Computer Science is an exciting, challenging, and growing field that impacts the world and everyday life in countless ways. Computer scientists are involved in creating technology andsystems that are used in a wide range of industries, including medicine, communications, entertainment, manufacturing, business, and science. CS pushes the state-of-the-art in computing theory and practice, and it leads to new technologies that change the world, such as the personal computer, the internet, smart phones, social media, and much more, as well as new discoveries in science and engineering, new possibilities for social science and the humanities, and creative collaborations with the arts.

Assessment:

This is a linear qualification with two examinations taken at the end of year 11.

Course content:

01 – Computer Systems (50% of Final Grade)

This component will introduce students to the Central Processing Unit (CPU), computer memory and storage, wired and wireless networks, network topologies, system security and system software. It is expected that students will become familiar with the impact of Computer Science in a global context through the study of the ethical, legal, cultural and environmental concerns associated with Computer Science.

02 – Computational thinking, algorithms and programming (50% of Final Grade)

This component incorporates and builds on the knowledge and understanding gained in Component 01, encouraging students to apply this knowledge and understanding using computational thinking. Students will be introduced to algorithms and programming, learning about programming techniques, how to produce robust programs, computational logic, translators and facilities of computing languages and data representation. Students will become familiar with computing related mathematics.

03/04 – Programming Project Controlled Assessment (Mandatory Module)

The OCR programming project will consist of a task to be solved by the student. This module is pass/fail and needs to be completed in order to attain their GCSE.