

# IB Chemistry



## Introduction:

Chemistry is the study of how the atoms of the different elements react with each other to produce all of the different materials that the world around us is made from. In IB Chemistry, we build on the foundations learned at GCSE, and extend them to answer questions such as:

- What determines the shape of a molecule?
- How do batteries work?
- Why do some reactions keep themselves going even though they get colder?
- Why do some chemical reactions go backwards as well as forwards?
- What will the pH of my solution be if I neutralise half of the acid it contains?

Chemistry is a practical and theoretical subject, so you can expect to develop your practical skills through a wide range of interesting experiments.

## Course structure:

The course is organised around two main themes:

- **Structure:** This looks at the detailed structure of atoms, how they bond to form compounds, and how bonding affects the properties of materials.
- **Reactivity:** This looks how energy drives chemical reactions, the factors that govern the direction and rate of chemical reactions, and specific categories of reactions, such as those involving sharing electrons and those involving transferring electrons.

The IB Chemistry course is designed to be taught across 240 hours of lesson time, of which 60 hours should be practically-focussed.

## Entry requirements:

To be admitted onto this course you will need to meet **both** of the following requirements:

- Grade 6-6+ in GCSE Combined Science OR Grade 6+ in GCSE Chemistry
- Grade 5+ in GCSE Mathematics

## Careers:

A good grade in IB Chemistry can help unlock a wide range of careers including:

- Medicine
- Dentistry
- Veterinary science
- Forensic science
- Pharmacy
- Nutrition / dietetics
- Biochemistry
- Chemistry
- Materials science
- Chemical engineering
- Environmental science

Finally, as a highly challenging subject, a strong chemistry grade always looks impressive regardless of what you apply for.

## Assessment:

### Internal assessment (20%):

- A detailed experimental investigation on a research question of your choice.

### External assessment (80%):

- **Paper 1, 2 hours (36%):**
  - Paper 1A – Multiple choice questions.
  - Paper 1B – Data-based questions.
- **Paper 2, 2 hours 30 min (44%):**
  - Short answer and extended-response questions.