



Mathematics - Long Term Plan

See separate National Curriculum Document

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 balance 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.

GARTON ON THE WOLDS 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 Garton on the Wolds, 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<u>Getting to know you</u> An opportunity for staff to get to know the children and help them settle into school <u>Just like me!</u> Match and sort Compare amounts Compare size, mass and capacity Exploring pattern	<u>It's me 1, 2, 3!</u> Representing, comparing and composition of 1,2,3 Circles and triangles Positional language <u>Light and dark</u> Representing numbers to 5 One more and one less Shapes with 4 sides Time	<u>Alive in 5!</u> Introducing zero Comparing numbers to 5 Composition of 4 and 5 Compare mass Compare capacity <u>Growing 6, 7, 8</u> 6,7 & 8 Making pairs Combining two groups Length and height Time	<u>Building 9 and 10</u> 9 & 10 Comparing numbers to 10 Bonds to 10 3D Shape Pattern	<u>To 20 and beyond</u> Building numbers and counting patterns beyond 10 Spatial reasoning Match, rotate, manipulate <u>First, then, now</u> Adding more Taking away Spatial reasoning Compose and decompose	<u>Find my pattern</u> Doubling Sharing and grouping Even and odd Spatial reasoning Visualise and build <u>On the move</u> Deepening understanding Patterns and relationships Spatial reasoning Mapping
Year 1/2	<u>Number</u> Y1 – Place Value of numbers within 10 Y2 – Place Value Y2 – Addition and subtraction	<u>Number</u> Y1 – Addition of numbers within 10 Y2 – Addition and subtraction <u>Geometry</u> Y1 – Shape Y2 - Shape	<u>Number</u> Y1 – Place value of numbers within 20 Y1 – Addition and subtraction of numbers within 20 Y2 – Multiplication and division <u>Measurement</u> Y2 - Money	<u>Number</u> Y1 – Place value of numbers within 50 <u>Measurement</u> Y1 – Length and height Y1 – Mass and volume Y2 – Length and height	<u>Number</u> Y1 – Multiplication and division Y1 – Fractions Y2 - Fractions <u>Geometry</u> Y1 – Position and direction Y2 – Position and direction	<u>Number</u> Y1 – Place value of numbers within 100 <u>Measurement</u> Y1 – Money Y1 – Time Y2 - Time



Garton on the Wolds C.E. (V.C.) 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

				Y2 - Mass, capacity and temperature	<u>Statistics</u> Y2 - Statistics	
Year 3/4	<u>Number</u> Y3 – Place Value Y3 – Addition and subtraction Y4 – Place Value Y4 – Addition and subtraction	<u>Number</u> Y3 – Multiplication and division Y4 – Multiplication and division <u>Measurement</u> Y4 - Area	<u>Number</u> Y3 – Multiplication and division Y4 – Multiplication and division <u>Measurement</u> Y3 – Length and perimeter Y4 – Length and perimeter	<u>Number</u> Y3 – Fractions Y4 – Fractions Y4 - Decimals <u>Measurement</u> Y3 – Mass and capacity	<u>Number</u> Y3 – Fractions Y4 - Decimals <u>Measurement</u> Y3 – Money Y3 – Time Y4 – Money Y4 - Time	<u>Geometry</u> Y3 – Shape Y4 – Shape Y4 – Position and direction <u>Statistics</u> Y3 – Statistics Y4 - Statistics
Year 5/6	<u>Number</u> Y5 – Place Value Y5 – Addition and subtraction Y6 – Place Value Y6 – Four operations	<u>Number</u> Y5 – Multiplication and division Y5 – Fractions Y6 – Fractions <u>Measurement</u> Y6 – Converting units	<u>Number</u> Y5 – Multiplication and division Y5 – Fractions Y6 – Ratio Y6 – Algebra Y6 - Decimals	<u>Number</u> Y5 – Decimals and percentages Y6 – Fractions, decimals and percentages <u>Measurement</u> Y5 – Perimeter and area Y6 – Area, perimeter and volume <u>Statistics</u> Y5 – Statistics Y6 - Statistics	<u>Geometry</u> Y5 – Shape Y5 – Position and direction Y6 – Shape Y6 – Position and direction <u>Y6 SATS</u>	<u>Number</u> Y5 – Decimals Y5 – Negative numbers <u>Measurement</u> Y5 – Converting units Y5 - Volume



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