

Science (Combined)

(Compulsory Subject - GCSE)

What will I learn about?

Science is able to inform problem solving and decision making in many areas of life. Many of the major challenges and opportunities that confront our world need to be approached from a scientific perspective, taking into account social and ethical considerations.

By studying science, students:

- develop an understanding of the world, built on current scientific theories.
- learn that science involves particular processes and ways of developing and organising knowledge and that these continue to evolve.
- use their current scientific knowledge and skills for problem solving and developing further knowledge.
- use scientific knowledge and skills to make informed decisions about the communication, application, and implications of science as these relate to their own lives and cultures and to the sustainability of the environment.

Biology topics: cell biology, organisation, infection and response, bioenergetics, homeostasis and response, inheritance, variation and evolution, ecology.

Chemistry topics: atomic structure and the periodic table, bonding, structure and the properties of matter, quantitative chemistry, chemical changes, energy changes, The rate and extent of chemical change, organic chemistry, chemical analysis, chemistry of the atmosphere and using resources.

Physics topics: energy, electricity, particle model of matter, atomic structure, forces, waves, magnetism and electromagnetism.

How is the course structured?

There are 42 units of study; 17 Biology, 12 Chemistry and 13 Physics. You will cover half of these in Year 10 and the other half in Year 11. The Year 10 topics will be tested on paper one (B1;C1;P1) and the Year 11 units on paper 2 (B2;C2;P2). There is lots of practical work and experiments including 21 required practicals to enjoy!

How will my work be assessed?

Trilogy is a double award and worth two GCSEs. It is assessed by 6 x 1 hour and 15 minute exams, two papers for each subject area including Biology, Chemistry and Physics. Your total score across all 6 papers will earn you two GCSE levels e.g 5,5 or perhaps a split grade such as 6,5.

What can this qualification lead to?

Higher qualifications in Science can lead to exciting and world changing careers. Below are some popular examples:

- Epidemiologist (study of disease)
- Medical Scientist (Paramedic, Doctor, Nurse, Psychologist and so on)
- Anthropologist
- Forensic Scientist
- Environmental Scientist
- Marine scientist
- Material scientist
- Biochemist
- Particle Physicist

By following the UTC Science pathway, each of these careers and many more will become available either along a University or apprenticeship pathway.