

## Switching to OCR A from Eduqas

### Introduction

We are really excited about our GCE Chemistry A qualification. Whether taking on the AS Level or the full A Level, this fantastic course is a great qualification for those with an interest in the subject. Why choose Chemistry A?

- Building on our existing popular course, the specification was updated in consultation with teachers, higher education, learned societies and industry.
- The 'Big Ideas' of chemistry are arranged in topics that underpin the knowledge and understanding needed for the next generation of chemists.
- Chemistry A is enjoyable to teach and learn, giving learners the essentials for chemistry-related higher education courses as well as many transferable, marketable skills.
- The chemical topics are presented in a clear and logical linear order, with maths and How Science Work opportunities clearly highlighted, allowing you flexibility in how to approach the teaching.
- There are many highlighted opportunities for hands-on practical work, linking to our flexible practical assessment model.

### Our offer

- Our A Level Chemistry team, Danièle Gibney and David Paterson, are passionate about chemistry and education. With chemical research, teaching, assessment, publishing and school science management experience, they are fully committed to supporting centres' delivery of Chemistry A – contact Danièle and David by email at [ScienceGCE@ocr.org.uk](mailto:ScienceGCE@ocr.org.uk) or by phone on 01223 553998.
- We have produced a wide range of [support materials](#), from our handbooks (covering practical work and maths) to delivery guides, lesson elements, practical activities, candidate exemplars and more.
- Join our conversation on the [OCR Community](#) and on Twitter [@ocr\\_science](#) to ask questions, talk about and share good practice and ideas.

[#PositiveAboutPractical](#)



## Key differences

OCR Chemistry A (H032/H432)	Eduqas (B410QA/A410QS)
<b>Practical skills take centre stage</b> , detailed in full at the start of the specification in a separate module for <b>clarity</b> and <b>prominence</b>	Specified practical activities listed in the specification
<b>Flexible practical</b> assessment that allows you to use your own practical activities or select from our range of fully-detailed suggested activities.	A core set of 24 specified practicals activities.
<b>Extensive support for mathematical skills development</b> , with linking of skills in the specification and a dedicated Mathematical Skills Handbook.	Linking of mathematical skills at sub-topic level.
<b>Fewer marks in the AS and A Level assessments</b> , giving learners more time to develop their answers. (AS 140 marks in 180 minutes; A Level 270 marks in 360 minutes)	20 more marks in AS Level (180 minutes) and 30 more marks in A Level (375 minutes).
Our subject team, including <b>Chemistry Subject Specialists</b> , are available by phone and email for advice on all aspects of delivering A Level Chemistry, and regularly run network sessions and CPD events around the country.	The Eduqas Science Team.



## Content

The content within the [OCR Chemistry A specification](#) covers the key concepts of chemistry and will be very familiar. We've laid it out in a logical progression to support co-teaching the AS Level and teaching the A Level in a linear way.

OCR Chemistry A (H032/H432)	Eduqas (B410QA/A410QS) (* – topic is split)
<p><b>Module 1: Development of practical skills in chemistry</b></p> <p>Practical skills assessed in a written examination and Practical skills assessed in the practical endorsement</p>	<p>The same practical skills, as mandated by the DfE, are listed in Appendix A and B of the Eduqas specification.</p>
<p><b>Module 2 – Foundations in chemistry</b></p> <p>Atoms, compounds, molecules and equations Amount of substance Acid–base and redox reactions Electrons, bonding and structure</p>	<p>C1.1 Formulae and equations C1.2 Basic ideas about atoms C1.3 Chemical calculations C1.4 Bonding C1.5 Solid structures* C2.1 Simple equilibria and acid-base reactions* PI1.1 Redox and standard electrode potential* PI5.2 Acid-base equilibria*</p>
<p><b>Module 3 – Periodic table and energy</b></p> <p>The periodic table and periodicity Group 2 and the halogens Qualitative analysis Enthalpy changes Reaction rates and equilibrium (qualitative)</p>	<p>C1.5 Solid structures* C1.6 The Periodic Table C2.1 Simple equilibria and acid-base reactions* C2.2 Thermochemistry C2.3 Rates of reaction* PI2.1 Chemistry of the p-block PI5.1 Equilibrium constants*</p>



