Queen Elizabeth School

Scholarship & Care since 1591

An 11-18 academy in Kirkby Lonsdale, between the Lakes & the Dales

# Department Details

## Computing

Computing is a vibrant department at QES, driven by a highly committed and mutually supportive staff team with a diverse range of specialist skills who deliver both IT and Computer Science across all year groups.

Our four full-time teachers are fortunate to work in a wonderful environment that includes four full-sized IT rooms plus a brand new suite for A-level classes, all backed with a reliable network run by a dedicated IT Support team.

With schemes of work, we are always open to new ideas and keep our delivery under constant review, especially given the recent rollercoaster of changes in this subject area and related pedagogical debates about issues such as 'computational thinking' and assessment models. With extra-curricular activities, we also have a hugely successful club for VEX Robotics, with team that have made the national finals.

Overall in Computing, our guiding principle is to stretch students' grasp of both 'theory' and 'practical' topics to extend their knowledge and understanding of our digital world, rather than purely focusing on 'hands on' skills. So as can be seen from the outline below, our typical approach is to encourage fluent use of technical vocabulary alongside practical challenges that often emphasise the creative side of computing:

| Year | Outline |
|---|---|
| **7** | Pupils are taught in mixed ability form groups, with a scheme of work that blends IT and Computer Science to focus on developing 'fundamental' skills, understanding and enthusiasm. For example, our vector graphics unit fosters pupils' creativity as well as technical knowledge and our programming unit upgrades their primary school skills by focusing on the core concepts of sequence, selection and iteration. |
| **8** | Still in mixed ability groups, students extend their knowledge by exploring topics linked to their personal experiences of today's digital world. For example, we have a unit on 'memes' that combines a large element of fun with |

| Year | Outline |
|---|---|
| | lots of opportunities to investigate how computers handle images. At the same time, we continue developing core skills and understanding, such as building programs using modules or blocks. |
| **9** | Students continue to be taught in mixed-ability classes, with a continued focus on creativity and core concepts. For example, students really enjoy our animation unit and getting to grips with its new vocabulary of frames, symbols and tweens. Students also like applying their coding skills by making simple games with its vocabulary of sprites, objects and events. |
| **10 & 11** | At Key Stage 4, students have two choices of Level 2 qualification:<br>• A **Computer Science option** in the form of the OCR GCSE, which we've been doing since the very first pilot several years ago. Currently, we have two classes in both Year 10 & 11, with students who typically enjoy the academic challenges of the course as well as upgrading their coding skills using Visual Basic.<br>• An **IT option** in the form of iMedia, which we've just adopted after several years of upheaval with BTECs and Nationals. Fortunately, our first two classes have responded enthusiastically to the course that includes practical units on Graphics, Animation and Multimedia Products. |
| **12 & 13** | In Sixth Form, students have two choices of Level 3 qualification:<br>• A **Computer Science** option in the form of AQA's A-Level, which typically attracts a single class of dedicated students on a course that's been led for many years by Roger Davies, whose planned retirement has created the vacancy detailed in the 'Job Spec' document.<br>• An **IT option** in the form of OCR's new IT Technicals course, which we picked because of its increased focus on collaboration with industry professionals. So with our first cohort, we've followed the 'Application Developer' pathway that includes practical units on apps, websites and games, where students have often presented work to 'clients' from local companies to add a fresh twist to their learning, |

Overall, we do work closely as a staff team, sharing a solid work ethic but also a strong sense of humour! We're very much looking forward to welcoming a new colleague with a similar outlook.

**Annelie Chambers, Head of Computing, January 2018**