



Science Trilogy (Dual) and Separate Sciences (Option)

We offer two different Science courses at Penistone Grammar School, available to suit the different aspirations and ability levels of our students.

Your teachers will discuss the available courses with you so that you better understand what each entail. You will be asked to rank each course according to which you would most prefer to do and we will use this information, your current progress data, your aspirations beyond KS4 and your attitude to learning to select the most appropriate course for you, ensuring that you have the best opportunities to succeed in Science.

We offer the following courses in Science:

- GCSE Trilogy Science (2 Qualifications)
- Separate GCSEs in Biology, Chemistry and Physics (three qualifications, the new 'Triple Science' course). (Students wishing to study Separate Sciences will need to select this as one of their option subjects).

What will I learn about?

GCSE Trilogy Science (Dual Award) is the course that all students will take covering the principles of all three sciences which will lead to you achieving two GCSE's in Science. These will be awarded at the end of Year 11. The course comprises of Biology units ranging from how our body's internal environment is maintained and how organisms grow and develop, to genetics and natural selection. In the Chemistry units, patterns of chemical reactions are studied as well as how the rates of chemical reactions can be controlled and how new materials are made. You will also study Physics units that consider issues surrounding radiation in all its forms, electricity, forces and motion and the behaviour of waves.

During the course you will learn about a wider range of scientific ideas and consider them in depth. You will explore how technological advances relate to the scientific ideas underpinning them. You will do numerical work and evaluate critically evidence collected and conclusions drawn. You will see how scientists work together to develop new ideas, how new theories may, at first, give rise to controversy and how social and cultural contexts may affect the extent to which theories are accepted.

Those choosing to take Separate Science qualifications in Biology, Chemistry and Physics will study all the same topics covered in the Trilogy course. However, each of these topics will be covered in greater depth and to a higher level. The Separate Sciences offer extra emphasis on cognitive skills such as deduction, evidence-based conclusions and evaluations. There is also increased mathematical content, particularly in Physics. Students studying Separate Science subjects will have 8 hours of Science lessons per week.

How will my work be assessed?

For both Trilogy (Dual Award) and Separate Sciences you will sit 6 exams (2 per subject area). The Trilogy (Dual Award) exams are 1 hour 15 minutes, whereas the Separate Science exams last 1 hour 45 minutes each.

What courses could I go on to study?

Trilogy (Dual Award) and Separate Sciences provide a secure foundation for further study at A Level if high enough grades are achieved.

Who can I speak to for more information?

For further information about Science please speak to Mrs Beatson (Curriculum Area Leader: Science) or Mr Unwin (Second in Department: Science), or email options@penistone-gs.uk.