Chislehurst & Sidcup Grammar School

Full-time Permanent Teacher of Biology

Required for September 2018

Information for Candidates

Our school

The school opened in the Autumn Term of 1931 and has been at three different sites since then. 'Chis & Sid' has been at the current site for over fifty years and has undergone considerable building development, which includes a new Art & Technology block.

Chislehurst and Sidcup Grammar School aims to educate and prepare for life, able students from all backgrounds. This mission is dynamically carried forward within a caring, happy and supportive community. The education that 'Chis & Sid' offers develops its students intellectually, emotionally and physically. The ingrained idea of excellence in school life allows students to reach the highest academic, sporting, cultural and aesthetic standards. The special quality of learning in the classroom is equally matched by the richness of teaching that students experience.

Whilst healthy competition is central to the 'Chis & Sid' ethos, there are also many opportunities for students to enter into the wider life of the school. Service to the school and community is enthusiastically performed and high levels of leadership and responsibility are actively taken on by students at all levels. There is a supreme belief that building 'Chis & Sid's' tradition of excellence comes not from dwelling on yesterday's successes but performing tomorrow's tasks.

The continued success of 'Chis & Sid' is matched by an ongoing focus on site development and improvement. Upon extremely attractive grounds, almost unique in the south east of England, a heavy investment programme in new facilities is unfolding. Aside from a range of well resourced specialist teaching areas, the school continues to add new buildings. In 2005, the Jubilee Pavilion was opened and the new Art, Design and Technology building opened in Spring 2007. The construction of the Sidcup Leisure Centre provides yet another development for the school; a modern sports hall further augments 'Chis & Sid's' great sporting tradition. Significant enhancements to the Sixth Form Centre have also provided our Year 12 and 13 students with a dedicated study facility closely attached to the school's Learning Resource Centre.

Curriculum

The school's curriculum is designed to:

- prepare students for the opportunities, responsibilities and experiences of adult life
- be balanced, broadly based, relevant and differentiated to match student needs, aptitudes and abilities
- promote the spiritual, moral, social, cultural, mental and physical development of each student

Students have equal opportunities to the curriculum at all key stages; where options are available, every effort is made to provide students with the options of their choice. Student progress is assessed and the results recorded and reported to parents.

Year 7: On entry, our students study the full range of traditional subjects in addition to German, French and Latin as part of Key Stage 3.

Year 8: Students continue to study the full range of subjects as in Year 7.

Year 9: Students continue to study the full range of subjects as in Years 7 and 8. The end of Year 9 marks the end of Key Stage 3 and final assessments are made at that point. However students begin to study GCSEs in Biology, Chemistry and Physics in Year 9, hence in these subjects, Key Stage 3 is a two year programme.

Years 10 and 11: All students take GCSE in Mathematics, English Language, English Literature, the Sciences, Biology, Chemistry, Physics, either as separate subjects or as Double Science, PE, at least one Language subject and RS.

Years 12 to 13: GCE A Level courses are followed by all students in the Sixth Form – it is expected that all students follow three courses from the beginning of Year 12, along with one of AS in English, Maths or Further Maths, or an extended essay. The range of A Levels offered include, Mathematics, Further Mathematics, English, PE, Drama, Music, Music Technology, Chemistry, Physics, Biology, Business Studies, Economics, Psychology, French, German, Classics, Art, Product Design, Food Technology, Computing, ICT, Geography, History, Religious Studies (Philosophy) and Government & Politics.

The Science Faculty and Biology Department

The Science Faculty consists of the three departments of Biology, Chemistry and Physics with twelve teaching staff and four technicians. The three Curriculum Leaders for Biology, Chemistry and Physics report to the Head of Science who has overall responsibility for the Faculty. There are 10 Science labs and an extensive programme of refurbishment has already resulted in 6 labs being updated, with a further lab due for refurbishment this summer.

Preparation rooms for each Science, close to the relevant laboratories enable practicals to be prepared by our team of technicians.

Pupils are encouraged to develop their analytical and investigative approaches and well as to hone their higher order thinking skills, by a range of approaches to teaching. Being able to link ideas from different areas of the curriculum and across the different sciences is also foundational to our approach.

Recent results in the Biology Department have been very good. In 2017 56% of students achieved grade A* to B at A level, with 18% attaining the top A*/A grades. At GCSE 83% of students gained grades A* to B and 55% achieving the top A*/A grades.

Every year, a large number of students gain places at Oxford, Cambridge and other Russell Group Universities to read science, medicine or engineering or related subjects.

