

Parent information sheet – Year 10 & 11 Computer Science

Programme of study

Students follow the OCR GCSE in Computer Science (9-1). The exam board is OCR.

There are three components in the GCSE specification. Component 01 covers computer systems; Component 02 covers computational thinking and algorithms, and Component 03 covers programming. The following explains the programme of study by year.

Year 10

- In year 10, students study the following topics from component 01 (computer systems): systems architecture, memory, storage, networks, and ethical, legal, cultural and environmental concerns relating to technology.
- They study the following topics from component 02 (computational thinking): standard algorithms, computational logic, and data representation.
- They also complete a practice project in preparation for component 03, which is a practical programming project. Students are taught the Python programming language.

Year 11

- In year 11, students study the following topics from component 01 (computer systems): network topologies, protocols and layers, system security, and system software
- They study the following topics from component 02 (computational thinking): advanced algorithms, robust/defensive programming, and translators/facilities of languages.
- They also complete the component 03 practical programming project.

Examinations and assessment

The following information gives the examination and assessment breakdown for each component in the GCSE.

Component 01 – Computer Systems

1 hour 30 minute written examination (80 marks)

Worth 50% of the GCSE

Component 02 – Computational Thinking, Algorithms and Programming

1 hour 30 minute written examination (80 marks)

Worth 50% of the GCSE

Component 03 – Programming Project

Completion of a practical programming task.

Home/online learning and The Moodle

The “Moodle” is the Academy’s own online learning platform containing video tutorials, interactive quizzes and downloadable assessment materials including practice and exam questions.

The Moodle is the Computer Science student’s “one stop shop” for all home learning and revision resources, and has contains content for every single topic in the specification. All students have been given a guided tour of the Moodle in lessons. The link to our Moodle is here:

<https://secondary.moodle.tgacademy.org.uk/course/index.php?categoryid=7>

Information on recommended textbooks is available on the school website.