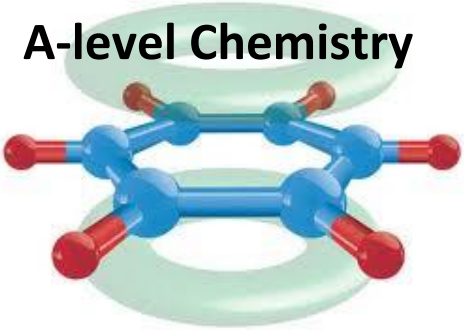
A-level Chemistry



Taverham Sixth Form

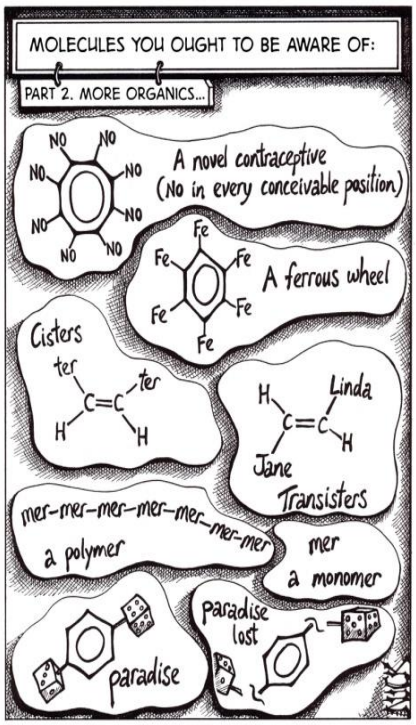
Chemistry Department

Welcome to A-level Chemistry!

Congratulations on choosing an interesting, useful, practical subject. As well as all of these there aren't many others you get to wear a lab coat! (these are provided by the way).

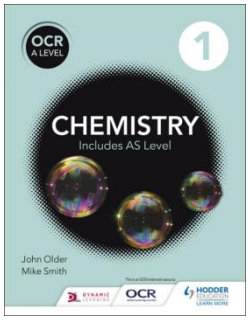
Entry requirements are six GCSEs at Grade 4 or above including at least Grade 4 for English Language and Maths and *either* Grade 5 in Chemistry (higher tier) *or* Grade 5 in Combined Science (higher tier).

To make the best start to your course please note the following :



Whatever grade you achieved at GCSE, you still have to work very hard to get a decent grade at A-level in this subject. Those of you with 7s, 8s and 9s – well done, but that is no guarantee of further success. There are many students who have achieved these grades who have then received D or E grades at the end of Year 12. There is a big jump from GCSE to A-level. Even though much of the content is repeated in the early part of the course, can you really say that you were perfect at doing everything at GCSE in science/chemistry? That's what the first part of the induction tasks is about. As well as being experts on GCSE work, you will need to understand and use new, harder ideas. It is useful for you to know about the development of ideas about atoms/chemistry. This is what Task 3 is about.

During the course you will do plenty of practical work. To prepare you for this, you need to know how to analyse and evaluate results. Task 2 is to help start you on this. The ideas in there are also needed for the practical skills questions in exam papers.

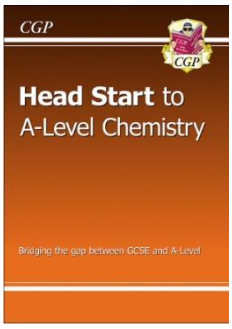


In addition, the exam questions are much tougher. See for yourself – have a look at the past papers on the exam board website (details on the course content page).

You could also buy the text book and start reading up on the new course! Text books can be purchased from the science department at a reduced rate on a first come, first served basis. Please be aware that if you are eligible for post 16 bursary funding then the cost may be covered depending on family circumstances – please ask in the sixth form office for further details.

Chemistry Preparation for September

1. Purchase the following textbook:

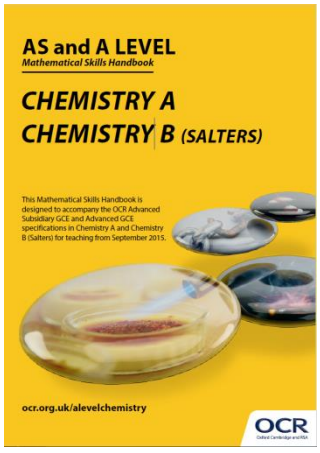


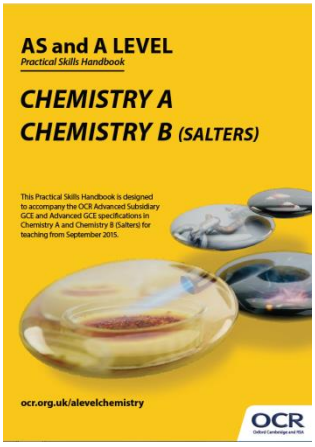
Title: Head Start to A-Level Chemistry
Publisher: CGP
ISBN: 978 1 78294 280 1
Cost: £4.95

On purchasing the book do the following:

Using the contents page identify three or four sections you lack confidence in and read up on them.

2. Compulsory: read and print the Mathematical Skills Handbook (all) and Practical Skills Handbook (Appendix 1 to 6)





You can also look at sample assessment materials, past papers etc. on the OCR website

3. Compulsory: answer and mark the questions in the chemistry calculation booklet, also available on the THS website

Please ensure you bring the completed question booklet as well as your handbooks to your first lesson in September

A-Level Chemistry Course Content

Module 1 – development of practical skills in chemistry	
Practical skills assessed in a written examination Practical skills assessed in the practical endorsement	
Module 2 – foundations in chemistry	
Includes – atoms, compounds, molecules and equations – amount of substance	– acid-base and redox reactions – electrons, bonding and structure
Module 3 – periodic table and energy	**Module 4 – core organic chemistry**
Includes: – the periodic table and periodicity – Group 2 and the halogens – qualitative analysis – enthalpy changes – reaction rates and equilibrium (qualitative)	Includes: – basic concepts – hydrocarbons – alcohols and haloalkanes – organic synthesis – analytical techniques (IR and MS)
Module 5 – physical chemistry and transition elements	**Module 6 – organic chemistry and analysis**
Includes: – reaction rates and equilibrium (quantitative) – pH and buffers – enthalpy, entropy and free energy – redox and electrode potentials – transition elements	Includes: – aromatic compounds – carbonyl compounds – carboxylic acids and esters – nitrogen compounds – polymers – organic synthesis – chromatography and spectroscopy (NMR)

For further details in the specification for Chemistry A (H032,H432)

www.ocr.org.uk

A-Level Chemistry Assessment

Component 1	**Periodic table, elements and physical chemistry**	**Modules 1, 2, 3 and 5**
Section A	Multiple choice	15 marks
Section B	Includes: – short answer question styles (structured questions, problem solving, calculations, practical) – extended response questions	85 marks
Component 2	**Synthesis and analytical techniques**	**Modules 1, 2, 4 and 6**
Section A	Multiple choice	15 marks
Section B	Includes: – short answer question styles (structured questions, problem solving, calculations, practical) – extended response questions	85 marks
Component 3	**Unified chemistry**	**Modules 1, 2, 3, 4, 5 and 6**
Includes: – short answer question styles (structured questions, problem solving, calculations, practical) – extended response questions		70 marks

If you have any questions or queries relating to the task or the course in general, then please email Mr Large (Head of Chemistry):

p_large@taverhamhigh.org