

Mathematics Subject Policy

St. Francis' Catholic Primary School



Approved by FGB on: N/A

Committee Responsible: Learning

Next review due by: November 2023

Mathematics

Intent

Mathematics permeates much of our everyday life and is critical to most forms of employment. A sound mathematical foundation is therefore fundamental to children understanding the world and engaging productively with it. At St Francis' school, we believe in building an appreciation of the power and beauty of mathematics, evidenced for instance in how it shapes the natural world, understanding this in the context of our belief in God the Creator.

Aims

- provide a high quality mathematics curriculum that is accessible to all, and which ensures all children are challenged and make progress in lessons
- build competency and develop sound conceptual understanding in number and calculation, measurement, shape, data, money and time
- foster the development of deeper mathematical thinking in order to apply knowledge flexibly and creatively to problem solving and reasoning in different contexts
- develop fluency in number so children can recall and apply their knowledge quickly and accurately
- facilitate the development of a rich mathematical vocabulary that equips children with appropriate terminology as well as the language necessary to reason and explain their thinking clearly
- instil a growth mind-set that recognises mistakes as part of the learning process, developing learners who persevere to overcome difficulties and who take responsibility for their own learning
- to provide a mathematically stimulating environment where key vocabulary is displayed in every classroom, alongside resources such as number lines, multiplication squares and historical timelines.

Implementation

- Maths will be taught in accordance with National Curriculum programmes of study and supported by the 'Maths – No Problem!' series of textbooks and other published schemes
- teaching will embrace a mastery approach. Lessons are planned to ensure the inclusion of three core elements: fluency, to practise skills; reasoning, to deepen understanding; and problem solving, to apply skills
- to secure a deep and transferable understanding, children will have opportunities to use practical concrete equipment to help model mathematical concepts, pictorial representations to scaffold the development of a conceptual understanding, visual representations to support reasoning and problem solving activities, and abstract methods of recording to explore and demonstrate mathematical ideas
- deeper thinking is fostered through exposure and use of key vocabulary, which is revisited regularly and develops capacity to reason and explain. Careful questioning is used to elicit understanding and ability to reason
- where misconceptions exist, children are encouraged to revisit their thinking to ensure they are secure in their understanding
- the 'Progression in Written Calculations' booklet is used to ensure a consistent approach to the teaching, recording and calculation of methods for the four operations
- the EYFS curriculum ensures pupils learn through a mixture of adult-led and pupil-initiated activities, both inside and outside of the classroom

- lesson in key stages 1 and 2 are delivered through whole class teaching with opportunities for children to work independently, collaboratively and even to support their peers. Children are encouraged to select mathematical tasks that challenge and stretch their ability
- efficient mental calculation and speedy recall of key number facts is essential for building on secure mathematical foundations. This is reflected in daily practice at school
- the home-school partnership is highly valued and parents/carers will be encouraged to support mathematical development, particularly through reinforcement of mental calculation skills
- children are supported to make progress at their own pace. Children who grasp concepts quickly are challenged through more demanding problems that promote greater depth and rigour, whereas others may need additional support to consolidate their understanding before moving on
- games, puzzles and ICT are used to support teaching and learning. Each classroom has access to a range of practical apparatus with additional resources stored centrally
- work may be evidenced through photographs/activities in books (or on Tapestry for EYFS). Children are encouraged and helped to use the most appropriate and efficient method of recording
- assessments are daily, ongoing and formative, involving marking of work, analysis of errors and observations. Summative assessments take place three times per year (using teacher assessment, NFER materials and past SATs papers) and overseen by the Maths Coordinator
- progress of pupils is monitored and discussed with the leadership team following each summative assessment. Appropriate intervention is then considered and put in place where appropriate.

Impact

The Maths coordinator, reporting to the Head Teacher, is responsible for monitoring teaching practice to ensure that the school Maths policy is being implemented. This includes overseeing the development and review of schemes and other resources for learning in Maths, identifying and supporting CPD needs, mapping out and monitoring curriculum planning, conducting and evaluating lesson observations, oversight of assessment materials/procedures, supporting staff, moderation of work and acting on teacher feedback.

Conclusion

At St. Francis' School, we aim to provide creative and engaging lessons that give pupils wide-ranging opportunities to explore mathematics following a mastery curriculum approach. We seek to develop, broaden and deepen the children's skills in order that learners become confident mathematicians, deriving enjoyment and satisfaction from their achievements and recognising the relevance of the subject in everyday life.