

# 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.

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## GCSE Chemistry and Careers in Chemistry

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#### 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

- › [Chemistry engineer, nuclear](#)
- › [Secondary school science teacher](#)
- › [Chief chemist](#)
- › [Radioactive waste consultant](#)

4.1.3 Properties of transition metals

- › [Bioleaching lab technician](#)
- › [Project manager, world gold council](#)
- › [Laboratory scientist apprentice](#)
- › [Secondary school science teacher](#)
- › [Product and process development manager](#)
- › [Senior principal scientist](#)

#### Unit 4.2 – Bonding, structure, and the properties of matter

4.2.1 Chemical bonds, ionic, covalent and metallic

- › [Bionanotechnology PhD student](#)
- › [Postdoctoral research associate](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)
- › [Technical services chemist, cosmetics](#)

4.2.2 How bonding and structure are related to the properties of substances

- › [Analytical technician, plastics](#)
- › [R&D Chemist](#)
- › [Bionanotechnology PhD student](#)
- › [Research fellow](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)
- › [Science communicator](#)
- › [Head of computational toxicology](#)
- › [Secondary school science teacher](#)
- › [Head of research and sustainability](#)
- › [Section leader, wind](#)
- › [Laboratory scientist apprentice](#)
- › [R&D Chemist](#)
- › [Marketing development manager](#)
- › [Senior curator](#)

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#### 4.2.2 How bonding and structure are related to the properties of substances continued

- › [Senior principal scientist](#)
- › [Senior scientist, household goods](#)
- › [Senior software developer](#)
- › [Technical services chemist, cosmetics](#)

#### 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](#)
- › [Bionanotechnology PhD student](#)
- › [Chief scientist at agritech company, Lambda Energy](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)
- › [Dermal toxicologist](#)
- › [Head of toxicology](#)
- › [Microplastics toxicologist](#)
- › [Nanotoxicologist](#)
- › [Research fellow](#)
- › [Research innovations manager](#)
- › [Science communicator](#)
- › [Secondary school science teacher](#)
- › [Senior scientist, household goods](#)
- › [Technical services chemist, cosmetics](#)

### Unit 4.3 –Quantitative chemistry

#### 4.3.1 Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations

- › [Chemistry engineer, nuclear](#)
- › [Chief technology officer and co-founder of a robotic chemists' company](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Secondary school science teacher](#)
- › [Senior laboratory technician](#)
- › [Technical services chemist, cosmetics](#)

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### 4.3.2 Use of amount of substance in relation to masses of pure substances

- › [School science technician](#)
- › [Senior laboratory technician](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Technical services chemist, cosmetics](#)

### 4.3.3 Yield and atom economy of chemical reactions

- › [Analyst –higher apprentice, organic chemistry](#)
- › [Process chemist – higher apprentice, pharmaceuticals](#)
- › [Director](#)
- › [Professor of environmental chemistry](#)
- › [Medicinal chemist, drug discovery](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Microplastics toxicologist](#)
- › [Secondary school science teacher](#)
- › [Pollution control officer](#)
- › [Technical services chemist, cosmetics](#)

## Unit 4.3 –Quantitative chemistry

### 4.3.4 Using concentrations of solutions in mol/dm<sup>3</sup>

- › [Analyst –higher apprentice, organic chemistry](#)
- › [School science technician](#)
- › [Analytical chemists, Thames Water](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Bioleaching lab technician](#)
- › [Secondary school science teacher](#)
- › [Dermal toxicologist](#)
- › [Senior laboratory technician](#)
- › [Head of computational toxicology](#)
- › [Technical services chemist, cosmetics](#)
- › [Laboratory scientist apprentice](#)
- › [University laboratory technician apprentice](#)
- › [Microplastics toxicologist](#)

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

- › [Pollution control officer](#)
- › [Professor of environmental chemistry](#)
- › [Principal air quality consultant](#)
- › [Senior principal scientist](#)

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#### Unit 4.4 – Chemical changes

##### 4.4.1 Reactivity of metals

- › [Chemistry engineer, nuclear](#)

##### 4.4.2 Reaction of acids

- › [Scientist, food and pharmaceuticals](#)
- › [Senior laboratory technician](#)

##### 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

- › [Chemistry engineer, nuclear](#)
- › [Director](#)
- › [Chief chemist](#)
- › [Secondary school science teacher](#)

##### 4.5.2 Chemical cells and fuel cells

- › [Patent attorney](#)
- › [Scientific Consultant](#)
- › [PhD researcher](#)
- › [Secondary school science teacher](#)
- › [Research fellow, battery recycling](#)
- › [Senior principal scientist](#)

#### Unit 4.6 The rate and extent of chemical change

##### 4.6.1 Rate of reaction

- › [Chemistry engineer, nuclear](#)
- › [Senior principal scientist](#)
- › [Secondary school science teacher](#)

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#### 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](#)
- › [Principal air quality consultant](#)
- › [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](#)

##### 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](#)
- › [Microplastics toxicologist](#)
- › [Patent attorney](#)
- › [R&D Chemist](#)
- › [Quality officer, genomics research](#)
- › [Research innovations manager](#)
- › [Research scientist, microplastics](#)
- › [Secondary school science teacher](#)

