

Science Pathway to higher education (a flexible level 3 course)

Structure & Specification

Year 1-

OCR AS GCE Applied Science single award - H175
and OCR AS Chemistry - H034

Year 2-

OCR A2 GCE Applied Science single award - H575
One (or more) of A2 Chemistry, AS Biology,
Extended Project, Higher Project

What does the course include?

Year One – AS Applied Science

Unit G620: *Science at Work*. In this coursework unit you will learn about how science is used in the real world. You will study organisations that use science to make things (e.g. food processing factories) and service providers who use science (e.g. hospitals).

Unit G621: *Analysis at Work*. This coursework unit explores how scientists analyse samples from the environment, from living organisms, or from production processes in industry. It involves a lot of practical chemistry. You will also study electricity production and look at energy efficiency in industry.

Unit G622: *Monitoring the Activity of the Human Body*. This exam unit includes the study of human biology, medical science, health and fitness.

Year One- AS Chemistry

Unit F321: *Atoms, Bonds and Groups*.

In this unit you will learn about the structure of the atom, the importance of atomic masses, formulae and equations, chemical bonding and structure, and trends and patterns in the Periodic Table.

Unit F322: *Chains, Energy and Resources*.

Here you will study the chemical ideas that underpin organic chemistry, some of the important chemicals produced from oil and the role of chemists in developing fuels and controlling pollution. This unit also includes energy changes in chemical reactions, the rate of reactions, the use of catalysts and the control of reversible reactions to produce useful chemicals.

Unit F323: *Practical Skills in Chemistry 1*.

You will be assessed on your practical and investigative skills which you will have developed during AS Chemistry. The three tasks (qualitative, quantitative and evaluative) will be completed in lesson time under controlled conditions.

Year Two

Your programme for year two will be negotiated on an individual basis. If you are successful in year one, then you will be able to move on to A2 Applied Science Single Award, together with one or more other qualifications.

In year two, you may be able to do A2 Chemistry if appropriate. AS Biology is another possibility. If you need to take longer to complete AS Chemistry, then you can do that together with an individual Project at

How will I learn?

You will have two teachers for Chemistry and two for Applied Science and you will learn by a wide variety of activities such as individual work using textbooks, group discussions, lots of experiments, making models, watching videos, using CD roms and the internet, giving presentations. Visits to scientific organisations are essential parts of the course and are compulsory. You will have plenty of opportunities to develop your key skills too. You will have a literacy lesson to support you with the demands of the coursework units. You will be in the Pathway tutor group and your tutor will be one of your science teachers.

How will my work be assessed?

For the AS Applied Science you will take one exam and two units of coursework.

For the AS Chemistry you will take two exams and do the practical tasks.

Because this is a flexible package, we will decide when is the most appropriate time for you to take each exam depending on your progress.

What skills will I need to be successful in this subject?

This is a challenging level 3 course, and you must have a keen interest in the applications of science. You must be enthusiastic and willing to participate in everything. You need to enjoy practical work and be interested in solving scientific problems. Finally you have to be well organised in order to complete and meet all the coursework deadlines.

What are the entry requirements?

You need a GCSE profile suitable for a level 3 programme, including grade C or above in Science and Additional Science and at least grade D in English Language and Maths. Your whole GCSE profile will be considered on an individual basis.

What are the opportunities after this course for further/higher education and employment?

We have a progression agreement with EHWLC on to a Foundation degree in Bioscience. You could also move onto a variety of science or engineering courses at universities or colleges, or you could start work in a technical job with further training/education opportunities.