Mathematics

Intent

St George's Beneficial CE Primary School recognises that mathematics is an important life skill – its application is necessary for us to understand and navigate our world – and, therefore, we aim to produce mathematically fluent children.

We promote a positive 'can do' attitude to mathematics, creating a self-belief that will aid the development of confident and competent mathematicians.

The Statutory Framework for The Early Years Foundation Stage states that children are expected to develop a strong grounding in number, using a range of apparatus and resources in relevant and fun contexts. Through a sequential, progressive approach, our children are supported to build a secure base upon which future calculation can be developed.

Our KS1 and KS2 maths curriculum reflects this. It is progressive, delivered in manageable steps; and ensuring learning is built upon mistakes and misconceptions as well as stretch and challenge. We recognise that it is essential for our children to have the fundamental skills and knowledge of number and arithmetic embedded to enable them to build an understanding of other mathematical concepts. To introduce new concepts and to facilitate understanding, we ensure consistent use of the concrete-pictorial-abstract approach across the school.

To ensure that children are aware of the wider applications of mathematics, links to other areas of our school curriculum are identified.

Pupils will :-

- develop an ability to reason
- develop the ability to solve problems
- be able to think logically
- be able to work systematically, accurately and efficiently
- be mathematically fluent with the skills and knowledge that will empower them in future life.

Implementation

We plan and teach according to the skills and knowledge set out in the National Curriculum and Development Matters. This is supported by the White Rose scheme which provides consistency in approach and task design; and ensures progression within and across year groups.

In our Reception classes, mathematics can be delivered to a whole class or within small groups, following the Mastering Number at Reception and Key Stage 1 materials. Children are also given opportunities to apply mathematics during independent learning time.

In KS1, children are taught mathematics for approximately 45 minutes daily; and in KS2 for approximately one hour daily. There are daily additional fluency sessions: KS1 use the Mastering Number at Reception and KS1 materials and KS2 use Big Maths CLIC and SAFE materials. In Year 4, we follow a programme of activities based largely on timestable.co.uk, to prepare children for the Year 4 MTC.

Lessons will provide children with: a warm up activity, practising number facts and mental calculations; a teacher input to introduce or revise a mathematical concept or skill, with the

opportunity for pupils to ask questions and work through examples; and independent work to practise the taught concept/skill. As units of work develop, opportunities are provided for pupils to apply the taught skill in a problem solving or reasoning context.

Children are taught within mixed ability classes with work differentiated as necessary, according to the needs of the child. Individuals and groups requiring support may be determined by prior attainment or by formative assessment on a lesson by lesson basis.

In addition to in-class support, we identify children for termly and same day interventions. These allow children to practise and consolidate what is taught in the classroom; and to revisit problem solving, arithmetic and basic maths skills at an appropriate level to either secure the fundamentals of mathematics or to stretch and challenge. Support can take the form of adult intervention or access to resources (e.g. times table grids, multi-link).

Termly teacher assessments are used to monitor progress and attainment. Progress is monitored on OTrack by the subject leader and senior leadership team. Monitoring includes: regular book looks, PDMs, lesson observations and learning walks.

Impact

We want children to leave St. George's as competent and fluent mathematicians. That requires them to be secure in the fundamentals of mathematics with a strong understanding of other mathematical concepts. Children will be resilient problem-solvers with the ability to apply their skills and knowledge to a variety of situations with increasing sophistication; and they will be able to use mathematical language to confidently justify, reason and explain their ideas and answers.