

POLICY FOR MATHEMATICS



ST FRANCIS RC PRIMARY

2023-2024

St Francis Catholic Primary School, SE15 1RQ

Vision and Mission Statement and Gospel Values

Our Vision

Providing every child with the tools to choose their path to success.

Our Mission

In St Francis children succeed because:

- ✓ We are an outward looking Catholic Primary school, which welcomes all children from the surrounding area. We work together to nurture our pupils, helping them to become resilient and inspired learners, who will become responsible global citizens of the future.
- ✓ We cultivate our pupils through our broad and diverse curriculum and loving Catholic Parish community
- ✓ We provide a welcoming, safe and supportive environment that helps children feel respected, confident and motivated to achieve their goals.
- ✓ We also foster a spiritual and moral view of life that provides children with a sense of self-worth and a strong Catholic ethos

Our Gospel Values

Love

Honesty

Courage

Tolerance

Justice

Jeremiah 29:11

“I alone know the plans I have for you, plans to bring you prosperity and not disaster, plans to bring about the future you hope for”



Policy for Mathematics

Rationale

Mathematics is all around us; it is an important part of the world in which we live and to function in society we need to be able to think and communicate mathematically. At St Francis, we believe that every student should be encouraged to become **passionate and resilient mathematicians** through experiencing a wide range of **challenging activities** based on a solid understanding of the **fundamentals of mathematics**. Children should also leave St Francis being able to accurately use precise technical vocabulary to **reason their mathematical thinking**.

At St Francis we aim to inspire all children to reach their full academic potential. In mathematics this means ensuring a curriculum that is fully inclusive of all children which:

- Develops children's knowledge and understanding of Mathematical concepts whilst enabling them to practice and hone skills and methods;
- Enables them to think critically and communicate their understanding;
- Gives them opportunities to apply learnt mathematical skills in different contexts across the curriculum.
- Provides opportunities to develop problem solving skills useful for maths and across the curriculum.

As a result of their learning in mathematics and problem solving across the curriculum children will:

- Be prepared for applying their skills effectively in everyday life situations, in their future learning and in the work place.
- Have the building blocks in place and to provide a solid foundation to lead onto secondary, further and higher education.

Through teaching with a problem-solving approach, children will learn to understand, interpret and clarify information; consider what they know that will help them to solve problems, realising what they need to know next; create systems and strategies, organising information in a way that helps find patterns and ultimately solutions and to communicate and present their findings effectively.

Principles

Planning

- Planning begins from a thorough understanding of children's needs gleaned through effective and rigorous assessment and tracking, combined with high expectations and ambition for all children 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.
- The class teacher will follow a clear and systematic teaching sequence, where input and activities are differentiated by considering which parts of the success criteria individual children are ready for.
- Where children are working significantly above or below the objective the majority of the class need to work towards, and where extending this by expanding the success criteria seems inappropriate, objectives from higher or lower age-groups will need to be planned and taught.

- Planning, where possible, should involve real life contexts for maths, where children are problem solving with a purpose in mind.
- Class teachers should regularly plan for opportunities for children to apply their maths skills to different problems within maths lessons and across the curriculum. This will also allow children to revisit, practise and consolidate different areas of maths and apply them within different contexts.

Teaching

- In the Foundation Stage, children 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, where there is plenty of scope for exploration.
- Children will become very competent 'counters' so that their fluency with the number system provides a foundation for mathematical understanding. Counting forwards and backwards in many different sized steps as well as from different starting and ending points is essential.
- Maths learning builds from a concrete understanding of concepts where children are manipulating objects. When children are able to see concepts this way, they then need to understand the same concepts represented pictorially. Children are then ready for abstract representation before being able to apply their knowledge to different situations.
- Children should be encouraged at all times to communicate their understanding of maths so that it clarifies their thoughts.
- Children's mental maths is of great importance, with number bonds, times tables facts and various strategies for calculation taught and practiced at school with support sought from parents through homework activities.
- A progression towards efficient written calculations should be developed and applied consistently in each year-group. The school Calculation Policy and WRM Policy should be followed.
- Though the nature of lessons will be very different depending on the needs of the class, children should be: active; practising skills they haven't yet mastered; learning something new OR learning to apply their knowledge to different contexts. They should be: 'doing' very quickly; working at a good pace and being productive; sharing their thoughts and methods and being successful.

Assessment

- Assessment for learning should occur throughout the entire maths lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children's needs. This feedback should be incisive and regular.
- On a daily basis, children should self-assess against the learning objective, giving them a sense of success.
- Pupil's work should be marked in line with the Marking Policy and should model how corrections should be made, giving children a chance to learn from their misconceptions or incorrect methods.
- Future lesson design should depend on class success evaluated through marking and observations made during the lesson.
- Assessment of pupil work and progress is ongoing by the class teacher and informs future planning. Teachers mark work in mathematics in line with the school marking policy. Teachers use the Southwark Tracking and Assessment Resources (STAR) and this allows teachers to make a judgement on the children's progress in mathematics, gathering evidence over the course of the

year. Teachers use this information to inform planning for groups and individual pupils.

