



# A LEVEL Chemistry Edexcel

## WHAT DO I NEED TO BE ABLE TO DO BEFORE TAKING THIS COURSE?

You should have achieved 2 grade 6s in Science and a Grade 6 in Mathematics.

This course is suitable for students who enjoy:

- Developing practical competence
- Analysing and problem solving
- Researching and presenting ideas
- Working as a member of a team
- Independent learning and wider reading

## WHAT WILL I LEARN ON THIS ADVANCED GCE COURSE?

**Paper 1 Advanced Inorganic and Physical Chemistry:** a written paper (1h45m) examined in the summer of Year 13 (30% of qualification).

**Paper 2 Advanced Organic and Physical Chemistry:** a written paper (1h45m) examined in the summer of Year 13 (30% of qualification).

**Paper 3 General and Practical Principles in Chemistry:** a written paper (2h30m) examined in the summer of Year 13 (40% of qualification) containing synoptic questions. Half of this paper will test students' knowledge and understanding of practical skills and techniques.

Questions involving the use of mathematical skills in Chemistry will contribute to 20% of the assessment.

Students will be awarded a practical skills endorsement to their A level if they show sufficient practical competency in the core practical work. This endorsement or lack of it will not affect the A level grade.

	<b>Inorganic Chemistry</b>	<b>Organic Chemistry</b>	<b>Physical Chemistry</b>
Topics covered in both AS & A2	<ul style="list-style-type: none"> <li>• Inorganic chemistry &amp; the periodic table</li> <li>• Structure &amp; bonding</li> <li>• The alkaline-earths</li> <li>• Redox reactions</li> <li>• Halogens, halides and halates</li> <li>• Shapes of molecules</li> </ul>	<ul style="list-style-type: none"> <li>• Naming organics Alkanes &amp; alkenes</li> <li>• Substitution, addition &amp; free radical reactions</li> <li>• Alcohols and halogenoalkanes</li> <li>• Mechanisms</li> <li>• Green chemistry</li> </ul>	<ul style="list-style-type: none"> <li>• Periodicity of physical &amp; chemical properties</li> <li>• Atomic structure</li> <li>• Energy changes</li> <li>• Intermolecular forces</li> <li>• Rates of reaction &amp; equilibria</li> <li>• Mass &amp; infrared spectra</li> </ul>
Further topics for A2 only	<ul style="list-style-type: none"> <li>• Acid and base theory</li> <li>• Catalysis</li> <li>• Redox chemistry of the transition elements</li> <li>• Complexes</li> </ul>	<ul style="list-style-type: none"> <li>• Carbonyl compounds</li> <li>• Aromatics</li> <li>• Organic nitrogen compounds</li> <li>• Organic synthesis</li> </ul>	<ul style="list-style-type: none"> <li>• Further rates &amp; equilibria</li> <li>• Entropy</li> <li>• Electrochemistry</li> <li>• Spectroscopy &amp; chromatography</li> </ul>

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