

Chemistry is the science of all the substances that make up our world and how they react with one another. Studying Chemistry provides investigation and observation skills which are useful across a range of professions.

#### Environmental Chemist

An Environmental Chemist understands the fate and behaviour of chemicals in the environment and evaluates their effects (hazards) and risks to human health and other organisms in the environment. This is done through desk-based research, fieldwork and/or laboratory work, including measurements, data interpretation and computer modelling. Environmental Chemists may be exposed to contaminants and hazardous conditions in the course of their work and will need to wear appropriate personal protective equipment.

#### Atmospheric Chemist

An Atmospheric Chemist is someone who studies the chemistry of the Earth's atmosphere. My role as an Atmospheric Chemist is to study the trends and changes in atmospheric pollutants e.g. air pollutants that can be harmful to humans, plants and ecosystems. There are opportunities to do fieldwork and travel as a lot of the work involves comparing the environment in different places or seeing the changes occurring over time.

#### How will the most popular industries for chemistry graduates change?

Science - 1,900 new chemical scientist jobs are expected to be created by 2027.



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# CHEMISTRY

## 5 work skills that Chemistry will give you:



### Collating

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. This organised and logical approach to problems is a good transferable skill for any employer.



### Investigation

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.



### Data Analysis

When you're studying Geography, you'll gather data from a range of sources. This might be numerical or spatial data, crowd sourced data or factual texts. You need to take this information and analyse it, usually in the context of a specific issue.



### Presentation

When you've carried out an experiment, you'll need to present your findings. This can involve an oral presentation, or a written presentation to your colleagues. Being able to present information is an essential work skill.



### Attention to detail

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 to any career.

## Where can Chemistry take you?

### Practical Jobs where Science is Useful:

- Electrician
- Electronics Engineering
- Technician
- Fingerprint Officer
- Plumber
- Sterile Services Technician
- Textile Machinery Technician
- Water Treatment Worker
- Beauty Therapist
- Hairdresser

### Scientific Research & Lab Work:

- Biochemist
- Biologist
- Biomedical Scientist
- Biotechnologist
- Chemical Engineer
- Chemist
- Environmental Chemist
- Forensic Scientist
- Laboratory Technician
- Microbiologist
- Pharmacologist
- Research Scientist (life sciences)
- Research Scientist (medical)

### Applied Science & Technology:

- Food Technologist
- Materials Scientist
- Textile Technologist
- Sports Scientist

### Other Jobs:

- Clinical Engineer
- HE Lecturer
- Nuclear Engineer
- Patent Attorney
- Policy Advisor
- Scenes of Crime Officer
- Secondary School Teacher
- Sustainability Consultant
- Veterinary Nurse
- Veterinary Surgeon
- Systems Developer

### Healthcare:

- Astronaut
- Nano-technologist
- Physicist
- Research Scientist

## Future of Job Facts:



### Manufacturing

The manufacturing sector employs around **three million** people and accounts for 9% of employment in the UK. That's a lot of jobs!



### Science & Research

Between 2016 and 2021, jobs in science and research have grown at twice the rate of other industries, creating **142,000** new jobs. One in every six jobs of the future will be in science and research.



### Fast Consumer Goods

Online grocery shopping has increased by **68%** between 2016 and 2021. This is expected to grow even more as a consequence of the pandemic. This means that new e-commerce jobs will be created to match the growing demand.



### Engineering

The proportion of young engineers has dropped over the last decade. This means there will be a high demand for younger workers in the coming years.



### Medicine & Healthcare

The UK healthcare industry employs over **four million** people, making it one of the biggest employment sectors. Four of the five highest average graduate salaries are in fields related to medicine.



### Energy & Utilities

Today, about **500,000** people work in the energy sector. But with the demand for green energy growing, it is predicted that within the next few years half a million people could be working in re-newables alone.