



# Nether Stowe School

*Inspiring, Empowering and Achieving Together*

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## A Level Chemistry

Exam Board - AQA

### Course Summary

Chemistry: the branch of science concerned with the substances of which matter is composed, the investigation of their properties and reactions, and the use of such reactions to form new substances. In the A Level Chemistry course we delve into a land of discovery. How do transition complexes form? Why do Buffer solutions work and how are they integral to life? Can we identify synthetic routes to manufacture different substances, including the opportunity to make your own aspirin and organic liquids.

### Modules

#### Year 1

- Atomic Structure
- Amount of substance
- Bonding
- Energetics
- Kinetics
- Redox
- Periodicity
- Organic Chemistry
- Organic Analysis

#### Year 2

- Thermodynamics
- Further kinetics
- Acids and Bases
- Transition metal complexes
- Optical isomerism
- Aromatic Chemistry
- Amino acids, Proteins and DNA

### Assessment

Paper 1 (2 hours) Physical and inorganic chemistry

Paper 2 (2 hours) Physical and organic chemistry

Paper 3 (2 hours) All content and practical skills

### Career Opportunities

The course provides a firm foundation for students if they wish to continue to higher education (and not just science degrees) and is also held in high regard by many employers. In addition to the more obvious degrees such as chemical engineering, nanotechnology, environmental chemistry and biochemistry, it is also useful for materials science, forensic science, medicine, archaeology, pharmacology, geology, food technology, many types of engineering and many more including teaching. It is also a prestigious subject for non-science careers such as law, accounting and IT.

**Complementing subjects;** Maths, Biology

