

Edexcel 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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and Careers in Chemistry 1 of 13

Topic 1- Key concepts in chemistry

Atomic structure

- > Head of chemistry and teacher
- Science careers coach and mentor >> Section leader, wind >
- Scientific consultant >
- Scientific leader

The periodic table

- > Executive editor, scientific publishing
- Environmental process specialist
- > Head of chemistry and teacher
- > Science careers coach and mentor
- Scientific consultant

Ionic bonding

- Head of chemistry and teacher >
- **Research fellow** >

Covalent bonding

- Director of medicinal chemistry >
- Head of chemistry and teacher >
- Project leader in enhanced experimentation, oil & gas
- > Research fellow

- Secondary school science teacher
- Senior picture editor
- Secondary school science teacher >
- Senior picture editor
- > <u>Project manager, world gold council</u>
- Tax accountant
- Secondary school science teacher
- Solar technology engineer
- Scientific associate, NMR spectroscopy >
- Scientific leader
- Secondary school science teacher >
- Senior software developer >



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Types of substance

- Analytical technician, plastics
- > Postdoctoral research associate
- Nanotoxicologist
- Bionanotechnology PhD student
- > <u>Director</u>
- <u>Chief technology officer</u>
- <u>Consumer products technician</u>
- Development chemist, printing and inks
- Director of IRC in biomedical materials
- Head of chemistry and teacher
- > Head of research and sustainability
- Laboratory technician and higher apprentice, solar
- Market development manager

Calculations involving masses

- Advanced apprentice, forensics
- Analyst higher apprentice, organic chemistry
- Analytical chemist
- > Analytical chemists, Thames Water
- Assistant analyst, drug control centre

- Professor and enterprise, partnerships and innovation lead
- > Quality officer, genomics research
- Project manager, world gold council
- » <u>R&D chemist</u>
- > <u>Research fellow</u>
- Section leader, wind
- Science communicator
- > <u>Secondary school science teacher</u>
- Senior curator
- Senior picture editor
- Senior software developer
- Senior research and development scientist
- > Solar technology engineer
 - Astrochemist
 - Atmospheric chemist
 - Bioanalytical scientist
 - > Chief chemist
 - > Cosmetics, technical services chemist

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Calculations involving masses continued

- > Director of medicinal chemistry
- Forensic scientist
- Forensic toxicologist
- <u>Laboratory analyst and higher degree</u> <u>apprentice, water</u>
- Museum scientist
- Pollution control officer
- > Principal air quality consultant
- <u>Professor of environmental</u> <u>chemistry</u>
- Research assistant
- > School science technician

- Senior laboratory technician
- Soil scientist
- Tax accountant
- Teaching technical specialist
- Toxicologist, chemical company
- University laboratory technician apprentice
- > Scientist, food and pharmaceuticals
- Scientist, Incident Management & Crisis Resolution
- > Secondary school science teacher

Topic 2 - States of matter and mixtures

States of matter

- > Associate professor
- > <u>Chief executive officer</u>

- > Head of chemistry and teacher
- > <u>Secondary school science teacher</u>

Methods of separating and purifying substances

- Associate professor
- > Advanced apprentice, forensics
- Analyst higher apprentice, organic chemistry
- Analytical chemist
- > Analytical chemists, Thames Water
- > Assistant analyst, drug control centre
- > Associate principal scientist, food

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- ng substances
- Associate scientist, pharmaceuticals
- Atmospheric chemist
- Bioanalytical scientist
- Bioleaching lab technician
- Chief chemist
- > Chief executive officer
- <u>Chief technology officer and co-founder</u> of a robotic chemists' company



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Methods of separating and purifying substances continued

- <u>Chief technology officer and co-</u> founder of Lixea, a sustainable solutions company
- <u>Consumer products technician</u>
- > <u>Director</u>
- Environmental chemist
- Forensic scientist
- Forensic toxicologist
- Head of computational toxicology
- > Head of research and sustainability
- Head of toxicology
- > Pollution control officer
- > Principal air quality consultant
- Process chemist higher apprentice, pharmaceuticals
- > <u>Professor of environmental chemistry</u>
- Laboratory analyst and higher degree apprentice, water

