AQA
GCSE 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.
Unit 4.1 – Atomic structure and the periodic table
4.1.1 A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes
› Chief chemist
› Secondary school science teacher
› Radioactive waste consultant

4.1.3 Properties of transition metals
› Bioleaching lab technician
› Product and process development manager
› Project manager, world gold council

Unit 4.2 – Bonding, structure, and the properties of matter
4.2.1 Chemical bonds, ionic, covalent and metallic
› Postdoctoral research associate

4.2.2 How bonding and structure are related to the properties of substances
› Analytical technician, plastics
› Head of research and sustainability
› Marketing development manager
› R&D Chemist
› Research fellow
› Science communicator
› Secondary school science teacher
› Section leader, wind
› Senior curator
› Senior principal scientist
› Senior scientist, household goods
› Senior software developer
Unit 4.2 – Bonding, structure, and the properties of matter
4.2.3 Structure and bonding of carbon
› Science communicator

4.2.4 Bulk and surface properties of matter including nanoparticles
› Analytical technician, plastics
› Associate professor
› Nanotoxicologist
› Research fellow
› Research innovations manager
› Science communicator
› Secondary school science teacher
› Senior scientist, household goods

Unit 4.3 – Quantitative chemistry
4.3.1 Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations
› Chief technology officer and co-founder of a robotic chemists' company
› Secondary school science teacher

4.3.2 Use of amount of substance in relation to masses of pure substances
› School science technician
Unit 4.3 – Quantitative chemistry

4.3.3 Yield and atom economy of chemical reactions

- Analyst – higher apprentice, organic chemistry
- Director
- Medicinal chemist, drug discovery
- Pollution control officer
- Process chemist – higher apprentice, pharmaceuticals
- Professor of environmental chemistry
- Secondary school science teacher

4.3.4 Using concentrations of solutions in mol/dm³

- Analyst – higher apprentice, organic chemistry
- Analytical chemists, Thames Water
- Bioleaching lab technician
- School science technician
- Secondary school science teacher
- University laboratory technician apprentice

4.3.5 Use of amount of substance in relation to volumes of gases

- Pollution control officer
- Professor of environmental chemistry
- Senior principal scientist
Unit 4.4 – Chemical changes
4.4.3 Electrolysis
› **Product and process development manager**
› **Secondary school science teacher**

Unit 4.5 – Energy changes
4.5.1 Exothermic and endothermic reactions
› **Chief chemist**
› **Director**
› **Secondary school science teacher**

4.5.2 Chemical cells and fuel cells
› **Patent attorney**
› **PhD researcher**
› **Research fellow, battery recycling**
› **Scientific Consultant**
› **Secondary school science teacher**
› **Senior principal scientist**
Unit 4.6 The rate and extent of chemical change
4.6.1 Rate of reaction
› Secondary school science teacher
› Senior principal scientist

Unit 4.7 Organic chemistry
4.7.1 Carbon compounds as fuels and feedstock
› Associate researcher, pharmaceuticals
› Associate scientist, pharmaceuticals
› Bioanalytical scientist
› Chief executive officer, ViridiCO2
› Chief technology officer and co-founder of Lixea, a sustainable solutions company
› Development chemist, printing and inks
› Director of medicinal chemistry
› Fine fragrance evaluator
› Flavour chemist and innovation director
› Head of research and sustainability
› Medicinal chemist, drug discovery
› Patent attorney
› Professor of biorefineries
› Project leader in enhanced experimentation, oil and gas
› R&D Chemist
› Secondary school science teacher
› Senior science manager

4.7.2 Reactions of alkenes and alcohols
› Secondary school science teacher
› Senior science manager
Unit 4.7 Organic chemistry
4.7.3 Synthetic and naturally occurring polymers

- Analytical technician, plastics
- Associate professor
- 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
- R&D Chemist
- Research innovations manager
- Secondary school science teacher

Unit 4.8 Chemical analysis
4.8.1 Purity, formulations and chromatography

- Advanced apprentice at an occupational drug testing laboratory
- Analytical chemists, Thames Water
- Assistant analyst, drug control centre
- Associate researcher, pharmaceuticals
- Associate scientist, pharmaceuticals
- Bioanalytical scientist
- Computational toxicologist
- Consumer products technician
- Process chemist – higher apprentice, pharmaceuticals
- Qualified Person, pharmaceuticals
- Scientific associate, NMR spectroscopy
- Scientist, Incident Management & Crisis Resolution
- Secondary school science teacher
- Senior analytical systems technician
- Senior science manager
- Soil scientist
Unit 4.8 Chemical analysis

