St Benedict's Sixth Form

A Level Chemistry

Course Description

Student's will develop an understanding of how chemists make use of molecules and chemical reactions to make the myriad substances used in our modern lives. The topics can be broken down into 3 areas:

- Physical Chemistry allows for the study of how the properties of and interactions between atoms and molecules affects chemical reactions;
- Organic Chemistry provides an overview of how carbon based molecules, often from crude oil or plants, can be used to make other useful molecules such as pharmaceuticals;
- Inorganic Chemistry is focused on understanding the periodic table and the properties and use of non carbon based molecules.

Chemistry builds upon the skills developed at GCSE, and begins to add the mathematical analysis of key concepts such as rate of reaction and equilibria. Alongside the theoretical work, students will undertake a number of practical activities across a range of different topics.

Skills Attained

Chemists are investigators and problem solvers working in a wide variety of workplaces, including production of clean drinking water, developing new specialist materials for construction and solving the environmental challenges facing the world.

Along with the subject specific knowledge gained from your studies, students taking Chemistry gain other valued skills such as problem solving, numeracy, communication, data analysis, creativity, team working and leadership.

Assessment

Assessment is by examination. At the end of year 12 internal exams will be taken, each exam being 1 hour 30 minutes, this gives you an understanding of your progress and is an advantage when applying to universities as you already have example grades. At the end of the course you will sit three exams, each 2 hours in length. The exams will cover both theoretical ideas and understanding of practical chemistry. You will also complete a 12 required practicals throughout the course leading to a practical endorsement.

Progression

Chemistry is considered to be a facilitating subject by the Russell Group universities so opens up options in a wide range of courses and can lead to jobs in numerous different fields.

The skills developed when studying chemistry are useful in many different disciplines. Unsurprisingly many Medical, Engineering and Life Science degree courses favour candidates with Chemistry, as do many course associated with food production. If you are considering medicinal science / pharmacology, Chemistry is essential for many courses.

Career options for students studying chemistry include: Analytical Chemist; Chemical Engineer; Clinical Biochemist; Pharmacologist; Doctor; Toxicologist; along with careers in education. In addition some less obvious careers include Chartered Certified Accountant, Patent Attorney and Regulatory Affairs (Health and Safety, Food Safety…).

For more information on careers and the work of chemists visit the Royal Society of Chemistry Website at: http://www.rsc.org/learn-chemistry/collections/faces-of-chemistry/

Entry Requirements

Grade 6 in 2 GCSE Sciences (including Chemistry) or 6-6 in Combined Science
Grade 6 in GCSE Mathematics
Grade 5 in GCSE English

Exam Board: AQA

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