

OCR A 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 and Careers in Chemistry 1 of 13

Module 1 Development of practical skills in chemistry

1.2 Practical skills assessed in the practical endorsement

1.2.1 Practical skills

>	Analyst –higher apprentice, organic	>	Principal air quality consultant
	chemistry		

>	Associate professor	>	<u>Process chemist – higher apprentice,</u>
			pharmaceuticals

Bioleaching lab technician	>	<u>Professor of biorefineries</u>
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>	Chief scientist at agritech company,	>	Quality officer, genomics research
	Lamhda Energy		

- Chief technology officer and co-founder > R&D Chemist of a robotic chemists' company
- of Lixea, a sustainable solutions company

 Research & development team leader

 Research & development team leader
- <u>Dermal toxicologist</u>

 Research fellow, battery recycling
- > Environmental process specialist > Research scientist, microplastics
- > <u>Laboratory scientist apprentice</u> > <u>Scientific Consultant</u>
- Marine biogeochemist Scientist, food and pharmaceuticals
- <u>Marketing development manager</u>

 > <u>Scientist, Incident Management & Crisis Resolution</u>
- Medicinal chemist, drug discovery Secondary school science teacher
- Microplastics toxicologist Section leader, wind
- Museum scientist Senior director of chip research
- PhD researcher Senior laboratory technician
- Pollution control officer >> Senior science manager



A Level and Careers in Chemistry 2 of 13

Module 1 Development of practical skills in chemistry

- 1.2 Practical skills assessed in the practical endorsement
- 1.2.1 Practical skills continued
 - > Soil scientist > Technical services chemist, cosmetics
 - <u>Solar technology engineer</u>

 <u>University laboratory technician</u>

 apprentice
- > Teaching technical specialist

chemistry

1.2.2 Use of apparatus and techniques

- Analyst higher apprentice, organic Microplastics toxicologist
- > Associate professor > Museum scientist
- Bioleaching lab technician
 PhD researcher
- Bionanotechnology PhD student > Pollution control officer
- Chemistry engineer, nuclear
 Principal air quality consultant
- <u>Chief scientist at agritech company,</u>

 <u>Lambda Energy</u>

 <u>Process chemist higher apprentice,</u>

 <u>pharmaceuticals</u>
- Chief technology officer and co-founder > Professor of biorefineries
 of a robotic chemists' company
- Chief technology officer and co-founder of Lixea, a sustainable solutions

 Professor of environmental chemistry
- Dermal toxicologist
 Qualified Person, pharmaceuticals
- > Environmental process specialist > R&D Chemist
- > Laboratory scientist apprentice > Research & development team leader
- Marine biogeochemist
 Research fellow, battery recycling
- Medicinal chemist, drug discovery
 Scientific consultant

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A Level and Careers in Chemistry 3 of 13

Module 1 Development of practical skills in chemistry

- 1.2 Practical skills assessed in the practical endorsement
- 1.2.2 Use of apparatus and techniques continued
- Scientist, food and pharmaceuticals
- Scientist, Incident Management & Crisis Resolution
- 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

Also under 1.2 Practical skills assessed in the practical endorsement, from 2020

- Analytical chemists, Thames Water
- Development chemist, printing and inks
- Laboratory analyst and higher degree apprentice, water
- > School science technician



A Level and Careers in Chemistry 4 of 13

Module 2 – Foundations in chemistry

- 2.1 Atoms and reactions
- 2.1.1 Atomic structure and isotopes
- > Executive editor, scientific publishing > Radioactive waste consultant
- Chemistry engineer, nuclear Science career coach and mentor

2.1.2 Compounds, formulae and equations

- Scientist, food and pharmaceuticals Technical services chemist, cosmetics
- Senior laboratory technician

2.1.3 Amount of substance

- > Analyst –higher apprentice, organic chemistry
- 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

2.1.4 Acids

- Scientist, food and pharmaceuticals
- Senior laboratory technician

2.1.5 Redox

> PhD researcher

- Secondary school science teacher
- Scientist, food and pharmaceuticals

Also under 2.1 Atoms and reactions, from 2020

- Analytical chemists, Thames Water Research assistant, healthcare



A Level and Careers in Chemistry 5 of 13

Module 2 – Foundations in chemistry

- 2.2 Electrons, bonding and structure
- 2.2.2 Bonding and structure
- Analytical technician, plastics
- > Bionanotechnology PhD student
- Co-founder and machine learning lead of tech startup Ignota Labs
- Computational toxicologist
- Nanotoxicologist
- Postdoctoral research associate

- Research fellow
- > Research innovations manager
- Science communicator
- Secondary school science teacher
- Senior curator
- > Senior software developer

