

## What is the course about?

This course is designed to answer questions about the basic and complex make up of our known universe and the world we live in, the concept that we are all matter made from stars and when broken down in to their elements can be studied to develop an in-depth knowledge and recognition of patterns that can be applied to everyday life. The course allows students the opportunity to explore the nature of the periodic table whilst beginning to understand the three major disciplines that make up foundation chemistry. They are physical, organic and inorganic chemistry, all three of which have major applications in industry and academia. Chemistry students become confident in describing the natural and modern world around them through the understanding and explanation of the subject.

### Course content

Students study topics including:

- Organic, inorganic and physical chemistry
- Bonding, structure, kinetics, basic spectroscopy and energetics
- Exploring chemistry of polymers, proteins, further energetics, electrochemistry, spectroscopy, acids and bases and transition metals

### Assessment

Three terminal examinations.

Successful completion of a series of practical activities will lead to the student being awarded a practical endorsement to the A Level.

### Career pathways

Study chemistry or science related degree courses at higher education.

Employment opportunities: agrochemical, biochemical, pharmaceuticals, engineering, nursing, medicinal chemistry, medicine, academics.

### Entry criteria

Minimum requirement of five 5 to 9 grades at GCSE, including at a grade 6 in GCSE Chemistry.