

## **SMSC in Mathematics**

In maths lessons pupils are encouraged to delve deeply into their understanding of mathematics and how it relates to the world around them. The mathematics department actively encourages risk taking and problem solving which enables pupils to explore and try new ideas without fear of failure. This is fundamental to building pupils' self-esteem in mathematics

**Spiritual** education at The North Liverpool Academy involves;

- 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 and 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, e, topology, complex numbers and real world examples.
  - We encourage the students to appreciate the world of Mathematics and how it has developed through time.

**Moral** education at The North Liverpool Academy involves;

- Within the classroom, we encourage respect, 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 and discourage jumping to conclusions.
  - We explore and evaluate the use of Statistics to inform or mislead 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.

**Social** education at The North Liverpool Academy involves;

- 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 and 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 the United Kingdom Mathematics Trust national competitions.
  - Year 11 undertake Statistics coursework – Recycling project (critical intervention students)

**Cultural** education at The North Liverpool Academy involves;

- We share the appreciation with the pupils that mathematics, its language and symbols have developed from many different cultures around the world: eg Egyptian.
- We look to make explicit reference to Mathematicians contribution to progression of the subject as we teach topics throughout our Schemes of Work.
  - We investigate and research cross cultural patterns – tessellation, Islamic tiling.