OCR Chemistry A (H032/H432)	Eduqas (B410QA/A410QS) (* – topic is split)
<p><b>Module 4 – Core organic chemistry</b></p> <p>Basic concepts Hydrocarbons Alcohols and haloalkanes Organic synthesis Analytical techniques (IR and MS)</p>	<p>C3.1 Organic compounds C3.2 Hydrocarbons C3.3 Halogenoalkanes C3.4 Alcohols and carboxylic acids* C3.5 Instrumental analysis* OA1.1 Stereoisomerism* OA2.1 Alcohols and phenols*</p>
<p><b>Module 5 – Physical chemistry and transition elements</b></p> <p>Reaction rates and equilibrium (quantitative) pH and buffers Enthalpy, entropy and free energy Redox and electrode potential Transition elements</p>	<p>C2.3 Rates of reaction* PI1.1 Redox and standard electrode potential* PI1.2 Redox reactions PI2.2 Chemistry of the d-block transition metals PI3 Chemical kinetics PI4.1 Enthalpy changes for solids and solutions PI4.2 Entropy and feasibility of reactions PI5.1 Equilibrium constants* PI5.2 Acid-base equilibria*</p>
<p><b>Module 6: Organic chemistry and analysis</b></p> <p>Aromatic compounds Carbonyl compounds Carboxylic acids and esters Nitrogen compounds Polymers Organic synthesis Chromatography and spectroscopy (NMR)</p>	<p>C2.4 The wider impact of chemistry C3.4 Alcohols and carboxylic acids* C3.5 Instrumental analysis* OA1.1 Stereoisomerism* OA1.2 Aromaticity OA2.1 Alcohols and phenols* OA2.2 Aldehydes and ketones OA2.3 Carboxylic acids and their derivatives OA3.1 Amines OA3.2 Amino acids, peptides and proteins OA4 Organic synthesis and analysis</p>



OCR Chemistry A (H032/H432)	Eduqas (B410QA/A410QS) (* – topic is split)
<b>Appendix 5e: Mathematical requirements</b>  Arithmetic and numerical computation Handling data Algebra Graphs Geometry and trigonometry	<b>Appendix C: Mathematical requirements and exemplifications</b>  Arithmetic and numerical computation Handling data Algebra Graphs Geometry and trigonometry



## Assessment – AS Level

OCR Chemistry A (H032)	Eduqas (B410QA)
<p><b>AS Paper 1: Breadth in chemistry Modules 1–4</b></p> <p>70 marks, 50% of AS Level Written paper – 1 hour 30 minutes</p> <p>Section A multiple choice questions, 20 marks. Section B short answer question styles (structured questions, problem solving, calculations, practical) and extended response questions, 50 marks.</p>	<p><b>AS Paper 1: The language of chemistry, structure of matter and simple reactions: Sections C1.1-C1.7</b></p> <p>80 marks , 50% of AS Level Written paper – 1 hour 30 minutes</p> <p>Section A: short answer questions, 10 marks. Section B: structured and extended answer questions set in a range of contexts, 70 marks.</p>
<p><b>AS Paper 2: Depth in chemistry Modules 1–4</b></p> <p>70 marks, 50% of AS Level Written paper – 1 hour 30 minutes</p> <p>Question styles include short answer (structured questions, problem solving, calculations, practical) and extended response questions, including those marked using Level of Response mark schemes.</p>	<p><b>AS Paper 2: Energy, Rate and Chemistry of Carbon Compounds</b></p> <p>80 marks, 50% of AS Level Written paper – 1 hour 30 minutes</p> <p>Section A: short answer questions, 10 marks. Section B: structured and extended answer questions set in a range of contexts, 70 marks.</p>



## Assessment – A Level

OCR Chemistry A (H432)	Eduqas (A410QS)
<p><b>A Level Paper 1: Periodic table, elements and physical chemistry</b> <b>Modules 1, 2, 3 &amp; 5</b> 100 marks, 37% of A Level Written paper – 2 hours 15 minutes</p> <p>Section A multiple choice questions, 15 marks. Section B short answer question styles (structured questions, problem solving, calculations, practical) and extended response questions, 85 marks.</p>	<p><b>A Level Paper 1: Physical and Inorganic Chemistry: Sections C1–C3 and PI1–PI5</b> 120 marks, 40% of A Level Written paper – 2 hours 30 minutes</p> <p>Section A: Short answer questions, 15 marks. Section B: structured and extended answer questions set in a range of theoretical, practical and other contexts</p>
<p><b>A Level Paper 2: Synthesis and analytical techniques, Modules 1, 2, 4 &amp; 6</b> 100 marks, 37% of A Level Written paper – 2 hours 15 minutes</p> <p>Section A multiple choice questions, 15 marks. Section B includes short answer question styles (structured questions, problem solving, calculations, practical) and extended response questions, 85 marks.</p>	<p><b>A Level Paper 2: Organic Chemistry and Analysis: Sections C1–C3 and OA1-OA4</b> 120 marks, 40% of A Level Written paper – 2 hours 30 minutes</p> <p>Section A: Short answer questions, 15 marks. Section B: structured and extended answer questions set in a range of theoretical, practical and other contexts</p>
<p><b>A Level Paper 3: Unified chemistry</b> <b>Modules 1–6</b> 70 marks, 26% of A Level Written paper – 1 hour 30 minutes</p> <p>Question styles include short answer (structured questions, problem solving, calculations, practical) and extended response questions.</p>	<p><b>A Level Paper 3: Chemistry in Practice: All sections</b> 60 marks, 20% of A Level Written paper – 1 hours 15 minutes</p> <p>Structured and extended answer questions with an emphasis on practical contexts and applications.</p>



