



## DEPARTMENT Details: Science

The science department has achieved above National Average GCSE scores and our ALPS and ALIS scores in 6<sup>th</sup> form describes our results as between very good and excellent for all four of our A Level Science.

The last full 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 14 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 two Key Stage Leaders who are responsible for Teaching and Learning at Key Stage 3, Tara Bizouam and 4, Ella Cooper. They are supported by three A level specialist who manage the three sciences Biology, Chemistry, Physics.

## Courses and Exam Boards

The Science department offers AQA Trilogy GCSE which we start teaching in Year 9 and the three separate Sciences, which is available to those high achievers. In the 6<sup>th</sup> form we offer 4 A levels; Biology, Chemistry, Physics and Electronics We also offer the Edexcel BTEC level 3 in the 6<sup>th</sup> form as an alternative provision for those students for whom the course is seen as more suited. From September 2020 we will also offer a BTEC level 3 in Health and Social Care to complement our existing subject portfolio.

## Development Plan Priorities

Further raise achievement by:

- Develop Independent Learning opportunities across Key Stage 3 and 4
- Developing a choice of differentiated Apply to Demonstrate activities in all Year 7 KS3 topics
- Develop and support new Post 16 teachers

## 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 ablest 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 6<sup>th</sup> 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.