Mathematics

The mathematics course builds on the maths you have learned during Key Stage Three.

The course covers six main topic areas:

- Number
- Algebra
- Ratio, proportion and rates of change
- Geometry and measures
- Probability
- Statistics

Throughout the course, you will be working towards the following assessment objectives:

AO1 - use and apply standard techniques

AO2 - reason, interpret and communicate mathematically

AO3 - solve problems within mathematics and in other contexts

External Assessment
Exam Paper 1: Non-calculator   **33.3% of GCSE**   A mix of question styles, from short, single-mark questions to multi-step problems. The mathematical demand increases as a student progresses through the paper.   **Exam Paper 2: Calculator**   **33% of GCSE**   A mix of question styles, from short, single-mark questions to multi-step problems. The mathematical demand increases as a student progresses through the paper.   **Exam Paper 1: Non-calculator**   **33.3% of GCSE**   A mix of question styles, from short, single-mark questions to multi-step problems. The mathematical demand increases as a student progresses through the paper.

Course Title	Exam Board	Specification Code	Website
Mathematics	AQA	8300	www.aqa.org.uk

GCSE Mathematics equips students for further study at sixth form and university. It also provides vital skills for life with a wide array of careers relying on a person having a good level of mathematics.
Director of Faculty: Mrs Edwards

Business Studies

GCSE Business Studies will allow you to:

Apply knowledge and understanding to business decision making, including:

- the interdependent nature of business activity, influences on business, business operations, finance, marketing and human resources; and how these interdependencies underpin business decision making
- how different business contexts affect business decisions
- the use and limitation of quantitative and qualitative data in making business decisions

Develop problem-solving and decision-making skills relevant to business

Investigate, analyse and evaluate business opportunities and issues

Make justified decisions using both qualitative and quantitative data, including its selection, interpretation, analysis and evaluation, and the application of appropriate quantitative skills.

There are five topic areas:

- **Enterprise and entrepreneurship** – students are introduced to the dynamic nature of business in relation to how and why business ideas come about. They also explore the impact of risk and reward on business activity and the role of entrepreneurship.
- **Spotting a business opportunity** – students will explore how new and small businesses identify opportunities through understanding customer needs and conducting market research. They will also focus on understanding the competition.
- **Putting a business idea into practice** – this topic focuses on making a business idea happen through identifying aims and objectives and concentrating on the financial aspects.
- **Making the business effective** – students will explore a range of factors that impact on the success of the business, including location, the marketing mix and the business plan.
- **Understanding external influences on business** – students are introduced to a range of factors, many of which are outside of the immediate control of the business, such as stakeholders, technology, legislation and the economy. Students will explore how businesses respond to these influences.

External Assessment	
Exam Paper 1: Investigating small business 50% of the qualification Covers: • Enterprise and entrepreneurship • Spotting a business opportunity • Putting a business idea into practice • Making the business effective • Understanding external influences on business	**Exam Paper 2: Building a business** 50% of the qualification Covers: • Growing the business • Making marketing decisions • Making operational decisions • Making financial decisions • Making human resource decisions

Course Title	Exam Board	Specification Code	Website
Business Studies	Edexcel	1BS0	qualifications.pearson.com

You could go on to study business studies at A-Level or college. The course also equips you with some skills that would be useful if you were setting up or running your own business, as well as careers in businesses run by others.
Director of Faculty: Mrs Edwards

Statistics

How do they predict the weather?

Can you predict the future that well?

Statistics is the study of making good guesses. Making well-reasoned predictions about the future, as well as making justified assumptions about why something has happened, are some of the key rationales in the study of statistics.

GCSE statistics will involve studying probabilities, manipulating datasets, exploring sampling methods and forming scientific hypotheses.

There are five sections to GCSE statistics:

- A: Understanding the importance of the careful planning of a clear strategy for collecting, recording and processing data in order to address an identified question or hypothesis.

- B: Recognise the opportunities, constraints and implications for subsequent mathematical analysis involved in obtaining appropriate data through careful design of primary data collection techniques or through the use of reference sources for secondary data to ensure unbiased research.

- C: Generate data visualisation and understand the mathematics required to derive these visualisations.

- D: Calculate statistical measures to compare data.

- E: Use visualization and calculation to interpret results with reference to the context of the problem, and to evaluate the validity and reliability of statistical findings.

External Assessment			
The course will be assessed with 2 x 1 hour 30 min Examinations – both with calculator. Statistics is also a subject that has both Foundation and Higher tiered exam papers. As with the mathematics GCSE Foundation Tier gives access to grades 1 to 5, Higher Tier gives access to grades 4 to 9.			
Course Title	Exam Board	Specification Code	Website
Statistics	AQA	8382	www.aqa.org.uk
Statistics are used widely in medicine, business, science, teaching and politics and so having a deep understanding of how to handle and interpret statistics will be advantageous. If you want to study maths at A-Level the Statistics GCSE will be very useful. Of course this could also be true of subjects like: biology, psychology, sociology, geography and government & politics, as they often use statistics to draw conclusions of the world around them and feature within their A-Level courses.			
Director of Faculty: Mrs Edwards			