

## Why study Chemistry?

Have you ever wondered how fireworks work? Do you wonder where energy comes from when we burn fuels? Or how plastic is made? Or what makes an acid acidic?

Studying chemistry helps to develop a logical approach to problem solving in a wider context in order to understand how the world around us works and what it is made of.

Chemistry shows us how we can extract, design and make all the things that make our lives easier, from medicines to fuels. Through the IGCSE you will apply the underlying principles of chemistry to many of its applications, to solve problems like pollution.



## What will I study?

The subject is broken up into four sections:

- 1 Principles of chemistry (atomic structure, states of matter, particles, periodic table, chemical formulae, equations, calculations, bonding and electrolysis)
- 2 Inorganic chemistry (alkali metals, halogens, atmospheric gases, reactivity series, metal extraction and uses, acids, bases)
- 3 Physical chemistry (energetics, reaction rates, reversible reactions and equilibria)
- 4 Organic chemistry (crude oil, hydrocarbons, alcohols, carboxylic acids, esters and synthetic polymers)

In addition, there will be lots of practical work from which you will develop knowledge and understanding of experimental skills through the context of the chemistry you study.

## How will Chemistry benefit me?

You will learn how chemistry affects the world around us, including scientific methods which allow you to form hypotheses and then design experiments to test them.

Your IGCSE will show that you are capable of applying scientific terms and ideas to solve problems and explain phenomena. The valuable skills you gain are greatly sought after by employers.

An IGCSE in chemistry can be the starting point for a career in medicine, pharmacology, engineering, veterinary science, biological science, forensics, even art restoration as well as a host of other areas.

### ASSESSMENT

Chemistry IGCSE is a linear qualification with two written exam papers taken in the summer of Year 11; experimental skills are assessed as part of the written examinations:

#### Paper 1:

(61%) 2 hours

#### Paper 2:

(39%) 1 hr 15 mins

Both papers include a mixture of different question styles, including multiple-choice, short-answer, calculations and extended open-response.