Why Choose Computing?

Did you enjoy the spreadsheet challenges, python, and scratch programming units from Year 8?

Do you want to be challenged?

Do you have strong Maths and Science skills?

Do you love Coding?

Do you love solving difficult and interesting problems?

Do you want to learn more about the science behind how Computers work?

If the answer is yes to all of those questions, then GCSE Computing is for you.

What will I study? The OCR GCSE Computing covers two key areas, Computing Systems and Programming… Computer systems: This is a theory based unit which is assessed by a written paper in Year 11. The paper is a mix of short and long answer questions – some of which will require students to write program code. Topics will include Networking, Hardware, Software, Storage, Security, Computer Systems, The Ethics and Laws surrounding Computing and so on Computational thinking, algorithms and programming: This is an exam based unit which will be taught through the medium of programming (we will teach you how to code and produce algorithms).

The exam will be on paper and will require students to be able to understand how to solve problems without a computer in front of them. Topics will include: Algorithms, Programming, Logic, Data representation etc Who would this course suit? GCSE Computing suits learners who are confident mathematicians and have already developed an interest in computing beyond that of an “end user”, you will most likely be experimenting with your own programming and extending on what you have already learnt in your ICT lessons. If you think Computing is about Social Media and graphic design then you’re wrong

This course will interest critical thinkers and those who enjoy solving challenging problems independently. It will suit students who want to go on to higher study and employment in the field of computer science and will find it a superb stepping stone. If you have done well and enjoyed the more ‘technical’ parts of the ICT course, then this is the course for you. GCSE Computing

How will I learn? This exciting GCSE gives you an excellent opportunity to investigate how computers work and how they are used. You will learn practical programming skills in a variety of languages (main Python) we look at the theory and reasoning behind algorithms not just coding them. You will face a variety of different levels of tasks with multiple solutions to each problem, your mission is to find the best way of solving the problem!

You will develop your computer programming and problem-solving skills. You will do some fascinating research and practical work. For example, some of the current investigations look at Python programming, encryption and assembly language programming.

How will my work be assessed? You will be assessed in end of unit test, practical programming in a variety of scenarios (including numerous programming projects towards the start of Year 11). Your formal assessment for the qualification is: Unit When assessed Computer Systems (01) – 50% of GCSE Y11 Exam Computational Thinking, Algorithms and Programming (02) – 50% of GCSE Y11 Exam How can I use this course after Year 11 / in the future? If you take a GCSE in Computing and then go on to study the subject at A Level or university, you’ll have an advantage over fellow students who are picking up the subject at these higher levels.

The increasing importance of information technologies means there will be a growing demand for professionals who are qualified in this field. The course is also an excellent preparation if you want to study or work in areas that rely on the skills you’ll develop, especially where they’re applied to technical problems. These areas include engineering, financial and resource management, science and medicine.