OCR Chemistry A (H432)	Eduqas (A410QS)
<p><b>Practical Endorsement in chemistry</b> Separately reported non-exam assessment, with candidates demonstrating competence in a range of skills and techniques, in a minimum of 12 assessed practical activities. Teacher assessment against the Common Practical Assessment Criteria.</p>	<p><b>Practical Endorsement in chemistry</b> Separately reported non-exam assessment, with candidates demonstrating competence in a range of skills and techniques, in a minimum of 12 assessed practical activities. Teacher assessment against the Common Practical Assessment Criteria.</p>





## Want to switch to OCR?

If you're an OCR-approved centre, all you need to do is download the specification and start teaching.

Your exams officer can complete an [intention to teach form](#) which enables us to provide appropriate support to them. When you're ready to enter your students, you just need to speak to your exams officer to:

1. Make estimated entries by 10 October so we can send you any early release materials, prepare the question papers and ensure we've got enough examiners.
2. Make final entries by 21 February

If you are not already an OCR-approved centre please refer your exams officer to the [centre approval section](#) of our admin guide.

## Practical Endorsement Administration (A Level only)

The requirements for the Practical Endorsement have been set by the Department for Education and Ofqual working with all awarding bodies to ensure a common approach. Just as when following the Eduqas A Level Chemistry qualification, your A Level learners studying OCR Chemistry A will need to demonstrate to you, their teacher(s), that they are competent in each of the skills and techniques defined for A Level chemists, and are consistently and routinely demonstrating competence against the Common Practical Assessment Criteria (CPAC).

You will need to:

- Keep records of carrying out practical activities as well as your assessment of competence of each of your learners in each of these skills and techniques. This can be done using our popular [OCR PAG tracker spreadsheet](#). Centres have found the tracker helpful and easy to use, and updated improved versions are available from September 2016.
- Register the name of a 'lead teacher' with JCQ. The lead teacher will then act as the contact person for arranging the monitoring visit. You will need to indicate that you are teaching the OCR Chemistry A qualification. Your exams officer will have received an [email with details](#) of how to do this. If and when a monitoring visit takes



place it will be done by an OCR-appointed monitor applying the criteria agreed across all awarding organisations.

Learners need to keep records of their practical work, which can be done in whatever format best suits you and your learners, be it a lab book, a loose leaf folder or an electronic record. Help, guidance and training are available from our [Positive about practical page](#).

## Next steps

1. Familiarise yourself with the specification, sample assessment materials and teaching resources on the [OCR Chemistry A](#) qualification page (Assessment Preparation) of the OCR website.
2. Browse the [online delivery guides](#) for teaching ideas and use the [Scheme of work builder](#) to create your personal scheme of work. We also have a [lesson planning support document](#) that links the sections of the specification to our delivery guides and further guidance, and includes suggested teaching hours.
3. [Get a login](#) for our secure extranet, [Interchange](#) – allows you to access the latest past/practice papers and use our results analysis service, [Active Results](#).
4. Sign up to receive [subject updates](#) by email.
5. Sign up to attend a [training event](#) or take part in webinars on specific topics running throughout the year or our Q&A webinar sessions every half term.
6. Attend one of our free [teacher network events](#) that are run in each English region every term. These are hosted at the end of the school day in a school or college, with teachers sharing good practice and Subject Specialists on hand to lead discussion and answer questions.
7. Follow us on Twitter [@ocr\\_science](#) and join our [free online community](#) where you can have discussions with other teachers and OCR Subject Specialists, and where new resources are developed and posted first.

