CEA GCE Northern Ireland
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.
AS 1 – Basic concepts in physical and inorganic chemistry

1.1 Formulae, equations and amounts of substance

› School science technician

1.2 Atomic structure

› Executive editor, scientific publishing
› Radioactive waste consultant
› Research assistant, healthcare
› Secondary school science teacher

1.3 Bonding

› Analytical technician, plastics
› Associate principal scientist, food
› Computational toxicologist
› Postdoctoral research associate
› Research fellow
› Research innovations manager
› Science communicator
› Toxicologist, chemical company

1.4 Intermolecular forces

› Analytical technician, plastics
› Associate principal scientist, food
› Associate scientist, pharmaceuticals
› Computational toxicologist
› Development chemist, printing and inks
› Forensic toxicologist
› Nanotoxicologist
› Research innovations manager
› Science communicator
› Toxicologist, chemical company
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A Level Chemistry and Careers in Chemistry
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AS 1 – Basic concepts in physical and inorganic chemistry

1.5 Structure
› Analytical chemists, Thames Water
› Analytical technician, plastics
› Associate principal scientist, food
› Computational toxicologist
› Forensic toxicologist
› Nanotoxicologist
› PhD researcher
› Postdoctoral research associate
› Research fellow
› Research innovations manager
› Science communicator
› Secondary school science teacher
› Senior curator
› Senior software developer
› Toxicologist, chemical company

1.6 Shapes of molecules and ions
› Nanotoxicologist
› Postdoctoral research associate

1.7 Redox
› PhD researcher
› Product and process development manager
› Secondary school science teacher

1.8 Halogens
› Analytical chemists, Thames Water
AS 1 – Basic concepts in physical and inorganic chemistry

1.9 Acid-base titrations
- Analytical chemists, Thames Water
- Chief technology officer and co-founder of a robotic chemists' company
- Development chemist, printing and inks
- Laboratory analyst and higher degree apprentice, water
- Pollution control officer
- Professor of environmental chemistry
- School science technician
- Secondary school science teacher

1.10 Qualitative tests
- Analytical chemists, Thames Water
- Laboratory analyst and higher degree apprentice, water
- Museum scientist
- School science technician
- Scientist, Incident Management & Crisis Resolution
- Secondary school science teacher
AS 2 – Further physical and inorganic chemistry and an introduction to organic chemistry

2.1 Formulae and amounts of a substance

- Analyst – higher apprentice, organic chemistry
- Chief technology officer and co-founder of Lixea, a sustainable solutions company
- Executive editor, scientific publishing
- Head of research and sustainability
- Medicinal chemist, drug discovery
- School science technician
- Secondary school science teacher

2.2 Nomenclature and isomerism in organic compounds

- Associate principal scientist, food
- Computational toxicologist
- Executive editor, scientific publishing
- Nanotoxicologist
- Research innovations manager
- Secondary school science teacher
- Toxicologist, chemical company

2.3 Alkanes

- Chief technology officer and co-founder of Lixea, a sustainable solutions company
- Marine biogeochemist
- Pollution control officer
- Professor of environmental chemistry
- Project leader in enhanced experimentation
- Secondary school science teacher
- Senior principal scientist

2.4 Alkenes

- Analytical technician, plastics
- Marketing development manager
- Project leader in enhanced experimentation
- R&D Chemist
- Research innovations manager
- Secondary school science teacher
AS 2 – Further physical and inorganic chemistry and an introduction to organic chemistry

2.6 Alcohols

› Forensic scientist
› Secondary school science teacher

2.7 Infrared spectroscopy

› Analyst – higher apprentice, organic chemistry
› Analytical chemists, Thames Water
› Associate researcher
› Associate scientist, pharmaceuticals
› Astrochemist

› Atmospheric chemist
› Bioanalytical scientist
› Chief chemist
› Chief technology officer
› Chief technology officer and co-founder of a robotic chemists' company
› Development chemist, printing and inks
› Forensic toxicologist

› Laboratory analyst and higher degree apprentice, water
› Museum scientist
› Nanotoxicologist
› Pollution control officer

› Process chemist – higher apprentice, pharmaceuticals
› Professor of environmental chemistry
› Research innovations manager
› Secondary school science teacher
› Senior analytical systems technician
› Soil scientist

› Teaching technical specialist
› University laboratory technician apprentice
AS 2 –Further physical and inorganic chemistry and an introduction to organic chemistry

2.8 Energetics
- Chief chemist
- Director
- Project leader in enhanced experimentation
- School science technician
- Secondary school science teacher
- Senior principal scientist

2.9 Kinetics
- Chief executive officer, ViridiCO2
- Secondary school science teacher
- Senior principal scientist

A2 1 –Further physical and organic chemistry

4.2 Enthalpy, entropy and free energy
- Chief chemist
- Project leader in enhanced experimentation

4.5 Acid-base equilibria
- Analytical chemists, Thames Water
- Laboratory analyst and higher degree apprentice, water
- School science technician

4.6 Isomerism
- Associate principal scientist, food
- Medicinal chemist, drug discovery
- Nanotoxicologist
- Research innovations manager
- Secondary school science teacher
A2 1 –Further physical and organic chemistry

