



Fides Caritas Unitas

ALL SAINTS
ROMAN CATHOLIC SCHOOL • YORK

OCR A LEVEL COMPUTER SCIENCE

Computer Science is a practical subject where students can apply the academic principles learned in the classroom to real-world systems. It's an intensely creative subject that combines invention and excitement, and can look at the natural world through a digital prism.

The aims of this qualification are to enable learners to develop the ability to analyse problems in computational terms through practical experience of solving such problems, including writing programs to do so.

COURSE CONTENT

Year 12

Computer Systems (01)

The characteristics of contemporary processors, input, output and storage devices

Software and software development

Exchanging data

Data types, data structures and algorithms

Legal, moral, cultural and ethical issues

Begin NEA programming project

Year 13

Algorithms and programming

Elements of computational thinking

Problem solving and programming

Algorithms to solve problems and standard algorithms

Complete Programming Project NEA

ASSESSMENT

Computer Systems (01)

Written paper (non-calculator)

2hrs 30min

40%

Algorithms and Programming (02)

Written paper (non-calculator)

2hrs 30min

40%

NEA Programming Project

NEA

20%

SUBJECT COMBINATIONS

Computing works well and compliments a range of subjects including Maths, Further Maths, Physics and Chemistry.

ENTRY REQUIREMENTS

At least 5 GCSEs at grade 5 or better including Maths and Computing (where taught) otherwise a 5 in either Physics or Chemistry.

It is helpful to have studied Computer Science at GCSE but this is not a course requirement.

PROGRESSION

The course is a pathway to a wide range of data science and computing courses from Big Data to Robotics via Quantum Computing. Learners will develop an ability to analyse, critically evaluate and make decisions. The project approach is a vital component of 'post-school' life and is of particular relevance to Further Education, Higher Education and the workplace.

FUTURES

The course provides a springboard to a wide range of pathways by providing students with the skills in communication, analysis, critical thinking, project management and programming. Seen as key ingredients in a wide range of technology jobs from network management, cyber security and software development to security services roles in encryption and code breaking.

COURSE CONTACT

Head of Subject Name**

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