Topic 3 - Chemical changes

Acids

- Bioleaching lab technician
- Associate principal scientist, food
- Chief chemist
- Head of chemistry and teacher

- <u>Radioactive waste consultant</u>
- Research assistant
- > Research fellow, battery recycling
- School science technician
- Scientific associate, NMR spectroscopy
- > Scientist, food and pharmaceuticals
- Scientist, Incident Management & Crisis Resolution
- Secondary school science teacher
- > <u>Senior curator</u>
- > Senior laboratory technician
- Senior science manager
- Sustainability manager
- > <u>Toxicologist, chemical company</u>
- University laboratory technician apprentice
- School science technician
- > <u>Secondary school science teacher</u>
- Teaching technical specialist
- University laboratory technician apprentice



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Electrolytic processes

- Head of chemistry and teacher
- Product and process development > manager
- School science technician
- Secondary school science teacher

Topic 4 - Extracting metals and equilibria

Obtaining and using metals

- **Bioleaching lab technician** >
- Director >
- Environmental process specialist >
- Head of chemistry and teacher >
- Laboratory scientist apprentice >
- Market development manager
- Product and process development manager
- Professor of environmental chemistry

Reversible reactions and equilibria

- Head of chemistry and teacher
- School science technician

Topic 5 - Separate chemistry 1

Transition metals, alloys and corrosion

- Bioleaching lab technician >
- Chief chemist
- > Director
- > Environmental process specialist
- Head of chemistry and teacher >

- Project manager, world gold council
- Research fellow, battery recycling
- School science technician >
- Scientific consultant
- Scientist, food and pharmaceuticals
- Secondary school science teacher
- Sustainability manager >
- Secondary school science teacher

- Laboratory scientist apprentice
- Museum scientist
- > Product and process development manager
- Project manager, world gold council
- Research fellow, battery recycling

- Senior curator



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Transition metals, alloys and corrosion continued

- Project manager, world gold council

 Scientist, food and pharmaceuticals >
- Research fellow, battery recycling >
- School science technician >

Quantitative analysis

- Advanced apprentice, forensics >
- Analyst higher apprentice, organic > chemistry
- Analytical chemist
- Analytical chemists, Thames Water >
- Analytical technician, plastics >
- Assistant analyst, drug control centre >
- Associate scientist, pharmaceuticals >
- Astrochemist >
- Atmospheric chemist >
- **Bioanalytical scientist** >
- Chief chemist >
- Chief technology officer and co-founder > of a robotic chemists' company
- Computational toxicologist >
- Consumer products technician >
- **Environmental chemist** >
- **Environmental process specialist** >
- Fine fragrance evaluator >
- Flavourist and innovation director >
- **Forensic scientist** >

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- Secondary school science teacher >
- Senior curator
 - Forensic toxicologist
 - > Head of chemistry and teacher
 - Head of toxicology
 - > Laboratory analyst and higher degree apprentice, water
 - Museum scientist
 - Pollution control officer
 - Principal air quality consultant
 - Process chemist higher apprentice, pharmaceuticals
 - Professor of environmental chemistry
 - Quality officer, genomics research >
 - **Research assistant**
 - School science technician >
 - Scientific consultant
 - Scientist, food and pharmaceuticals >
 - Scientist, Incident Management & Crisis Resolution
 - Secondary school science teacher
 - Senior analytical systems technician >
 - Senior laboratory technician
 - Senior science manager



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Quantitative analysis continued

- Soil scientist
- Sustainability manager
- Teaching technical specialist

Dynamic equilibria

- Environmental chemist
- > Head of chemistry and teacher

Chemical cells and fuel cells

- > Head of chemistry and teacher
- > PhD researcher
- Professor and enterprise, partnerships and innovation lead
- > Research fellow, battery recycling

