Computing (Option)
GCSE
OCR

Structure and Specification
The OCR GCSE in Computing comprises three units: Unit A451, worth 40%, Unit A452, worth 30% and Unit A453, worth 30% of the total GCSE.

Syllabus details OCR/GCSE – 500/8291/7

What does the course include?
This course enables you to develop your understanding of current and emerging technologies, understanding of how they work and apply this knowledge and understanding in a range of contexts. You will acquire and apply knowledge, some technical skills and an understanding of the use of algorithms in computer programs to solve problems using programming. You can then develop computer programs to solve problems. You will then need to evaluate the effectiveness of computer programs/solutions and the impact of, and issues related to, the use of computer technology in society.

Year 10
Unit A452: Practical Investigation
This unit is designed to provide you with an opportunity to carry out a practical investigation into a computing issue in the real world. You should study one from a range of topics which will be supplied by OCR. You will be expected to carry out practical investigations of the topic and any supplementary research necessary to complete these investigations. You will produce a report in which the topic is analysed, justified and evaluated showing evidence of the practical work undertaken. This unit carried out under controlled conditions and internally assessed.

Unit A453: Programming project

OCR will issue an assessment tasks each consisting of up to three sub tasks. The set of tasks within the controlled assessment will provide opportunities for you to demonstrate practical ability to use the skills outlined in the specification for this unit. You will need to design, implement, test and evaluate your coded solution. This unit carried out under controlled conditions and internally assessed.

Year 11
Unit A451: Computer Systems and Programming
In this unit you will learn various topics which will be assessed by examination. These include fundamentals of computer systems, computing hardware, software, representation of data in computer systems, databases, computer communications and networking and programming.

How will I learn?
You will learn to use your knowledge and understanding of computer technology to become independent and discerning users of IT, able to make informed decisions about the use and be aware of the implications of different technologies. You will acquire and apply creative and technical skills, knowledge and understanding of IT in a range of contexts. You will also be expected to work in groups and develop the skills to work collaboratively.

How will my work be assessed?
40% external examination at the end of year 11, 60% controlled conditions coursework.

What skills will I need to be successful in this subject?
This is a new, exciting and very challenging course of study. You will need to be diligent in learning subject matter in order to be successful in the examination. You will also need to be committed to completing your coursework in strict timed conditions. It will stretch your logical thinking and enhance your problem solving skills and competencies.

What are the opportunities after this course in order to progress to the next level?

It will give you the opportunity to progress into a more specialised level 3 course such as A Level Computing which may lead to a Computer Science degree. It will also give you the potential opportunity to enter employment within a wide range of job roles across the Information Technology sector particularly in the area of software development or technical support.