

Mathematics Department Curriculum Statement

Intent

Our vision within the mathematics department is to give students the mathematical and numerical skills with which they can thrive academically and function successfully in their home community and working environment. The mathematics department intends to ensure that all students gain fluency in mathematical reasoning and problem solving. Our curriculum is designed to ensure that students receive a high quality mathematical education that is tailored to develop the skills the learners will require to develop mathematical application and resilience, and to have a sense of enjoyment and curiosity about the subject.

Implementation

The mathematics department implements this through a carefully planned curriculum based on a five year progression model in Key Stages 3 and 4 and a two year progression model in the Sixth Form; the mathematics National Curriculum is fully covered in Key Stage 3 to a depth appropriate to each individual. The scheme of work is developed by the whole team and is based on a spiralling curriculum where skills are regularly reviewed and extended. Lessons are planned building on previous knowledge and skills gained by students. Teachers are then supported by each other to deliver high quality lessons where learning is embedded and sequential to facilitate long term retention. Students who succeed quickly are challenged by rich and analytical problems before being moved on to new concepts, they also have the opportunity to join an after school enrichment club which provides challenge and encourages participation in both team and individual challenges. Students who are less mathematically fluent are supported in their learning by being taught in small groups with extra teaching support and additional intervention where appropriate. After school sessions are available to all students in all year groups; whether they need extra support to make progress or have missed a session through absence. Regular assessments of knowledge, skills and application identifies priorities for intervention and future delivery, and also encourage students to reflect on their progress. We have a designated Numeracy Coordinator who supports other curriculum areas with their teaching of mathematical concepts. The whole school literacy policy of incorporating the key vocabulary as identified on the curriculum is upheld and students are encouraged to use appropriate language.

Impact

Outcomes within the mathematics department are exceptional and stand out nationally in terms of attainment and progress. Mathematics is a very popular subject at Sixth Form level and the Further Mathematics take-up is high. The teaching, support and guidance provided by our staff has resulted in success at Oxbridge and Russell Group universities alongside financial and engineering apprenticeships. The high calibre of provision for enrichment for our more able students has resulted in excellent achievements in the UK Individual and Team Challenges.