

# AQA GCSE Chemistry and Careers in Chemistry

Find examples of the most relevant careers for subsections of the curriculum and link through to up to five 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

### 1 of 7

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

4.1.2 The periodic table

- › [Chemistry engineer, nuclear](#)
- › [Chief chemist](#)
- › [Museum scientist](#)
- › [Radioactive waste consultant](#)

4.1.3 Properties of transition metals

- › [Bioleaching lab technician](#)
- › [Product and process development manager](#)
- › [Project manager, world gold council](#)
- › [Secondary school science teacher](#)
- › [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](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)
- › [Postdoctoral research associate](#)
- › [Cosmetics, technical services chemist](#)

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

- › [Analytical technician, plastics](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)
- › [Laboratory scientist apprentice](#)
- › [Senior software developer](#)
- › [Cosmetics, technical services chemist](#)

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## GCSE Chemistry and Careers in Chemistry 2 of 7

### 4.2.3 Structure and bonding of carbon

- › [Science communicator](#)

### 4.2.4 Bulk and surface properties of matter including nanoparticles

- › [Analytical technician, plastics](#)
- › [Nanotoxicologist](#)
- › [Bionanotechnology PhD student](#)
- › [Cosmetics, technical services chemist](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)

## Unit 4.3 –Quantitative chemistry

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

- › [Chemistry engineer, nuclear](#)
- › [Senior laboratory technician](#)
- › [Chief technology officer and co-founder of a robotic chemists' company](#)
- › [Cosmetics, technical services chemist](#)
- › [Scientist, food and pharmaceuticals](#)

### 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](#)
- › [Cosmetics, technical services chemist](#)

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## GCSE Chemistry and Careers in Chemistry 3 of 7

### Unit 4.3 –Quantitative chemistry

#### 4.3.3 Yield and atom economy of chemical reactions

- › [Analyst – higher apprentice, organic chemistry](#)
- › [Medicinal chemist](#)
- › [Process chemist – higher apprentice, pharmaceuticals](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Cosmetics, technical services chemist](#)

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

- › [Analyst – higher apprentice, organic chemistry](#)
- › [Bioleaching lab technician](#)
- › [Cosmetics, technical services chemist](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Senior laboratory technician](#)

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

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

### 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](#)

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## GCSE Chemistry and Careers in Chemistry

### 4 of 7

#### Unit 4.5 – Energy changes

##### 4.5.1 Exothermic and endothermic reactions

- › [Chemistry engineer, nuclear](#)
- › [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](#)
- › [Senior principal scientist](#)

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

##### 4.6.1 Rate of reaction

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

#### Unit 4.7 Organic chemistry

##### 4.7.1 Carbon compounds as fuels and feedstock

- › [Associate scientist, pharmaceuticals](#)
- › [Chief executive officer](#)
- › [Chief technology officer and co-founder of Lixea, a sustainable solutions company](#)
- › [Head of research and sustainability](#)
- › [Principal air quality consultant](#)

##### 4.7.2 Reactions of alkenes and alcohols

- › [Secondary school science teacher](#)
- › [Senior science manager](#)

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## GCSE Chemistry and Careers in Chemistry

### 5 of 7

#### Unit 4.7 Organic chemistry

##### 4.7.3 Synthetic and naturally occurring polymers

- › [Analytical technician, plastics](#)
- › [Chief executive officer](#)
- › [Chief technology officer and co-founder of Lixea, a sustainable solutions company](#)
- › [Microplastics toxicologist](#)
- › [Quality officer, genomics research](#)

#### Unit 4.8 Chemical analysis

##### 4.8.1 Purity, formulations and chromatography

- › [Bioanalytical scientist](#)
- › [Cosmetics, technical services chemist](#)
- › [Dermal toxicologist](#)
- › [Process chemist – higher apprentice, pharmaceuticals](#)
- › [Scientist, food and pharmaceuticals](#)

##### 4.8.2 Identification of common gases

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

##### 4.8.3 Identification of ions by chemical and spectroscopic means

- › [Analyst – higher apprentice, organic chemistry](#)
- › [Analytical chemist](#)
- › [Pollution control officer](#)
- › [Scientist, food and pharmaceuticals](#)
- › [Senior laboratory technician](#)

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## GCSE Chemistry and Careers in Chemistry 6 of 7

### 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

- › [Chief executive officer](#)
- › [Soil scientist](#)
- › [Principal air quality consultant](#)
- › [Solar technology engineer](#)
- › [Professor and enterprise, partnerships and innovation lead](#)

#### 4.9.3 Common atmospheric pollutants and their sources

- › [Environmental chemist](#)
- › [Senior principal scientist](#)
- › [Pollution control officer](#)
- › [Soil scientist](#)
- › [Principal air quality consultant](#)

### Unit 4.10 Using resources

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

- › [Analyst – higher apprentice, organic chemistry](#)
- › [R&D chemist](#)
- › [Chief technology officer and co-founder of Lixea, a sustainable solutions company](#)
- › [Research fellow, battery recycling](#)
- › [Head of research and sustainability](#)

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## GCSE Chemistry and Careers in Chemistry

### 7 of 7

#### Unit 4.10 Using resources

##### 4.10.2 Life cycle assessment and recycling

- › [Analytical technician, plastics](#)
- › [Bioleaching lab technician](#)
- › [Head of research and sustainability](#)
- › [Research fellow, battery recycling](#)
- › [Research scientist, microplastics](#)

##### 4.10.3 Using materials

- › [Bionanotechnology PhD student](#)
- › [Chief scientist at agritech company, Lambda Energy](#)
- › [Cosmetics, technical services chemist](#)
- › [Laboratory scientist apprentice](#)
- › [Section leader, wind](#)

##### 4.10.4 The Haber process and the use of NPK fertilisers

- › [Secondary school science teacher](#)
- › [Senior principal scientist](#)

##### 4.11 Key ideas

- › [Chief scientist at agritech company, Lambda Energy](#)
- › [Co-founder and machine learning lead of tech startup Ignota Labs](#)
- › [Cosmetics, technical services chemist](#)
- › [Head of computational toxicology](#)
- › [Head of toxicology](#)