



DEPARTMENT Details: Science

The science department has achieved VA scores of over 1000 for the last five consecutive years and our ALPS scores in 6th form describes our results as between very good and excellent for all four of our A level Science.

The latest school Ofsted report from December 2014 states that:

“Achievement is strong in many subjects, with over half of A-level grades at A/A in biology, business studies, chemistry, computing, drama, electronics, mathematics, religious studies and physics. The large majority of subjects had a 100% pass rate, resulting in most students going on to university.”*

The department takes a collaborative approach and values each individual's skills, interests and strategies for teaching and learning. We welcome new ideas and look forward to the involvement of the person appointed in our on-going drive to raise standards even further. We are justly proud of our achievements and believe that our continued successes are due to enthusiasm, commitment and continuous development.

We continually evaluate and develop the materials and texts which we use in order to motivate and best meet the needs of all our students and staff. We believe that good teaching using a variety of appropriate strategies promotes engagement and good behaviour. We encourage students to take responsibility for their own learning and we provide regular opportunities for self and peer assessment.

We value and invest heavily into the professional development of the teachers within the department and encourage colleagues to widen their areas of interest and expertise. All staff are supported through the line-management system and the school has a well-respected induction programme for new staff, who are also mentored by a colleague within the department.

STAFFING STRUCTURE and who's who

There are currently 13 members of teaching staff within the department, including a Lead Practitioner in Science. We are supported by an excellent technician team .

The Head of Science, Kevin Berry is supported by three Subject Leaders for each of Biology, Chemistry, Physics. Each subject leader is responsible for their subject from KS3 to KS5 and leads a key stage.

Courses and Exam Boards

The Science department offers AQA GCSE in Science, Additional Science and GCSE Biology Chemistry and Physics in Year 11, we are running the new combined science Trilogy GCSE with our year 10s and the three separate Sciences . In the 6th form we offer 4 A levels; Biology, Chemistry , Physics and Electronics We also offer the Edexcel BTEC level 3 in the 6th form.

Our results are consistently above the national average across the key stages. Results for 2016 are as follows.

- GCSE Science results have a Value Added figure of over 1000 for the last 5 years.
- 74% of all GCSE Subjects gain A* to C
- 97% A* to C average for Triple Science over the last 7 years.

- A level Biology 100% passed and 55% A* to B
- A level Chemistry 100% passed and 86% A* to B
- A level Physics 100% pass and 69% A* to B
- A level Electronics 100% A* pass and 100% A* to B
- BTEC level 3 100% passed and 81% Distinction / Distinction * (A/ A* equivalent)

Development Plan Priorities

- Further raise achievement in Key Stage 3, by:
- Accelerating students' progress, by increasing the proportion of teaching that is outstanding
- Leaders taking the same relentless action that has transformed achievement in Key Stage 4 to further strengthen Key Stage 3 ensuring teachers provide students with more detailed, frequent, clear and precise written guidance on how to improve their work
- Planning our implementation of the second half of the new GCSE Specifications for September 2017
- Making sure that the most able students are consistently challenged effectively.

Additional Department Specific Information

Key Stage 3

In Years 7-9 pupils are split into two half-year groups. Pupils in Year 7 are initially taught in their mixed ability tutor groups. Pupils are then set into ability sets for the remainder of key stage 3 with some movement between sets as appropriate.

Key Stage 4

Students start their GCSE program of study in Year 9. The majority will continue to study combined science for GCSE. The most able are guided towards the separate Science pathway.

Key Stage 5

Science offers a package of Level 3 BTEC as well as 4 traditional A levels; Biology, Chemistry, Physics and Electronics. These subjects are among the most popular courses for 6th form students and historic results in these subjects are very good, as shown above. A large number of A level students go on engineering or technological degrees, with a good number undertaking medicine and dentistry.

Accommodation & IT

The Science Department has 10 laboratories, all with interactive whiteboards one of the rooms are also equipped with 20 computers and there are an additional 15 science laptops that can be booked for use in lessons. There are three Science office areas so that each member of the team has a place for preparation and marking. The laboratories are used by our students and on a number of occasions in the year when we bring in students from our feeder primary schools. Each member of staff is issued with a laptop to help with the preparation, planning and delivery of lessons.

Events, Enrichment and Links

Science students are offered a number of enrichment activities throughout the year which support the wider appreciation of the subject. In Chemistry students have worked with Novartis in Horsham, attended Chemistry courses at local universities. Physics students undertook the Engineering Education Scheme for the first time in 2013. Students have visited Cern for enrichment activities and have undertaken the Physics Olympiad. Biology students have taken and have had great success in the Biology Olympiad and The Society of Biology Challenge for lower years. In between AS and A2 Biology the school runs an excellent course for A2 students at Nettle Comb Court in Somerset.