



CHEMISTRY

Examination Board: Welsh Joint Examination Board (W.J.E.C.)

Head of Department Mr. R.J. Sharp

Summary: A two-year Advanced Level course examined at the end of Year 12 and Year 13

What do I need to know or be able to do before taking Chemistry?

The specification builds on the knowledge, understanding and skills set out in the WJEC GCSE criteria/content for Science. Skills in Numeracy/Mathematics, Literacy/English and Information Communication Technology will provide a good basis for progression to this qualification. Students will be expected to be able to process and analyse the results of experimental work which will include graph plotting and numerical manipulation.

What will I learn?

- Acquire a body of chemical knowledge and an appreciation of its significance
- Use theories, models and ideas to develop scientific explanations
- Use knowledge and understanding to pose scientific questions, define scientific problems, present scientific arguments and scientific ideas
- Use appropriate methodology, to answer scientific questions and solve scientific problems
- Practical work is an intrinsic part of this specification. It is vitally important

in developing a conceptual understanding of many topics and it enhances the experience and enjoyment of chemistry. The practical skills developed are also fundamentally important to learners going on to further study in Chemistry and related subjects, and are transferable to many careers.

Specification Content:

AS **UNIT 1:** The Language of Chemistry, Structure of Matter and Simple Reactions

AS **UNIT 2:** Energy, Kinetics and Carbon Chemistry

AS **UNIT 3:** Physical and Inorganic Chemistry

AS **UNIT 4:** Organic Chemistry and Analysis

AS **UNIT 5:** Practical Chemistry



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What examinations will I Have to take to get my qualification?

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

AS (2 Units)

Unit 1 Written Examination: 1 hour 30 minutes (80 marks)

20% of qualification

Unit 2 Written Examination: 1 hour 30 minutes (80 marks)

20% of qualification

A2 (3 Units)

Unit 3 Written Examination: 1 hour 45 minutes (80 marks)

25% of qualification

Unit 4 Written Examination: 1 hour 45 minutes (80 marks)

25% of qualification

Unit 5 Practical Examination: 60 marks

10% of qualification.

What could I go on to do at the end of my course?

A Level Chemistry provides the required foundation for the study of Chemistry in higher education, including Chemistry at degree level and in related areas such as Medicine, Biochemistry, Veterinary Science, Pharmacy, Material Science, Metallurgy, Dentistry and Chemical Engineering.

The course also allows students to develop knowledge and an array of transferable skills essential for direct entry into employment in many Chemistry related and other scientific and non-scientific fields.