- Summative assessments are made at the end of each term from Year 2 to Year 6, in order to provide further understanding of the level a child is working at and to inform a more rounded judgement of their abilities.
- Tracking is used in order that children, who are not making good progress over time, can be identified for support in one form or another. What that support will and how intensive, depends upon the child's needs and it may be a simple strategy within whole class teaching that is needed. Where further support is deemed necessary, children can access interventions, explained below.

Display and Resources

- In the classrooms there should be, either on display or easily accessible to children, age-appropriate resources, particularly concrete and pictorial apparatus to support children in understanding concepts.
- Mathematical vocabulary should be displayed, so that children use this when communicating their understanding.
- There should be maths work on display in classrooms and in other areas of the school, in order to encourage a positive attitude and enthusiasm towards mathematics for all groups of children

Guidance for Teachers and TAs

- At St Francis we follow the White Rose Scheme of Learning, which provides a termly plan for each year group from Year 1 to Year 6. Each term is split into twelve weeks. In addition to the yearly overviews below, children access a weekly fluency lesson. This ensures students build their fluency, revisiting the fundamentals of mathematics throughout the year, as number sense will affect their success in other areas of mathematics. Students who are successful with number are much more confident mathematicians. Class teachers should use and adapt the White Rose Scheme of Learning, when they plan their lessons during the term (based on their understanding of what children need to learn next). Each unit should be preceded with a calculation assessment linked with the previous year's group. From this, weekly short-term plans should be completed using the agreed pro-forma.
- Maths should be timetabled for 5 hours a week from Year 1 to Year 6.
- As well as the Maths lesson, KS1 children will also have a Mastering Number session that should be the equivalent of 60 minutes each week.
- Resources to assist with the planning, teaching and assessment of mathematics can be found in the shared area of the school's computer network. Resources that can be found there include: calculation policy; problem solving resources (including word problems); formal assessments linked to APP and key number objectives for interventions.
- In addition, to assist with the teaching of mathematics there are the following Computing resources in the shared area which will also be used to set weekly homework for each class: interactive teaching programs, Excel resources, Success in maths resources, Testbase, Textease, Purple Mash, TTRS and Athletics resources.
- Teachers should follow the White Rose Maths short- and long-term plans to support with the learning objectives for teaching mathematics (yr1 – 6). However, teachers should use resources which best fits the success criteria – these might come from any of the published resources provided or might come from elsewhere.
- Unit plans for mathematics provide some useful resources and guidance.

- Guided Maths work should be set up by the class teacher so children can revisit, practise and consolidate previously learnt areas of maths as well as be introduced to brand new concepts which are better taught in a small group.

Tracking and Intervention

At St Francis we aim to provide children who are not making good progress, with extra support through interventions. Interventions in Maths should be based on developing key number skills that are appropriate for the children involved. These can be located in the shared area of the school's computer network. Children should be assessed at the beginning and at the end.

Whilst interventions could be carried out by Teaching Assistants, for example, what is being taught and how it is delivered is the class teacher's responsibility and communication is essential. Teacher meetings with TAs are planned as regularly as is possible.

We identify from tracking any gender issues that exist and plan initiatives that would address these, as part of teacher performance review meetings where children's performance is evaluated on an individual basis with class teachers.

We also examine the progress of ability groups and those with English as an additional language, those entitled to the Pupil Premium and those with a Special Educational Need. Where data indicates a whole school issue, it will form part of the School Improvement Plan. Assessment data will influence the School Improvement Plan itself.

Monitoring

Monitoring of children's progress begins with performance review meetings and continues with the subject leader evaluating further evidence to ensure children are making progress. This monitoring happens through examination of work in books, pupil interviews, analysis of assessment results and the assessments used, and through other means depending on what information needs to be gleaned.

Following monitoring activities, feedback is given to staff about how they can strengthen their practice and CPD (professional development) opportunities built in where appropriate. These might take the shape of inputs during staff meetings, planning meetings, team teaching, developmental observations and a variety of other means.

Where specific initiatives have been put in place through action planning for school development, these are monitored by the subject leader in order to evaluate their impact. Findings are reported to the headteacher and governors through use of the SIP and feedback during SLT meetings.

The success of interventions is also monitored by the Subject Leader and this informs future planning of interventions.

Home-School Partnership

At St Francis we value strong partnerships with parents and carers. As a result, we put on a number of parent workshops designed to help parents support children in their learning. We recognise that parents make a significant difference to children's progress in Maths and we encourage this partnership. The parent-teacher meetings, parent workshops and Meet the Teaching team meetings outline how parents can support their children.

We also make use of online learning platforms (Mathletics and Times Tables Rockstars) in order to further foster a love for learning beyond the classroom and to give parents a better idea of what the children are learning about in their lessons.

Other policies and documents to be read in conjunction with the Maths Policy:

Southwark Calculation policy
National Curriculum 2016
WRM Calculation Policy
Teaching and Learning Policy
Marking Policy
SEN Policy and Single Equality Scheme

Policy monitoring and review

The Head teacher, Senior Leadership Team and Maths Subject Leader will monitor the effectiveness of this policy on a regular basis. The Head teacher and Maths Subject Leader will report to the governing body on the effectiveness of the policy.

We are aware of the need to regularly review our policy to take account of new initiatives, changes in curriculum or developments in technology.

This policy will be reviewed during the Summer 2024
(unless any curriculum changes occur before this time)

Reviewed By: Ms Agnes November 2023