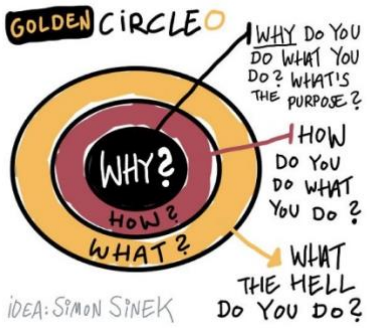
HIMBLETON CE PRIMARY SCHOOL AND NURSERY

Nurture, Nature, Knowledge:
Enabling inquisitive thinkers and inspired learners with kind hearts.

The Himbleton Approach to the Teaching of Mathematics

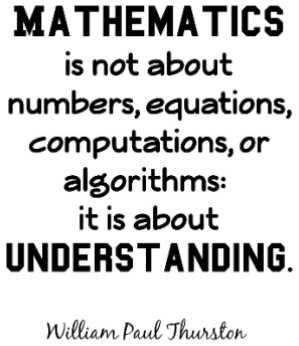


Mathematics

Intent

Why do we do what we do?

The intent of our Mathematics curriculum is to design a curriculum which is accessible to all and will maximise the development of every child's ability and academic achievement. We deliver lessons that are creative and engaging. We want children to make rich connections across mathematical concepts to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. We intend for our pupils to be able to apply their mathematical knowledge to Science and other areas of the curriculum. We want children to understand that mathematics has been developed over centuries, providing the solution to some of history's most intriguing problems. We want them to know that it is essential to everyday life, critical to Science, technology and engineering, and necessary for financial literacy and most forms of employment as they move on from Himbleton. As our pupils progress, we intend for our children to be able to understand the world, have the ability to reason mathematically, have an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.



The aims of our Mathematics curriculum are that all learners:

- become fluent in the fundamentals of mathematics, including through varied and frequent practise with increasingly complex problems over time, so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately;
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, developing an argument, justification or proof using mathematical language;
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

We also aim to ensure that our learners have a good understanding of everyday spending, saving and budgeting skills, as well as financial security and safety.

Implementation

How do we ensure our intent becomes a reality?

Throughout our mathematics journey, we teach the National Curriculum 2014, and children gain an understanding of the mathematics relevant to their year group so that is it built upon in subsequent years. This is supported through the use of White Rose Maths, No Nonsense Number Facts, Numicon, I See Reasoning/Problem Solving and TT Rockstars.

• Our **long term map**, using White Rose Maths, outlines in year groups / phases when mathematical knowledge, in unit blocks of work, will be taught and revisited. These units cover:

Number & Place Value, Addition & Subtraction, Multiplication & Division, Fractions, Measurement, Geometry and Statistics.

These are, by necessity, organised into apparently 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. We use the White Rose Schemes of Learning to ensure high quality coverage, progression across year groups and a mastery approach to learning. All concepts are delivered using concrete, pictorial and abstract methods so new concepts and ideas are explicitly linked to previous learning.

• Our **Calculation Policy** outlines in more detail which concepts and procedures / strategies will be introduced and then developed at each stage of our learning.

• Our **weekly planning** is based on White Rose Maths and tailored to the needs of our children. We use many concrete resources throughout the school to ensure children are exposed to multiple representations of a concept. This is part of our CPA (Concrete, Pictorial and Abstract) approach.

We regard talk in Mathematics as important and introduce mathematical vocabulary in an age appropriate way. Children have the opportunity to verbalise their thinking; our teachers ensure that children build secure foundations by using discussion to probe and remedy their misconceptions.

We make time to teach Mathematics:

Children in EYFS have a daily mathematical focus based on acquiring knowledge of basic mathematical facts and concepts within the EYFS Curriculum. These are also woven throughout their continuous provision. Children in KS1 and KS2 have a daily Maths session lasting 1 hour.

In addition, we are implementing regular sessions focusing on the recall of identified key facts based on the Babcock No Nonsense Number Facts scheme. These progressive, specific facts are non-negotiables that every child should know by the end of each year group and provide a coherent progression for supporting fluency underpinned by reasoning. Also, all KS1 and KS2 children complete a 'Friday Flashback' in which they revisit learning from the last lesson, last week, last month and last year.

If children are not reaching the expectations within sessions or units of learning, we intervene quickly by giving extra support. We give catch up support by utilising post teach and precision teach for short term rapid progress. The content of these sessions is determined by on-going gap analyses

and our in depth knowledge of each child. These sessions are additional to our daily Maths session and form part of an identified intervention.

Impact

What are the outcomes for our children?

Through our carefully designed curriculum, by the time children leave Himbleton they will have a sustained mastery of mathematical curriculum content; that is, they show secure recall and fluency. This means that they are able to use what they have learnt across other curriculum areas. Some pupils will have a greater depth of understanding. We track every child carefully to ensure that they are making strong progress from their individual starting point.

"Enabling inquisitive thinkers and inspired learners with kind hearts."

We believe the mathematics education at Himbleton Church of England Primary School and Nursery 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, in line with our whole school vision.