

A-Level Chemistry

Entry requirements

Grade 6+ in Chemistry GCSE plus Grade 5+ in English and Maths
 or Grade 6, 6 in Combined Science GCSE

Lead Teacher

Ms J Hayer
 j.hayer@dittonparkacademy.co.uk

Exam Board

OCR A

Specification

H032 / H432

COURSE DETAILS

Course Overview

In Chemistry A-Level, students must be able to use standard form, use significant figures, rearrange equations, use logs and have a good grasp of algebra to succeed. Therefore a Grade 5+ in Maths is required.

The subject content is broken down into six modules, each of which has associated mathematical and practical skills:

Module 1 – Development of practical skills in chemistry

Module 2 – Foundations in chemistry

Module 3 – Periodic table and energy

Module 4 – Core organic chemistry

Module 5 – Physical chemistry and transition elements

Module 6 – Organic chemistry and analysis

A-Level Chemistry is a linear qualification, with students sitting all the A-Level exam at the end of the course. There are three assessments as outlined in the table below.

HOW WILL I BE ASSESSED?

Assessment	% of GCE	Assessment Details	Details
Paper 1 Inorganic & Physical Chemistry	37%	2.25 hours 100 marks	Content from Modules 1, 2, 3 and 5. Assesses relevant practical skills. Topics include chemistry material, equilibrium constant K_c for homogenous systems, acids and bases, properties of period 3 elements and their oxides, transition metals, reaction of ions in aqueous solution
Paper 2 Organic & Physical Chemistry	37%	2.25 hours 100 marks	Content from Modules 1, 2, 4 and 6. This unit introduces more of the principles that underpin chemistry and looks at the applications of these principles.
Paper 3 Synoptic Paper	26%	1.5 hours 70 marks	Content from Modules 1-6 Includes practical questions on procedures and data analysis.

ASSESSMENT OBJECTIVES

AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures.

AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures in both theoretical and practical contexts, and when handling both qualitative and quantitative data.

AO3: Analyse, interpret and evaluate scientific information, ideas and evidence, including in relation to issues, to: make judgements and reach conclusions develop and refine practical design and procedures.

WIDER READING

Books

- The Pleasure of Finding Things Out by Richard Feynman
- Periodic Tales - Hugh Aldersey-Williams
- The Disappearing Spoon - Sam Kean
- Uncle Tungsten - Oliver Sachs

Websites

- Periodic Table of Videos by Martyn Poliakoff www.youtube.com
- Royal Society of Chemistry www.rsc.org.uk Institution of Chemical Engineers www.icheme.org
www.chemguide.co.uk

FURTHER ASPIRATIONS

What degree courses could this lead to?	What careers could this course lead to?
<ul style="list-style-type: none"> • Chemistry • Engineering • Biology • Medicine • Veterinary science • Accountancy • Law • Dentistry 	<ul style="list-style-type: none"> • Analytical chemist • Biotechnologist • Chemical engineer • Healthcare scientist • Clinical biochemistry • Forensic scientist • Nanotechnologist • Pharmacologist • Research scientist (physical sciences)