



## **WHEATLEY PARK SCHOOL**

### **SCIENCE DEPARTMENT**

**“The scientist is not a person who gives the right answers, he's one who asks the right questions” Claude Lévi-Strauss 1964.**

We continue to see rapid advancements in the world of science with developments every day in areas including genetics, robotics and space travel. The Science department at Wheatley Park School aims to ensure that our students are curious about the wonderful subject of science. We have a very cohesive and dedicated science team who are all passionate about science and learning. We strive to develop students skills of scientific inquiry, application and analysis whilst also instilling a knowledge of how learning occurs through embedding effective learning techniques and strategies to enhance students' progress.

The school's values of 'Everyone Learning' and 'Everyone Caring' are at the centre of the work we do, not just for students but as learners ourselves. In Science, we are proud of our values around professional learning, ensuring that we are always striving to improve using evidence based research, collaboration and reflection. All staff are committed to continually moving their practice forward. We do this through consistent teamwork, support and regular department time dedicated to teaching and learning. During this time we not only focus on the fundamentals of effective teaching and learning but also spend time learning about innovative strategies and evidence-based pedagogical principles.

We use a variety of teaching methods which are focused around a student-centred approach to learning. Practical work, collaboration, modelling and speaking for learning all feature in our practice to engage and meet the needs of all learners. We have become skilled users of GSuite for Education allowing us to use innovative ways of working, for example sharing work with students and providing real-time feedback on their progress. Every student in the school has access to their own chromebook and we use these as tools to support teaching and learning. Each teacher has their own teaching lab which is modern and well equipped as well as their own chromebook.

Outcomes at Key Stage 4 (GCSE) and Key Stage (A Level and BTEC) are strong with students making consistently above average progress from their starting points. For example, progress in GCSE Science in 2019 was significantly above the national average and in the top 20% of all schools.

### **Key Stage Three**

We have embraced the new Key Stage 3 National Curriculum and have used it as an opportunity to develop a challenging curriculum which lays the foundations for Key Stage 4. Our Schemes of Work provide lessons that excite, engage and challenge students to think about Science. Practical lessons feature frequently at Key Stage 3 as we endeavour to ensure that our students are competent in the experimental skills required to be successful at GCSE and beyond. All Key Stage 3 classes are mixed ability. Students study two topics per term which cover aspects of either Biology, Physics or Chemistry.

## **Key Stage Four**

At Key Stage 4 we teach AQA GCSE Science. We have embraced the introduction of the new specifications and have used it as an opportunity to develop a new curriculum that prepares students for the new-style exams, but also inspires students to continue studying the sciences at KS5. Students complete either the Separate or Trilogy Combined Science pathways with each class having separate Biology, Chemistry & Physics teachers. Students consistently make good progress in GCSE science. All teachers are expected to teach Biology, Chemistry and Physics.

We have also introduced an OCR National Certificate in Health and Social Care which is proving very popular with our first cohort due to complete this in 2021.

## **Key Stage Five**

The sciences are the amongst the most popular A-Level choices at Wheatley Park. We have highly subscribed classes in Biology, Chemistry & Physics. We have been particularly proud of the increased uptake of physicists over the past 2 years, especially female physicists. Our team of A-Level teachers are all highly skilled in delivering lessons that challenge, extend and inspire. We now offer Level 3 BTEC qualifications in Applied Science and Health and Social Care which provide an alternative pathway for many students. Outside of lessons, students are able to experience a variety of enrichment opportunities which help broaden their experience at KS5 and provides valuable experience to support their UCAS applications. A large proportion of our students go on to study a diverse selection of science-based courses at university. Every year we have multiple students going to study all three of the Sciences at degree level. Last year students left to study subjects including Medicine, Chemistry, Biomedical Science, Engineering and Zoology.

## **Links to Universities and Teacher Training**

We have interns from Oxford University Department of Educational Studies and regularly utilise the resources of both Oxford Brookes and Oxford University to enrich and extend our curriculum. We also working with The Cherwell OTSA SCITT welcoming trainees as well as supporting with the delivery of teacher training through the SCITT.

If you have any further questions or would like to visit please do not hesitate to get in touch. We look forward to meeting you.

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