GCSE APPLIED SCIENCE (SINGLE AWARD)

The GCSE Science Suite

The following pathways are available in the suite:

GCSE Biology / Chemistry / Physics – Learners study for 3 GCSEs in each of the sciences and receive a separate grade in each one.

GCSE Science (Double award) – Learners study all three sciences and receive two GCSE grades.

GCSE Applied Science (Double award) – Learners study all three sciences in a context-led approach and receive two GCSE grades.

GCSE Applied Science (Single award) – Learners study all three sciences in a context-led approach and receive one GCSE grade.

Why choose GCSE Applied Science (Single Award)?

GCSE Applied Science (Single Award) utilises a context-led approach to science learning and assessment. The qualification combines all three elements of Science (Biology, Chemistry and Physics) and applies them to the modern world. You will develop your practical and problem-solving skills and understand the important role that science has in society.

Careers with GCSE Applied Science (Single Award)

GCSE Applied Science (single award) provides a suitable foundation for the study of vocational/applied sciences at level 3 e.g. WJEC Diploma / Certificate in Medical Science. The transferrable skills developed by studying science are actively sought out by employers. There are many jobs that scientists can do in many different sectors. Most jobs have an element of science in them, whether it be working for the health service, working to maintain our environment, working in manufacturing, or in the building sector.

What will I study?

Modern living and energy

Electricity is essential to modern-day living. You will learn about the different methods to generate electricity and will find out how we get the electricity from where it is produced, to our home. You will study electrical circuits, and how components are arranged. You will also learn how we can we keep our homes warm and yet keep heating bills down, how we can improve the energy efficiency of cars, and how our carbon footprint can be reduced.

Obtaining resources from our planet

Water is a need of every living thing. You will find out what water is made up of and how we obtain clean water for household use. You will also consider the benefits and environmental impacts of obtaining raw materials. You will learn about classification of elements in the Periodic Table and the idea of chemical change.

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Our planet

Transfer and recycling of nutrients is essential to keep ecosystems in balance. You will learn how energy and nutrients pass through food chains and how nutrients are recycled in nature. You will consider how ecosystems are in balance and how living organisms are dependent on their environment and each other for survival. You will also learn about the electromagnetic spectrum and how it helps us to learn about objects far from Earth and what they are made of.

Protecting our environment

Human activities are affecting the other living things on our planet. You will learn about how we can monitor our effect on other living things, how we can maintain biodiversity and how we can treat our waste products to improve safety.

Health, fitness and sport

Treatment of infection and disease is extremely important, and as our life expectancy increases, new diseases will arise. You will learn about why we catch some diseases but not others, and how our bodies resist infection. Drugs are also used to treat disease and you will learn about how drug companies make sure a new drug is as safe as possible. You will find out what techniques are used to image human tissue and how these techniques are used in diagnosis.

Controlling processes

The chemical industry today is developing new processes for manufacturing chemicals more efficiently and with less impact on the environment. You will study how we can control a chemical process so that it remains safe and yet produce what we want in a reasonable time, and for a reasonable cost. Nuclear reactions are used to generate electricity. You will learn how we can control a nuclear reaction so that we can generate electricity.

What skills will I develop?

- knowledge and understanding of key areas of science and its application
- competence and confidence in a variety of practical and problem-solving skills
- scientific enquiry and modelling skills and understanding in laboratory, and work-related contexts
- understanding of the relationships between data, evidence and explanations
- understanding of how society makes decisions about scientific issues
- communication, mathematical and technological skills in scientific contexts

How will I be assessed?

There are four units, all of which are marked by WJEC.

Unit 1 is an exam which makes up 40% of the qualification.
This exam can be sat at either foundation tier or at higher tier.
Unit 2 is an exam which makes up 30% of the qualification.
This exam can be sat at either foundation tier or at higher tier.
Unit 3 is a task based assessment which makes up 20% of the qualification.
This assessment can be sat at either foundation tier or at higher tier.
Unit 4 is a practical assessment which makes up 10% of the qualification.
This assessment is untiered.