

Y10 and Y11

COMPUTING

Technical Information

GCSE

GCSE Course Title	Code	Awarding Body
COMPUTING	J275	OCR

Unit	Method of Assessment	Weighting
Unit A451: Computer Systems and Programming	Examination in June 2014	40%
Unit A452: Practical Investigation	Controlled Assessment (in Year 10)	30%
Unit A453: Programming Project	Controlled Assessment (In Year 11)	30%

COMPUTING

Background knowledge and qualifications

GCSE in Computing is a brand new course, which is very different from ICT.

The course builds on many elements of the current syllabus in Years 7, 8 and 9. Girls will already have learned about games design (and created some simple games in Scratch), as well as learning about computer-controlled devices and mobile app design. Computing teaches how these ideas are used in practice, and teaches you the skills you need to bring your ideas to life.

It is especially suitable for anyone who enjoys puzzles, or who has a burning desire to create the next killer app!

Course Description

GCSE Computing gives you a real in-depth understanding of how computers work, from the basic pieces of hardware to the software that makes it all run. Starting from the ground up, you will learn the simple techniques that are used in all software, and use it to solve a huge variety of problems.

Unit 1 is a theory unit, and covers the following topics:

- What are the parts of a computer and what do they do?
- How is data stored, including numbers, text, images and sound
- Communications Technology & the Internet
- Programming languages and problem-solving techniques

Unit 2 is a Practical Investigation. You will be given a list of computing topics and asked to investigate and experiment with the technology, with guidance from your teacher. You will have a choice of avenues to explore, such as HTML, Assembly language or Javascript programming. It is a chance to tinker with a new language and try out ideas. You will complete the project by writing a report of your findings.

Unit 3 is a Programming Project. You will choose from a range of assessment tasks and produce your own solution. For example, you may be asked to develop a maze game, a game of Hangman or a system for simulating “battles” in a role-playing game. This may include work in Scratch or in another language which we will teach as part of the course. This is an opportunity to develop your own programming skills and your creativity.

Use of Course and Qualification

Computing and computer technology are part of just about everything that touches our lives, from the cars we drive, to the movies we watch and the way we do business. Studying Computing means you will be able to make an impact in many walks of life.

There is a great demand for computing skills in the workplace. Many employers in the technology sector have trouble finding suitably talented and qualified computing specialists. Computing also teaches logical techniques which are very valuable in Engineering, Finance, Science and Medicine.