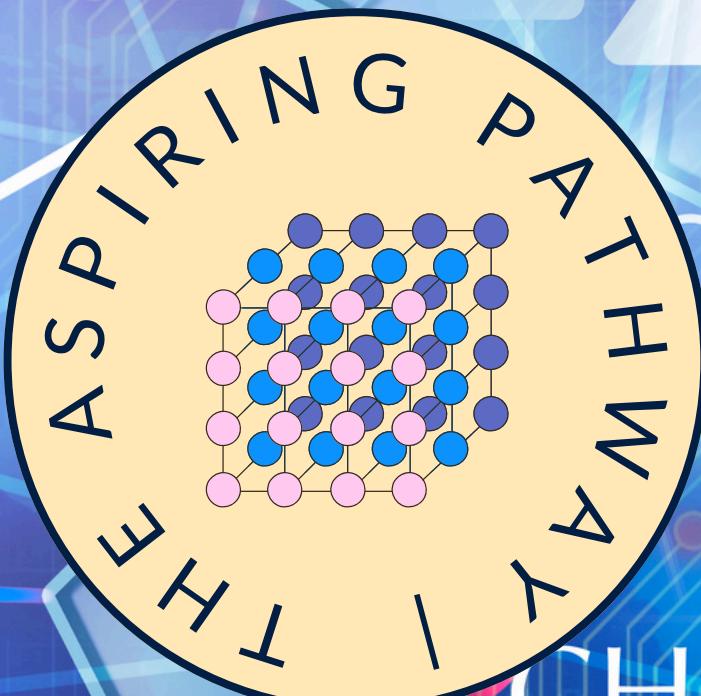


'The Aspiring Chemist.'

KS4/5



**CHELTENHAM
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SCHOOL**

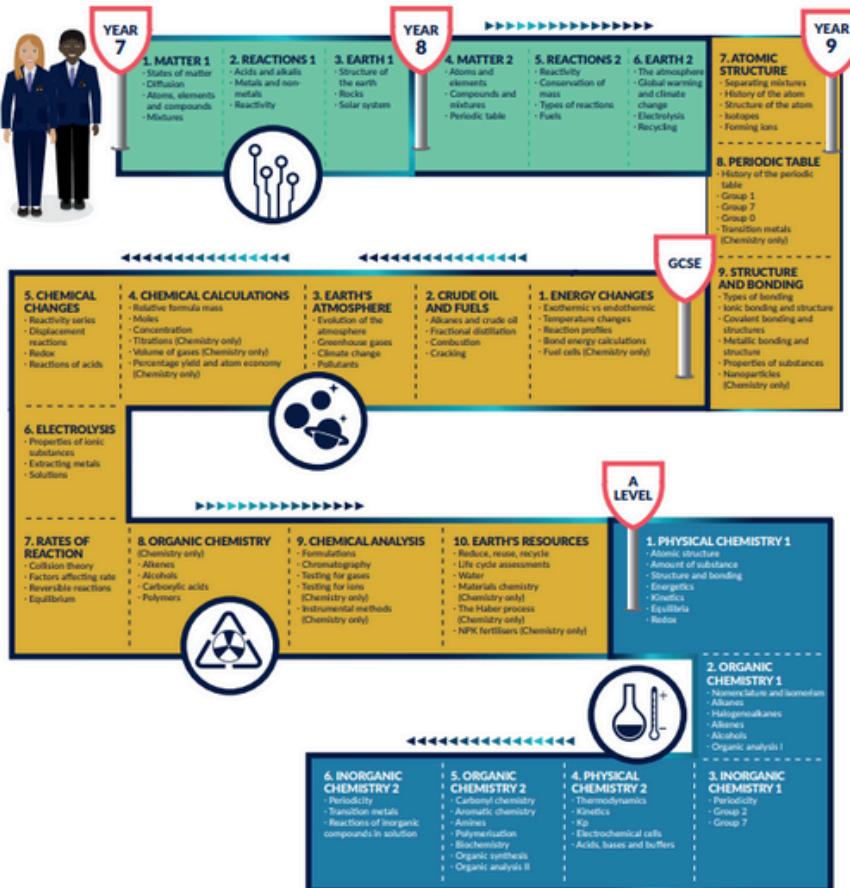


Inspiring lives through learning

'The Aspiring Chemist'



CHEMISTRY



'The Aspiring Chemist'



Chemistry doesn't just live in textbooks - it runs through the batteries in your phone, the medicines on a shelf, the food on your plate, and the materials shaping the future.

