



The Computing Department

Computer Science is a successful and popular subject at Sir Thomas Rich's, largely as a result of knowledgeable and enthusiastic staff providing stimulating and challenging lessons for students who are active, enthusiastic and highly able learners. Currently we have two specialist teachers who teach all years, with some Key Stage 3 lessons co-taught by other STEM staff.

The Computing department is very much a team: sharing knowledge, ideas and responsibilities according to our strengths and interests. This provides plenty of opportunities to share expertise, be involved in developing our curriculum or to take on responsibility within the department. We work closely with the IT support staff, much to the benefit of our students.

We are committed to helping students achieve outstanding results by providing them with high levels of core knowledge and understanding through interesting and relevant lessons for all our students and at all levels of study. We are not afraid to extend beyond the National Curriculum or Examination Specification where appropriate as we foster intellectual curiosity and encourage our students to think for themselves as they learn. We encourage students to develop self-discipline and aim to support them as they become more independent in their learning. In addition to valuing the academic endeavour of our students we encourage their spirit of enquiry and creativity as they develop their coding skills.

Computer Science lessons are taught in three dedicated computer rooms, each equipped with a staff computer (with interactive projector, sound and visualiser) and 33 up to date student computers, all running Windows 10 with a wide range of software available. We make extensive use of Microsoft Teams for the organisation and delivery of lessons and assessments.

All pupils are taught Computing at Key Stage 3 following our bespoke course. Year 7 students come to us with a range of experiences, so our curriculum for Year 7 starts with a recap of key concepts and skills and then develops computational thinking through coding in Scratch and HTML. Year 8 pupils cover simple elements of Computer Science theory and develop their coding skills with Small Basic. Year 9 pupils cover further Computer Science theory and learn to code in Python, ending the year with a series of short research tasks on social and ethical issues.

GCSE Computer Science is a popular option choice and follows the AQA 8525 specification. Students are encouraged to develop their coding skills in Python and learn C#.

A-level Computer Science is growing in popularity with roughly a third of our students choosing to join us from other schools. We follow the AQA 7517 specification as a two-year course. As with GCSE, students are encouraged to learn to code in both Python and C#, although the NEA programming project can be completed in any language or combination of languages.

We are seeking an enthusiastic colleague who is committed to working hard and contributing to the success and growth of our department across the full age range.

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The Mathematics Department

The Mathematics Department at Sir Thomas Rich's School is extremely strong, comprising staff who are passionate about the subject and who support each other by sharing resources and ideas. At present, there are ten teachers of Mathematics, with two of those teaching part of a timetable. We also have one member of another department teaching some lower school classes. The department shares responsibilities amongst its staff, with everyone willing to make their contribution in order to ensure everything runs smoothly.

We hope to appoint a colleague who can work as part of a team, who can contribute to the development of new schemes of work and resources, and who can share innovative teaching and learning strategies. We would also welcome any kind of contribution to the extra-curricular provision the department offers.

At Key Stage 3, boys are taught in form groups in Year 7 and Year 8 but then get placed into sets according to their ability for the beginning of Year 9. They follow the Maths Frameworking course and each pupil has a textbook for work in school and a digital copy for use outside school. Year 7 and Year 8 have six periods a fortnight, with Year 9 having seven. The Year 9 teacher usually stays with their group through to Year 11 to ensure consistency during their GCSE studies.

At GCSE, we follow the AQA 8300 specification. We have six sets from Year 9 onwards (two top sets, two middle sets and two lower sets), which allows for slightly smaller groups at the lower end of the ability range. The top sets study OCR Additional Maths 6993 or AQA Further Maths 8365 alongside the GCSE; the two parallel second sets often study parts of the Additional Maths course to enrich their learning, depending on how quickly the content of the GCSE is covered. Year 10 and Year 11 have six periods a fortnight.

We have a proud tradition of attracting a large number of students to study Mathematics in the Sixth Form, with the Year 12 normally comprising around 100 students. We usually have five Single Mathematics sets and two Further Mathematics sets in Year 12, with the single sets sometimes dropping to four in Year 13 to account for those not wishing to continue with four subjects into Year 13. The specification followed is Edexcel (9MA0) and we currently provide students with Pearson textbooks for use in school and access to the Active Learn platform for use at home.

The department is housed in six light and spacious classrooms, each with its own standalone computer and interactive projector; the department also has use of other classrooms around the school. Access to ICT for whole classes is through one of the four readily bookable ICT rooms.

We require a colleague who is prepared to work hard and contribute to the ongoing success of the department and the school. Expectations and standards are high, as historic results show. Both students and teachers have a mutual commitment to succeed. Our students are stimulating and challenging learners who respond very positively to engaging and enthusiastic teachers. The department offers a pleasant and supportive working environment, the opportunity to develop, and the chance to work with a positive team and well-motivated, highly able students.

KJ January 2023