

**Intent**

Chemistry A level is a highly respected A level, with its broad variety of tested skills, and it is a good choice for many degrees and careers. Chemistry has been described as the 'central science' and is often combined with either physics or biology. It is a compulsory choice for anyone wishing to pursue medicine, dentistry and veterinary science, as well as chemistry-based degrees, such as pharmacy, pharmacology, and biochemistry. To fully progress anyone, who is capable and interested, in A-level Chemistry and to inspire future Chemists/Scientists.

A level Chemistry studies the material world, and through chemistry we can describe and explain questions such as: "what happens when sugar dissolves in tea?"; "why is mercury a liquid at room temperature?"; "how do we make plastics?"; "what can we do about global warming?"; "how and why will I be affected if oil runs out?".

From baking a cake to recharging a mobile phone, chemistry is involved in everything we do; and our lives are inextricably influenced by many aspects of chemistry. Chemistry will continue to be at the forefront of responding the needs of society; with chemists central to making advances in designing new materials, efficient energy use, drug development, and technology, to name but a few.

A level Chemistry courses cover a wide variety of basic concepts such as the structure of the atom; the interaction of matter and energy; how to control reactions; patterns in the Periodic Table; understanding carbon-based molecules.

**Implementation**

A-level Chemistry is split into three distinct disciplines: Physical, Inorganic and Organic Chemistry. In order to maximise learning and inspiration, it is recommended that each teacher teaches within their specialism. We follow the AQA A-level Chemistry curriculum and the 34 mini modules fall into the three aforementioned disciplines.

In all these topics, the students need to learn facts and build a body of knowledge but also to understand and apply the ideas.

Many topics include calculations and they should feel comfortable rearranging equations and using numbers. Importantly, chemistry is a hands-on science and they will carry out experiments on a regular basis. This is to consolidate their theory work, but also provide them with the opportunity to use new apparatus and build their skills and confidence to complete safe and accurate practical work.

**Implementation**

**Key Stage 5: Year 12**

- Teacher 1: 3.1.2 to establish fundamentals then move on to their specialism 3.3.1-3.3.6.
- Teacher 2: 3.1.1 to establish fundamentals then move on to their specialism 3.1.3-3.1.7.
- Depending on the teacher split 5:4 or 4:5hrs then the 5hr teacher will also deliver 3.2.1-3.2.3.
- 16 modules in total. 4 modules per term per teacher. Finish by Easter of year 12 ready for AS mock exams (x2) before the exam board release secure material.

**Key Stage 5: Year 13**

- We start the A-level content in April/May of year 12, straight after they have AS mock exams (x2).
- Teacher 1: 3.3.7 - 3.3.16 and 3.1.8
- Teacher 2: 3.1.9-3.1.12 and 3.2.4-3.2.6
- Depending on the teacher split 5:4 or 4:5hrs then flexibility is required.
- 18 modules in total. 4 modules per term per teacher. Finish by Easter of year 13 ready for A-level mock exams (x3) before their finals that summer.

**Impact**

The course is linear, meaning that the A level exams take place at the end of the second year and any internal or AS exams taken at the end of the first year do not contribute to the overall grade of the A level. There are 3 written papers, two of which question particular topics from the two years, whilst the third is more 'synoptic' (asking questions which cut across several topics) and has a greater emphasis on the understanding of practical work they have developed during the course. In addition to these three papers which decide their A level grade, they will also need to complete 12 core practical's which your teachers assess. The practical mark is published as an endorsement to your A level grade. Please see the section below ('Future Options and Career Opportunities') to see where students progress onto following the A-level course.