

# SCIENCE DEPARTMENT

## THE TEAM /FACILITIES

The department consists of 18 full time teachers and 5 part time, working in well-resourced groups of 11 (Newport Pagnell) and 5 (Olney) laboratories. There is excellent support from a team of 6 laboratory technicians. There are 5 main preparation rooms in total, 3 of which are associated with a subject specialist area for Sixth Form teaching.

## KEY STAGE 3

From October in Yr7, students are taught in sets based on ability for 3 hours per week. Students carry out a variety of topics to improve their science skills and to prepare them fully for the content and practical demands of their KS4 studies. During year 9, students start studying GCSE science and students will be told whether they are studying triple science or combined science. Key skills and topic knowledge is closely tracked throughout to provide students with up to date guidance on strengths and weaknesses.

## KEY STAGE 4

Key Stage 4 starts in year 9 and students build on the work covered at Key Stage 3 in order to further develop their skills and knowledge in preparation for their GCSEs as per the AQA specifications.

Currently students either study science for 6 hours a week leading to three GCSE science qualifications in Biology, Chemistry and Physics or 4 hours a week leading to two science qualifications in GCSE Combined Science, each lesson is 60 minutes long. Resources are being enhanced to ensure that teachers a variety of learning styles and activities to engage all students and keep them interested for example practical work, pair work and group work; skilled questioning is at the heart of our pedagogy.

## SIXTH FORM

The sciences are very popular options in the Sixth Form, where students make good progress compared to national standards. Good results at GCSE level are resulting in a stronger uptake onto Science courses in the Sixth Form. Each year, a significant number of students go on to study science, engineering and medical degree courses at prestigious universities including Oxbridge and other Russell group institutions. According to data all three science A levels deliver outstanding results and nationally we are amongst the top schools for our A level results.

## PHYSICS

The AQA course incorporates 3 core modules and one option from Astronomy & Optics, Particle Physics or Medical Physics. Students are encouraged to attend lectures and undertake visits off site to enhance their learning about the subject.

## CHEMISTRY

This is a popular course which has obtained consistently high pass rates following the AQA course. An Advanced Chemistry Club is held each week after School. Various Chemistry enrichment events are run through the year in addition to various Royal Society of Chemistry trips.

## BIOLOGY

This is a very popular subject both at AS and A2 levels results are consistently high. The AQA specification is followed and consists of 3 units in each year and includes biology and disease, genetics, environmental science and various aspects of physiology.

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## **OUTSIDE THE SCIENCE TIMETABLE**

Due to science being such a vast and interesting subject, our aim in science is to enthuse as many future scientists as possible. This is why we run our own school competitions, as well as entering many local and national competitions for STEM and Crest awards to Chemistry Olympiads. We also offer various aspire sessions at all Key Stages and enrichment sessions, with kitchen science being a very popular session. During the summer holidays, we run trips to Cern, and Lulworth Cove and offer forensics and operating theatre live options.

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