



The Science Department

The present Science Centre, occupying a single story building, was completed in October 1990 and houses seven laboratories, two technology rooms, a technicians' room, a science staff room, and an office for the Head of Science. The last couple of years have seen a rolling programme of refurbishment of the science facilities, which was completed in the summer of 2014. The labs have now been fully modernised and each laboratory is equipped with a whiteboard, fixed data projector and computer, a teaching dais, fixed storage cupboards of various types and a number of trolley cupboards located beneath the worktops, pin boards, first aid box and cut-off points for the mains services.

The staff area is a room designated as an area for science teachers to mark. All science staff have been allocated a work station which is equipped with a power socket and school internet connection. There is a small kitchen area and staff toilets. A photocopier (shared with the DT department) is available for staff use. Five computer rooms are available in the main school building. All preparation for practical work is carried out in a single Technician's room.

At present the Science Department has 9 full-time members of teaching staff and 1 full-time technician and 3 part-time technicians. Each science: Chemistry, Physics and Biology are led by a Subject Leader, one of whom is also Head of Science.

Staff are encouraged to avail themselves of in-service training as part of their personal development. Certain courses are recommended as part of the Performance Management review and professional development, both individual and departmental, is managed centrally within the school. Information on courses is distributed to relevant personnel. A handbook on HES courses etc. is available from the Deputy Head. Course and travelling costs are met and paid for either from a school or departmental budget as appropriate. A form is available in the staff resources room for application to attend a course.

The Science Curriculum

The curriculum is split into three broad subject areas: KS3, KS4 and Advanced level.

KS3 Sciences:

Form 1 (Year 7) and Form 2 (Year 8) students are taught in 1 x 50 minute per week in mixed ability groups per science (3 lessons per week in total).

KS3 Science is taught by one teacher, which allows them to support each student's strengths and weaknesses. The schemes of work follow the Activate AQA KS3 course. All work is completed in exercise books to facilitate longer writing exercises and complete experimental write-ups. The elements of scientific investigation are taught through practical work during the course.

GCSE Sciences

Form 3 (Year 9): 6 x 50 minute lessons, 2 per week for each science subject. The sciences are taught as separate subjects by subject specialists. In this year, students begin their study of the new AQA specifications, which provide a choice of GCSE qualifications in either the separate sciences or combined science. All students in Form 3 start off on the separate sciences route.

Form 4 (Year 10): 6 x 50 minute lessons.

Students are set upon a route to study either the separate sciences or combined sciences, based on their performance in Form 3. On the combined route, students continue to study all three sciences; the difference between combined science and separate sciences is only in the amount of content covered. They continue to have 6 x 50 minute lessons, 2 per week for each science subject. The sciences continue to be taught as separate subjects by subject specialists.

Form 5 (Year 11): 6 x 50 minute lessons

Most students continue with the route of study started in Form 4. Some changes to route are made after the Form 4 summer exams and mock exams in January of Form 5.

Students continue to have 6 x 50 minute lessons, 2 per week for each science subject.

The sciences continue to be taught as separate subjects by subject specialists. At Easter, one or students may be recommended to change tier of entry to foundation; however, this is rare and the vast majority of students are entered for the higher tier.

Advanced level Sciences

These are taught through 6 x 50 minute lessons per subject per week in the Lower 6 year and 7 x 50 minute lessons per subject in the Upper 6 year.

At Advanced level they are able to choose from Biology, Chemistry and Physics courses.

All three departments follow the OCR A course.

There may be either one or two sets in both the Lower and Upper Sixth in all the sciences, dependent on student numbers. The composition of sets is determined by choices of subjects, not by ability. The teaching of each set is normally shared by two teachers.

Extra-Curricular Activities

Students at all levels are encouraged to avail themselves of activities made available by the department. These include:

- KS3 Science club
- Clinics in each subject at GCSE and Advanced level
- Revision sessions prior to external examinations
- Chemistry Extension Club
- Physics and Biology Olympiad

- Talks from external speakers
- Headstart Engineering courses
- Visits to scientific establishments and external lectures
- National science & engineering week
- Top of the bench Chemistry competition
- Astronomy GCSE
- Arkwright engineering scholarships
- Biology field trip