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### 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](#)
- › [Dermal toxicologist](#)
- › [Director of IRC in biomedical materials](#)
- › [Laboratory analyst and higher degree apprentice, water](#)
- › [Museum scientist](#)
- › [Process chemist – higher apprentice, pharmaceuticals](#)
- › [Qualified Person, pharmaceuticals](#)
- › [Scientific associate, NMR spectroscopy](#)
- › [Scientist, food and pharmaceuticals](#)

#### 4.8.1 Purity, formulations and chromatography continued

- › [Scientist, Incident Management & Crisis Resolution](#)
- › [Secondary school science teacher](#)
- › [Senior analytical systems technician](#)
- › [Senior laboratory technician](#)
- › [Senior science manager](#)
- › [Soil scientist](#)
- › [Technical services chemist, cosmetics](#)
- › [Teaching technical specialist](#)
- › [Toxicologist, chemical company](#)
- › [University laboratory technician apprentice](#)
- › [Teaching technical specialist](#)

#### 4.8.2 Identification of common gases

- › [Pollution control officer](#)
- › [Secondary school science teacher](#)
- › [Principal air quality consultant](#)

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#### 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](#)
- › [Astrochemist](#)
- › [Chief technology officer and co-founder of a robotic chemists' company](#)
- › [Dermal toxicologist](#)
- › [Forensic scientist](#)
- › [Forensic toxicologist](#)
- › [Head of toxicology](#)
- › [Laboratory analyst and higher degree apprentice, water](#)
- › [Museum scientist](#)
- › [Pollution control officer](#)
- › [Professor of environmental chemistry](#)
- › [Research assistant, healthcare](#)
- › [Scientific associate, NMR spectroscopy](#)
- › [Secondary school science teacher](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Senior analytical systems technician](#)
- › [Senior laboratory technician](#)
- › [Soil scientist](#)
- › [Sports scientist, British Olympic Association](#)
- › [Teaching technical specialist](#)
- › [University laboratory technician apprentice](#)

#### Unit 4.9 Chemistry of the atmosphere

##### 4.9.1 The composition and evolution of the Earth's atmosphere

- › [Astrochemist](#)
- › [Associate professor and enterprise, partnerships and innovation lead](#)
- › [Atmospheric chemist](#)
- › [Chief executive officer, ViridiCO2](#)

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#### 4.9.2 Carbon dioxide and methane as greenhouse gases

- › [Head of research and sustainability](#)
- › [Research fellow, battery recycling](#)
- › [Marine biogeochemist](#)
- › [Secondary school science teacher](#)
- › [Marketing development manager](#)
- › [Soil scientist](#)
- › [Principal air quality consultant](#)
- › [Solar technology engineer](#)

#### 4.9.3 Common atmospheric pollutants and their sources

- › [Atmospheric chemist](#)
- › [Principal air quality consultant](#)
- › [Environmental chemist](#)
- › [Professor of environmental chemistry](#)
- › [Marine biogeochemist](#)
- › [Secondary school science teacher](#)
- › [Microplastics toxicologist](#)
- › [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](#)
- › [Director](#)
- › [Analytical chemists, Thames Water](#)
- › [Environmental process specialist](#)
- › [Bioleaching lab technician](#)
- › [Head of research and sustainability](#)
- › [Chemistry engineer, nuclear](#)
- › [Laboratory analyst and higher degree apprentice, water](#)
- › [Chief executive officer, ViridiCO2](#)
- › [Marketing development manager](#)
- › [Chief technology officer and co-founder of Lixea, a sustainable solutions company](#)
- › [Professor of biorefineries](#)

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#### Unit 4.10 Using resources

##### 4.10.1 Using the Earth's resources and obtaining potable water continued

- › [R&D Chemist](#)
- › [Senior director of chip research](#)
- › [Research fellow, battery recycling](#)
- › [Senior science manager](#)
- › [Secondary school science teacher](#)
- › [Sustainability manager](#)

##### 4.10.2 Life cycle assessment and recycling

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

##### 4.10.3 Using materials

- › [Associate professor](#)
- › [Laboratory scientist apprentice](#)
- › [Associate professor and enterprise, partnerships and innovation lead](#)
- › [Laboratory technician and higher apprentice, solar](#)
- › [Bionanotechnology PhD student](#)
- › [Museum scientist](#)
- › [Chief scientist at agritech company, Lambda Energy](#)
- › [Product and process development manager](#)
- › [Director of IRC in biomedical materials](#)
- › [Professor of biorefineries](#)
- › [Head of research and sustainability](#)
- › [Project manager, world gold council](#)

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### Unit 4.10 Using resources

#### 4.10.3 Using materials

- › [Research scientist, microplastics](#)
- › [Science communicator](#)
- › [Secondary school science teacher](#)
- › [Section leader, wind](#)
- › [Senior research and development scientist](#)
- › [Technical services chemist, cosmetics](#)

### 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](#)
- › [Chemistry engineer, nuclear](#)
- › [Chief scientist at agritech company, Lambda Energy](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)
- › [Executive editor, scientific publishing](#)
- › [Finance and planning manager](#)
- › [Freelance science publicist](#)
- › [Head of chemistry and teacher](#)
- › [Head of computational toxicology](#)
- › [Head of toxicology](#)
- › [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](#)
- › [Technical services chemist, cosmetics](#)