Science Curriculum Overview

The Year 7 and 8 curriculum is taught by all teachers with the course structured to give three equal length blocks of lessons, to enable pupils to gain a strong foundation in each area. Some staff teach more than one science in Year 9, although most staff will only teach their specialist area from Year 9. From Year 10, all pupils receive lessons in the three subjects from specialist teachers.

Practical work has always played a major part in the Science teaching at CSGS, and the team of technicians provide the support needed to enable a large range of practicals to be delivered. While the GCSE and A level courses have Required/Core Practicals, which must be completed by pupils, these only constitute a small part of the extensive practical laboratory experience which our pupils receive.

The new GCSE and A level specifications have an increased emphasis on pupils being confident in their ability to describe practical work with which they are familiar, as well as to deduce appropriate methods in unfamiliar laboratory situations. Consequently the teaching and examining has brought more of this emphasis into the everyday experience of pupils at CSGS.

Uptake of all three subjects at A level is extensive with 60 or more students commonly studying each Science in Year 12.

Key Stage 3
In Year 7 and 8 pupils are taught in their form groups with topic tests being taken every half term. Year 7 begins with pupils studying Chemistry for 12 weeks. Extensive practical work reinforces the theoretical aspects to enable pupils to understand key foundational concepts. These lessons are followed by Physics and the year ends with an introduction to Biology. By studying each Science for approximately a term, each lesson builds on the one before and allows pupils to investigate similar concepts and to strengthen their understanding. In Year 8 the pupils continue with Biology, before moving on to Chemistry and finishing the year and Key Stage 3 with Physics.

Test results throughout Key Stage 3 are used to set pupils in Year 9, when pupils begin their GCSE courses.

Key Stage 4
From Year 9 most classes receive lessons from 3 Science teachers, reflecting the subject specialisms of each teacher. Class size is reduced in Year 9 as pupils make the transition to GCSE. Regular testing continues and the exam board Required Practicals are introduced. The Science Faculty follows the AQA exam board for its GCSE courses.

In Years 10 and 11 pupils have the option to continue to study for three separate science subjects of Biology, Chemistry and Physics or to take Double Science.

Key Stage 5
Biology is one of the most popular subject in the school at A level with numbers in excess of 70 students taking the course at the start of year 12. The Pearson Edexcel (Salters-Nuffield) course is studied, which students find interesting and engaging. Students carry out a wide range core practicals and other laboratory work as part of the course. This also includes an Ecology Fieldtrip in year 13. Clear, very well organised systems for delivery and monitoring these core practicals is in place.

Enrichment

Year 7 Science Club

Science Club is an opportunity for Year 7 pupils to take part in practical work which is not always possible in the classroom. The club is run one lunchtime per week by Year 12 students as part of their leadership programme. A member of staff supervises the activities, but Year 12 students have to plan and organize the experimental work, liaise with the technicians and enthuse and monitor the progress of the Year 7 pupils.

Year 8 Crest Awards
Students in Year 8 are offered an opportunity to carry out an individual research project to obtain a Bronze Crest Award. Students have chosen a variety of subject matter from launching rockets to anti-microbial properties of plants.

Science Expo
Pupils in all years are given the opportunity to research an area of interest, to carry out their own investigative work and to present their findings to parents and staff. There is a competitive element to the Expo with the research team judged to have performed the best overall in the competition are awarded a prize.

Medics' Conference
This is an annual conference run by the Chemistry Department and involves a number of invited speakers who work in different medical specialisms, as well as university admissions tutors and past students who are studying medicine. Delegates are Year 12 students from a number of local schools, so this is also used as an outreach and a way of enhancing collaboration between schools.

Medical Society
This is run by Year 13 students and is designed to assist Year 12 students to prepare for making a successful application to Medical School. Activities range from advice on the UKCAT and BMAT tests to presentations and debates on topical issues relevant to the field of medicine and healthcare generally.

Engineering Club
Engineering Club is run by Year 12 and 13 students, giving opportunities for younger pupils to engage in a range of construction projects such as making aerofoils, bridges, towers, parachutes and internal combustion engines.

Stretch and Challenge Clubs
These are organized by the Physics Department. Pupils from Years 10 and 12 are invited to attend sessions aimed at increasing the numbers of pupils able to make strong applications to Oxbridge universities.

British Biology Olympiad
Over the last few years some students in year 13 have entered the British Biology Olympiad competition and have achieved some excellent results