

AQA A Level Further Mathematics

Why study Further Mathematics at The Sixth Form at Ridgewood?

- You will achieve two A levels when studying this course, one in Maths and one in Further Maths
- We have a strong team of A level teachers who have been teaching the subject for many years and have a history of excellent A level results
- Students at Ridgewood have said that the support they receive from the maths team is exemplary; we are always willing to spend time with students to help them if they are struggling
- We offer a weekly support session after school
- Maths is one of the most popular subjects and is essential for many HE courses and careers
- In 2019, 80% of students on this course achieved an A* or A grade and 100% achieved A*-B.

What topics will I study in this subject?

Topic	What this means
Pure Mathematics	The use and application of algebra, trigonometry, calculus and other core mathematical skills.
Mechanics	An applied unit that focuses on real-world problems such as kinematics, forces and moments.
Statistics	An applied unit that focuses on real-life uses of maths to analyse data and trends focusing on topics such as sampling, hypothesis testing and probability.
Discrete	An applied unit that focuses on using maths to solve real-life problems by using algorithms, graphs, networks, linear programming and critical path analysis.

What skills will I need in this subject?

Skill	What this skill involves in this subject
Use and apply standard techniques	<ul style="list-style-type: none"> • Select and correctly carry out routine procedures • Accurately recall facts, terminology and definitions
Reason, interpret and communicate mathematics	<ul style="list-style-type: none"> • Construct rigorous mathematical arguments • Make deduction and inferences • Assess the validity of mathematical arguments • Explain their reasoning • Use mathematical language and notation correctly
Solve problems within mathematics	<ul style="list-style-type: none"> • Translate problems in mathematical and non-mathematical contexts into mathematical processes • Interpret solutions to problems in their original context • Translate situation in context into mathematical models • Use mathematical models • Evaluate the outcomes of modeling in context

What will my lessons involve?

- Teaching in Further Maths consists of 18 one hour lessons over two weeks
- Lessons usually consist of teacher-led examples followed by questions set for students to complete as individuals or as groups when appropriate
- Questions set in lessons will include practising key skills, using written reasoning to fully justify answers, problem solving and using maths within unfamiliar contexts
- Lessons will also be used to complete improvements on set independent learning or exam papers

What will my independent study involve?

- You are set independent study to compliment what you have learnt in lesson and are expected to complete independent study on topics you need more practice on
- In general, students are set one hour of independent study for each hour of teaching
- You will be set a variety of independent study varying from questions to recap prior knowledge, consolidation questions of topics covered in lesson, end of topic tests and past exam papers

How will I be assessed?

Percentage exam assessment: 100%	Percentage coursework assessment: 0%
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Assessment	Details of assessment
A level Mathematics	Three two hour exam papers at the end of Year 12. Each exam paper consists of 100 marks and will make up one third of your overall grade.
Paper 1 – Pure Mathematics	One exam paper with a mix of question styles from short, single mark questions to multi-step problems, including multiple choice questions.
Paper 2 – Pure Mathematics and Mechanics	One exam paper split into two sections. Section A will be on Pure Mathematics and worth 50 marks and Section B will be on Mechanics and worth 50 marks. There will be a mix of question styles from short, single mark questions to multi-step problems, including multiple choice questions.
Paper 3 – Pure Mathematics and Statistics	One exam paper split into two sections. Section A will be on Pure Mathematics and worth 50 marks and Section B will be on Statistics and worth 50 marks. There will be a mix of question styles from short, single mark questions to multi-step problems, including multiple choice questions.
A level Further Mathematics	Three two hour exam papers at the end of Year 13. Each exam paper consists of 100 marks and will make up one third of your overall grade.
Paper 1 – Pure Mathematics	One exam paper with a mix of question styles from short, single mark questions to multi-step problems, including multiple choice questions.
Paper 2 – Pure Mathematics	One exam paper with a mix of question styles from short, single mark questions to multi-step problems, including multiple choice questions.
Paper 3 – Discrete and Statistics	One question paper and answer booklet on Discrete and one question paper and answer booklet on Statistics. A mix of question styles from short, single mark questions to multi-step problems, including multiple choice questions.

How do I know this is the right course for me?

- This course is suitable for students with a passion for maths combined with the dedication to work hard in the subject
- You should be thoroughly interested in maths and its applications as it will take up half of your study time at the Sixth Form
- You should be an organised, self-motivated learner who is willing to ask questions both in and outside of lesson time

