CHEMISTRY (National 4)

What are the aims of this course?

The purpose of this course is to develop learners 'curiosity, interest and enthusiasm for chemistry in a range of contexts. The key skills of scientific inquiry and investigation are integrated and developed throughout the course. The relevance of chemistry is highlighted by the study of the applications of chemistry in everyday contexts. This will enable learners to become scientifically literate citizens, able to review the science-based claims they will meet.

What are the recommended entry levels for this course?

The course has three units:

Chemical Changes and Structures – rates of reaction, atomic structure, bonding and acids and bases
Nature's Chemistry – fuels, cosmetics and food
Chemistry in Society – new materials, metals and energy sources

What skills will I develop?

Skills in literacy, numeracy ICT and problem solving will be developed in each of the units in the context of particular topics. For example, there are several opportunities for pupils to become scientifically literate citizens through improving their awareness of a chemical issue and improving their understanding of research and statistics. As more science is reported in the news these skills are crucial for pupils to play an active part in society. Experimental and investigative activities will work on problem solving skills as pupils face more challenging practical work. We hope that learners will be able to develop a lifelong interest in chemistry and will recognise the impact chemistry makes on their lives, the lives of others, the environment and on society.

What learning and teaching approaches will I experience?

This course has practical and experiential learning opportunities, with a strong skills-based approach to learning. Teachers will use a variety of media to communicate new concepts and provide a range of activates to stimulate pupils' interest.

How will I be assessed?

Each of the units of the course will be internally assessed by a short written test. Pupils will also complete a brief research report and an experimental write-up of a practical investigation.
There is also an Added Value unit assignment which involves researching a relevant topic and writing a report to show their findings. There is no external examination.

What are the homework requirements?

In addition to regularly reading over their notes, pupils will be expected to complete a series of questions at a level similar to the unit tests, on a fortnightly basis, to check their knowledge and understanding.

What might this course lead to in the future?

- Chemistry (National 5)
- National 4 or 5 in another science subject
- Skills for Work Courses at college (SCQF levels 4 or 5)
- National Certificate Group Awards
- National Progression Awards (SCQF levels 4 or 5)
- Employment