

Chemistry



Scan for Specification

The Edexcel A level Chemistry course is split into 3 main areas:

- Organic (eg alkanes & alkenes)
- Inorganic (eg Group 1 & 7)
- Physical Chemistry (eg Rates & equilibrium)

BEFORE YOU START

- Key revision guide to purchase: CGP A-Level Chemistry (Edexcel) ISBN: 9781789081305
- Equipment Required: Scientific calculator, pens, pencils, highlighters & a folder with dividers
- Flashcard App: Like in GCSE there are some key recall information to memorise. Download & set up an account for an App such as Quizlet

Organic chemistry is the smallest branch in GCSE but the largest branch in A level. The first step is to recognise the organic functional groups. Your task is to create a set of flashcards using an App and memorise the functional groups below. Also include the suffix or prefix in their name egene for alkenes.

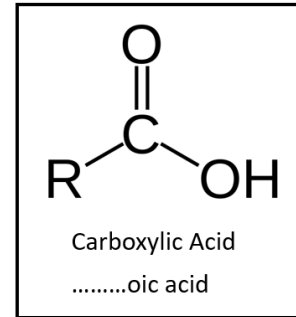
Alkene	Alcohol
Chloroalkane	Amine
Aldehyde	Ketone
Carboxylic Acid	Ester
Ether	Nitrile
Amide	Acyl chloride

In your research you may come across an R in diagrams. This R represents an alkyl group which is typically any number of C's joined in single bonds (like alkanes, methyl, ethyl etc.)

Using key vocabulary is vital at A level. Research the following key terms for the 1st topic and create a glossary

- Energy Level
- Orbital
- Subshells
- Ionisation energy
- Shielding
- Electronegativity
- Polar
- Dipole

Ideally create this glossary electronically so you can add or amend easily



A well-prepared GCSE chemist should be able to draw dot and cross diagrams easily to show ionic and covalent bonding. However, in class, students will often draw an ionic compound as covalent showing a lack of understanding.

To help prepare for the start of A levels I would like you to practice this skill drawing the following dot and cross diagrams.

'Easy' GCSE examples

Magnesium chloride, methane, sodium oxide & carbon dioxide

'Medium' examples that require more thought

Sodium hydroxide, ethanol & ammonium

'Difficult' A level examples that may require you to ask me a question when you start!

Sulphuric Acid (H₂SO₄), phosphate ion (PO₄³⁻) and nitrate ion (NO₃⁻)

Most A level chemists go onto University, including degree apprenticeships.

Browse some university websites and create a list of as many different courses that link to chemistry. Choose one that interests you the most and research it further.

LITERACY TASK

KNOW THIS TASK

DO THIS TASK

CAREERS TASK