

# KS3 Computing

A high-quality computing education equips students to use computational thinking and creativity to understand and change the world. Computing has deep links with Mathematics, Science and Design Technology, and provides insights into both natural and artificial systems. The core of Computing is Computer Science, in which students are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding students are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that students become digitally literate – able to use and express themselves and develop their ideas through ICT – at a level suitable for the future workplace and as active participants in a digital world.

**Learning:** In year 7 students will cover the following topics: school systems and e-safety, learning to learn with computers, block based programming using Kodo, text based programming using MicroPython on the BBC Microbits and an introduction to graphics.

**Resources:** St James was a specialist school in Mathematics and Computing and its state of the art building benefits from four dedicated ICT suites, in addition to an Apple Mac suite. Specialist Status has helped enhance the learning in ICT across the curriculum by providing a wide range of high quality equipment (digital cameras, scanners to the latest multimedia PCs, mobile technology and interactive whiteboards) to help deliver the curriculum in ICT classrooms. The school uses Windows 10 as a platform for the Microsoft Office 2013 Suite including: Word, Excel, Access, Power Point and Publisher. In addition to greater use of Web 2.0 technology and other open source software, the school uses Adobe Creative Suite 5 including: Dreamweaver CS5, Photoshop CS5, Illustrator CS5, Fireworks CS5, Flash CS5, Indesign CS5 and Flash Catalyst. All students have access to their own email account, user area and filtered Internet access.

**Assessment:** Students are assessed on their practical based work which is evidenced in a number of ways including digital publications and final pieces of work. Each topic will follow a clear assessment framework so students know what level they are at and what they need to do to improve. These assessments feed into the assessment cycles providing an ideal opportunity to discuss with your child the work being taught and to identify strengths and areas for development.

**Independent study:** Independent study tasks will consist of three projects during the year. Each project will include half a term of research/design and half a term of making. Each of these projects will help students increase awareness of how to use computers responsibly. Opportunities to complete ICT independent study using school computers are available before and after school, at break and at lunch.

**Parental support:** Outside of the classroom your child can watch BBC Click, either live or via the BBC iPlayer, to keep up-to-date with new technology and their developments. You can also encourage your child to complete activities from [www.code.org](http://www.code.org), [www.codecademy.com](http://www.codecademy.com) and build projects via the Scratch website [www.scratch.mit.edu](http://www.scratch.mit.edu).

**Enrichment:** We offer a range of enrichment opportunities with ICT rooms being available during lunchtimes and at the end of the day for an hour. In addition, there is a Computing club that is available for all students.