



Mathematics

Kesteven and Grantham Girls' School

Our overall curriculum intent in Mathematics is to ensure that all students leave KGGS equipped with the necessary mathematical skills to take them confidently into the next stage of their lives, whatever their background and starting point.

We aim to ensure core mathematical skills are deeply embedded, rigorously taught and used to solve problems. This is underpinned with support opportunities for all students enabling them to become resilient and independent with mistakes being embraced as learning opportunities.

Our students encounter a variety of different strategies and solutions and will have opportunities to work individually and in small groups when undertaking investigative, practical, oral, written and problem-solving activities. This ensures all students achieve their potential through well structured, engaging lessons, with access to challenging and varied classroom activities and online resources.

As a result of this, students develop ability and confidence in using Mathematics, in order to foster other important qualities such as perseverance, imagination, flexibility and self-management and, above all, a positive attitude to the challenges and opportunities of adult life.

Two Assistant Heads of Faculty and another seven specialist Mathematics teachers support the Head of Faculty for Mathematics. Through regular team meetings, colleagues are invited to contribute to the decision-making processes that underpin the effectiveness of the team. All members of the faculty are actively encouraged to share ideas and offer support to colleagues through a formal observation programme. This supplements the close day-to-day collaborative working environment, which continues to be a feature of the Mathematics Team. The Head of Faculty works closely with the school's Leadership Team, as well as representing the Faculty at the Middle Leadership Team Meetings.

There are 7 teaching rooms allocated to the subject and full-time staff are usually based in one room for the majority of their lessons. Each of these rooms contains a networked PC and projector and a lockable storage unit for Mathematics resources. A wide range of commercial Mathematics resources, accessible to all teachers, is held in an area central to the Mathematics teaching rooms. Students are expected to provide their own basic equipment, including a calculator, for Mathematics lessons and to be responsible for the textbooks issued to them. Information Technology is used where it will enhance the teaching and learning of Mathematics. The learning experience of all students is enhanced through the use of a wide range of on-line packages and resources, specific VLE type resources on Microsoft Teams for each year group and revision programmes within each Mathematics course. Opportunities for the use of ICT are identified in the schemes of work and access to the computer rooms is organised using a booking system.

In Year 7, students are taught Mathematics in mixed ability tutor groups, while in Years 8, 9, 10 and 11 they are grouped according to their ability in the subject. The main textbook scheme used in Key Stage 3 is Maths Frameworking. At Key Stage 4, a variety of texts are used and students are currently entered for the AQA GCSE specification course. The two top sets take an additional qualification of AQA Level 2 Further Mathematics which is a foundation course for A-level mathematics.

Attainment and Progress in Mathematics are high. In 2023, the Progress in Mathematics was +0.62 with the average grade at GCSE being 6.6.

At A-level in 2023, 72.5% of grades in A-level Mathematics were between A*-B whilst in Further Mathematics 85.7% of grades were between A*-B.

Students have high expectations of success, which is reflected in their target setting for GCSE, which in turn means that our Y10 and Y11 students work in a positive and challenging environment. *(Targets are based on FFT 20)*

At Advanced level, Mathematics is a popular choice with the students. Each year, a number of students will also embark on a Further Mathematics A-level course and the expertise within the team is utilised, in order to accommodate their specific requirements. Core Mathematics is also taught in the sixth form.

Lunchtime support sessions are provided daily for those students from all areas of the school who require further help with Mathematics. This session is usually accessed by students on a voluntary basis, although members of staff can also arrange to see particular students at this time. Other assistance is available to students through a mentoring scheme involving Year 9, 10, 12 and 13 students.

KGGS students participate in all 3 of the National Mathematics Contests. Approximately 500 students participate each year, with many achieving recognition through awards for their success. We also organise an Inter-House Mathematics Quiz in Year 8 alongside a multitude of other subject related trips and events.

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