

Syllabus: OCR GCSE IN COMPUTER SCIENCE IS QN 601/8355/X

Please consult: Mrs S Assam

What we aim to do

Computing is of enormous importance to the economy, and the role of Computer Science as a discipline itself and as an 'underpinning' subject across Science and engineering is growing rapidly.

Computer technology continues to advance rapidly and the way that technology is consumed has also been changing at a fast pace over recent years. The growth in the use of mobile devices and web-related technologies has exploded, resulting in new challenges for employers and employees. For example, businesses today require an ever-increasing number of technologically-aware individuals. Our GCSE in Computer Science is engaging and practical, encouraging creativity and problem solving. It encourages students to develop their understanding and application of the core concepts in computer science. Students also analyse problems in computational terms and devise creative solutions by designing, writing, testing and evaluating programs.

What we study

This specification promotes the integrated study of computer science. It will enable learners to develop a broad range of skills in the areas of programming, system development, computer architecture, data & communication:

- the subject content for GCSE Computer Science will be assessed across two components.
- understand and apply the fundamental principles and concepts of computer science, including abstraction, decomposition, logic, algorithms, and data representation.
- analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs to do so.
- think creatively, innovatively, analytically, logically and critically.
- understand the components that make up digital systems, and how they communicate with one another and with other systems.
- understand the impacts of digital technology to the individual and to wider society.
- apply mathematical skills relevant to computer science.

Skills needed

An enjoyment of IT, Maths and Physics.

How your work will be assessed

Component 1: Written examination 1 hour 30 minutes 50% of the qualification

This component investigates hardware, logical operations, communication, data representation and data types, operating systems, principles of programming, software engineering, program construction, security, authentication and data management and the impacts of digital technology on wider society as well as algorithms and programming constructs.

Component 2: Written examination 1 hour 30 minutes 50% of the qualification

This component investigates problem solving, programming languages, data structures and data types, program design, implementation and testing.

What this subject can lead to when you finish Year 11 at The Hollyfield School

Students wishing to study Computing at A Level are required to attain a Grade 6 in Computer Science GCSE.

Possible careers

This course will provide you with a broad set of Computing skills that employers are looking for should you wish to not continue to study beyond year 11. The course offers you skills that you will be able to take advantage of if you study other subjects at A Level, Level 3 Vocational Courses, Level 3 Diplomas, or an International Baccalaureate.

Additional information/special requirements

n/a

Relevant website links for further information on the course/subject

Specification: <https://www.ocr.org.uk/qualifications/gcse/computer-science-j277-from-2020/>

Careers: <http://oedb.org/fast-track-careers-computer-science>

<https://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/computer-science>

