

AQA A Level Chemistry and Careers in Chemistry

Find examples of relevant careers for subsections of the curriculum and link through to job profiles for further information. The profiles will give your students real world examples of jobs in the aspects of chemistry they enjoy most.

They are written by teachers for teachers.

Simply click on the job title to go to the job profile on A Future in Chemistry.



A Level Chemistry and Careers in Chemistry 1 of 10

3.1 Physical chemistry

3.1.1 Atomic structure

- Chemistry engineer, nuclear
- Executive editor, scientific publishing >> Science career coach and mentor
- Radioactive waste consultant
- > Research assistant, healthcare
- Secondary school science teacher

3.1.2 Amount of substance

- Analyst –higher apprentice, organic chemistry
- Analytical chemists, Thames Water
- Director
- Head of computational toxicology
- Medicinal chemist, drug discovery
- Pollution control officer

- Process chemist higher apprentice, pharmaceuticals
- Professor of environmental chemistry
- Scientist, food and pharmaceuticals
- Secondary school science teacher
- Senior laboratory technician
- Technical services chemist, cosmetics

3.1.3 Bonding

- Bionanotechnology PhD student
- Co-founder and machine learning lead of tech startup Ignota Labs
- Computational toxicologist
- Nanotoxicologist
- PhD researcher
- Postdoctoral research associate

- Research innovations manager
- Science communicator
- Secondary school science teacher
- Senior curator
- Senior software developer
- Technical services chemist, cosmetics

Research fellow



A Level Chemistry and Careers in Chemistry 2 of 10

3.1 Physical chemistry

3.1.4 Energetics

- › Chemistry engineer, nuclear
- Chief chemist
- > Director

- Process chemist higher apprentice, pharmaceuticals
- Project leader in enhanced experimentation
- Secondary school science teacher

3.1.5 Kinetics (A Level Only)

- > Chemistry engineer, nuclear
- Chief executive officer, ViridiCO2
- Process chemist higher
 apprentice, pharmaceuticals
- Secondary school science teacher
- Senior principal scientist
- 3.1.11 Electrode potentials and electrochemical cells (A Level Only)
- Associate professor and enterprise, partnerships and innovation lead
- Research fellow, battery recycling

- Patent attorney
- PhD researcher
- Product and process development manager
- Scientific Consultant
- Secondary school science teacher
- Solar technology engineer

3.1.12 Acids and bases

(A Level Only)

> Scientist, food and pharmaceuticals > Senior laboratory technician

Last updated 2024



A Level Chemistry and Careers in Chemistry 3 of 10

3.2 Inorganic chemistry

3.2.1 Periodicity

- > Executive editor, scientific publishing
- Science career coach and mentor
- Secondary school science teacher

3.2.2 Group2, the alkaline earth metals

- Analytical chemists, Thames Water > Secondary school science teacher
- Laboratory analyst and higher degree apprentice, water
- Senior curator

3.2.4 Properties of Period 3 elements and their oxides (Alevel only)

- Secondary school science teacher
- Senior curator

3.2.5 Transition metals (A-level only)

- › Bioleaching lab technician
- > Chief technology officer
- Development chemist, printing and inks
- > Director
- > Environmental process specialist
- Laboratory scientist apprentice

- Museum scientist
- > Product and process development manager
- > Project manager
- Secondary school science teacher
- Senior curator



A Level Chemistry and Careers in Chemistry 4 of 10

3.2 Inorganic chemistry

3.2.6 Reactions of ions in aqueous solution (A-level only)

- > Director
- Museum scientist
- Product and process development manager
- Professor of environmental chemistry
- Senior curator

3.3 Organic chemistry

3.3.1 Introduction to organic chemistry

- Associate principal scientist, food
- Associate scientist, pharmaceuticals
- > Chief technology officer
- Computational toxicologist
- Development chemist, printing and inks
- Executive editor, scientific publishing
- Forensic toxicologist

- Microplastics toxicologist
- Nanotoxicologist
- Principal air quality consultant
- Science career coach and mentor
- Secondary school science teacher
- Toxicologist, chemical company

3.3.2 Alkanes

- Microplastics toxicologist
- Principal air quality consultant
- Project leader in enhanced experimentation



A Level Chemistry and Careers in Chemistry 5 of 10

3.3 Organic chemistry

3.3.4 Alkenes

- Analytical technician, plastics
- Marketing development manager
- Microplastics toxicologist
- **R&D Chemist**

- Research innovations manager
- Secondary school science teacher
- Science career coach and mentor

3.3.5 Alcohols

- Forensic scientist
- Secondary school science teacher
- Senior science manager

3.3.6 Organic analysis

- Advanced apprentice forensics
- Analyst –higher apprentice, organic chemistry
- > Analytical chemists, Thames Water >> Forensic toxicologist
- Assistant analyst, drug control centre
- Associate researcher
- Astrochemist
- Atmospheric chemist
- » Bioanalytical scientist
- > Chief technology officer and cofounder of a robotic chemists' company
- Director of IRC in biomedical materials

