THE MAYNARD SCHOOL
EXETER

2023 ENTRY
A-level

Chemistry

Information for
students and parents

CHEMISTRY

Chemistry is very popular at The Maynard. We have well-equipped laboratories with dedicated and enthusiastic teachers. Our students go on to study Chemistry, Natural Science, Medicine, Veterinary Science, Engineering and a wide range of other degrees. They pursue careers in all manner of disciplines, from Dentistry to Business Management to Food Science.

OVERVIEW

We offer the Edexcel A-level Chemistry syllabus. The course aims to build on the skills and knowledge acquired at GCSE and apply them to a wide range of situations. It allows us to look more closely at the particles and processes that make up the material world and to be able to explain and predict their behaviour. There is a large mathematical component and an emphasis on analysis and problem solving.

BENEFITS OF STUDYING CHEMISTRY

Chemistry is an ideal grounding for a wide range of careers and provides analytical skills that are useful in any profession. It requires students to acquire knowledge, use mathematical skills, be very clear and precise in their use of language, be able to use their imagination, debate issues, solve problems, make predictions, and acquire practical skills. The developments taking place in alternative fuels, nanotechnology and computing are driven by advances in materials science. Students with an understanding of Chemistry will be in great demand for many years to come, both for their knowledge and their skills.

ENTRY REQUIREMENTS

This qualification builds on the knowledge, understanding and practical skills that you gained in GCSE Science and GCSE Additional Science or GCSE Chemistry. You should have at least a grade 7 in these subjects. You should also have at least a grade 7 in GCSE Mathematics, as numerical and mathematical skills are important in Chemistry. You will need to be able to communicate effectively, be able to plan and carry out research, and think critically about problems.

EXAMINATIONS

PAPER 1: Advanced Inorganic and Physical Chemistry (9CH0/01)

30% of the A2 1 hour 45 minutes 90 marks

Topic 1: Atomic Structure and the Periodic Table
Topic 2: Bonding and Structure
Topic 3: Redox I
Topic 4: Inorganic Chemistry and the Periodic Table
Topic 5: Formulae, Equations and Amounts of Substance
Topic 8: Energetics I
Topic 10: Equilibrium I
Topic 11: Equilibrium II
Topic 12: Acid-base Equilibria
Topic 13: Energetics II
Topic 14: Redox II
Topic 15: Transition Metals

PAPER 2: Advanced Organic and Physical Chemistry (9CH0/02)

30% of the A2 1 hour 45 minutes 90 marks.

Topic 2: Bonding and Structure
Topic 3: Redox I
Topic 5: Formulae, Equations and Amounts of Substance
Topic 6: Organic Chemistry I
Topic 7: Modern Analytical Techniques I
Topic 9: Kinetics I
Topic 16: Kinetics II
Topic 17: Organic Chemistry II
Topic 18: Organic Chemistry III
Topic 19: Modern Analytical Techniques II

PAPER 3: General and Practical Principles in Chemistry (9CJO/03)

40% of the A-level 2 hours 30 minutes 120 marks

Overview of content

Questions in paper 3 may draw on any of the topics in this specification. The paper will include synoptic questions that may draw on two or more different topics listed. The paper will include questions that assess conceptual and theoretical understanding

of experimental methods (indirect practical skills) that will draw on students' experiences of the core practicals.

OVERVIEW OF ASSESSMENT FOR ALL PAPERS

- The papers may include multiple-choice, short open, open-response, calculations and extended writing questions.
- The paper will include questions that target mathematics at Level 2 or above (level 2 corresponds with GCSE).
- Some questions will assess conceptual and theoretical understanding of experimental methods.

Science Practical Endorsement: 9CH0/04
Internally assessed and externally moderated by Pearson Edexcel.

OVERVIEW OF CONTENT

This qualification will give students opportunities to use relevant apparatus and techniques to develop and demonstrate specific practical skills. These skills must be assessed through a minimum of 12 identified practical activities within each qualification. The assessment outcomes will be reported separately on students' certificates as either 'pass' or 'fail'. To achieve a pass, students must demonstrate that they are competent in all of the practical skills listed in the subject content requirement for chemistry, as published by the Department for Education.

The Endorsement will not contribute to the overall grade for this qualification, but the result will be recorded in your final certificate.

The core practicals will be assumed knowledge and there will be questions on practical techniques. This could include the analysis and evaluation of sample data or designing an experiment to investigate a reaction. The questions will relate to practical you will have carried out.

At The Maynard we carry out many more experiments than the 16 core practicals suggested by the examiner.

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