Mathematics Intent



Whole School Curriculum Vision

Our rigorous, ambitious and relevant curriculum is designed to serve each child within our richly-diverse community, ensure the 'highest standards of learning for all' and prepare all children for a joyful life in the modern world.

Our commitment to the Christian faith and our six core values underpin our curriculum:

Friendship

Hope

Thankfulness

Forgiveness

Compassion

Endurance

Aspiration, Diversity and Inclusivity

Our values act as drivers for a curriculum which responds to, and embraces, an evolving community. Cranleigh welcomes more than 20 ethnicities, including a significant population of children from the Gypsy/Roma and Travellers of Irish Heritage communities, a greater than average number of children accessing the pupil premium grant, and a higher than average number of children with SEND.

The support we offer our community aims to overcome some low literacy skills, increase understanding in the power of education and ensure all minorities are celebrated. We adapt our provision accordingly, ensure we provide our children with the demanding work they both deserve and seek, and ensure all children are provided with enrichment opportunities to enable them to learn about the world around them.

Communication

We pride ourselves on our commitment to nurture and communicate effectively, and hold exceptionally high expectations of ourselves, each other and our community. Our children are empowered to use their literacy, oracy, and digital communication skills, with scaffolding and support, to purposefully share and articulate their learning with others.

Evaluation

Our reflection procedures which include subject leadership time, responsive professional learning, both summative and formal assessments, and half-termly pupil progress meetings enable us to refine our curriculum offer.

Purpose of Study

National Curriculum

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Development Matters

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers.

Children in reception will be learning to:

Count objects, actions and sounds. Subitise. Link the number symbol (numeral) with its cardinal number value. Count

beyond ten. Compare numbers. Understand the 'one more than/one less than' relationship between consecutive numbers. Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–5 and some to 10. Select, rotate and manipulate shapes to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Continue, copy and create repeating patterns. Compare length, weight and capacity.

The Importance of Maths

"It is clear that the chief end of mathematical study must be to make the students think." (John Wesley Young)
"Mathematics is not about numbers, equations, computations, or algorithms: it is about understanding." (William Paul Thurston)

"Mathematics is the music of reason." (James Joseph Sylvester)

At Cranleigh C of E Primary School, our primary aim for Mathematics is to equip children with the skills essential to enhance life opportunities. Mathematics is designed to be exciting, relevant and challenging allowing the children to discover, understand and develop essential mathematical skills that will be used throughout their daily lives. We want to grow a generation of learners who feel positively and passionately about their Mathematical experiences. Mathematics is taught through a 'Teaching for Mastery' approach which is underpinned by ideologies which support learning to be inclusive, where all children can experience success. Our carefully designed Maths curriculum endeavours to embrace our diverse, evolving community, providing a chance for all children to acquire a deep, long-term understanding, the ability to reason mathematically, an appreciation of the beauty and power of Mathematics, and a sense of enjoyment and curiosity about the subject.

The Concepts

At Cranleigh C of E Primary School, our Maths provision endeavours to enable children to develop deep, sustained knowledge which allows them to make links between the different strands of the Maths curriculum, as well as the wider curriculum and their own lives. We want children to be able to enjoy and explore the beauty of Mathematics, developing an awe and wonder for this subject which will inspire them to ask questions, make connections and spot patterns. Number sense is a core principle, ensuring that children have solid foundations which are built on year by year through a coherent journey. Children are given daily opportunities to retrieve and apply prior learning resulting in a higher knowledge retention. Learners' knowledge and use of Mathematical vocabulary is strengthened alongside the teaching of new concepts through the use of stem sentences and verbal reasoning. Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas making rich connections across Mathematical concepts.

Aspiration, Diversity and Inclusivity

Our aspiration in our curriculum at Cranleigh C of E Primary School is seen in our high expectations of all pupils, our explicit teaching of early number sense, number fact fluency and times tables fluency, as well as including reasoning and problem-solving within a topic. Pupils are encouraged to believe that they 'can do' in Maths and mistakes are seen as an opportunity to learn and grow. We use White Rose Maths and Number Sense schemes as well as drawing on other sources to enrich our students' mathematical experience. There is an increased sense of joy in Maths lessons evident through children's pride as their understanding improves, the use of partner talk, choral response, active Maths activities and the celebration of pupil's work. We recognise that in the diverse community at our school there is also a need to embrace parents' relationship with Mathematics and endeavour to include them within their child's learning by providing workshops and video tutorials. We support and ensure our curriculum is inclusive for pupils with a range of needs first and foremost through high quality teaching which includes language, pace, concrete, pictorial and abstract development, a safe risk-taking environment, scaffolding and expectations of pupil involvement and interaction, providing equal learning experiences for all students.

Communication

Our Mathematical curriculum is based on White Rose small steps to ensure that all lessons are progressive and build on substantive knowledge across each year group. Children actively engage in sessions and are encouraged to share ideas and opinions with their peers. Through the exposure and modelling of rich Mathematical language and the use of stem

sentences, we want our learners to verbally reason and explain their Mathematical thinking as standard practice. We aim to build resilience in learning by helping our learners to be independent, have strategies to approach unknown problems as well as reflect and learn from mistakes. We want all children to leave Cranleigh C of E Primary able to confidently discuss mathematical concepts using the vocabulary they have learned and based on the high-quality teaching experiences to which they have been exposed.

Evaluation

We aim for all children within our richly-diverse community to leave us with a positive attitude and enjoyment of Maths. The children will have developed deep, sustained knowledge. They will have a solid foundation of number fluency enabling them to make rich connections across Mathematical concepts, allowing reasoning and competence in solving increasingly sophisticated Mathematical problems. We believe this will contribute significantly to our wider school aim of preparing children for a joyful life in the modern world.