



## **SMSC Statement - Mathematics**

In Maths lessons pupils are encouraged to delve deeply into their understanding of Mathematics and how it relates to the world around them. Our Maths teaching actively encourages risk taking which enables pupils to explore and try new ideas without the fear of failure. This is fundamental to building pupils' self-esteem within Mathematics.

Throughout history, the study of Mathematics stems from intrigue and curiosity, with people's desire to pose and solve problems relating to the real world or purely within mathematics itself. We aim for our students to appreciate this and use their own Maths to explore and question the way the world works and also to apply their reasoning to puzzles for their personal satisfaction.

### **Spiritual**

- Developing deep thinking and questioning the way in which the world works promotes the spiritual growth of our students.
- We are sensitive to students' individual needs, backgrounds and experience.
- We aim to give all students an appreciation of the richness and power of maths.
- Maths in Nature is embedded in Sequences, Patterns and Symmetry in Key Stage 3
- We promote a sense of wonder in the exactness of mathematics in the exploration of infinity, pi, topology, complex numbers and real-world examples.
- We encourage the students to appreciate the enormity of the world of Mathematics as it has developed through time.

### **Moral**

- Within the classroom, we encourage respect and reward good behaviour. We value listening to others views and opinions on problem solving.
- We promote discussion about mathematical understanding and challenge assumptions, supporting students to question information and data that they are presented with.
- We show the students that we are on a quest for truth by rigorous and logical argument whilst discouraging jumping to conclusions.
- We explore and evaluate the use of Statistics to inform or mislead us in our current data obsessed society.
- Percentage work across Key Stage 3 and 4 is clearly linked to current financial topics such as loans, debts and investment returns.

- It is acceptable to make mistakes as long as the correct methodology to obtain the otherwise correct answers is then learned and remembered.

## **Social**

- In classrooms, we look for opportunities for pupils to use mini-whiteboards to promote self-esteem and build self-confidence.
- We encourage collaborative learning in the classroom – in the form of listening and learning from each other as well as paired discussion / working partners.
- We help pupils develop their mathematical voice and powers of logic, reasoning and explanation by offering explanations to each other.
- We seek out events and team maths challenges for increased pupil involvement.
- We exhibit pupils work in maths classrooms - to share their good practice and celebrate achievement through creating informative displays.
- We participate annually in Team Maths Challenges and plan to organise a Year 8 Maths Puzzle enrichment day. We advertise and encourage open lectures and visits with KS5 students.

## **Cultural**

- We share the appreciation with the pupils that mathematics, its language and symbols have developed from many different cultures around the world: e.g. Egyptian, Indian, Islamic, Greek and Russian roots.
- We look to make explicit reference to Mathematicians contribution to progression of the subject as we teach topics throughout our Schemes of Work.
  - I. We investigate and research cross cultural patterns – tessellation, islamic tiling.
  - II. We demonstrate and encourage diverse techniques e.g. for multiplication that have derived from different ancient civilisations. – Russian / Chinese multiplication, Napier’s Bones etc.
  - III. We incorporate Maths into the school wide European week of languages.