



Mathematics



The study of mathematics provides a foundation for understanding and communicating through reasoning, logical thinking, and problem-solving.

Intent:

The mathematics curriculum will ensure that all pupils:

- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge confidently and accurately;
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language;
- 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.
- Recognise how mathematics permeates the world around them.

Pupils' version



I recognise the importance of mathematics in life and in society will equip me with the knowledge and ability to solve real life problems.



Implementation

Teachers will:

- Plan opportunities for pupils to develop an appreciation of the beauty of mathematics as well as a sense of enjoyment and curiosity for the subject
- Appropriately use the concrete-pictorial-abstract approach to enable pupils to explore mathematics using structured imagery and apparatus in order to understand and explain mathematical concepts;
- Rigorously teach and reinforce basic arithmetic skills to ensure mathematical fluency and automaticity.
- Model and provide opportunities for pupils to communicate confidently and fluently [with a secure sense of number] to explore relationships and generalise;
- Plan high-quality provision that excites, challenges and requires deep thinking through contextual variation of task;
- Model a positive attitude and equip children with the confidence and resilience to take risks and persist;
- Provide opportunities for pupils to make rich connections across the areas of mathematics and use their knowledge across other subjects in the curriculum;
- Ensure that pupils are able to calculate accurately and efficiently, knowing when a mental strategy, jottings or a formal written method is appropriate;
- Model how to communicate mathematically using the correct vocabulary, diagrams and statistical graphs to explain their thinking where appropriate applying logical and critical thinking;
- Use questioning to: probe thinking, challenge, extend upon given answers, clarify, assess and support generalisation.

Impact

Pupils will:

- Make good progress from their starting points and achieve well;
- 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

- Have a good understanding of mathematics and use it to help them to secure employment using digital technology where appropriate.

