



## Entry Requirements

GCSE Math's at grade 6 or above.

Combined Science GCSE or Chemistry GCSE at grade 6 or above.

English Language or Literature at grade 5 or above.

# Chemistry

## Course Leader

Paddy Downes

## Assessment

Written examinations

Practical skills assessment

## What interests should I have if I want to follow this course?

Understanding chemistry helps you to understand the world around you. Cooking is chemistry; everything you can touch or taste or smell is a chemical. To study chemistry you should be interested in finding out how things work on the atomic and molecular level. Qualities a successful chemist possesses are a good grasp of mathematics, excellent practical skill and an enquiring mind.

## What you will study?

### YEAR 12

- **Physical Chemistry** this includes atomic structure, electron arrangement and evidence from mass spectrometry and ionization energies.
- **Inorganic Chemistry** involves the study of elements in groups two and seven and those in periods 2 and 3.

- **Organic Chemistry** reviews the chemistry of the simple organic molecules such as alkanes and alkenes. It then looks at the reactions, structure, uses and production of other key substances such as alcohols, amines and halo alkanes.

### YEAR 13

- **Physical Chemistry** is developed further via a more mathematical approach and greater depth of study.
- **Inorganic Chemistry** will include further redox reactions as they relate to industrial applications.
- **Organic Chemistry** involves the in depth study of more complex organic substances such as aromatic compounds, esters polymers and amino acids.

## Future Pathways

- An understanding of chemistry is important in many careers and can lead into almost any profession. You will also learn a variety of transferrable skills throughout the year, including: experimental skills- observing, recording; analyzing evidence and drawing conclusions; written communication and problem solving skills. A level chemistry is essential if you wish to study medicine, dentistry, pharmacy, veterinary science, chemical engineering and many other courses. It is also highly desirable in many careers such as food technology or any scientific studies.