Topic 6 - Groups in the periodic table

Group 1

- Head of chemistry and teacher
- PhD researcher
- > <u>School science technician</u>

Group 7

- > Head of chemistry and teacher
- > School science technician

Group 0

Head of chemistry and teacher

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- Toxicologist, chemical company
- University laboratory technician apprentice
- School science technician
- Secondary school science teacher
- > School science technician
- > <u>Scientific consultant</u>
- > <u>Secondary school science teacher</u>

- > <u>Scientific consultant</u>
- Secondary school science teacher
- Secondary school science teacher
- Secondary school science teacher



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Topic 7 - Rates of reaction and energy changes

Rates of reaction

- > Chief executive officer
- Head of chemistry and teacher
- School science technician
- > Secondary school science teacher

Rates of reaction

- > Chief executive officer
- Head of chemistry and teacher
- School science technician
- Secondary school science teacher

- Senior principal scientist
- Senior science manager
- <u>Sustainability manager</u>
- > <u>Senior principal scientist</u>
- Senior science manager
- Sustainability manager

Heat energy changes in chemical reactions

- > <u>Head of chemistry and teacher</u>
- > <u>School science technician</u>

Topic 8 - Fuels and Earth science

Fuels

- Chief chemist
- Environmental chemist
- Senior principal scientist
- > <u>Director</u>
- Head of chemistry and teacher
- Professor and enterprise, partnerships and innovation lead
- Project leader in enhanced experimentation, oil & gas

> <u>Radioactive waste consultant</u>

Secondary school science teacher

- Senior principal scientist
- School science technician
- Secondary school science teacher
- > Senior science manager
- Senior research and development scientist



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Earth and atmospheric science

- > <u>Astrochemist</u>
- > Atmospheric chemist
- > Chief executive officer
- <u>Chief scientist at agritech company,</u>
 <u>Lambda Energy</u>
- Chief technology officer and cofounder of Lixea, a sustainable solutions company
- > <u>Director</u>
- Environmental chemist
- Environmental process specialist
- Head of chemistry and teacher
- Head of research and sustainability
- Marine biogeochemist
- Microplastics toxicologist
- > Pollution control officer

- Principal air quality consultant
- Professor and enterprise, partnerships and innovation lead
- Professor of biorefineries
- > Professor of environmental chemistry
- Research fellow, battery recycling
- School science technician
- Secondary school science teacher
- Senior picture editor
- Soil scientist
- Solar technology engineer
- Senior principal scientist
- Section leader, wind

Topic 9 - Separate chemistry 2

Qualitative analysis: tests for ions

- Advanced apprentice, forensics
- Analyst higher apprentice, organic chemistry
- Analytical chemist
- > Analytical chemists, Thames Water
- Assistant analyst, drug control centre
- Associate scientist, pharmaceuticals
- Atmospheric chemist

>

Bioanalytical scientist

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Qualitative analysis: tests for ions continued

- Chief technology officer and cofounder of a robotic chemists' company
- <u>Computational toxicologist</u>
- Director of medicinal chemistry
- Environmental chemist
- > Fine fragrance evaluator
- Forensic scientist
- Forensic toxicologist
- Head of chemistry and teacher
- > Head of computational toxicology
- Head of toxicology
- <u>Laboratory analyst and higher</u> <u>degree apprentice, water</u>
- Museum scientist
- > Pollution control officer
- Principal air quality consultant
- Professor of environmental chemistry

- Project leader in enhanced experimentation, oil & gas
- > Quality officer, genomics research
- Research assistant
- School science technician
- Scientific associate, NMR spectroscopy
- Scientific consultant
- Scientist, food and pharmaceuticals
- Scientist, Incident Management & Crisis
 <u>Resolution</u>
- Secondary school science teacher
- Senior laboratory technician
- > Soil scientist
- Sports scientist, British Olympic
 Association
- Teaching technical specialist
- Toxicologist, chemical company
- University laboratory technician apprentice



