

**Goostrey Community Primary School**

**Mathematics**

Mathematics teaches children how to make sense of the world around them by developing their ability to calculate, to reason, to solve problems and to think in abstract ways. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives.

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 apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils’ understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

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**INTENT**

* Pupils to become fluent in the fundamentals of mathematics, with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
* To create a vocabulary rich environment - teaching key vocabulary is a driver for pupil understanding and develops the confidence of pupils to explain mathematically.
* To promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion.
* To promote confidence and competence with numbers and the number system.
* To develop the ability to solve problems through decision-making and reasoning in a range of contexts.
* To develop a practical understanding of the ways in which information is gathered and presented.
* To explore features of shape and space, and develop measuring skills in a range of contexts.
* To understand the importance of mathematics in everyday life.
* Throughout the whole curriculum, opportunities to extend and promote mathematics should be sought - the prime focus should be on ensuring mathematical progress delivered discretely or otherwise.
* To plan carefully to ensure that the requirements of the National Curriculum are being met.

**IMPLEMENTATION**

* Through high quality teaching delivering appropriately challenging work for all individuals.
* Using a variety of teaching and learning styles in mathematics lessons.
* Structured and systematic teaching following curriculum objectives and coverage outlined in the National Curriculum in England (2014) and Foundation Stage Curriculum in Reception
* Incorporating weekly arithmetic and times-tables programme, (this begins in Year 2 and continues throughout the junior years).
* Using a range of mathematical resources in classrooms and a range of planning resources e.g. White Rose and Rising Stars support the teaching and learning
* Striving to better ourselves and frequently share ideas and things that have been particularly effective as well as participating in training opportunities.
* Continuously monitoring pupils’ progress against expectations for their age
* Making cross-curricular links wherever possible.
* Planning, assessment, recording and reporting to be completed in line with the relevant school policies.
* Ensuring that we are providing excellent provision for every child
* Setting differentiated weekly homework to support learning.
* Catering for all pupils with differing needs. Pupils with both special educational needs and those deemed gifted (and talented) will have their individual needs met as appropriate.

**IMPACT**

PUPIL VOICE - through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes

EVIDENCE IN KNOWLEDGE - pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential.

EVIDENCE IN SKILLS - pupils use correct vocabulary in maths lessons. They have the skills to use methods independently and show resilience when tackling problems.

BREADTH AND DEPTH Teachers plan a range of opportunities to use maths inside and outside school and across different subjects – sticky learning

Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world. Through their growing knowledge and understanding, children learn to appreciate the contribution made by different cultures to the development and application of mathematics.

**Maths statement for maths expectations**

Planning needs to be following the new curriculum expectations, including differentiated accessible and varied tasks for all pupils. Teachers need to integrate mastery style questions, problem solving and investigations, developing pupil confidence beyond a series of calculations. This will lead to deeper understanding and increased confidence in manipulation of mathematical challenges.

As maths co-ordinator I’d like to see a maths presence in each classroom. As a realistic expectation, and in conjunction with our English working walls, I feel the maths working wall needs to be of use to the children, supporting their learning with key vocabulary, examples of calculations or questions and a WAGOLL when appropriate. Furthermore, there could be a selection of mastery/ mastery with greater depth questions to support their deeper learning. This could also be used as an opportunity for HA pupils to complete work in an independent manner, considering many ways to logically problem solve.

Presentation of work in maths books needs to be:

DUMTUM

Clear number formation with one digit per square (Y1-6)

Pre and post (cold and hot) assessments in majority of topics (Y1-5)

Work to be marked /acknowledged, possibly by including teacher initials, positive comments relating to LO and next steps.

Pupils to have opportunity to acknowledge/ respond to teacher comments in purple.