This booklet gathers ideas, articles, and books to widen your view of what being a chemist really means. Whether you're at GCSE or A level, think of these pages as a launchpad: each suggestion is a spark and an opportunity to see the subject in new ways.

The journey into chemistry is bigger than exams—it's about discovery, creativity, and the questions you'll carry forward.

Good luck!

Mrs Greenwood and Mrs Wilkinson

Reading list



Napoleon's Buttons: How 17 Molecules Changed History - Penny Le Couteur

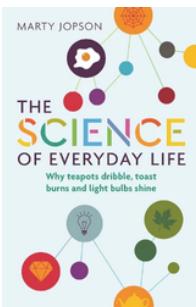
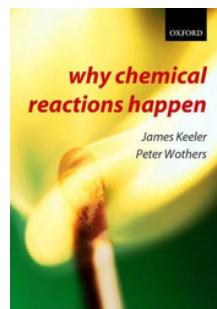
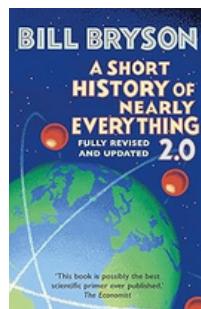
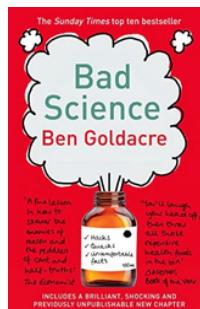
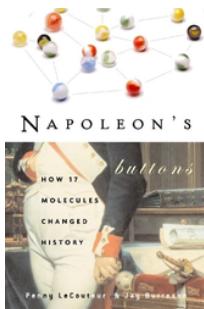
Bad Science - Ben Goldacre

A Short History of Nearly Everything - Bill Bryson

Why chemical reactions happen - James J. Keeler and Peter Wothers

The Disappearing Spoon and Other True Tales from the Periodic Table - Sam Kean

The Science of Everyday Life: Why Teapots Dribble, Toast Burns and Light Bulbs Shine - Marty Jopson



Competitions



ROYAL SOCIETY
OF CHEMISTRY

Chemistry Olympiad (run in school)

Designed to challenge and inspire, the UK Chemistry Olympiad (UKChO) is a unique opportunity for students to push themselves further and excel in the chemistry field.

Budding chemists will develop critical problem-solving skills, learn to think more creatively and get a chance to test their knowledge in new, real-world situations. They could even find themselves representing the UK at the prestigious [International Chemistry Olympiad](#).

Listen and Watch

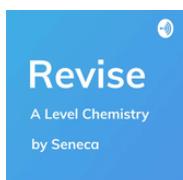


Podcasts



[Let's Talk Chemistry - a science podcast by ChemTalk](#)

ChemTalk (chemistrytalk.org) is a brand-new non-profit, whose mission is to make chemistry more fun, easier to learn, and more accessible to people around the world. On our podcast, we interview chemists, scientists, and educators from across the globe who show the many career paths that involve chemistry, and how a love for chemistry can manifest itself in many unique ways.



[Revise Chemistry A Level Podcasts by Seneca](#)

Welcome to REVISE, the ultimate podcast for those ready to ace their Chemistry A-Level exams! Join us as we transform daunting topics into digestible, engaging, and easy-to-follow episodes.