Module 3 Periodic table and energy

- 3.1 The periodic table
- 3.1.1 Periodicity
- > PhD researcher
- Secondary school science teacher
- Senior curator

- 3.1.4 Qualitative analysis
- Museum scientist

- Secondary school science teacher
- Scientist, food and pharmaceuticals
- Scientist, Incident Management & Crisis
 - Resolution

Also under 3.1 The periodic table, from 2020

- Analytical chemists, Thames Water
- Laboratory analyst and higher degree apprentice, water

> Senior laboratory technician



A Level and Careers in Chemistry 6 of 13

Module 3 Periodic table and energy

- 3.2 Physical chemistry
- 3.2.1 Enthalpy changes
- > Chemistry engineer, nuclear
- → Director

- Process chemist higher apprentice, pharmaceuticals
- Secondary school science teacher

- 3.2.2 Reaction rates
- > Chemistry engineer, nuclear
- > Chief executive officer, ViridiCO2
- Process chemist higher apprentice,pharmaceuticals
- Secondary school science teacher
- Senior principal scientist

Also under 3.2 Physical chemistry, from 2020

> Chief chemist

 Project leader in enhanced experimentation

Module 4 – Core organic chemistry

- 4.1 Basic concepts and hydrocarbons
- 4.1.1 Basic concepts of organic chemistry
 - Microplastics toxicologist
- > Principal air quality consultant

4.1.2 Alkanes

> Principal air quality consultant



A Level and Careers in Chemistry 7 of 13

Module 4 – Core organic chemistry

4.1 Basic concepts and hydrocarbons

4.1.3 Alkenes

- Associate professor
- Chief executive officer, ViridiCO2
- Chief technology officer and co-founder of Lixea, a sustainable solutions company
- Head of research and sustainability
- Marketing development manager

- Microplastics toxicologist
- Professor of biorefineries
- > R&D Chemist
- Secondary school science teacher
- Senior science manager

Also under 4.1 Basic concepts and hydrocarbons, from 2020

- > Analytical technician, plastics
- Associate principal scientist, food
- Associate scientist, pharmaceuticals
- Chief technology officer
- Development chemist, printing and inks

- > Nanotoxicologist
- Project leader in enhanced experimentation
- Research innovations manager
- > Toxicologist, chemical company

4.2 Alcohols, haloalkanes and analysis

4.2.1 Alcohols

- Secondary school science teacher
- Senior science manager

4.2.3 Organic synthesis

- Bionanotechnology PhD student
- Process chemist higher apprentice, pharmaceuticals
- Chief technology officer and co-founder of a robotic chemists' company
- Secondary school science teacher
- > Laboratory scientist apprentice
- > Technical services chemist, cosmetics
- Medicinal chemist, drug discovery



A Level and Careers in Chemistry 8 of 13

Module 4 – Core organic chemistry

4.2 Alcohols, haloalkanes and analysis

4.2.4 Analytical techniques

- Analyst higher apprentice, organic chemistry
- Chief technology officer and co-founder of a robotic chemists' company
- Dermal toxicologist
- Museum scientist
- > Pollution control officer
- > Principal air quality consultant
- Process chemist higher apprentice, pharmaceuticals
- Professor of environmental chemistry

- Scientist, food and pharmaceuticals
- Secondary school science teacher
- Senior director of chip research
- > Senior laboratory technician
- Soil scientist
- > Teaching technical specialist
- University laboratory technician apprentice

Also under 4.2 Alcohols, haloalkanes and analysis, from 2020

- Advanced apprentice forensics
- Analytical technician, plastics
- Assistant analyst, drug control centre
- Associate researcher
- Astrochemist
- Atmospheric chemist
- » Bioanalytical scientist
- Director of IRC in biomedical materials
- > Environmental chemist

- Forensic scientist
- Household goods scientist
- Lab analyst and higher degree apprentice,
 - water
- Nanotoxicologist
- Research assistant, healthcare
- > Research innovations manager
- Scientific associate, NMR spectroscopy
- Senior analytical systems technician
- Sports scientist



A Level and Careers in Chemistry 9 of 13

Module 5 - Physical chemistry and transition elements

5.1 Rates equilibria and pH

5.1.1. How fast?

- > Chemistry engineer, nuclear > Secondary school science teacher
- > Chief executive officer, ViridiCO2 > Senior principal scientist

5.1.3. Acids, bases and buffers

> Scientist, food and pharmaceuticals >> Senior laboratory technician

Also under 5.1 Rates equilibria and pH, from 2020

- Analytical chemist, healthcare
 - Laboratory analyst and higher degree apprentice, water
- Development chemist, printing and inks

