

AUTUMN 2023

SUBJECT: Computer Science

Year: 10 GCSE (9-1) Computer Science (OCR J277)

Topic(s) to be covered:

This course will enable learners to develop computational thinking skills built on a sound base of conceptual learning and understanding. In the course of two years students will study 3 units:

- **Computer systems** (50%) – examination in Summer Year 11
- **Computational thinking, algorithms and programming** (50%) – examination in Summer Year 11

Each term several topics will be covered from each unit. Below is a brief breakdown for the first term:

Computer systems:

- Systems architecture
- Memory

Computational thinking, algorithms and programming:

- Translators and facilities of languages
- Computational logic
- Algorithms
- Producing robust programs
- Programming techniques

Programming project:

Practice different programming languages including Python

Assessment Procedures:

Ongoing feedback from teacher is provided, as well as self and peer assessment during theory lessons. At the end of each topic students are given a test and a grade relating to the course.

Homework guidance:

Homework will be set at least once a week. Details of individual homework can be found on the department website.

Please Note: If students do not have the software at home, they can use Secure Gateway to log onto a school PC - as long as you have internet connection on your home PC. There are also some ICT rooms (including the library) that can be used before school, break, lunch and after school.

How can you help?

Encourage your child to look through notes from class and extend on these by doing further research on the web, as well as revise thoroughly for tests.

What books are available to help?

We use the following textbook in lessons. It is recommended to purchase a copy:

<https://www.pgonline.co.uk/resources/computer-science/gcse-ocr/gcse-ocr-computer-science-j277/>

For the exams in the summer of Year 11, the following revision guide is recommended (although we will provide a chance to buy these at a reduced price):

https://www.cgpbooks.co.uk/Student/books_gcse_cs.book_COR41