Intent

When teaching mathematics at Phoenix St. Peter Academy, we provide a rich, challenging and engaging curriculum which caters for the needs of all children and one in which links are explicitly made between mathematical concepts and real-life contexts. Our curriculum is coherently planned and sequenced to build skills, vocabulary and knowledge all the way up from Early Years, to help build the foundations for success in their future. Our curriculum is ambitious for all children, particularly the most disadvantaged or those with learning differences (e.g. SEND/ disabilities), as we meet their needs to achieve this.

During maths lessons, we incorporate sustained levels of challenge through varied and high-quality learning experiences, with a focus on fluency, reasoning and problem solving. Children explore mathematics in depth, using mathematical vocabulary to reason and explain their workings. A wide range of mathematical resources are used. Children are taught to show their workings in a concrete fashion, before establishing ways of pictorially and then formally representing their understanding. Children are taught to explain their choice of methods and develop their mathematical reasoning and problem-solving skills. We encourage independence, perseverance and an acceptance that grappling with learning and making mistakes are necessary. By the time our children leave for high school, they will be confident mathematicians, ready for the next stage in their education and who continue to grow into confident, successful citizens of modern Britain.

Implementation

We use the 'White Rose' Mastery approach to plan the progression of mathematical skills from Nursery all the way up to our Year 6 children. This sets out the small steps needed to build our mathematical competence and confidence and ensures that, by the time our children leave for high school in Year 6, that they are well-prepared and ready to take on the next steps in their mathematical journey. Although we are a mixed year group school, we teach maths as separate year groups. This enables us to best support those who need additional scaffolding or consolidation to close the gap in their maths as well as ensuring we can stretch and extend those who are more confident in their maths. Wherever possible, we follow the CPA model of maths: **concrete – pictorial – abstract.**

For a child to really understand and grapple with a concept, they need to really feel and see it – this is where the 'concrete' comes in. All the way through the school, physical resources are used to help children make sense of their mathematical knowledge. Exploring cube numbers, we will use multi-link cubes so children can really see – and feel – how those numbers grow. With teen numbers we use Numicon to show how 10s and 1s work and to gain a real, physical concept of what those numbers mean. Their understanding can then be furthered using pictures ('pictorial') to represent their maths and then, only when this solid underpinning has been achieved, can we then move onto the 'abstract.' Here, a child may be writing a number sentence (e.g. 3 + 2 = 5) or more advanced concepts such as fractions only once they understand what it really means. It is this which will give children that solid base within which they can progress.

PHOENIX ST. PETER ACADEMY

Maths Curriculum

Impact

Progress is overseen by our maths lead who helps to develop, monitor and evaluate the effectiveness of maths across the school. They accomplish this through a variety of means: work monitoring, pupil voice and scrutinizing planning documents. They work with class teachers to improve provision through feedback and support.

The monitoring of maths provision in this way ensures consistency of provision across the school and ensures best practice becomes standard practice. It may be that, on the basis of this support, a need for further training is identified, such as maths whole teaching team meetings to improve teachers' confidence and competencies in a specific area. Children are continually, formatively assessed and assessment attainment is then recorded termly, to help chart progress. Any child not making anticipated progress is supported to help close gaps, ensuring opportunities for making great progress and achieving in maths is available to all.