

SMSC in Maths

Within the Mathematics department we try to develop the spiritual, moral, social and cultural well-being of the students through the teaching and learning within the lessons and through extra-curricular activities. Our Maths teaching actively encourages risk taking which enables students to explore and try new ideas without the fear of failure.

Spiritual Development in Mathematics

Developing deep thinking and questioning the way in which the world works promotes the spiritual growth of students. In Maths lessons students are always encouraged to delve deeper into their understanding of Mathematics and how it relates to the world around them.

Examples of the spiritual development in mathematics include:

- Investigating Rangoli patterns and Islamic art and the uses of symmetry.
- History of Maths day for year 7, to understand the roles of mathematics in all areas of life.
- Investigating Fibonacci sequence and its links to nature.

Moral Development in Mathematics

In lessons the department strive through the teaching to encourage the students to accept responsibility for the behaviour and respect for others within the lessons, and teach the students to understand the consequences of their actions on themselves and others around them. The department encourage the students to develop self-confidence within mathematics, and to build their self-esteem within the subject.

Examples of the moral development in mathematics include:

- The trip to Bletchley Park shows the work that mathematicians contributed in WWII to help stop the spread of the Nazi ideals, and help the allies win the war. Discussions to take place about Turing, his ideas and how and why he was persecuted due to his sexuality?
- History of Maths day for year 7 to show the role of males and females in the development of mathematics through the ages.

Social Development in Mathematics

Problem solving skills and teamwork are fundamental to Mathematics, through creative thinking, discussion, explaining and presenting ideas. Students are always encouraged to develop their Mathematical reasoning skills, communicating with others and explaining concepts to each other. Self and peer reviewing are very important to enable students to have an accurate grasp of where they are and how they need to improve.

Examples of the social development in mathematics include:

- UKMT Team Maths challenges for Years 8, 9, 12 and 13
- Mathematical puzzles in form time.
- The art of origami
- Revision day for year 11
- Maths Clinic for the students to help them develop their own reasoning and thinking to solve maths problems, through discussions with peers and teachers alike.

Cultural Development in Mathematics

Mathematics is a universal language with a myriad of cultural inputs throughout the ages. We also explore the Mathematics applied in different cultures such as Rangoli patterns, symmetry, tessellations and Islamic geometric patterns. The ability to use exchange rates for foreign travel are also important life skills students will learn. The skills of analysing data are taught from Year 9 to Year 11 to enable students to make sense of vast amounts of data available in the modern world around them. Sixth Form students are able to extend this knowledge through the study of Statistics.

Examples of cultural development in mathematics include:

- History of Maths day for year 7 enables the students to discover how maths has developed through the ages
- The uses of symmetry and Art in Rangoli and Islamic art
- Statistical analysis of data through the year groups that will enable students to understand results and representations of data in the news.