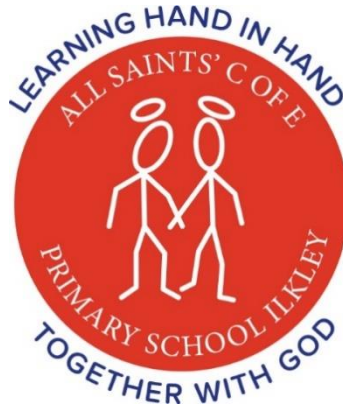


All Saints' CE Primary School



Vision

Learning hand in hand together with God.

Values

Hopeful school through honesty, forgiveness and trust
Achieving school through resilience, respect and ambition
Nurturing school through care, compassion and friendships
Developing school through wisdom, faith and fun
Sharing school through kindness, celebration and love

Subject Policy: Maths

Written: October 2021

Review date: October 2022

Written by: Laurie Fox



Vision: Learning Hand in Hand Together with God

Curriculum Intent at All Saints'

At All Saints' Church of England Primary School, our enriched curriculum enables all children to thrive as individuals and deepen their curiosity as global citizens. By learning hand in hand together with God, every child is recognised as a unique learner. We celebrate and welcome diversity within our school family.

Through our school values:

All Saints' is a:

Hopeful school through honesty, forgiveness and trust

Achieving school through resilience, respect and ambition

Nurturing school through care, compassion and friendships

Developing school through wisdom, faith and fun

Sharing school through kindness, celebration and love

...we provide the children with the essential skills and knowledge to be aspirational, successful and resilient learners.

Children leave All Saints' with a strong sense of belonging, with confidence for today and beyond.

Subject Intent

Here at All Saints' we have a Mastery approach to the teaching of mathematics. At the centre of this approach is the belief that all pupils have the potential to succeed. Through developing a child's ability to attain mathematical fluency, problem-solving and reasoning skills, they can make further sense of the ever-changing world around them. Accordingly, children should appreciate relationships in all facets of mathematics, as they work towards a greater depth of understanding.

How does this subject reflect our Vision and Values?

Maths at All Saints' links strongly to our school values through **developing** confidence and resilience and the **sharing** of knowledge. We understand the vital importance of mathematics as something to be enjoyed, enthused over, and delivered with passion.

How does Maths look at All Saints'?

Through the National Curriculum for mathematics, we aim to ensure that all our pupils become fluent in the fundamentals of mathematics, reason mathematically, and become confident problem solvers.

Conceptual variation and procedural variation are used throughout teaching to present the mathematics in ways that promote deep, sustainable learning. Carefully selected questions provide intelligent practice that develops and embeds fluency and conceptual knowledge.

Precise questioning is the key to success in all our mathematics sessions, and open questioning techniques, often concentrating on the theme of 'why', will be continuously adapted by the teacher and support staff based on assessment for learning.

Lesson Design is based around 5 stages:



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Representation: Teacher-led with pupils participating in discussions and written activities. Pupils establish conceptual understanding. Multiple representations are used to expose structure. Work developed under teacher's guidance to support learning. Assessment for Learning activities and questions are completed.

Fluency: Pupils independently complete questions using procedural variation.

Probing Questions: Pupils independently justify, reason and convince. Good answers often include pupils acting as teachers

Further Extension: Pupils independently apply their knowledge in familiar contexts or explain typical misconceptions.

Rich Task: Pupils independently apply learning in unfamiliar contexts. Pupils can devise their own approach to explore unfamiliar contexts and reflect on their responses

Early Years

Number sense is fundamental for children in the early years and is the key to mastering mathematical concepts in the future. Children learn to have a deep understanding of number to 10 and develop automaticity to fluently recall number bonds to 10. There is a strong emphasis on understanding number patterns, which can be built on further in year 1. Children are provided with opportunities to use a wide range of practical resources in order to develop the conceptual understanding of maths, its structures and its relationships. This is built on and developed further throughout school.

Key Stage 1

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into distinct domains, but pupils are encouraged to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

Programmes of study and lesson content are carefully sequenced, in order to develop a coherent and comprehensive conceptual pathway through the mathematics. Learning is broken down into small, connected steps, building from what pupil's prior learning. Daily mastering number sessions are used to develop number sense and deepen the children's' conceptual understanding of number, which is fundamental for future mathematical learning.

Key Stage 2

The programme of study continues to be broken down into small coherent steps which build on prior learning.

Pupils continue to be taught through whole-class interactive teaching, where the focus is on all pupils working together on the same lesson content at the same time. This ensures that all can master concepts before moving to the next part of the curriculum sequence, allowing no pupil to be left behind.

In lower key stage 2, time is devoted to learning times table. Time in lessons is devoted to exploring the patterns and connections within the new times table. Three or more times a week in every class



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there is a five- to ten-minute 'retrieval practice' session, including chanting and technology-based, quick-reaction exercises. Times table knowledge is built upon in upper key stage 2, ensuring the reduction of 'cognitive load' and essentially 'freeing up' space to focus brain activity on the application of the facts not the facts themselves.

Significant time is spent developing deep knowledge of the key ideas that are needed to underpin future learning. The structure and connections within the mathematics are emphasised, so that pupils develop deep learning that can be sustained.

How do we ensure all pupils learn Maths?

By adopting a mastery approach to the teaching of maths, children are taught in mixed ability groupings. Through the use of Quality First teaching, we can ensure that all pupils learn and achieve in a way that is suitable to them. Effective support is personalised, taking into account specific needs, strengths and motivation. Intervention programmes are put in place and reviewed regularly to ensure progress is being made.

How does Maths at All Saints' reflect the school's local context and include opportunities for cultural capital, enrichment and diversity?

All children are provided with opportunities to think clearly, logically and with persistence to solve real life problems. We foster an understanding and appreciation of mathematics for life. The Development of understanding of mathematics through practical experience helps children acquire the skills needed to meet the challenges facing them as citizens.

Assessment

A thorough understanding of children's needs are assembled through effective assessment and combined with high expectations and ambition for all children to achieve.

Assessment for learning occurs during our mathematics lessons, enabling teachers to adapt their teaching/input to meet the children's needs.

Future lesson design is dependent on class success, evaluated through marking and observations made during the lesson. Same day intervention is used to ensure that all children are ready to progress on to the next day's learning.

End of block assessments are used, allowing teachers to determine children's level of understanding, relating to the small steps, to inform future teaching.

Summative assessments are generally used at least once per term in order to provide further understanding of the depth a child is working at and to inform a more rounded judgment of their abilities.

Legal Framework and Further Reading

This policy has due regard to all relevant legislation and statutory guidance including, but not limited to, the following:



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- DfE (2013) National Curriculum in England
- DfE (2021) Statutory Framework for the Early Years Foundation Stage

Also refer to Long Term Overviews and Curriculum Progression on our website:
<https://www.allsaintsilkey.bradford.sch.uk/curriculum-subject-overviews/>