

The Science Department

Science is thriving here at Freman College. The department currently consists of four chemists, three physicists and four biologists. We are supported by two very able technicians.

Standards of achievement are very high with impressive levels of attainment and there has been significant positive value added at GCSE for many years. Results at A level in all science subjects are also very strong.

The department is well resourced with eight modern laboratories. We have a comprehensive range of modern data-logging equipment, one trolley of notebook computers, lab computers, data projectors and a network video store. A photocopier/printer is based in the Department.

We make good use of online teaching and learning resources, principally Active Teach and Seneca, at both GCSE and A Level.

The department has a spacious Prep Room where the department can all meet, creating a cohesive and friendly area with colleagues working together and sharing ideas and experiences very effectively within and across the three science subjects.

The Department has excellent links with the Cambridge University PGCE course, hosting two or more students each year.

The curriculum

One of the great benefits of teaching in an upper school (where students start in year 9) is that our timetable is made up entirely of exam classes. Students arrive in Year 9 having completed Key Stage 3 by the end of Year 8 and we liaise closely with our two feeder middle schools to ensure that the Years 5 to 8 curriculum prepares students well for transition to Freman.

At the start of Year 9, each subject delivers a short introductory course and GCSE teaching is under way by Christmas.

Students in Year 9 have six science lessons per 10 day cycle (two for each subject). In Years 10 and 11, students are taught the three subjects by specialists in mixed ability classes moving to Separate or Combined groups by the end of Year 10. In Year 10, all science classes have 12 lessons per cycle. In Year 11 Separate Science is taught in 12 lessons per cycle and the Combined Sciences in 10 (topped up with 2 valuable Study Skills). In Year 11, groups are broad-banded and there is a high degree of flexibility, some Separate students may be entered for Foundation papers in one or more subjects but that decision is left until near the end of the course. We are always analysing and looking for ways to improve the curriculum delivery. Approximately 50% of students are entered for the Separate Sciences with 90% or above achieving grade 4 and above. We follow the Edexcel specification for GCSE and also A Level Physics, with AQA for A level Chemistry and OCR for A level Biology.

Sciences are very popular in the Sixth Form. We have good sized A Level groups in Biology, Chemistry, Physics and Psychology, there are always a significant number of students each year who go on to study the sciences at university.

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