OPTIONS COURSE

COMPUTER SCIENCE

ACCREDITING AUTHORITY | OCR

QUALIFICATION	GCSE
FACULTY	**ICT, COMPUTING AND MEDIA FACULTY**
STAFF CONTACT	Mr Flaxman & Mrs McDougall

WHAT QUALITIES & SKILLS DO I NEED?

You need to have a good level of Maths (be working at grade B or above in your assessments at the moment) and the ability to work out problems in a logical way. You also need to have a commitment to learning the theory of programming as well as completing practical work.

COURSE FOLLOWED

Computer Science

WHAT WILL I DO ON THE COURSE?

A mixture of theory knowledge and practical skills will be taught. You will be expected to complete coursework based on a task set by the exam board.

- You will learn to use at least one programming language that requires you to work independently to use code in order to develop a solution to a problem.
- You will also have lessons which are theory based and will not be on a computer.

HOW IS THE COURSE ORGANISED & ASSESSED?

Component 1: Computer Systems

This unit covers knowledge about systems architecture, memory, storage, networks, protocols, security and software. This is assessed by a written paper of 1hr 30mins and is worth 40% of the marks.

Component 2: Computational Thinking, Algorithms and Programming

This unit covers knowledge about algorithms, programming techniques, computational logic, translators and data representation. This is assessed by a written paper of 1hr 30mins and is worth 40% of the marks.

Component 3: Programming project

This is where you demonstrate your programming techniques, your ability to code a solution to a problem. You will need to design, code and test your program to complete a task set by OCR. This is assessed by controlled assessment and is worth 20% of the marks.
Grades will range from A* - G

FREQUENTLY ASKED

WHAT IS THE PROGRESSION ROUTE FOR THE COURSE?

Successful completion of this course at grade C or above will allow you to continue to A level Computing

WHAT'S THE DIFFERENCE BETWEEN COMPUTER SCIENCE AND IT?

Computing is a programming course designed to teach you the skills for writing programs using Visual Basic programming code, e.g. creating software and applications.

ICT is concerned with using software, e.g. word processing, website design, databases, spreadsheets and graphics editing in order to complete tasks and make electronic products.

ARE THERE ANY EXAMS FOR EITHER COURSE?

Yes, the Computer Science has 2 exams, both worth 40% each and IT has 1 exam worth 25% of the total marks for ICT. These will be taken in year 11.

HOW MANY UNITS ARE THERE IN EACH COURSE?

- Computer Science has 1 coursework unit and 2 exams
- ICT has 3 coursework units and 1 exam

WHAT CAREERS ARE LINKED TO THIS COURSE?

A range of exciting creative and technical careers such as Software developer, Programmer, Tester, Web developer, Information architect, Database Developer/Manager and Analyst are to name a few.

DO I NEED TO BUY ANY SPECIFIC SOFTWARE?

No, we provide the software in school for you to complete all the necessary tasks. The majority of the tasks will be completed in controlled assessment, although access to word processing software is advantageous.

ARE THERE RECOMMENDED MINIMUM ENTRY REQUIREMENTS?

Although these are both practical courses, they both require the ability to create word processed portfolios of work to support the practical elements, so a reasonable standard of literacy is required. Students who are unsure about their suitability should discuss this with their Computing teacher.

Computing is only advisable for those who have a good understanding of Maths and an expected GCSE grade of B is a good guideline. However for students who already compute for a hobby, this may not be necessary.

WHAT WILL I GET OUT OF THIS COURSE?

The course is designed to inspire and enthuse learners to become more technology savvy and become producers of technology products rather than just consumers. Learners will be given the opportunity to gain a broad understanding and knowledge of computing, with an emphasis on programming and problem solving skills. The course will encourage personal development, motivation and confidence, through practical participation and by giving learners responsibility for their own projects.