5.2 Energy

5.2.2 Enthalpy and entropy

- > Chemistry engineer, nuclear
- Secondary school science teacher

Director

5.2.3 Redox and electrode potentials

- Associate professor and enterprise,
 partnerships and innovation lead
- Scientific Consultant

PhD researcher

- Secondary school science teacher
- Research fellow, battery recycling
- Solar technology engineer

Also under 5.2 Energy, from 2020

> Chief chemist > Patent attorney



A Level and Careers in Chemistry 10 of 13

Module 5 - Physical chemistry and transition elements

5.3 Transition elements

5.3.1 Transition elements

- > Bioleaching lab technician
- Chief technology officer
- Director
- > Environmental process specialist
- Laboratory scientist apprentice
- Museum scientist
- > Product and process development manager
- > Project manager
- Secondary school science teacher

5.3.2 Qualitative analysis

- Museum scientist
- Professor of environmental chemistry
- Scientist, food and pharmaceuticals
- Secondary school science teacher
- > Senior laboratory technician

Module 6 -Organic chemistry and analysis

- 6.1 Aromatic compounds, carbonyls and acids
 - Analytical technician, plastics
- > Flavour chemist and innovation director
- Associate principal scientist, food
- Nanotoxicologist
- 6.2 Nitrogen compounds, polymers and synthesis
- 6.2.2 Amino acids, amides and chirality
- Medicinal chemist, drug discovery
- Senior laboratory technician

6.2.3 Polyesters and polyamides

Associate professor

- Chief technology officer and co-founder of Lixea, a sustainable solutions company
- Associate professor and enterprise, partnerships and innovation lead
- Marketing development manager



A Level and Careers in Chemistry 11 of 13

Module 6 –Organic chemistry and analysis

- 6.2 Nitrogen compounds, polymers and synthesis
- 6.2.3 Polyesters and polyamides continued
- Microplastics toxicologist
- Professor of biorefineries
- > R&D Chemist
- Research scientist, microplastics
- Secondary school science teacher
- Section leader, wind
- Senior research and development scientist

6.2.5 Organic synthesis

- Chief executive officer, ViridiCO2
- Medicinal chemist, drug discovery
- Process chemist higher
 - apprentice, pharmaceuticals
- Secondary school science teacher
- > Technical services chemist, cosmetics
- Also under 6.2 Nitrogen compounds, polymers and synthesis, from 2020
- Analytical technician, plastics
- Associate principal scientist, food
- Associate researcher
- > Consumer products technician
- > Household goods scientist

- Nanotoxicologist
- Patent attorney
- > Postdoctoral research associate
- > Research innovations manager

6.3 Analysis

6.3.1 Chromatography and qualitative analysis

- Analyst -higher apprentice, organic chemistry
 - Chief technology officer and cofounder of a robotic chemists'
- Dermal toxicologist

- Head of computational toxicology
- Head of toxicology
- Museum scientist

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A Level and Careers in Chemistry 12 of 13

Module 6 –Organic chemistry and analysis

6.3 Analysis

6.3.1 Chromatography and qualitative analysis continued

- Professor of environmental chemistry >> Senior science manager
- Scientist, food and pharmaceuticals
- Soil scientist
- Scientist, Incident Management & **Crisis Resolution**
- > <u>Teaching technical specialist</u>
- Secondary school science teacher
- University laboratory technician apprentice
- Senior laboratory technician

6.3.2 Spectroscopy

- > Analyst –higher apprentice, organic chemistry
- Qualified Person, pharmaceuticals
- > Chief technology officer and cofounder of a robotic chemists' company
- Scientist, food and pharmaceuticals

Dermal toxicologist

Secondary school science teacher

Head of toxicology

- > Senior laboratory technician Soil scientist
- > Principal air quality consultant
- Professor of environmental chemistry > Teaching technical specialist



A Level and Careers in Chemistry 13 of 13

Module 6 -Organic chemistry and analysis

6.3 Analysis

Also under 6.3 Analysis, from 2020

- Advanced apprentice forensics
- Analytical chemist, healthcare
- Analytical chemists, Thames Water
- Assistant analyst, drug control centre
- Associate principal scientist, food
- Associate researcher
- Associate scientist, pharmaceuticals
- > Astrochemist
- > Atmospheric chemist
- » Bioanalytical scientist
- > Chief technology officer
- Development chemist, printing and inks

- Director of IRC in biomedical materials
- > Environmental chemist
- > Forensic scientist
- Forensic toxicologist
- Laboratory analyst and higher degree apprentice, water
- Nanotoxicologist
- > Research assistant, healthcare
- > Research innovations manager
- Scientific associate, NMR spectroscopy
- Senior analytical systems technician
- Sports scientist