

SCIENCE



The Science team currently comprises nine members of teaching staff, all of whom are subject specialists, ably supported by four highly-skilled science technicians. Together, the teaching staff hold an impressive range of experience and expertise. Science is taught in eight laboratories, and there is an excellent preparation room.

We encourage a range of teaching styles in the department and are supportive in the sharing of resources and creative approaches. We believe that excellent Science teaching captures student imagination and deepens knowledge. To aid teacher preparation, a variety of software packages are regularly used across each key stage.



Extra-curricular clubs include a Key Stage 3 Science Club, a Rocket Club aimed at Key Stage 3 and a Space Club of Sixth Form physicists, which recently launched a high-altitude balloon into the stratosphere for a scientific investigation. The department is very active, running trips to the zoo, the Royal Observatory, the Science Museum and GCSE and A Level 'Science Live' conferences.

The laboratories are in very good condition, five having been refurbished recently to a very high specification. The eighth lab was added to the department suite due to the popularity of the sciences.

We use Activate, schemes of work and resources at Key Stage 3, fully embracing the school's mastery curriculum. Assessment and testing for tracking pupil progress in Key Stage 3 makes use of a combination of tests and prescribed investigations. At Key Stage 4 most students take Combined GCSE Science. Each year thirty students sit Biology, Chemistry and Physics as separate GCSEs, following the AOA GCSE specifications. Selection of students for the separate science courses occurs during Year 8 as we follow a three-year Key Stage 4. A Levels are offered in Physics, Chemistry, Biology and Applied Science. They are popular subjects in the school, all following the AOA syllabi.

Results at GCSE have been strong over the past three years, with subject progress being in line or significantly higher than the national average for the past two years across the GCSE subjects. Physics GCSE has a strong history of achieving 100% A*-C/9-4. The table on the page opposite outlines the attainment and achievement of GCSE students in 2018.

A Level results vary from year to year, although there is high demand for all three science subjects. Students achieve across the grade range and mostly achieve an ALPS grading of 'Good'.

| Qualification Name | 7-9% | 5-9% | 4-9% | Student Count |
|--------------------|------|------|------|---------------|
| Biology GCSE | 93 | 100 | 100 | 28 |
| Chemistry GCSE | 86 | 100 | 100 | 28 |
| Physics GCSE | 82 | 100 | 100 | 28 |
| Combined Science | 24 | 80 | 93 | 115 |

The Physics department works hard to ensure that all genders are equally represented in the Physics qualifications. Teachers carefully consider the examples given in lessons, using a wide range to enthuse all students. This has resulted in the A Level groups having double the national average of females at 40%.

The department has been very active in training, mentoring and developing NQTs, GTPs and PGCE students. We are committed to staff development and our department is one in which colleagues can thrive and develop professionally as part of a happy and hard-working team of highly-skilled subject specialists.

The school is looking to appoint an enthusiastic and knowledgeable Teacher of Physics. The ideal candidate will be a strong advocate for the sciences and Physics as well as fostering a deeply held belief that teachers make a difference to young people through their positive relationships and excellent teaching.

Finally, the successful candidate will have a clear view of the joy and excitement engendered by good Physics teachers and the desire to work at a school which prizes student development and the promotion of positive values at the heart of its day-to-day practice.

*Matthew Abbott, Headteacher,
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