# The Brunts Academy Sixth Form

A level



Chemistry

#### What will I learn?

The course carries on from the work covered in Additional Science and Chemistry at GCSE and covers the key aspects of Physical, Inorganic and Organic Chemistry. As well as giving a good grounding in Chemistry the course aims to develop clear logical thinking and an appreciation of scientific method. Practical work is an essential part of the course and students carry out investigations as well as the preparation of substances such as aspirin.

## What could this course lead on to?

Chemistry is an essential A level for many degree courses including Medicine and Veterinary Science and will lead to a variety of careers such as analytical chemist, chemical engineer, clinical biochemist, pharmacologist, toxicologist, environmental consultant, patent attorney and science writer.

### **Entry Requirements:**

GCSE grade 6 or higher in Triple Science (gaining grades 6s and above) or Double Science (with recommended grades 7s and above). Grade 6 in mathematics is also required.

### How will I be assessed?

There is no coursework on this course. However, your performance during practicals will be assessed. There are three exams at the end of the two years, all of which are two hours long. At least 15% of the marks for A-level Chemistry are based on what you learned in your practicals.

### **Key content**

## Physical chemistry

Including atomic structure, amount of substance, bonding, energetics, kinetics, chemical equilibria and Le Chatelier's principle, thermodynamics, rate equations, the equilibrium constant *Kp*, electrode potentials and electrochemical cells

#### **Inorganic chemistry**

Including periodicity, Group 2 the alkaline earth metals, Group 7(17) the halogens, properties of Period 3 elements and their oxides, transition metals and reactions of ions in aqueous solution

### **Organic chemistry**

Including alkanes, halogenoalkanes, alkenes, alcohols, organic analysis, optical isomerism, aldehydes and ketones, carboxylic acids and derivatives, aromatic chemistry, amines, polymers, amino acids, proteins and DNA, organic synthesis and NMR spectroscopy.

Course Details
Awarding Body: AQA

Staff Contact: Mr Epie-Nanje