



Huntcliff Curriculum Intent: Mathematics

The mathematics team will always share our excitement and enjoyment of our subject with all of the pupils we teach, every lesson. We will develop pupils' fluent knowledge, skills and understanding of mathematical methods and concepts and we will support our pupils to acquire, select and apply mathematical techniques to solve problems. We will support our pupils to reason mathematically, make deductions and inferences, and draw conclusions. We will support our pupils to improve fluency in core numeracy skills.

Success in Mathematics is a key driver in social mobility; both our curriculum and pedagogical approach are built around supporting all pupils to unlock their talent and fulfil their potential in mathematics so that we close the gap whilst raising attainment for all. We recognise the range of mathematical experiences of pupils joining our academy and we have selected and developed a curriculum which dovetails with the primary curriculum whilst building upon previous learning. Threshold assessments, Demonstrate and Connect activities, and informal formative assessment using mini whiteboards inform planning to ensure that the learning diet of all pupils is appropriately challenging every lesson.

Respect and Attitude

'How is this helping me understand the world around me and respect other Cultures?'



Respect



Attitude

As a school serving a mono ethnic, agricultural area, it is important to us that students get a wide range of experiences that they may not have had with being part of the school community. The mathematics department strive to maximise the cultural capital of all pupils through exploiting cross curricular links in lessons, leading on an annual local mathematics challenge for partner schools, organising educational trips to places beyond the everyday experience of our pupils (e.g. Lincoln University, Bletchley Park) and improving our pupils' social skills by fostering a culture of collaborative learning and mutual respect.

Mindset and Perseverance

'How is this helping me understand my emotions, my body and my emotions?'



Mindset



Perseverance

In mathematics lessons, our pupils continually learn new mathematical concepts as skills develop in a more cumulative manner than for example in reading (this is well documented by Sainio, Eklund, Ahonen & Kiuru, 2019 among others), which increases the likelihood of making errors and meeting roadblocks over time. We aim to promote and foster an understanding and acceptance that making mistakes and identifying errors in calculations are in fact central to learning and progress in mathematics. To develop pupils' mindset and perseverance in mathematics, the curriculum has an increased problem-solving focus at 'revisits' throughout KS3 and KS4. Learning is planned around the needs of individuals and differentiated not only by activity but by scaffolding and the level and nature of support.

Ambition and Readiness

'How is this preparing me for the next stage in my life?'



Ambition



Readiness

Our department is clear that mathematics is the key to unlocking a variety of rich and varied career pathways. We strive to fully exploit opportunities for links between the pupils' learning and its application within a range of STEM careers. We aim to raise the aspirations of all pupils beyond the local offer to drive improved social mobility for all. We offer pupils experiences of the post 16 curriculum in mathematics where this is appropriate.