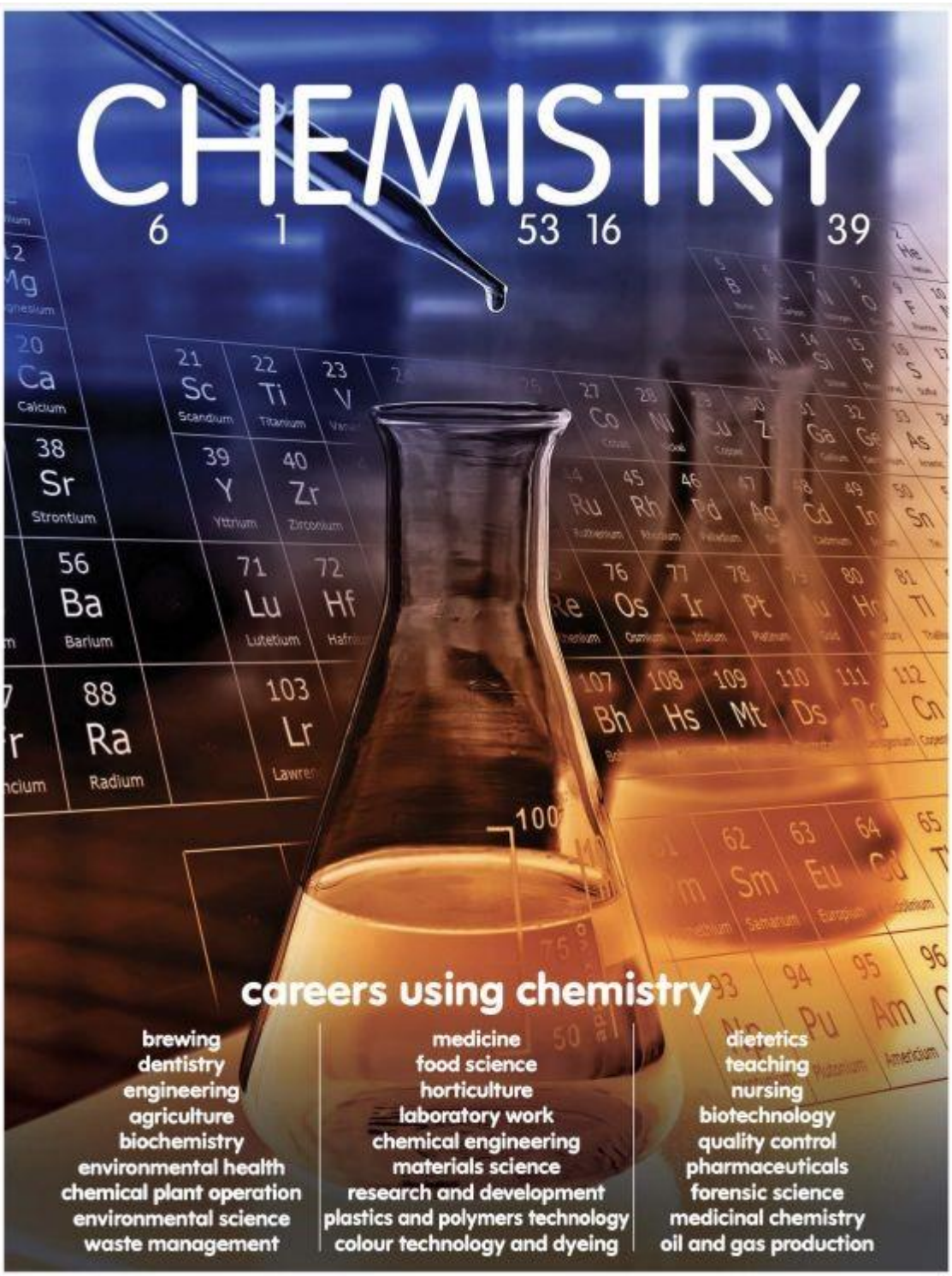
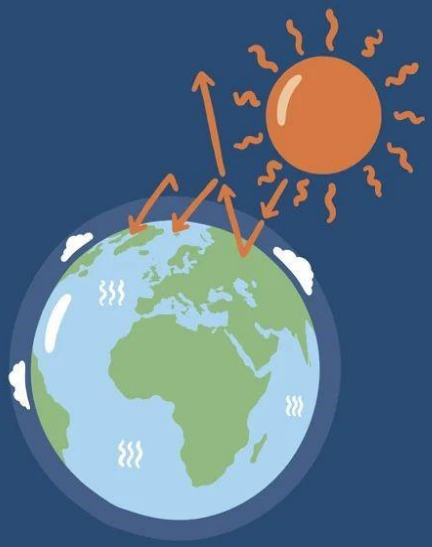
Careers in Chemistry



planit find out more at planitplus.net SQA gateway

Careers in Chemistry

5 WORK SKILLS CHEMISTRY WILL GIVE YOU



COLLATING

In school: To understand chemistry you need to bring together information from different sources. This can include the chemical structure of elements, their properties and how they react with other elements. You'll need this information to develop a deeper understanding of things like...

PRESENTATION

In school: When you've carried out an experiment you'll need to present your findings. This can involve an oral presentation to your class.

INVESTIGATION

In school: When you're conducting experiments you need to pay attention to details and record the results. Then you have to work backwards to determine the reasons for your findings. You'll be looking for clues and evidence that link to accurate chemical processes to help you draw conclusions.

ANALYSIS

In school: Chemistry is all about analysing. It could be the analysis of the results of a practical investigation or theories to make sense of observations. You're always collecting data about how substances behave and their properties, including how they react. You'll analyse the findings...

