GCSE – Computer Science

Exam Board: AQA

Rationale

Knowledge and understanding of Computer Science will help empower students in their participation in our increasingly digital world. Our course guides students from passive consumers of existing technologies to active creators of future systems. British pioneers have been instrumental in the developments within Computer Science, yet currently, our industry is experiencing a skills shortage in this highly rewarding sector. Those students who feel that they are able to help ﬁll this gap will be able to progress towards an A-Level in Computer Science. Others may look at this course as an ideal opportunity to develop their problem solving and creative thinking skills, which are in demand across all professions.

Course Structure

Topics:

* Fundamentals of algorithms
* Programming
* Fundamentals of data representation
* Computer systems
* Fundamentals of computer networks
* Fundamentals of cyber security
* Relational databases and SQL
* Ethical, legal and environmental impacts of digital technology

The above topics are examined through the following two assessments:

Computational Thinking and Programming Skills: Written Paper – 50% of the Qualiﬁcation

A mix of multiple choice, short answer and longer answer questions assessing programming,

practical problem-solving and computational thinking skills. The content for this assessment will be drawn from subject content 1 and 2 above.

Computing Concepts: Written Paper – 50% of the Qualiﬁcation

A mix of multiple choice, short answer, longer answer and extended response questions assessing SQL programming skills and theoretical knowledge. The content for this assessment will be drawn from subject content 3 to 8 above.

Careers

People with a background in Computer Science work within a wide range of industries.

Their skill set is valued in any engineering context as well as the management and banking sectors. It is a very rewarding career choice and individuals can transfer their skills both nationally and globally.