

Computer Science

Director of Faculty : Mr Ali

About the Course:

[OCR J277 \(9-1\) in Computer Science](#) is a 2 year GCSE with 2 final written assessments at the end of the course (Usually mid-May).

Both external exams are 90 minutes, with 80 marks available and are each worth 50% of their final grade. Paper 1 is non-calculator and consists of multiple choice questions, short response questions and also extended response questions.

Paper 2 is non-calculator and has two sections: In section A, multiple choice and short response questions are asked; In section B, questions assessing students' ability to write or refine algorithms must be answered using OCR Exam Reference Language or Python.

What will it be like?

The course has been developed to run through each topic within the [OCR J277 specification](#) alongside additional programming challenges to enable students to become confident developers in Python. All students are expected to be able to simplify and perform mental calculations. Written communication is also expected to be at a high level as comprehension of new concepts and understanding of terminology is essential. A majority of the lesson content is uploaded to the Google Classroom but students will also be provided with past paper questions and other sheets for future revision. We also use external platforms such as Seneca or KnowItAllNinja for homeworks.

Areas of study will include:

- System architecture
- Memory and storage
- Computer networks, connections and protocols
- Network security
- Systems software
- Ethical, legal, cultural and environmental impacts of digital technology
- Algorithms
- Programming fundamentals
- Producing robust programs
- Boolean logic
- Programming languages and Integrated Development Environments (e.g. IDLE)
- Planning and programming tasks using Python to solve problems from a given brief

Beyond Year 11:

Students can choose to advance their skills by going on to study networks, cyber security, animation, E-sports, media studies and many other digital based courses at college and university.

With their Computer Science GCSE students can expect a lucrative career in the digital world. Currently, with the shortage of digitally literate employees, they will find it easy to become an essential digital citizen and quickly rise up the ranks in any career, or start their own successful company.

