

CHEMISTRY

EXAM BOARD: OCR

Why study Chemistry?

Chemistry is everywhere in the world around you! It's in the food you eat, clothes you wear, water you drink, medicines, air, cleaners... you name it.

Chemistry is sometimes called the 'central science' because it connects the sciences to each other, such as Biology, Physics, Geology and Environmental Science.

In Chemistry at Stratford we firmly believe in the PiXL method to making progress. Throughout the year students undergo continual diagnosis, therapy and testing. In diagnosis, areas for improvement are identified, whether this be through dialogue in lesson or more formal assessments. Once weaknesses have been identified therapy can take place, involving after-school revision sessions, opportunities to drop-in to teachers and the availability of resources that can be accessed online to develop the independent learner. Finally, we ensure that the student has progressed in the identified areas through further assessment.

Subject Specification Outline:

This specification consists of six modules:

1. Learners will be required to develop a range of **practical skills** throughout the course in preparation for the written examinations.
2. **Foundations in Chemistry:** this module acts as an important bridge into A-Level Chemistry from the study of chemistry within science courses at GCSE level.
3. **Periodic table and energy:** the focus of this module is inorganic and physical chemistry, the applications of energy use to everyday life and industrial processes, and current environmental concerns associated with sustainability.
4. **Core Organic Chemistry:** the module provides learners with a knowledge and understanding of the important chemical ideas that underpin the study of organic chemistry.
5. **Physical Chemistry and transition elements:** this module extends the study of energy, reaction rates and equilibria, and the periodic table, providing a context for synoptic assessment and linking with the content encountered in Modules 2 & 3.
6. **Organic Chemistry and analysis:** this module introduces several new functional groups and

emphasises the importance of organic synthesis. This module also adds NMR spectroscopy and provides a context for synoptic assessment, linking with the content encountered in Modules 2 & 4.

Progress Assessment:

- Regular homework tasks of past exam questions
- In class diagnoses at the end of each topic (on average once a fortnight)
- Required practical activities (12 across the two years)
- Ongoing ½ termly progress test assessments, including whole past paper mocks.

Self Study Requirements:

To complete an hour of work outside of lessons for each hour taught in school.

Assessment overview:

Periodic Table, Elements & Physical Chemistry	Synthesis & Analytical Techniques	Unified Chemistry	Practical Endorsement in Chemistry
2hrs 15 mins written, 37%	2hrs 15 mins written, 37%	1hr 30 mins written, 26%	Reported separately, non-exam

Progression Pathways:

Chemistry complements the study of other science subjects well, with common themes shared with Biology and Physics. Maths may also help in your studies of Chemistry and if you are thinking of taking Chemistry further it is a requirement for entry to some degree courses.

A- Level Chemistry is a challenging and academically rigorous subject and is a requirement for almost all medical schools and for veterinary medicine. A-Level Chemistry can lead to degrees and careers in healthcare including pharmacy and dentistry and can also be useful for reading Law as it shows you can understand challenging topics.