ATTENTION TO DETAIL

In school: You need to carefully check every detail. When you're doing experiments, you have to watch closely for any changes that could indicate a reaction is happening and carefully monitor chemical properties. Recording what you observe in a methodical way is also important.

success at school .org choose your next steps

Visit successatschool.org to learn more.

@successatschool.org @successatschool

Sources: For source data please request the information by emailing data@successatschool.org

Careers in Chemistry

Chemistry is exciting, there's no doubt about it. As one of the three main branches of science, its impact is wide-reaching and impressive. Through chemistry we have made great discoveries, such as penicillin and pasteurisation, and made the modern world possible with inventions including plastic and lithium ion batteries. Chemistry plays a role in almost every action on earth, and in every object we touch. It's the study of substances, and their composition, structure, and properties.

Chemical scientists are leading research on the world's most pressing concerns, including challenges around human health, climate change, and energy. They use their scientific, problem-solving, and analytical talents to pioneer new medicine, technologies, and discoveries. They're consulted in fields as broad as engineering, nuclear power, and space travel – working at the forefront of science is thrilling and challenging in equal measure.

Studying chemistry opens doors to a wide variety of employment opportunities. The range of available jobs is considerable and covers many different types of chemistry and industries such as nanotechnology, large scale chemical plants, the drinks and pharmaceutical industries or teaching.
Your skills will also be in demand in other areas. A study of chemistry helps you develop logical thought and numerical skills and the ability to write accurate and concise reports. As a result, chemists are in demand in national and local government, in hospitals and in education at all levels.

Jobs directly related to Chemistry include:

- Academic researcher
- Analytical chemist
- Biotechnologist
- Chemical engineer
- Clinical scientist, biochemistry
- Forensic scientist ● Nanotechnologist
- Pharmacologist
- Research scientist (physical sciences)
- Scientific laboratory technician
- Toxicologist

Jobs where Chemistry would be really useful include:

- Academic researcher
- Analytical chemist
- Biotechnologist
- Chemical engineer
- Forensic scientist ● Nanotechnologist
- Pharmacologist
- Research scientist (physical sciences)
- Scientific laboratory technician
- Toxicologist

Typical employers

The main employers of chemistry graduates are in the chemical and related industries, such as:

- agrochemicals
- metallurgical
- petrochemicals
- pharmaceuticals

- plastics and polymers

However, you'll also find opportunities with employers in other sectors, including the food and drink industry, education, utilities and research, health and medical organisations, the government and scientific research organisations and agencies.

Skills for your CV

Studying Chemistry allows you to develop excellent laboratory techniques but as it overlaps with other subjects, it also gives you skills that are useful in the areas of biology and medicine, physics and engineering, and geology and earth science.

Chemistry is also studied in an environmental and social context, so you can gain awareness of its ethical implications and issues relating to environmental impact and sustainability.

As well as developing strong mathematical/numerical ability, studying chemistry gives you transferable skills, including:

- analysis and problem solving
- time management and organisation
- written and oral communication
- monitoring/maintaining records and data
- research and presentation

Studying Chemistry at university – topics you may cover:

- medicinal chemistry
- molecular pharmacology
- physical chemistry
- environmental chemistry
- solid state chemistry
- geometry
- vectors
- computational maths.

Apprenticeships in Chemistry

Increase our understanding of the world through research and innovation with a science and R&D apprenticeship

Science and research and development (R&D) are not only critical to furthering our understanding of the world around us, but to develop tools and techniques that reduce hazards, improve processes and overcome challenges. Being able to more precisely measure meteorological patterns helps us to know exactly when to batten down the hatches as a storm approaches, and developments in laboratory science have radically improved criminal investigative techniques. The food we eat is safer, the drugs we take to combat illness more effective—the list of improvements made thanks to science and R&D is endless.

The work can take place in a wide range of settings, from university departments and industry, government departments and agencies, research institutes funded by charitable trusts or research councils, and in hospitals ranging from work as a junior technician to leading engineers and chief scientists.

The science and R&D apprenticeships listed in this sector are largely applicable across industries where high-tech knowhow and skills are necessary, including pharmaceuticals, biotechnology, chemicals, healthcare, energy and many more.

As a laboratory scientist, you may carry out a range of technical and scientific activities in your specialist discipline. A senior metrology technician, meanwhile, will develop and monitor measurement capability and capacity, working toward gaining responsibility for the planning, quality, accuracy, timely delivery and evaluation of metrology activities within your area of responsibility.

Scientific work also extends to data, with the bioinformatics scientist apprenticeship able to prepare you to use computational, data analytical and data mining techniques that are applied to a range of problems in the life sciences, such as the process of drug discovery and development.

https://apprenticeshipguide.co.uk/apprenticeship-category/industry-sectors/science-r-and-d-apprenticeships/

https://www.apprenticeships-in-sussex.com/

APPRENTICESHIPS LINKED TO SCIENCE

- BIOMEDICAL SCIENTIST
- DOCTOR
- HEALTHCARE SCIENCE ASSISTANT
- LABORATORY SCIENTIST
- METROLOGY TECHNICIAN
- NUCLEAR SCIENTIST
- PHARMACY SERVICES ASSISTANT
- PHYSIOTHERAPIST
- REGISTERED NURSE
- SONOGRAPHER

AND MANY MORE!

Interested in apprenticeships, but not sure what to do next? Take a look at our 'What Now?' guide...
www.amazingapprenticeships.com

SCAN ME

Amazing Apprenticeships