4.7 Aldehydes and ketones
› Flavor chemist and innovation director

4.9 Derivatives of carboxylic acids
› Flavor chemist and innovation director

4.10 Aromatic chemistry
› Household goods scientist              › Research fellow

A2 2 –Analytical, transition metals, electrochemistry and organic nitrogen chemistry

5.1 Mass spectrometry
› Analyst –higher apprentice, organic chemistry
› Analytical chemist, healthcare
› Analytical chemists, Thames Water
› Assistant analyst, drug control centre
› Associate scientist, pharmaceuticals
› Bioanalytical scientist
› Chief technology officer
› Chief technology officer and co-founder of a robotic chemists’ company
› Development chemist, printing and inks
› Forensic toxicologist
› Laboratory analyst and higher degree apprentice, water
› Museum scientist
› Nanotoxicologist
› Pollution control officer
› Process chemist – higher apprentice, pharmaceuticals
› Research assistant, healthcare
› Research innovations manager
› Secondary school science teacher
› Teaching technical specialist
A2 2 – Analytical, transition metals, electrochemistry and organic nitrogen chemistry

5.2 Nuclear magnetic resonance spectroscopy

- Analytical chemist, healthcare
- Analytical chemists, Thames Water
- Associate scientist, pharmaceuticals
- Bioanalytical scientist
- Chief technology officer
- Development chemist, printing and inks
- Forensic toxicologist
- Laboratory analyst and higher degree apprentice, water
- Nanotoxicologist
- Research innovations manager
- Scientific associate, NMR spectroscopy
- Secondary school science teacher
- Teaching technical specialist

5.3 Volumetric analysis

- Analytical chemists, Thames Water
- Chief technology officer and co-founder of a robotic chemists’ company
- Development chemist, printing and inks
- Laboratory analyst and higher degree apprentice, water
- Pollution control officer
- Professor of environmental chemistry
- School science technician
- Secondary school science teacher
A2 2 – Analytical, transition metals, electrochemistry and organic nitrogen chemistry

5.4 Chromatography

- Analyst – higher apprentice, organic chemistry
- Analytical chemist, healthcare
- Analyst, Thames Water
- Assistant analyst, drug control centre
- Associate scientist, pharmaceuticals
- Associate scientist, pharmaceuticals
- Bioanalytical scientist
- Chief technology officer
- Chief technology officer and co-founder of a robotic chemists’ company
- Development chemist, printing and inks
- Forensic toxicologist
- Laboratory analyst and higher degree apprentice, water
- Museum scientist
- Nanotoxicologist
- Process chemist – higher apprentice, pharmaceuticals
- Professor of environmental chemistry
- Research assistant, healthcare
- Research innovations manager
- Scientific associate, NMR spectroscopy
- Scientist, Incident Management & Crisis Resolution
- Secondary school science teacher
- Senior analytical systems technician
- Senior science manager
- Soil scientist
- Teaching technical specialist
- University laboratory technician apprentice
A2 2 – Analytical, transition metals, electrochemistry and organic nitrogen chemistry

5.5 Transition metals
- Bioleaching lab technician
- Chief technology officer
- Development chemist, printing and inks
- Director
- Environmental process specialist
- Museum scientist
- Product and process development manager
- Project manager
- Secondary school science teacher

5.6 Electrode potentials
- Associate professor and enterprise, partnerships and innovation lead
- Patent attorney
- PhD researcher
- Research fellow, battery recycling
- Scientific Consultant
- Secondary school science teacher
- Solar technology engineer

5.7 Amines
- Development chemist, printing and inks

5.9 Amino acids
- Nanotoxicologist
- Postdoctoral research associate
- Research innovations manager
- Sports scientist
### A2 2 – Analytical, transition metals, electrochemistry and organic nitrogen chemistry

#### 5.10 Polymer chemistry
- Analytical technician, plastics
- Associate professor
- Associate professor and enterprise, partnerships and innovation lead
- Chief executive officer, ViridiCO2
- Chief technology officer and co-founder of Lixea, a sustainable solutions company
- Consumer products technician
- Head of research and sustainability
- Marketing development manager
- Patent attorney
- Professor of biorefineries
- R&D Chemist
- Research innovations manager
- Science career coach and mentor
- Secondary school science teacher
- Section leader, wind
- Senior research and development scientist

#### 5.11 Chemistry in medicine
- Advanced apprentice – forensics
- Analytical chemist, healthcare
- Assistant analyst, drug control centre
- Associate researcher
- Associate scientist, pharmaceuticals
- Bioanalytical scientist
- Chief technology officer
- Director of IRC in biomedical materials
- Director of medicinal chemistry
- Forensic scientist
- Forensic toxicologist
- Medicinal chemist, drug discovery
- Nanotoxicologist
- Patent attorney
- Postdoctoral research associate
- Process chemist – higher apprentice, pharmaceuticals
- Qualified Person, pharmaceuticals
- Research & development team leader
- Science career coach and mentor
- Scientific associate, NMR spectroscopy
- Secondary school science teacher
- Senior director of chip research
- Sports scientist
- University laboratory technician apprentice