



Faculty of Science

Our aim - To build on the 'Science Capital' of all of our students.

Science and innovation makes and sustains our modern society, it has the power to change the way we live our lives and is integral to our future. By growing **science capital** in individuals and society, we can help more people to see science as an important part of their lives and culture, which will help broaden opportunities and access for STEM-related jobs in the future.

Science Curriculum

We use a variety of teaching methods to ensure that students are fully engaged, actively involved and experience an enjoyable learning environment at all times. These include hands on practical work, active learning tasks, project work and model making. Emphasis is placed on developing skills, such as team work and creativity right from the beginning of Year 7.

Years 7 & 8

Key Stage 3 is a two-year course. All students follow a programme of units that develop their knowledge of Biology, Chemistry and Physics. Each unit contains a range of practical, written and discussion activities designed to develop understanding of scientific ideas and skills. All Science lessons take place in well-equipped purpose-built Science laboratories of which there are nine. The department is fully connected via Wi-Fi and ICT is incorporated into many learning activities. Assessment of core Science skills is made during each term's work. Six written tests are taken throughout each year, to assess knowledge of Science. Classes are mixed ability and are taught in form groupings.

Year 9

Students begin their Key Stage 4 studies in Year 9. They begin to follow the AQA GCSE Science course presented in separate units for Biology, Chemistry and Physics. This allows students to focus on each subject individually. The GCSE Science course is for learners of all abilities and prepares students for further studies in Science. The students are assessed regularly with GCSE style tests to monitor their progress in line with KS4 expectations. During this year students decide if they wish to study the Combined Science (double award) or the Separate Sciences.

Years 10 & 11

As the students enter into Year 10 they continue with the second year of the GCSE course and the choice they have made determines the teaching during Year 10 and 11. They will have either two or three specialist teachers depending on the route chosen. The Separate Science course covers extra units that are taught in Year 11 to gain an individual GCSE in Biology, Chemistry and Physics. These courses provide a firm foundation for progression to AS and A Level Science where we offer the choice of all three Science disciplines.

Key Stage 5

At A level, OCR Advancing Physics, OCR A Chemistry and Edexcel Biology SNAB are all popular choices.

Extra-curricular activities / external links

Students at all levels are encouraged to partake of activities made available by the department. A variety of trips, visits and speakers are offered to enrich the curriculum. Science week is a focal point each year offers a number of activities for students of all years to get involved with. A KS3 science club is also led by staff and Sixth-Form volunteers and proves very popular. There are strong links with STEM, UCL and Rothamsted Research.

Teaching facilities

We have nine well-equipped laboratories in a dedicated science block located that is centrally on the school site. All laboratories are large, bright and are networked via Wi-Fi. There is a science office and separate staffroom available for use by the science staff. We have four large preparation rooms and a first-class team of technicians to support the delivery of practical science lessons. There are also good outdoor facilities such as a large field for ecological and other study purposes.