

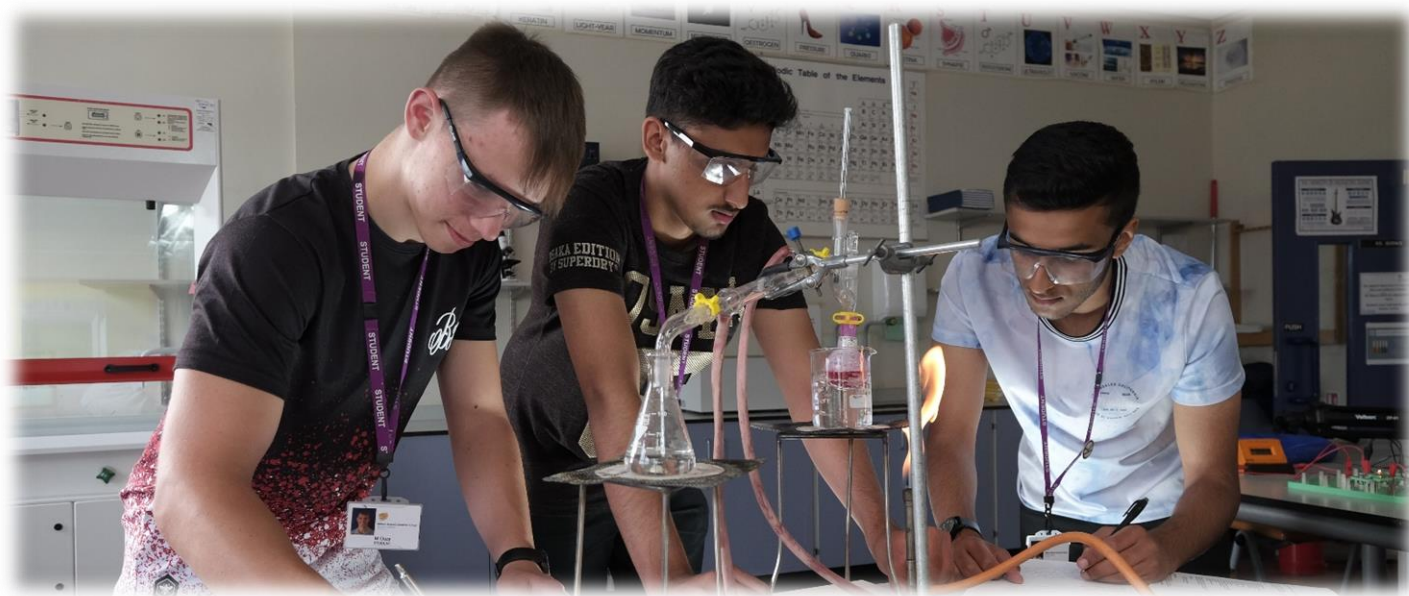


Chemistry

Engage

Endeavour

Excel



Chemistry helps you to develop research, problem solving and analytical skills. It helps you to challenge ideas and show how you worked things out through logic and step-by-step reasoning. The subject often requires teamwork and communication skills too, which is great for project management as well as a future in pharmacy, chemical engineering, biochemistry, biomedical sciences, medicine and dentistry.

This A-Level is designed to be stimulating, enjoyable yet challenging. We want you to develop a passion for the subject and understand its practical relevance. Class time is supported by weekly private tuition sessions, lectures, AQA chemistry conferences, spectroscopy workshops with The University of Manchester alongside coaching for the RSC Chemistry Olympiad. We have chosen some essential key activities for you to complete in a structured way. There are also additional opportunities to research, investigate and complete chemistry related tasks.

ICT-Related Chemistry Tasks for Completion

1. Seneca www.senecalearning.com/en-GB/

You should register on Seneca – this is free for three courses or less.

Use the following class code to join our new A-Level Transition Chemistry group: **hugbs09rmp**

2. GCSE Pod www.gcsepod.com/

You can register on GCSE Pod when you start your studies at WHGS. In preparation, you should access the '10 Things to do to Prepare for A-Level Chemistry' document (link below). This takes you through ten key areas of GCSE Chemistry that make the Foundation of A-Level. Complete all these activities to ensure your current knowledge is strong in the subject. There are videos available on Free Science Lessons (link below) to help you complete these tasks to a high level.

<https://d2htb95zppc7kr.cloudfront.net/wp-content/uploads/2020/04/10-Things-to-do-to-Prepare-for-A-Level-Chem.pdf>

<https://www.freesciencelessons.co.uk/videos/>



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Examination-Related Chemistry Tasks for Completion

[Complete the GCSE to A-Level Transition booklet.](#)

This is an important piece of work that assesses your knowledge in all aspects of the GCSE chemistry course, that are the foundation of chemistry A-Level.