- > Environmental chemist
- > Forensic scientist
- Laboratory analyst and higher degree apprentice, water
- Museum scientist
- Nanotoxicologist
- > Pollution control officer
- Process chemist higher apprentice, pharmaceuticals
- > Professor of environmental chemistry
- > Research assistant, healthcare



A Level Chemistry and Careers in Chemistry 6 of 10

3.3.6 Organic analysis continued

- Research innovations manager
- Scientist, food and pharmaceuticals
- Secondary school science teacher
- Senior analytical systems technician
- Senior director of chip research
- Senior laboratory technician
- Soil scientist
- Sports scientist
- Teaching technical specialist
- University laboratory technician apprentice

3.3.7 Optical isomerism (A level only)

- Associate principal scientist, food
- Research innovations manager
- Medicinal chemist, drug discovery
- Secondary school science teacher

Nanotoxicologist

3.3.8 Aldehydes and ketones (A Level Only)

- > Flavour chemist and innovation director
- 3.3.9 Carboxylic acids and derivatives (A Level Only)
 - > Flavour chemist and innovation director



A Level Chemistry and Careers in Chemistry 7 of 10

3.3.12 Polymers (A Level Only)

- Analytical technician, plastics
- Associate professor
- Associate professor and enterprise,
 partnerships and innovation lead
- Chief technology officer and cofounder of Lixea, a sustainable solutions company
- > Consumer products technician
- Head of research and sustainability
- Marketing development manager
- Microplastics toxicologist

- Patent attorney
- > Professor of biorefineries
- > R&D Chemist
- Research innovations manager
- Research scientist, microplastics
- Secondary school science teacher
- Section leader, wind
- > Senior research and development scientist

3.3.13 Amino acids, proteins and DNA (A Level Only)

- <u>Director of IRC in biomedical</u> materials
- Dermal toxicologist
- Head of toxicology
- › Postdoctoral research associate
- Quality officer, genomics research
- Secondary school science teacher
- Senior director of chip research



A Level Chemistry and Careers in Chemistry 8 of 10

3.3 Organic chemistry

3.3.14 Organic synthesis (A Level Only)

› Analytical technician, plastics

> Associate professor > Medicinal chemist, drug discovery

Associate researcher
Process chemist – higher apprentice,

pharmaceuticals

Laboratory scientist apprentice

> Chief executive officer, ViridiCO2 > Research innovations manager

Director of medicinal chemistry
Secondary school science teacher

> Household goods scientist > Technical services chemist, cosmetics

3.3.15 Nuclear magnetic resonance spectroscopy (A Level Only)

Forensic toxicologist
Scientific associate, NMR spectroscopy

Laboratory analyst and higher degree
 Secondary school science teacher apprentice, water

Museum scientist
 Teaching technical specialist

Nanotoxicologist
 University laboratory technician apprentice

3.3.16 Chromatography

Analyst – higher apprentice, organic chemistry
 Chief technology officer & co-founder of a robotic chemists' company

Analytical chemist, healthcare
Dermal toxicologist

Associate scientist, pharmaceuticals Forensic toxicologist

Bioanalytical scientist
 Laboratory analyst and higher degree

apprentice, water



A Level Chemistry and Careers in Chemistry 9 of 10

3.3.16 Chromatography continued

- Process chemist higher apprentice, pharmaceuticals
- > Professor of environmental chemistry
- Research assistant, healthcare
- Scientific associate, NMR spectroscopy
- Scientist, food and pharmaceuticals
- Scientist, Incident management & crisis resolution

- Secondary school science teacher
- Senior laboratory technician
- Senior science manager
- Soil scientist
- Teaching technical specialist
- University laboratory technician apprentice

Unit 8 Practical assessment

8.1 Use of apparatus and techniques

- Analyst higher apprentice, organic chemistry
- Associate professor
- › Bioleaching lab technician
- › Bionanotechnology PhD student
- Chief technology officer and co-founder of a robotic chemists' company
- Chief technology officer and co-founder of Lixea, a sustainable solutions company
- Co-founder and machine learning lead of tech startup Ignota Labs
- Dermal toxicologist
- > Environmental process specialist

- Laboratory scientist apprentice
- Marine biogeochemist
- Marketing development manager
- Medicinal chemist, drug discovery
- Microplastics toxicologist
- Museum scientist
- > PhD researcher
- > Pollution control officer
- > Principal air quality consultant



A Level Chemistry and Careers in Chemistry 10 of 10

8.1 Use of apparatus and techniques continued

- Process chemist higher apprentice, pharmaceuticals
- Professor of environmental chemistry
- Qualified Person, pharmaceuticals
- R&D Chemist
- > Research & development team leader
- Research fellow, battery recycling
- > Research scientist, microplastics
- School science technician
- Scientific Consultant
- Scientist, food and pharmaceuticals
- Scientist, Incident Management & Crisis Resolution
- 8.2 Required practical activities
 - School science technician

- Process chemist higher apprentice, Secondary school science teacher
 - Section leader, wind
 - Senior director of chip research
 - Senior laboratory technician
 - Senior science manager
 - Soil scientist
 - Solar technology engineer
 - Teaching technical specialist
 - Technical services chemist, cosmetics
 - University laboratory technician apprentice