs of pupils.

Assessment in Maths

Assessment is regarded as an integral part of learning and teaching and is a continuous process. Assessment takes place in line with the school's agreed Teaching, Learning and Assessment policy.

Daily assessments are essential in order to ensure work is set at the appropriate level necessary for pupils' continuing progress. Feedback must be given and actioned during the lesson as much as possible in order to address misconceptions. Daily marking, questioning within the lesson and observational evidence in Early Years is used to identify pupils' next steps and inform daily planning.

Termly assessment tests measure progress against the key objectives taught and are used to identify strengths and gaps in pupils' skills and knowledge to inform future medium term planning. From Year 1 upwards children will undertake assessment tests in the autumn and spring term. These tests have been written specifically to the year group teaching sequences and summarise the most important knowledge and skills needed in order to move pupils' forward in their learning. Staff analyse this data and complete a diagnostic. These are used to measure individual progress as well as to identify pupils who need further support, 1:1 tuition and groups for specific intervention.

End of year assessments are used to assess progress against school and national expectations. National tests are used for Y2 and Y6 and other year groups use a combination of Maths Pixel tests and teacher assessments to make their final judgements. Annual assessments of children's progress are measured against the level descriptions of the National Curriculum or the Early Learning goals. Targets are set for the next school year and a summary of each child's progress is reported to parents following statutory guidance. Information is also passed onto the next teacher.

Staff Roles and Responsibilities in Maths

Teachers Role

It is the teacher's responsibility to:

- Act in accordance with this policy
- Plan work effectively, ensuring planning is based on children's prior experience and connections are made across Mathematical ideas to reinforce learning.

- Ensure planning is progressive and offers a variety of opportunities to develop fluency before applying the skills learned to problem solving and reasoning
- Give pupils timely feedback (within the lesson or shortly after) to address misconceptions or move learning on
- Monitor the progress of pupils in their class and undertake key assessments throughout the year.

Subject Leaders Role

The Subject Leader will:

- Be responsible for keeping up to date with new developments through attending national and locally organised in-service training, courses and events.
- Provide advice for individual teachers about the implementation of this policy, the use of the National Curriculum, commercial schemes and resources.
- Prepare policy documents, curriculum plans and schemes of work for the subject.
- Deliver in-service training on Mathematics
- Monitoring the learning and teaching of Maths, providing support for staff where necessary.
- Undertake observations of Maths lessons (formal and informal, learning walks and book reviews) and give feedback as appropriate.
- Report directly to SMT and Governors on the areas of strength and areas of development in Maths, as well as reporting on whole-school, class and group data.
- Have responsibility for the management of the Maths budget.
- Have input for Maths within the School Development Plan.

SMT Role

The SMT will oversee the role of the Maths Leader, offer advice and support in managing the subject area and have a clear understanding of the areas of strength and areas of development within the subject.

Governors Role

The Maths Leader will encourage positive links with the Maths governor to keep the governing body aware of all major issues related to Mathematics in the school. The Governor for Maths is Damien Roach.

Monitoring of Maths

The teaching staff will monitor their pupils through observation, discussion, teacher assessment, marking work and testing.

It is the responsibility of the co-ordinator and SMT to monitor teaching and learning in Maths across the school. The teaching of Maths is monitored through book scrutiny, lesson observations, short and medium term planning scrutiny, pupil voice, discussion during staff meetings and INSETs. Children's progress will also be monitored through testing and in Pupil Review meetings.

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