Chemistry

OCR

Further information please email: mail@nhgs.co.uk



Entry Requirements

NHGS Sixth Form entry requirements including a Grade 6 or above in GCSE Chemistry or a minimum of two Grade 6s in Science at GCSE. You will also need a Grade 6 or above in GCSE Mathematics.

Aims of the Course

Develop knowledge and understanding of different areas of Chemistry and how they relate to each other. Demonstrate skills, knowledge and understanding of scientific methods. Develop competence in practical, mathematical and problem solving skills.

Course structure and content

The course is taught over six themes which, combined with the Practical Endorsement, constitute the full A Level.

Module 1 - Development of practical skills in Chemistry.

Module 2 - Foundations in Chemistry.

Module 3 - Periodic table and energy.

Module 4 - Core Organic Chemistry.

Module 5 - Physical Chemistry and transition elements.

Module 6 - Organic Chemistry and analysis.

Year 1

The structure of atoms, reactions and equations, structure and bonding, and amounts of substance. In addition we will look at the periodic table, enthalpy changes, reaction rates and equilibrium. Carbon Chemistry, including the properties, synthesis, reactions and analysis of hydrocarbons, alcohols and haloalkanes, will also be covered.

Year 2

A more quantitative treatment of rates, energetics, equilibria, and pH and buffers. In addition, electrode potentials and the properties and reactions of the transition metals will be studied. The chemistry of carbon is developed to include aromatic compounds, carbonyl compounds, carboxylic acids, esters and polymers. Further analytical techniques, such as NMR, are also covered.

Assessment

At the end of the Lower 6th, students sit an exam on all of the Lower 6th content. This does not count towards the final grade, but assesses the content at this half-way point before progression to the Upper 6th.

The final A Level exams, at the end of the Upper 6th, are split into three separate papers and assess content from the whole two year course. There is also a separate, non-examinable Practical Endorsement which is assessed throughout the two years of the course.

Assessment 1 - 37% 2 hours 15 minutes written paper based on modules 1, 2, 3 & 5 (100 marks)

Assessment 2 - 37% 2 hours 15 minutes written paper based on modules 1, 2, 4 & 6 (100 marks)

Assessment 3 - 26% 1 hour 30 minutes written paper based on all modules (70 marks)

Future career opportunities

With a Chemistry qualification the career opportunities are numerous and varied. For example, Medicine, Dentistry, Veterinary Science, Food Science, Pharmacy and Forensics. Chemistry is also a sought-after degree for Accountancy, Law and Banking.

Please scan here for further course information.