

CHEMISTRY

Preparing for A Level

Moving from GCSE to A Level Chemistry can be a daunting leap. You'll be expected to remember a lot more facts, equations, and definitions, and you will need to learn new maths skills and develop confidence in applying what you already know to unfamiliar situations. To give you a head start, you must complete the essential tasks below.



Task 1: AQA AS/A-Level Chemistry Specification

Read through the 'Chemistry' specification to gain an understanding of the expectations of the course.



You can find this by googling AQA AS/A Level Chemistry Specification or use this QR code.

Task 2: AQA Transition Guide

Download and read through the AQA GCSE to A Level Chemistry transition guide. Complete ACTIVITY 1 to 16. It is recommended that you write all your answers and complete working out in one book.



<https://filestore.aqa.org.uk/resource/chemistry/AQA-7404-7405-TG.PDF>



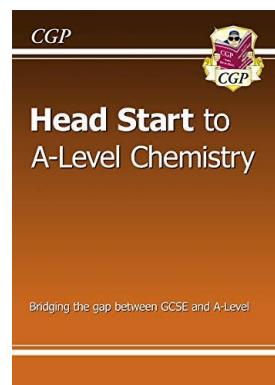
Task 3: Bridging Task

Complete the 'Test Yourself' from this website

<https://chemistrychimp.jimdofree.com/gcse-to-a-level-transition/bridging-tasks/>

RECOMMENDED Book: Head Start to A-Level Chemistry by CGP

You may purchase and work through the Head Start to A-level Chemistry CGP book (ISBN: 9781782942801). It is an accessible and manageable text to bridge the gap between GCSE and A-Level Chemistry. This is an affordable and helpful book to start with.



This flyer contains a programme of activities and resources to prepare you to start an A level in Chemistry in September. It is aimed to be used after you complete your GCSE, throughout the remainder of the summer term and over the Summer Holidays to ensure you are ready to start your course in September.

The activities are divided into:

Essential - suggested as good preparation for the course.

Recommended - suggested to support the essential activities for the course

Optional - suggested to support wider learning around the subject; you are expected to do this independently at A level.

Research

Search online and find out as much about the topic as you can.

Remember if you are a prospective A' level chemist, you should aim to push your knowledge.

Pick two topics from the list below and make a one page summary for each.

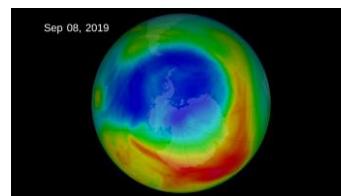
Topic 1: Why is copper sulphate blue?

Explain why copper compounds, like many of the transition metal compounds, have got vivid and distinctive colour?



Topic 2: Aspirin

Detail the history of the discovery of aspirin. How do we manufacture aspirin in a modern chemical process?



Topic 3: The ozone layer

What has caused the depletion of the ozone layer, causing it to become very thin in parts? What chemicals were responsible for

it? Why were we producing so many of these chemicals? What is the chemistry behind the ozone destruction?

Topic 4: ITO and the future of touch screen devices

ITO, indium tin oxide, is the main component of touch screens in phones and tablets. The element indium is a rare element and its ore is scarce. Chemists are desperately trying to find a more readily available replacement for it. What advances have chemists made in finding a replacement for it?



Recommendations to watch

Watch the following videos and make notes on the important facts covered in the content.

Atomic Structure

<https://www.youtube.com/watch?v=dhymZzM3mnc>

Mole Equations and Calculations

https://www.youtube.com/results?search_query=transition+from+gcse+to+a+level+chemistry

Allery Chemistry on YouTube has A-Level Chemistry videos which can be watched and used at any stage of the course. Please subscribe to his channel! The videos are truly outstanding and are focused for AQA-Chemistry- which is our specification here at Shireland Collegiate Academy.

10 weird and wonderful chemical reactions

10 good demonstration reactions, can you work out the chemistry of any... of them?

<http://bit.ly/pixlchemvid3>

<https://www.youtube.com/watch?v=0Bt6RPP2ANI>

The way you study should change in Year 12, both in terms of the amount of independent study you do for each subject and the strategies you use/develop when studying – if it doesn't you are likely to be at risk of underperforming!

Complete the tasks independently and you must:

avoid leaving gaps -If you find a question difficult or challenging YOU must act by researching the topic to help overcome any misunderstanding.

be thorough -avoid cutting corners e.g. you MUST show full working in any calculations, never just give the final answer; write in full sentences so your work is meaningful during times of revision.

All work should be completed on paper, work should then be photographed, and each picture should be pasted into a PowerPoint, one picture per page.