

## **Chemistry National 5**

### **Why take this course?**

National 5 Chemistry provide a coherent progression from S3 Chemistry. Students will develop a detailed knowledge and understanding of a variety of topics and practical experiments will allow students to develop an evidence-based approach to their learning. The scientific literacy, verbal and written communication, numeracy and analytical skills developed during this course are transferable across subjects and will be invaluable for life, learning and work.

### **To succeed in this course, you need...**

It would be beneficial for pupils choosing this subject in S4 to have completed the S3 chemistry course. Pupils choosing this subject with no chemistry background will be expected to familiarise themselves with the content covered in the S3 course in their own time.

Literacy and numeracy skills equivalent to N5 are an essential component of success in N5 Chemistry.

### **Course structure and Content**

#### **Unit 1 Chemical Changes and Structure**

Chemical changes will be studied in greater detail. Atomic theory and the Periodic table, calculations of quantity, average rate of reactions, isotopes, bonding and chemical formulae, equations, acids, alkalis, and neutralisation.

#### **Unit 2 Nature's Chemistry**

This includes the study of carbon compounds such as alkanes, alkenes, cycloalkanes, alcohols, carboxylic acids and esters. This unit looks at physical and chemical properties, structural formulae, uses and associated reactions, including combustion.

#### **Unit 3 Chemistry in Society**

This unit covers Metals (conductivity, reactivity, extraction from ores), Plastics and other polymers (addition and condensation polymerisation), Fertilisers (production, percentage mass of elements) and Nuclear Chemistry (radioactivity and radioisotopes in medicine and carbon dating).

### **Course Assessment**

National 5: The final exam is worth 100 marks and is 80% of the final grade.

An assignment will be required to demonstrate that pupils are able to produce a report on a chemistry topic. The final submitted assignment currently contributes 20% of the National 5 grade.

### **Where might this course take me?**

This course develops skills in problem solving, analysis and evaluation which are useful in a wide range of careers and further study. The scientific skills developed, and knowledge gained are particularly useful for those wishing to study medicine, veterinary medicine, dentistry, engineering, nursing or any profession dealing with the sciences.