



Sandringham School

The Science Faculty

The Science Faculty was graded 'Outstanding' following a subject inspection in January 2011. At GCSE students have the option of following a Triple or Combined Science: Trilogy course. Our students start the AQA Science course in Year 9 and we currently have four groups studying Triple Science each year. A Level Science courses are equally popular with over a hundred A Level scientists in the current Sixth Form across the four Science courses. These are figures of which the Science team is justifiably very proud. However, we are more ambitious and believe there is still improvement to be made. Being a good scientist, either as a teacher or a student, is not just about good academic results. This may be our 'bottom line', but we can deliver much, much more. We want Science learning to also be about establishing and generating that awe and amazement which is so much part of the scientific experience.

The Science Faculty at Sandringham consists of a team of 17 teachers and 5 technicians. The Director of Learning is supported by the Assistant Director of Learning, three A-level subject leaders, a KS3 co-ordinator and a Senior Technician.

In September 2015 we opened a new £3m Science, Mathematics and Computer Science block which has state of the art facilities for teaching Science in super-sized laboratories. These facilities are in recognition of the importance of Science in the curriculum and are a direct result of our success and our increasing numbers of students. The faculty is also housed in an adjoining purpose-built block, which consists of eight further laboratories and one preparation area. One of the laboratories in this block also houses a suite of computers for students to use. This is further supported by two sets of 15 laptop computers connected to the network and Internet which students can use in any of the laboratories. All students in Years 7-11 have their own tablet as part of our Bring Your Own Device scheme, forming part of their routine equipment. All our laboratories are fitted with interactive whiteboards and all staff have use of an individual laptop and iPad to enable them to make the most of this resource.

The Faculty's examination results continue to reflect the level of commitment to good teaching and learning from both staff and students. In 2017, 68% of students achieved A*-C grades in Double Science at GCSE. Our Triple Science students achieved 60% A*-A. A Level Science results were also very impressive with A level Biology achieving an Alps 2 for two years running.

The Science Curriculum

Students in Year 7, 8 and 9 follow a course based on the QCA National Curriculum teaching model. They receive 3 hours per week of Science teaching and work through a series of Biology, Chemistry and Physics topics. We also offer a popular Science club which runs after school on Thursdays giving students the opportunity to extend their learning beyond the classroom.

Year 10 and 11 students follow the AQA Science course. Students follow the combined science or the Separate Sciences course (Biology, Chemistry & Physics). In the past two years we have significantly increased the number of students following triple Science and now have four groups in our current Year 10 and three in our year 11 cohort. Each student receives access to an online textbook, through their device, to use in the classroom and at home and teacher's planning is supported through a range of interactive and e-learning resources.

We have courses in four Sciences in Years 12 and 13. We currently offer the OCR A syllabus in Physics and AQA in Biology, Chemistry and Psychology to A-level. We are also offering AQA Applied Science.

There are a number of extra-curricular activities offered within the Faculty. Activities include coursework surgeries for GCSE and A Level subjects, booster lessons for High Starters and an eco-schools group. We have an annual programme of visits and lecture activities and we have many extended learning days dedicated to Science for the different year groups.

This is an exciting time for the faculty as we continue to implement the GCSE and new A Level courses, further develop our learning environment, and take a lead in the whole school development of accelerated learning pathways.

STEM and Science Specialism.

Sandringham was granted a second specialism in Science in April 2008. This designation, announced in December 2007, followed our examination success and achievement of High Performing Specialist School Status. The confirmation of our Science status was wonderful news and recognises the hard work of students and staff and the high achievement of the school compared to similar schools nationally.

Recently we have become a STEM hub to promote teaching and learning of Science, Technology, Engineering and Maths. In September 2015, our £3m Science, Maths and Computer Science building was formally opened by Kevin Fong, an expert on Space Medicine and presenter of the Royal Society Christmas Lectures 2015. In January 2016 our STEM team organised a video and audio link up with British Astronaut, Tim Peake, so our students could speak to him on the International Space Station and ask him questions about his time on the station. This event, with significant national profile, sat within our '**Space Festival**' which was a week-long event with a variety of school and community events including presentations on:

The Mars Rover by Sian Cleaver

The International Space Station by Jerry Stone, President of The Mars Society

Cosmonaut talk by Olesya Myakonkaya

Magnificent Engineering Activity by the Women's Engineering Society

Our aim is to make Science even more exciting and relevant in our everyday world, and encourage more young people to follow the sciences at University. Increasing resources and equipment available for use in lessons helps us to support and extend student learning. Additional opportunities for outside speakers to visit have been hugely effective in motivating students and extending and deepening understanding.