

Maths at Stringer

Intent

Our mathematics curriculum aims to ensure all students:

- foster an enjoyment of the subject and become enriched by the content
- make the best progress possible through teaching for understanding
- become fluent in the fundamentals of mathematics
- make connections within other areas of Maths
- reason mathematically
- solve problems by applying their skills
- are challenged and supported to ensure each child has an enriched experience
- have access to appropriate external qualifications

All students follow the same scheme of learning at Key Stage 3 and are split into Higher and Foundation Tier for Key Stage 4.

Tiering decisions are made on an individual basis.

In their time at Stringer students study number, algebra, ratio and proportion, geometry and measure, probability and statistics.

Implementation

Planning:

- Maths lessons are planned using an aspirational and well-sequenced scheme of learning that builds on prior knowledge
- Collaborative planning between teachers is used to discuss best practice
- Teachers plan using a mastery approach of one skill per lesson.
- Lessons are planned to highlight and address misconceptions to promote a deeper understanding
- Maths lessons start with a 'Do It Now' that focusses on essential numeracy skills and/or recall questions on fundamental skills to gain fluency in these areas. Recall questions are planned using a spacing approach

Delivery:

- Teachers use a variety of modelling strategies to explain how to solve mathematical problems. This is supported by visual representations and concrete resources
- Questioning and discussion issued to check understanding, embed learning, draw out misconceptions and encourage deeper thinking
- Students are encouraged to use technical vocabulary to support reasoning and to explain their thinking
- Students' mistakes are valued and used to illuminate key concepts
- Students practice skills through intelligent practice, variation, interleaving and a wide range of problem solving activities

Feedback:

- Mini whiteboards and multiple choice questions are used to check students' understanding
- Learning is reviewed through plenaries, home learning and regular assessments to track progress and inform planning
- Whole class and individual feedback are used to support students moving forward
- Home learning is planned to consolidate prior learning and reinforce long-term memory as well as test newly acquired skills

Extra Support and Challenge:

- Additional challenge is available in the form of a level 2 qualification ('Additional Maths') offered as an option subject at Key Stage 4 and Statistics GCSE is taken by all Stretch Group students in Year 11. We also enter all Stream 1 Students for the UKMT Maths Challenges each year.
- Support is provided in the form of nurture groups. These groups allow for a higher level of teacher support.

Impact

A positive classroom environment is created that gives students confidence to make and learn from mistakes.

Effective teaching leads to students acquiring, retaining and applying curriculum knowledge in the classroom and beyond. All students make good progress and go on to take GCSE Mathematics at the end of KS4.

Through an enjoyment of maths, students become confident in not only using mathematics in life but also in the transferable skills they have acquired such as problem-solving and resilience. They feel prepared to fulfil their personal goals moving through further educations (including apprenticeships) to the work place.

Out of the ashes of disaster grow the roses of success