

# Spalding Grammar School Sixth Form

## Subject Information

## Mathematics

### Entry Requirement:

Grade 7 in GCSE Mathematics.

### Awarding body: Edexcel

**About the subject:** Studying Mathematics at this level will teach you to think logically, process information accurately and understand and manipulate numbers and mathematical processes.

A Level Mathematics is considered to be an excellent preparation for university, employment and life. It helps to develop the in-depth subject knowledge and understanding which are so important to universities and employers. While it is a satisfying subject in its own right, mathematics is also a prerequisite for further study in an increasing range of subjects. You will find that degrees in Mathematics, Statistics, Physics, Astronomy, Engineering, Computer Science all require Mathematics at advanced level. However, many other subjects, including Medicine, Architecture, and the social sciences have a certain amount of mathematical content.

The course aims to enable pupils to:

- Develop a broad range of mathematical skills and appreciate their application in a wide range of contexts.
- Develop an understanding of how different branches of mathematics are connected
- Recognise how a situation may be represented mathematically and understand how mathematical models may be refined.
- Use mathematics as an effective means of communication through the correct use of language and notation.

Two-thirds of the course is Pure Maths, which is the mathematician's tool kit expressed mainly in algebra. The remaining third of the course is split between two applications: Statistics and Mechanics.

- Statistics allows us to make sense of the world around us through data analysis and includes working with large data sets.
- Mechanics builds on Newtonian ideas of motion and forces and is strongly linked to Physics; mathematical models are used to better understand physical situations.

### Assessment:

Examination will be by written exams at the end of the course. This consists of three papers, each of two hours duration. Two of the papers are on the Pure Mathematics content and the third is divided equally between the two applications. The A Level course is graded on the six-point A\* - E scale.