



Year 11 to Year 12 Chemistry Transition

OCR Chemistry A H432

Summer Work Booklet

June 2026

Name: _____

Start Date: _____

Key information

OCR Chemistry A H432

<https://www.ocr.org.uk/qualifications/as-and-a-level/chemistry-a-h032-h432-from-2015/>

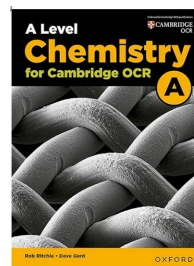
Specification can be found here

<https://www.ocr.org.uk/Images/171720-specification-accredited-a-level-gce-chemistry-a-h432.pdf>

Recommended textbook

https://www.amazon.co.uk/Level-Chemistry-OCR-Student-Book/dp/0198351976/ref=sr_1_1?crid=14K5RCHUL0SN3&dib=eyJ2IjoiMSJ9.BJEN38B3gqHaTiOMWaAa9zkYkN8TIAXTUbstK1tkAWgv-q6jyZr58LQe4Td-hhHtiCGkY38Zj1gX4zafxdKZ6QX1BCszpkbLMtZ0Xe-BN202aPUSjbWH5bzq8t6M_z_q0Jm2PF17-qEQFjlt2zvtSwjTJMBryLXMxymSQuOQEjM_MQ7jVO7PsBEGZ35lCOGTyYt3EsjOwtnCDtqnab8PN79Pd9zEFxFl67bBKRwC6mY.EpK-HN9hX6hImV95F-t8pw4sWTp4CzH5PGLTHLDkSoA&dib_tag=se&keywords=OCR+Chemistry+A+textbook&qid=1781863748&srefix=ocr+chemistry+a+textbook%2Caps%2C108&sr=8-1

A Level Chemistry for OCR A Student Book (OCR A Level Sciences)



Useful websites

Youtube – Allery Chemistry – good for consolidation learning from lessons

Ocr.org.uk – specification and past papers found here

Physicsandmathstutor.com – good for past papers and mark schemes

Section 1: GCSE Skills Refresher

- Define proton number, mass number and isotopes.
- Explain why isotopes have the same chemical properties.
- Write electron configurations for Na, Cl and Ca.
- Define mole and Avogadro's constant.
- Calculate moles in 24g Mg and 44g CO₂.
- Balance equations:
 - $\text{H}_2 + \text{O}_2 \longrightarrow \text{H}_2\text{O}$
 - $\text{C}_2\text{H}_6 + \text{O}_2 \longrightarrow \text{CO}_2 + \text{H}_2\text{O}$
 - $\text{Fe} + \text{O}_2 \longrightarrow \text{Fe}_2\text{O}_3$

Section 2: Module 2 - Foundations in Chemistry

- Define relative atomic mass (A_r).
- Calculate A_r from isotopic abundance: X-35 (75%), X-37 (25%).
- Use $\text{moles} = \text{mass}/M_r$ to calculate moles and mass (Look back at GCSE Chapter 3, Quantitative Chemistry, and make sure you can use this equation)
- Find empirical formula from: C 40%, H 6.7%, O 53.3% (use youtube to help you if needed)
- Use $\text{concentration (mol/dm}^3\text{)} = \text{moles}/\text{volume}$ (Look back at GCSE chapter 3, Quantitative Chemistry, and make sure you can use this equation – especially titration calculations!)

Section 3: Module 3 - Periodic Table & Bonding

- Describe atomic structure and ionisation energy trends (you will need to find out about ionization energies – youtube/textbooks can help you)
- Explain ionic, covalent and metallic bonding.
- Define intermolecular forces and explain boiling points (you will need to find out about permanent dipoles, hydrogen bonding and London forces – youtube/textbooks can help you)
- Define electronegativity and bond polarity (you will need to look this up as we didn't cover this at GCSE)

Section 4: Module 4 - Organic Chemistry

- Define hydrocarbons and homologous series.
- State general formula of alkanes and name CH_4 , C_2H_6 , C_3H_8 .
- Write complete and incomplete combustion equations for methane (balanced formula equations)
- Describe incomplete combustion.
- Research free radicals and chlorination of methane.

Section 5: Exam Skills – Application of knowledge

- Explain the importance of the mole.
- Distinguish between empirical and molecular formula.
- Explain how intermolecular forces affect boiling point.
- Explain why methane is relatively unreactive.