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Hydrocarbons

- Analyst higher apprentice, organic chemistry
- Analytical chemist
- Analytical technician, plastics
- Development chemist, printing and inks
- Environmental chemist
- > Flavourist and innovation director
- Forensic scientist

Polymers

- > Analytical technician, plastics
- Bionanotechnology PhD student
- > Chief executive officer
- Chief technology officer and co-founder of Lixea, a sustainable solutions company
- > Consumer products technician
- > Development chemist, printing and inks
- > Executive editor, scientific publishing
- Head of chemistry and teacher
- Head of research and sustainability
- Market development manager
- Microplastics toxicologist
- > Postdoctoral research associate

- > Head of chemistry and teacher
- Project leader in enhanced experimentation, oil & gas
- > <u>Senior science manager</u>
- School science technician
- Scientific associate, NMR spectroscopy
- > <u>Secondary school science teacher</u>
- Professor and enterprise, partnerships and innovation lead
- > Professor of biorefineries
- > Quality officer, genomics research
- R&D chemist
- > Research innovations manager
- School science technician
- > <u>Science communicator</u>
- > <u>Scientific leader</u>
- > <u>Secondary school science teacher</u>
- Section leader, wind
- > <u>Senior director of chip research</u>
- Senior scientist, household goods

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Alcohols and carboxylic acids

- Advanced apprentice, forensics
- Analyst higher apprentice, organic chemistry
- Analytical chemist
- Associate scientist, pharmaceuticals
- » Bioanalytical scientist
- Development chemist, printing and inks
- > Executive editor, scientific publishing
- > Flavourist and innovation director
- › Forensic scientist

- › Forensic toxicologist
- Head of chemistry and teacher
- > School science technician
- Scientific associate, NMR spectroscopy
- <u>Scientific leader</u>
- > Secondary school science teacher
- > <u>Senior science manager</u>
- Sports scientist, British Olympic
 Association

Bulk and surface properties of matter including nanoparticles

- Analytical technician, plastics
- > Associate principal scientist, food
- Associate professor
- > Associate scientist, pharmaceuticals
- Bioanalytical scientist
- Bioleaching lab technician
- Bionanotechnology PhD student
- Chief chemist
- <u>Chief scientist at agritech company,</u> <u>Lambda Energy</u>
- > <u>Chief technology officer</u>

- <u>Co-founder and machine learning lead</u>
 <u>of tech startup Ignota Labs</u>
- > Consumer products technician
- Cosmetics, technical services chemist
- Dermal toxicologist
- <u>Development chemist, printing and inks</u>
- > <u>Director</u>
- > Director of IRC in biomedical materials
- Environmental process specialist
- Executive editor, scientific publishing
- Finance and planning manager



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Bulk and surface properties of matter including nanoparticles

cont

- > Fine fragrance evaluator
- > Flavourist and innovation director
- Forensic scientist
- Head of chemistry and teacher
- Head of computational toxicology
- Head of research and sustainability
- Laboratory scientist apprentice
- Laboratory technician and higher apprentice, solar
- Market development manager
- Microplastics toxicologist
- Museum scientist
- <u>Nanotoxicologist</u>
- Product and process development manager
- Professor and enterprise, partnerships and innovation lead
- Professor of biorefineries
- Project manager, world gold council

- R&D chemist
- <u>Research & development team leader -</u> <u>smart food labels</u>
- > <u>Research innovations manager</u>
- School science technician
- > <u>Science communicator</u>
- Scientific associate, NMR spectroscopy
- Scientific consultant
- Scientific leader
- > <u>Secondary school science teacher</u>
- Section leader, wind
- > Senior director of chip research
- Senior research and development scientist
- > <u>Senior scientist, household goods</u>
- Solar technology engineer
- > <u>Sustainability manager</u>
- University laboratory technician apprentice