



School's Vision Statement

Trust ourselves, trust one another, trust God.

Jesus said to him, "I am the way, and the truth, and the life. No one comes to the Father except through me.

John 14:6

Maths Policy 2023-24

Our Vision

We strive on providing an environment that enables each child to grow to their full potential. We offer a curriculum that is balanced, fun and engaging, and that allows children to make memories forever.

As a church school, we aim to achieve this by nurturing our core Christian values of: compassion, courage, forgiveness, friendship, generosity, justice, perseverance, respect, service, thankfulness, trust and truthfulness.

Rationale

Mathematics is integral to all aspects of life and with that in mind we endeavour to ensure that children will develop a positive and enthusiastic attitude towards mathematics. Mathematics equips pupils with a unique set of tools that allows them to understand the world in which they live.

The National Curriculum mathematics programme of study describes what pupils must learn in each year group and is the basis for our teaching and our decisions. Within our mathematics lessons, we ensure continuity, progression and high expectations for attainment in mathematics. We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics so that they have a strong understanding of these areas before they progress with their mathematical learning.

Aims

We aim to provide children with a high-quality mathematics education that 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. We also aim to provide a stimulating environment with abundant resources so that pupils can develop their mathematical skills to the full.

Our pupils should:

- have a well-developed sense of the size of a number and where it fits into the number system
- know by heart number facts such as number bonds, multiplication tables, doubles and halves
- use what they know by heart to figure out numbers mentally
- calculate accurately and efficiently, both mentally and in writing and paper,
- draw on a range of calculation strategies
- make sense of number problems, including non-routine/'real' problems and identify the operations needed to solve them
- explain their methods and reasoning, using correct mathematical terms
- judge whether their answers are reasonable and have strategies for checking them where necessary
- suggest suitable units for measuring and make sensible estimates of measurements
- explain and make predictions from the numbers in graphs, diagrams, charts and tables
- develop spatial awareness and an understanding of the properties of 2D and 3D shapes

Provision

All teachers use the Hamilton Trust planning which follows the National Curriculum to support and guide their teaching. This is carefully adapted for the needs of each class, each child and our school. The Hamilton Trust planning complements our mixed-age classes and revisits units regularly which allows children to practice their learning whilst consolidating and building upon what they already know. All staff have access to the school's Calculation Policy and Key Vocabulary progression document to ensure consistency of approaches to teaching methods and mathematical terminology across the classes.

Pupils are provided with a variety of opportunities to develop and extend their mathematical skills, including:

- Independent work
- Group/Paired work
- Whole class teaching

Pupils engage in:

- Development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem solving
- Mastery approaches
- Mathematical discussion
- Consolidation of basic skills and number facts
- Maths games

We recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We display and use accurate mathematical vocabulary in our teaching and children are expected to use it in their verbal and written explanations. The mathematical vocabulary progression document is available on our website.

Mathematics is essential to many subjects and it is important that children are given opportunities to apply and use their Mathematics skills in real contexts. It is important that time is found in other subjects for pupils to develop their Numeracy Skills, e.g. there should be regular opportunities for measuring in Science, consideration of properties of shape and patterns in Art and appropriate opportunities for the collection and presentation of data in Science, Geography and History.

We endeavour to set work that is challenging, motivating and appropriate to each individual child. Additional enrichment opportunities are provided for pupils to further develop mathematical thinking, e.g. Cluster school Maths days, Maths challenge days at local secondary schools.

Maths is taught daily and discretely. Lessons usually last for around 60 minutes each day in KS1 and KS2.

Teaching Approaches

Teachers use a range of teaching strategies to engage children in mathematics and ensure progress is made by all children within a class.

A typical lesson may include:

- Teacher input
- Pupil activities
- Whole class, guided group and independent work
- Differentiated activities/objectives and appropriate challenge

Sometimes the focus for the lesson is new learning, at other times pupils may be practicing to master the application of a concept that they have learned previously. The focus of the lesson may vary for different children depending on their learning needs.

Teachers plan learning that is differentiated to meet the needs of all pupils whether they are high, middle or low attaining pupils. This may sometimes involve individual or small group work.

High attaining children are challenged through problem solving, puzzles and investigations that promote further reasoning, justification and perseverance.

Children are supported during the lesson by the teacher or teaching assistant. To support the progress of children, sometimes it may be necessary for them to be taken out in short, focussed intervention groups. This may have a key, independent focus or run alongside in-class learning.

Target Setting

Teachers set regular targets through the marking of work by suggesting next steps, using consolidation activities or asking children to extend their learning.

Assessment

Formative Assessment

Teachers integrate the use of formative assessment strategies such as effective questioning; clear learning objectives and success criteria; and effective feedback and response in their teaching and marking.

Summative Assessment

At the end of every unit taught, targets are dated and ticked if the learning objectives have been met. These are found at the front of the workbooks from Reception onwards.

At the end of every term, pupils are assessed against the National Curriculum Mathematics Programme of Study using a coherent format across the school (from Cornerstones Curriculum). This enables teachers to monitor children's attainment and progress (using the school's progress tracking system). Additionally, it informs teachers of any gaps or misconceptions in learning so that recap lessons, intervention or support groups can be planned if necessary.

National Curriculum tests are used at the end of KS1 and KS2; teachers use past and sample papers to inform their assessments as they prepare pupils for these assessments.

Early Years Foundation Stage (EYFS)

We follow the EYFS statutory framework for Mathematics. We are committed to ensuring the confident development of number and put emphasis on key early concepts. Pupils initially explore numbers to 20 and the development of models and images for numbers as a solid foundation for further progress. Children in nursery join in with simple maths games and songs in small groups or during continuous provision.

Within their Mathematics learning, children will explore:

Number:

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number
- Subitise (recognise quantities without counting) up to 5
- Automatically recall (without reference to rhymes, counting or other aids) number bonds to 5 (including subtraction facts) and some number bonds to 10, including doubles

Numerical Patterns:

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

Resources

Children have access to essential mathematics resources to aid and support their learning and are encouraged to use these during lessons. These may include working walls, manipulatives/concrete resources, pictorial/visual resources etc.

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Agreed by governors:



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