

YOUR JOURNEY

TO BECOMING EXAM READY



WELCOME TO AS/A LEVEL MATHEMATICS | FURTHER MATHEMATICS



The WJEC GCE AS and A levels in Mathematics and Further Mathematics provide a broad, coherent, satisfying and worthwhile course of study. They encourage you to develop confidence in, and a positive attitude towards, mathematics and to recognise their importance in your own lives and to society.

In both GCE Mathematics and GCE Further Mathematics, you will study pure mathematics, statistics and mechanics.

The specifications will provide a firm mathematical foundation for those who wish to proceed to further study or to employment. They will complement other studies and provide support for those who are taking AS/A level courses in other subjects.

You will learn how to answer questions in a variety of contexts, and you will develop problem-solving skills that are essential for you to be able to apply mathematics in higher education, in the world of work and in everyday life.

PLANNING AHEAD...

The WJEC AS and A level specifications in Mathematics and Further Mathematics will enable you to:

- develop your understanding of mathematics and mathematical processes in a way that promotes confidence and fosters enjoyment;
- develop abilities to reason logically and recognise incorrect reasoning, to generalise and to construct mathematical proofs;
- extend your range of mathematical skills and techniques and use them in more difficult, unstructured problems;
- develop skills relevant to exploring and analysing large data sets;
- use technology such as spreadsheets or specialist statistical packages to explore data sets;
- interpret real data presented in summary or graphical form;

- use data to investigate questions arising in real contexts
- develop an understanding of coherence and progression in mathematics and of how different areas of mathematics can be connected;
- recognise how a situation may be represented mathematically and understand the relationship between 'real world' problems and standard and other mathematical models and how these can be refined and improved;
- use mathematics as an effective means of communication;
- acquire the skills needed to use technology such as calculators and computers effectively, recognise when such use may be inappropriate and be aware of limitations;
- develop an awareness of the relevance of mathematics to other fields of study, to the world of work and to society in general.

GIVE IT YOUR ALL!

TOP TIPS

For each level, the examination for a particular unit will comprise a number of short and longer, both structured and unstructured questions, which may be set on any part of the subject content of that unit.

Some questions will assess learners' understanding of more than one topic from the subject content.

A calculator will be required in all examinations in both GCE Mathematics and GCE Further Mathematics.

A formula booklet will be required in all examinations in both GCE Mathematics and GCE Further Mathematics. However, it does not contain all the formulae that you will encounter in your studies and, therefore, it is important that you familiarise yourself with the contents of the formula booklet, so that you are aware of which formulae are given and also which formulae not given.

WELLBEING GUIDANCE

Take baby steps.

Remember this is a journey and you will pick skills and knowledge up along the way.

Take regular breaks from studying.

Exercise, meet friends, spend time with family.

Look after yourself.

Make sure you are getting a balanced diet and get enough sleep.

Try to stay positive.

Even if you don't feel like it, a positive attitude will help you.

Remember that everyone's different.

Try not to compare yourself to others.

HOW ARE YOU ASSESSED?

The GCE Mathematics specification is divided into a total of 4 units, 2 AS units and 2 A2 units. All units are compulsory. A calculator is required for all examinations. The weightings below are expressed in terms of the full A level qualification.

AS/A Level Mathematics

AS Unit 1: Pure Mathematics A	Written examination - 2 hours 30 minutes - 120 marks	25% of the qualification
AS Unit 2: Applied Mathematics A	Written examination - 1 hour 45 minutes - 75 marks The paper is made up of 2 sections: Section A: Statistics (40 marks) Section B: Mechanics (35 marks)	15% of the qualification
A2 Unit 3: Pure Mathematics B	Written examination - 2 hours 30 minutes - 120 marks	35% of the qualification
A2 Unit 4: Applied Mathematics B	Written examination - 1 hour 45 minutes - 80 marks The paper is made up of 2 sections: Section A: Statistics (40 marks) Section B: Differential Equations and Mechanics (40 marks)	25% of the qualification

HOW ARE YOU ASSESSED?

The GCE Further Mathematics specification is divided into a total of 5 units, 3 AS units and 2 A2 units. All AS units and A2 unit 4 are compulsory. A calculator is required for all examinations. The weightings below are expressed in terms of the full A level qualification.

AS/A Level Further Mathematics

AS Unit 1: Further Pure Mathematics A	Written examination - 1 hour 30 minutes - 70 marks	13 1/3% of the qualification
AS Unit 2: Further Statistics A	Written examination - 1 hour 30 minutes - 70 marks	13 1/3% of the qualification
AS Unit 3: Further Mechanics A	Written examination - 1 hour 30 minutes - 70 marks	13 1/3% of the qualification
A2 Unit 4: Further Pure Mathematics B	Written examination - 2 hours 30 minutes - 120 marks	35% of the qualification
A2 Unit 5: Further Statistics B	Written examination - 1 hour 45 minutes - 80 marks	25% of the qualification
OR		
A2 Unit 6: Further Mechanics B	Written examination - 1 hour 45 minutes - 80 marks	25% of the qualification