4.8.1 Purity, formulations and chromatography cont

- Director of IRC in biomedical materials
- Laboratory analyst and higher degree apprentice, water
- Museum scientist
- Teaching technical specialist
- Toxicologist, chemical company
- University laboratory technician apprentice

4.8.2 Identification of common gases

- Pollution control officer
- Secondary school science teacher

Unit 4.8 Chemical analysis

4.8.3 Identification of ions by chemical and spectroscopic means

- Advanced apprentice at an occupational drug testing laboratory
- Analyst –higher apprentice, organic chemistry
- Analytical chemist, healthcare
- Analytical chemists, Thames Water
- Assistant analyst, drug control centre
- Pollution control officer
- Professor of environmental chemistry
- Research assistant, healthcare
- Scientific associate, NMR spectroscopy
- Secondary school science teacher
### Unit 4.8 Chemical analysis

4.8.3 Identification of ions by chemical and spectroscopic means cont.

- **Astrochemist**
- **Chief technology officer and co-founder of a robotic chemists' company**
- **Forensic scientist**
- **Forensic toxicologist**
- **Laboratory analyst and higher degree apprentice, water**
- **Museum scientist**
- **Senior analytical systems technician**
- **Soil scientist**
- **Sports scientist, British Olympic Association**
- **Teaching technical specialist**
- **University laboratory technician apprentice**
- **Chief executive officer, ViridiCO2**
- **Secondary school science teacher**

### Unit 4.9 Chemistry of the atmosphere

4.9.1 The composition and evolution of the Earth’s atmosphere

- **Astrochemist**
- **Atmospheric chemist**

4.9.2 Carbon dioxide and methane as greenhouse gases

- **Associate professor and enterprise, partnerships and innovation lead**
- **Chief executive officer, ViridiCO2**
- **Research fellow, battery recycling**
- **Secondary school science teacher**
Unit 4.9 Chemistry of the atmosphere

4.9.2 Carbon dioxide and methane as greenhouse gases cont.

- Head of research and sustainability
- Marine biogeochemist
- Marketing development manager
- Soil scientist
- Solar technology engineer

4.9.3 Common atmospheric pollutants and their sources

- Atmospheric chemist
- Professor of environmental chemistry
- Environmental chemist
- Secondary school science teacher
- Marine biogeochemist
- Senior principal scientist
- Pollution control officer
- Soil scientist

Unit 4.10 Using resources

4.10.1 Using the Earth’s resources and obtaining potable water

- Analyst –higher apprentice, organic chemistry
- Analytical chemists, Thames Water
- Bioleaching lab technician
- Chief executive officer, ViridiCO2
- Chief technology officer and co-founder of Lixa, a sustainable solutions company
- Director
- Environmental process specialist
- Head of research and sustainability
- Laboratory analyst and higher degree apprentice, water
- Marketing development manager
- Professor of biorefineries
- R&D Chemist
- Research fellow, battery recycling
- Secondary school science teacher
- Senior director of chip research
- Senior science manager
- Sustainability manager
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Unit 4.10 Using resources

4.10.2 Life cycle assessment and recycling

› Analytical technician, plastics
› Bioleaching lab technician
› Chief executive officer, ViridiCO2
› Chief technology officer and co-founder of Lixea, a sustainable solutions company
› Director
› Environmental process specialist
› Head of research and sustainability
› Marketing development manager
› Professor of biorefineries
› R&D Chemist
› Research fellow, battery recycling
› Research innovations manager
› Secondary school science teacher
› Sustainability manager

4.10.3 Using materials

› Associate professor
› Associate professor and enterprise, partnerships and innovation lead
› Director of IRC in biomedical materials
› Head of research and sustainability
› Laboratory technician and higher apprentice – solar
› Museum scientist
› Product and process development manager
› Professor of biorefineries
› Project manager, world gold council
› Science communicator
› Secondary school science teacher
› Section leader, wind
› Senior research and development scientist
Unit 4.10 Using resources
4.10.4 The Haber process and the use of NPK fertilisers
   › Secondary school science teacher  › Senior principal scientist

4.11 Key ideas
   › Associate principal scientist, food
   › Executive editor, scientific publishing
   › Finance and planning manager
   › Freelance science publicist
   › Head of chemistry and teacher
   › Investor relations manager
   › Medical research council board secretary
   › Policy researcher, cancer research UK
   › Science career coach and mentor
   › Secondary school science teacher
   › Senior committee specialist, UK government
   › Senior curator
   › Senior picture editor
   › Tax accountant