It bridges each relevant topic from GCSE to A-Level, requiring you to use your current knowledge to complete GCSE examination questions and attempt aspects of the A-Level course. This is one of the most important skills to be successful in A-Level chemistry therefore is excellent and essential practice.

A-Level Chemistry Reading and Website List

We highly recommend the following:

1. **CGP A-Level Chemistry A-Level Revision Guides.** Please go to Amazon to get a copy of the CGP A-Level Revision Guide and other relevant resources such as 'New Head Start to A-level Chemistry (CGP A-Level Chemistry)'.
<https://tinyurl.com/5abkhjwd>
2. **Good Podcasts Chemistry:** <https://player.fm/en/podcasts/Chemistry>
Choose fascinating podcasts from the award-winning Science Weekly podcast listing.
3. **Catalyst, a science magazine** for students aged 14-19 Resources for students collated by Royal Society of Chemistry Chemistry World magazine from the RSC and STEM www.stem.org.uk/resources/collection/3137/catalyst
4. **The Royal Society of Chemistry** www.rsc.org/
The Society was founded 175 years ago and has a wealth of chemical research, activities and information.
5. **Seneca** www.senecalearning.com/en-GB/
An incredibly engaging online learning platform where you can independently study all aspects of your two-year course of chemistry A-Level.

We also recommend trying some of the following **wider reading books**:

- Aldridge, Susan - Magic molecules – how drugs work
- Berson, Jerome A. - Chemical creativity: ideas from the work of Woodward, Huckel and Meerwein
- Brock, W. H. - The Fontana history of chemistry
- Coultate, T. P. - Food – the chemistry of its components
- Emsley, John - The Consumer's Good Chemical Guide: Separating Facts from Fiction about Everyday Products
Better looking, better living, better loving: how chemistry can help you achieve life's goals
- McGee, Harold - On food and cooking the science of the kitchen
- Pybus, David & Sell, Charles - The chemistry of fragrances
- Roesky, Herbert W. & Möckel, Klaus - Chemical curiosities: spectacular experiments and inspired quotes
- Russell, Michael S. - The chemistry of fireworks
- Selinger, Ben - Chemistry in the market place

Chemistry in the Real World Resources

To be a successful chemist you have to have an insatiable curiosity about the world we live in. The following websites are designed to promote your curiosity and broaden your understanding of the benefit of Chemistry to society both now and in the future.



RSC Coronavirus Activities

Coronavirus at the Molecular Level

This activity helps you to understand the structure of the virus behind the coronavirus pandemic. In this series of questions, you are encouraged to look at the structure of a Sars-CoV-2 virion at an atomic level.

<https://edu.rsc.org/science-research/coronavirus-the-science-behind-handwashing/4011283.article>

Should we sanitise our shopping?

Read the following articles:

<https://edu.rsc.org/feature/coronavirus-should-we-be-sanitising-our-shopping/4011555.article>

See the folder for the associated activities. Coronavirus is a new global virus. This activity looks at some of the chemistry involved in preventing its spread.

Websites:

1. New Scientist website The New Scientist magazine continues to remain an excellent read and very much a go to for so many scientists.

The associated website provides up to the date news articles.

<https://www.newscientist.com/section/news/>

Applying for university courses will be a little over 12 months away. It is vital that if you wish to apply for any science related course that you have up to date knowledge of the latest issues, developments and challenges science faces. There are number of online Newsletters that you can sign up to, that will help you continually keep abreast of developments.

Daily Newsletter: www.newscientist.com/sign-up

Fix the planet (weekly dose of Climate optimism) www.newscientist.com/healthcheck

Health Check (weekly does of medical, diet and fitness news) www.newscientist.com/healthcheck

Health Check Launchpad (weekly news on the latest discoveries across our universe and beyond)
newscientist.com/launchpad

2. **The science section of the Education in Chemistry website contains a wealth of articles and features.**

<https://edu.rsc.org/eic/science>

Recent articles have included:

- [How the unscrupulous turn a profit from virus fears](#)
- [Can seaweed-eating sheep curb methane emissions?](#)
- [Poo sticks ... and how to stop it](#)
- [Why smoke particles turned the sky red](#)
- [A more energy-efficient lithium electrolysis](#)
- [How do trees clean our air?](#)
- [Chemists hold the key to perfect cheese](#)

3. **Chemistry world provides a wealth of resources on current research, scientific opinion, culture, careers and so much more.**

www.chemistryworld.com/

Current articles include amongst many others:

- Do asteroids hold the key to life on Earth?
- Nanocomposite mouthguard highlights early signs of tooth decay.
- Plastics and pandemics (Coronavirus)
- Does the drug work, or not? (Coronavirus)