[Chemistry for the Future: Clean Energy](#)

Chemistry has a central, irreplaceable role to play in solving global energy challenges. From turning carbon dioxide into fuel, to producing new materials for the storage of hydrogen, research at Oxford Chemistry is securing our future. To find out more about our research, please visit: <http://energy.chem.ox.ac.uk/>

Listen and Watch



Films/YouTube/TV



Dark Waters (2019) - Film

The story dramatizes Robert Bilott's case against the chemical manufacturing corporation DuPont after they contaminated a town with unregulated chemicals.



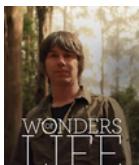
Chemistry: A Volatile History - BBC Documentary

Jim Al-Khalili traces the story of how the elements, the building blocks that make up our entire world, were discovered and mapped.



CrashCourse Chemistry - YouTube

In 46 episodes, Hank Green will teach you chemistry! This course is mostly based on the 2012 AP Chemistry curriculum, but it also covers some introductory organic chemistry.



Wonders of Life - BBC Documentary

Professor Brian Cox explores the globe to reveal how a few fundamental laws of science gave birth to the most complex and unique feature of the universe - life.

@MrERintoul - YouTube

Listen and Watch



Social media

[@IFLScience](#)

The lighter side of science 

[@big.manny1](#)

BSc & MSc in Biomedical Science

[@roysocchem](#)

With the future of the world in the balance, everyone has a role to play in making it better. How will you join in?

Work Experience and Events



Work experience gives you the chance to see chemistry in action beyond the classroom. From labs to industry, you'll meet real scientists, learn how experiments connect to real-world challenges, and discover careers you might not have imagined.

Gaining chemistry-related experience offers:

- **Practical skills** – Hands-on work with laboratory equipment, analytical techniques, and chemical processes used in professional environments.
- **Career insight** – A chance to explore different branches of chemistry, such as pharmaceuticals, materials science, environmental chemistry or chemical engineering.
- **Confidence and communication** – Working with professionals builds teamwork, problem solving and accurate communication.
- **Employability** – Experience in real labs or industry strengthens applications for university courses, apprenticeships and STEM careers.

Chemistry-related placements can be found in a wide range of organisations, including:

- Hospital and research laboratories
- Pharmaceutical and biotechnology companies
- Chemical manufacturing or materials testing facilities
- Environmental agencies and water testing labs
- Universities and research institutes
- Forensic science departments
- Engineering and product development companies

These opportunities help you develop practical scientific skills, build confidence and gain a clearer understanding of where chemistry can take you.

Work Experience and Events



RSC: Work Experience Advice

It can be hard to get chemistry-related work experience, especially in labs but companies and universities really like students who have the enthusiasm and drive to hunt for a relevant position- the RSC have put this guide together



Springpod Chemistry Spotlight: Colouring our Reality

Join Dr Fabrizio Ortu and Dr Philip Ash as they provide a fascinating introduction to chemistry at university, demonstrating some of the fundamental properties through some exciting flame tests.



Success at School | Employers offering science w/e

Whether you're sure you want to be an astronomer or you're thinking you might make a brilliant biologist, getting yourself some science work experience is a must.



abpi | Careers in the pharmaceutical industry

If you're unsure if a career in the pharmaceutical industry is for you, work experience is an ideal way to find out.



National Physical Laboratory (NPL) Academy

We provide current Year 10 to Year 13 aged students with a real taster of work at a National Laboratory.



The Careers Team at Bournside deliver regular Inspire Breakfast Lectures. Open to students in Year 10 - 13, these business-focused breakfasts invite speakers from all corners of industry to share their professional experiences and valuable insights with Bournside students over breakfast; opening our eyes to the opportunities available across many industry sectors.

[Take a look at upcoming speakers and reserve your space here.](#)



The background features a complex, abstract design. It consists of a hexagonal grid in shades of blue and purple, with glowing white lines forming a circuit-like pattern. Several molecular models are overlaid, including a large one in the center and smaller ones in the top right and bottom right. The overall aesthetic is futuristic and scientific.

CO

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