St Finbar's Catholic Primary School

Maths Curriculum Statement

The Big picture (Overview)

At St. Finbar's Catholic Primary School, we believe that Mathematics is both a key skill within school, as well as a life skill, to be utilised throughout every person's day to day experiences. Mathematics equips pupils with the uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. Mathematics is therefore not just important in our everyday lives, but integral to success in the modern world, enabling us to manage our lives effectively. At St. Finbar's we endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them for life. We value every pupil and the contribution they have to make.

What is Maths like in our school?

I love Times Tables Rockstars because we get to battle our friends (Y3)

There are lots of resources if we get stuck (Y4).

I like the complexity of maths because it challenges my brain (Y5)

I enjoy setting my own challenges for other children to solve (Y6)

Teaching and Learning (Key learning and skills)

The national curriculum for mathematics aims to ensure that all pupils:

- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Progression from mental and informal methods to standard algorithms, builds upon children's developing understanding of our number system. Children are encouraged to develop 'number sense', and solve problems using a variety of methods, including the empty number line and the bar-modelling approach.

Procedural methods are taught alongside these methods, with daily practice used to embed standard methods for all four operations.

- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

What we want our curriculum to help our children know and do (Intent)

We believe maths is a subject that everyone can achieve in and many children are being challenged to explore concepts in more depth. We aim to provide a high-quality mathematics education with a mastery approach so that all children:

Become fluent in the fundamentals of mathematics;
Reason mathematically;
Solve problems by applying their mathematics.

We incorporate sustained levels of challenge through varied and high quality activities with a focus on fluency, reasoning and problem solving. Children are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. A range of mathematical resources are used and pupils taught to show their workings in a concrete fashion, before establishing ways of pictorially and formally representing their understanding. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience and acceptance that struggle is often a necessary step in learning.

How we organise our curriculum (Implement)

Our school follows a mastery approach to teaching maths. All pupils have a daily maths lesson. Children are exploring and immersing themselves in maths from Nursery. They are introduced to the basics of maths in a variety of ways. Mathematics development involves providing children with opportunities to practise and improve their skills in counting numbers, calculating simple addition and subtraction problems, and to describe shapes, spaces, and measures.

The structure of each lesson is flexible and will vary depending on the needs of the children and the content of the lesson. Typically, a maths lesson will include; an activation starter, learning objective, activities that provide challenge for each ability group, key questions and the use of additional adults. The class works through the programmes of study to develop problem solving and reasoning, at the same pace with ample time on each topic before moving on. The focus within maths lessons is on fluency and not speed. Children are encouraged to think carefully about mathematical problems, discuss and explain their understanding and learn from one another. The result is more fluent mathematicians with a deeper understanding of concepts and their inter-relationships and a group of children that have a firm foundation to build on and a more confident outlook towards the subject.

Pupils who grasp concepts rapidly are challenged through rich and sophisticated problems before any acceleration through new content. Those pupils who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

How we know children are knowing and doing more (Impact)

A mathematical concept or skill has been *mastered* when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

We use both formative and summative assessment information every day, in every lessons. Staff use this information to inform their short-term planning and short-term interventions. This helps us provide the best possible support for all of our pupils, including the more able.

Our teachers also use a wealth of stimulating and engaging teaching and learning approaches, using concrete resources, the latest technology, revisiting daily maths skills and using Times Tables Rockstars and Numbots programmes.