

Mathematics - Long Term Plan

Our School Vision is to work as a community within the school's Christian ethos. We learn about world faiths alongside our Christian Values to work towards creating an outstanding school where all can flourish. Through the provision of a broad and balanced curriculum we encourage every child to develop lively, creative and enquiring minds enabling them to become confident individuals who reach their full potential and succeed in Modern Britain.

Our school works in partnership with the church and the wider community to give a caring and nurturing environment. Together we enable and equip each child to "I have come that they may have life, and have it to the full" (The Gospel of John – Chapter 10, verse 10).

We will realise our Vision through the following aims:

- demonstrating, as a Church school, our Christian values in action
- providing a broad and balanced curriculum to all children
- consistently high standards of teaching
- providing a happy, healthy and secure environment where all are respected, valued and encouraged to contribute
- excellent leadership and governance
- encouraging a love of learning by participating in experiences full of opportunity and creativity
- pursuing excellence in every aspect of school life, supporting one another and celebrating the achievements of all
- a partnership of pupils, teachers, parents, governors and the local community
- targets that are challenging and achievable.

BARMBY MOOR CE PRIMARY SCHOOL INTENT, IMPLEMENTATION AND IMPACT

Traditionally, Maths has been taught by memorising key facts and procedures, which tends to lead to superficial understanding that can easily be forgotten. At Barmby Moor, we believe that children should be able to select which mathematical approach is most effective in different scenarios.

All pupils can achieve in mathematics! There is no such thing as a 'Maths person', that is the belief that some pupils can do maths and others cannot. A typical Maths lesson will provide the opportunity for all children, regardless of their ability, to work through Fluency, Reasoning AND Problem Solving activities.

INTENT

Maths is a journey and long-term goal, achieved through exploration, clarification, practice and application over time. At each stage of learning, children should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time.

There are 3 levels of learning:

- Shallow learning: surface, temporary, often lost
- Deep learning: it sticks, can be recalled and used
- Deepest learning: can be transferred and applied in different contexts

The deep and deepest levels are what we are aiming for by teaching maths using a Mastery approach.

IMPLEMENTATION

Multiple representations for all!

Concrete, pictorial, abstract

Objects, pictures, words, numbers and symbols are everywhere. The mastery approach incorporates all of these to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding. Together, these elements help cement knowledge so pupils truly understand what they've learnt.

All pupils, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach. Pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

Concrete – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

Pictorial – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

Abstract – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

IMPACT

- Quick recall of facts and procedures.
- The flexibility and fluidity to move between different contexts and representations of mathematics.
- The ability to recognise relationships and make connections in mathematics.

A mathematical concept or skill has been mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

Spiritual Development with Mathematics Lessons

"Spirituality is not something we can see; it is something we feel inside ourselves. It is about awe and wonder, asking questions, inspiration, and being aware of something 'bigger' outside of ourselves."

Developing deep thinking and questioning the way in which the world works promotes the spiritual growth of pupils. In maths lessons, pupils are always encouraged to delve deeper into their understanding of mathematics and how it relates to the world around them. Sequences, patterns, measures and ultimately the entire study of mathematics was created to make more sense of the world around us and we enable each of our pupils to use maths as a tool to explore it more fully.

At Barmby, we aim to enthuse and excite pupils through our delivery of lessons and tasks that allow pupils to discover maths for themselves. Highlighting the various links between different mathematical topics allows pupils to have an awareness of the bigger picture of how integrated all aspects of maths are, but also they can see how maths relates to other curriculum areas. This in turn raises the importance of this subject in its need to be understood.

We promote resilience within mathematical lessons when children are faced with challenging problems which allows them to develop creative problem solving skills and develop a love of curiosity; this allows pupils to reflect on the importance and nature of their own learning. All maths lessons contain elements of self-reflection in which children think carefully about their learning.



Barmby Moor Church of England Primary School

Respect, Aspire, Achieve

"I have come that they may have life, and have it to the full" (John 10 v.10)"

Long Term Plan

Subject: Mathematics

2024/2025

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Mrs Milson and Mrs Burke White Rose Reception Scheme of Learning	Getting to know you 2 weeks An opportunity for staff to get to know the children and help them settle into school Match, Sort and Compare 2 weeks Talk about Measure and Patterns 2 weeks	It's me 1, 2, 3! 2 weeks Circles and Triangles 1 week 1, 2, 3, 4 and 5 2 weeks Shapes with 4 Sides 1 week	Alive in 5! 2 weeks Mass and capacity 1 week Growing 6, 7, 8 2 weeks Length, Height and Time 2 weeks	Length, Height and Time Continued from Spring 1 Building 9 and 10 3 weeks Explore 3D Shapes 2 weeks	To 20 and beyond 2 weeks How many now? 1 week Manipulate, Compose and Decompose 2 weeks Sharing and Grouping 2 weeks	Sharing and Grouping Continued from Summer 1 Visualise, Build and Map 3 weeks Make Connections 1 week
Year 1 Mr Bennett White Rose Y1 V3 Scheme of Learning	Place Value (within 10) 5 weeks Addition and Subtraction (within 10) 5 weeks	Addition and Subtraction (within 10) Continued from Autumn 1 Shape 1 week	Place Value (within 20) 3 weeks Addition and Subtraction (within 20) 3 weeks	Place Value (within 50) 2 weeks Length and Height 2 weeks Mass and Volume 2 weeks	Multiplication and Division 3 weeks Fractions 2 weeks Position and Direction 1 week	Place Value (within 100) 2 weeks Money 1 week Time 2 weeks
Year 2 Miss Wilson White Rose Y2 V3 Scheme of Learning	Place Value 4 weeks Addition and Subtraction 5 weeks	Addition and Subtraction Continued from Autumn 1 Shape 3 weeks	Money 2 weeks Multiplication and Division 5 weeks	Multiplication and Division Continued from Spring 1 Length and Height 2 weeks	Fractions 3 weeks Time 3 weeks	Statistics 2 weeks Position and Direction 2 weeks



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				Mass, Capacity and Temperature 3 weeks		
Year 3/4 Mr Pipes White Rose Mixed Age ¾ (2024/2025) Scheme of Learning	Place Value 4 weeks Addition and Subtraction 4 weeks	Addition and Subtraction Continued from Autumn 1 Multiplication and Division A 3 weeks Measurement 1 week	Multiplication and Division B 3 weeks Length and Perimeter 2 weeks Fractions 3 weeks	Fractions A Continued from Spring 1 Mass and capacity 2 weeks Fractions B 2 weeks	Time 2 weeks Decimals 3 weeks Money 2 weeks	Time Continued from Summer 1 Shape 2 weeks Position and Direction 1 week Statistics 2 weeks
Year 5/6 Mr Hone White Rose Mixed 5/6 (2024/2025) Scheme of Learning	Place Value 3 weeks Addition and Subtraction 1 week Multiplication and Division A 2 weeks	Fractions A 4 weeks Multiplication and division B 3 weeks	Multiplication and Division B Continued from Autumn 2 Fractions B 2 weeks Decimals A 2 weeks Area, perimeter and volume 2 weeks	Area, perimeter and volume Continued from Spring 1 Decimals B 3 weeks Fractions, decimals and percentages 2 weeks	Ratio 1.5 weeks Algebra 1.5 weeks Shape 3 weeks	Position and direction 2 weeks Statistics 2 weeks Converting units 2 weeks