

Bow Science Department

There are five full time members of staff and two technicians. Teaching takes place in modern labs equipped with all the necessary resources to deliver Science in the 21st Century.



Key Stage 3

Since September 2008 there have been a lot of developments within the science curriculum. To incorporate the new developments the department teaches science through Problem Based Learning (PBL's). There are 3 PBL's to undertake; Mission to Europa, Lost and Energy in our Universe. The aim is to improve 'scientific thinking, applications and implications of science, cultural understanding and collaboration'. Additionally, key processes in practical skills, critical understanding of evidence and communication are also covered.

Students are given regular assessment, formative and summative, throughout KS3 to inform them of their progress and to help them identify areas of weakness, in preparation for their end of year assessment's at the end of each year. All students have access to a wide range of resources to support and consolidate their learning. IT is used in a variety of methods such as data-logging and microscopy to help visualize complex phenomena.

At the end of year 9 pupils sit a terminal exam which will help determine the best KS4 science pathway. For students that have been identified through tests scores as unlikely to achieve C or higher; follow the BTEC course in year 10.

Key Stage 4

Science Pathways - In year 10

Those who were identified in year 9 for the BTEC route will follow Edexcel BTEC Level 2 First Certificate in Applied Science. This course is solely coursework based and, if passed, leads to a CC grade equivalent at GCSE. This is a two year course and will be completed over Year 10 and 11. The course is designed to introduce learners to working in the sector or prepare them for further study, such as a BTEC National qualification or an appropriate NVQ.

Students who are following the GCSE route will follow the AQA science (spec A) course. The course is designed to make science relevant and enjoyable whilst providing students with the necessary knowledge for further study.

The course includes GCSE Science and GCSE Additional Science. Students are encouraged to learn about 'How Science Works' and as part of their coursework are required to undertake an internally assessed practical Investigation (CAU). These assignments aim to develop creative thinking skills and further develop enquiry and communication skills. Module examinations occur every January and June of each year.

The Science department has invested in specialised IT equipment to develop key analytical skills. State of the art data-logging units with a variety of sensors and advanced digital microscopes all of which are PC compatible provide our students with the ability to combine practical work with digital information processing.

The Science department aims to equip students well for modern society and the diverse opportunities that exist beyond school whether in work or further study.