



Mathematics



Purpose:

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore 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.

Core Learning*:

- ⤴ To know and use numbers
- ⤴ To add and subtract
- ⤴ To multiply and divide
- ⤴ To use fractions
- ⤴ To understand the properties of shapes
- ⤴ To describe position, direction and movement
- ⤴ To use measures
- ⤴ To use statistics
- ⤴ To use algebra

Characteristics of a Mathematician*:

- An understanding of the important concepts and an ability to make connections within mathematics.
- A broad range of skills in using and applying mathematics.
- Fluent knowledge and recall of number facts and the number system.
- The ability to show initiative in solving problems in a wide range of contexts, including the new or unusual.
- The ability to think independently and to persevere when faced with challenges, showing a confidence of success.
- The ability to embrace the value of learning from mistakes and false starts.
- The ability to reason, generalise and make sense of solutions.
- Fluency in performing written and mental calculations and mathematical techniques.
- A wide range of mathematical vocabulary.
- A commitment to and passion for the subject.

Using and Applying Mathematics within Other Subjects:

English:

- ⤴ Demonstration of skills taught within focussed English sessions;
- ⤴ Opportunities for discussing mathematics and presenting and justifying their reasoning using correct mathematical vocabulary.

Science:

- ⤴ Measure, statistics – collecting data and drawing graphs

Design and Technology

- ⤴ Measure, angles & shape

Inclusion:

Teachers should set high expectations for every pupil. They should plan stretching work for pupils whose attainment is significantly above the expected standard. They have an even greater obligation to plan lessons for pupils who have low levels of prior attainment or come from disadvantaged backgrounds. Teachers must also take into account the needs of pupils whose first language is not English.