

Maths

Entry requirements: Grade A* to B in Maths and Numeracy GCSE

Exam board: WJEC: 2 examined Units in Year 12 (AS) 2 examined units in Year 13 (A2)

Teachers (Subject to change): Mr Davies, Miss Richardson

Link to Specification: <https://www.wjec.co.uk/media/lm3fegtu/wjec-gce-maths-spec-from-2017-e.pdf>

Transition tasks: Available on HwB

Other useful links: www.mymaths.co.uk <https://jacktilson.net>

Head of Subject email: ads@eirias.conwy.sch.uk

Mathematics Faculty

Maths

The WJEC GCE AS and A level in Mathematics provides a broad, coherent, satisfying and worthwhile course of study. It encourages learners to develop confidence in, and a positive attitude towards, mathematics and to recognise its importance in their own lives and to society.

The WJEC GCE AS and A level in Mathematics encourages learners to:

- develop their 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 their range of mathematical skills and techniques and use them in more difficult, unstructured problems;
- 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;
- read and comprehend mathematical arguments and articles concerning applications of mathematics;
- 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;
- take increasing responsibility for their own learning and the evaluation of their own mathematical development.

Maths

This specification is divided into a total of 4 units, 2 AS units and 2 A2 units. Weightings noted below are expressed in terms of the full A level qualification.

All units are compulsory.

AS (2 units)

AS Unit 1: Pure Mathematics A
Written examination: 2 hours 30 minutes
25% of qualification 120 marks

The paper 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 the unit.

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

A calculator will be allowed in this examination.

AS Unit 2: Applied Mathematics A
Written examination: 1 hour 45 minutes
15% of qualification 75 marks

The paper will comprise two sections:

Section A: Statistics (40 marks)

Section B: Mechanics (35 marks)

The total assessment time of 1 hour 45 minutes can be split between Section A and Section B as learners deem appropriate.

The paper 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 the unit.

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

A calculator will be allowed in this examination.

A Level (the above plus a further 2 units)

A2 Unit 3: Pure Mathematics B
Written examination: 2 hours 30 minutes
35% of qualification 120 marks

The paper 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 the unit.

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

A calculator will be allowed in this examination.

A2 Unit 4: Applied Mathematics B
Written examination: 1 hour 45 minutes
25% of qualification 80 marks

The paper will comprise two sections:

Section A: Statistics (40 marks)

Section B: Differential Equations and Mechanics (40 marks)

The total assessment time of 1 hour 45 minutes can be split between Section A and Section B as learners deem appropriate.

The paper 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 the unit.

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

A calculator will be allowed in this examination.

Further Maths

Entry requirements: Grade A* to B in Maths and Numeracy GCSE.
L2 in Additional Maths is desirable but not essential.

Exam board: WJEC: 4 Examined units Yr 12 (A2 Maths), 4 Examined units Yr 13 (A2 Further Maths)

Teachers (Subject to change): Dr Greenslade, Mrs Evans

Link to Specification: <https://www.wjec.co.uk/media/hcpnsu41/wjec-gce-further-maths-spec-from-2017-e.pdf>

Transition tasks: Available on HwB

Other useful links: www.mymaths.co.uk <https://jacktilson.net>

Head of Subject email: mge@eirias.conwy.sch.uk

Mathematics Faculty

Further Maths

This specification is divided into a total of 5 units, 3 AS units and 2 A2 units. Weightings noted below are expressed in terms of the full A level qualification.

All AS units and A2 Unit 4 are compulsory.

AS (3 units)

AS Unit 1: Further Pure Mathematics A
Written examination: 1 hour 30 minutes
13½% of qualification 70 marks

The paper 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 the unit.

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

A calculator will be allowed in this examination.

AS Unit 2: Further Statistics A
Written examination: 1 hour 30 minutes
13½% of qualification 70 marks

The paper 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 the unit.

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

A calculator will be allowed in this examination.

AS Unit 3: Further Mechanics A
Written examination: 1 hour 30 minutes
13½% of qualification 70 marks

The paper 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 the unit.

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

A calculator will be allowed in this examination.

Students complete the A Level in Mathematics in Year 12 and move to the A Level in Further Mathematics in Yr 13

A Level (the above plus a further 2 units)

Candidates must take Unit 4 and either Unit 5 or Unit 6.

A2 Unit 4: Further Pure Mathematics B
Written examination: 2 hours 30 minutes
35% of qualification 120 marks

This unit is **compulsory**.

The paper 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 the unit.

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

A calculator will be allowed in this examination

A2 Unit 5: Further Statistics B
Written examination: 1 hour 45 minutes
25% of qualification 80 marks

Learners will sit **either** Unit 5 **or** Unit 6.

The paper 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 the unit.

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

A calculator will be allowed in this examination

A2 Unit 6: Further Mechanics B
Written examination: 1 hour 45 minutes
25% of qualification 80 marks

Learners will sit **either** Unit 5 **or** Unit 6.

The paper 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 the unit.

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

A calculator will be allowed in this examination

Further Maths

This WJEC GCE AS and A Level in Further Mathematics provides a broad, coherent, satisfying and worthwhile course of study. It encourages learners to develop confidence in, and a positive attitude towards, mathematics and to recognise its importance in their own lives and to society.

The WJEC GCE AS and A level in Further Mathematics encourages learners to:

- develop their 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 their range of mathematical skills and techniques and use them in more difficult, unstructured problems;
- 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;
- read and comprehend mathematical arguments and articles concerning applications of mathematics;
- 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;
- take increasing responsibility for their own learning and the evaluation of their own mathematical development.