



DRAYTON MANOR HIGH SCHOOL

ADVANCED LEVEL COURSE 2020-2022

Chemistry

Specification OCR A

Entry Requirements

Grade 6 in Chemistry GCSE or Grade 6 in Core and Additional Science GCSE. Grade 6 in Mathematics GCSE.

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

The qualification integrates theory and relevant practical work, which are developed at different levels throughout the course. Students will need to be able to communicate effectively, research and think critically about chemical problems.

What will I learn on this course?

Students follow the OCR Chemistry A syllabus at A level. The course covers a broad range of fundamental concepts and practical skills. The qualification aims to

- Stimulate and sustain students' interest in, and enjoyment of, chemistry
- Enable students to gain a knowledge and understanding of chemistry appropriate to AS/Advanced Level and to appreciate the inter-linking patterns which are a distinguishing feature of the subject
- Demonstrate the inter-relationship between the development of the subject and its application (social, economic, environmental and technological) by building on How Science Works skills and also to recognise the value of chemistry to society when used responsibly and with imagination
- Develop students' skills in laboratory procedures and techniques
- Develop students' abilities to acquire knowledge and understanding through practical work
- Provide opportunities for students to bring together knowledge of how different areas of chemistry relate to each other.

How is the course structured?

Unit	Title	Weighting	Assessment Type
1	Periodic table, elements and physical chemistry.	37%	Exam
2	Synthesis and analytical techniques	37%	Exam
3	Unified chemistry	26%	Exam
4	Practical	Pass/Fail	Internal practical's assessed throughout the year

What skills will I develop by doing this course?

As well as covering advanced level study of chemistry, this course enables students to develop a range of valuable transferable key skills. Examples of the key skills covered during this course are:

Communication

- Taking part in discussions on topical issues
- Preparing written documents for your practical work

- Using, assessing and summarising reference materials from a range of primary and secondary sources

Application of numbers

- Planning to collect results from experiments and presenting them in a suitable format
- Carrying out calculations on data collected during experiments
- Interpreting the results from experiments and seeing how these relate to prior hypotheses

Information technology

- Using software to present written reports and prepare presentations
- Planning and designing spreadsheets to support experiments, and being able to select suitable graphical formats to show trends and patterns in data
- Using digital data collection equipment to obtain and display findings

Problem solving

- Planning an investigation to distinguish between similar substances

Working with others

- Planning group investigations and presentations to study and explain the effect of changes to systems

Improving your own learning and performance

- Working out a timetable with targets to improve modelling skills
- Monitoring the marks awarded for written reports and identifying areas for improvement
- Developing scientific communication skills to explain complex concepts accurately and clearly to a range of audiences
- Developing the ability to work independently with a range of resources to enhance individual learning

What kind of student is this course suitable for?

This qualification is suitable for students who

- Have a real interest in, and enjoyment of, chemistry
- Enjoy carrying out investigations by the application of imaginative, logical and critical thinking
- Enjoy working with theoretical concepts and models and applying them to macroscopic observations

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

- Follow a degree course that directly applies a knowledge of chemistry, for example in Chemistry, Chemical Engineering, Biochemistry, Environmental Science, Medicine or Pharmacy. UCAS handbooks provide further guidance
- Follow a degree course in subjects where critical thinking skills are important, such as Law or Politics
- Direct employment as a technician in the scientific field