

Computer Science

GCSE

OCR

Course Content

Year 10	
Term 1	
Data Representation	
Binary	
Representations of Algorithms	
Hexadecimals	
Text Representation	
Image Representation	
Sound Representation	
Variables	
Compression	
Term 2	
Computer Systems	
Records	
CPU	
Randomisation	
FDE Cycle	
Main Memory	
Arithmetic Expressions	
Secondary Storage	
Selection	
Logical Expressions	
Input/Output Devices	
Term 3	
Nested Selections	
Computer Networks	
Client Server Model	
While Loops	
Network Hardware	
For Loops	
Network Topologies	
Wired/Wireless Transmission Media	
Trace Tables	
Network Performance and Costs	
Data Validation	
What is the internet?	
Term 4	
Hosting Services	
Subroutines	
Protocols	
TCP IP	
Functions	
OSI Model	
String Handling	
Protecting a Network	
Cloud Computing and Web Apps	
Term 5	

Basic HTML Arrays and Lists Introduction to CSS Reading Text files
Term 6
Mini HTML Project Writing to text files Summer Programming Introduction
Year 11
Term 1
Reviewing Summer Programming Security, Cyber Crime and Hackers Refresh Basics of Python Refresh on Selection and Iteration Software Defensive Design Be Suspicious How does technology impact us?
Term 2
The Law: Data Protection Act The Law: Copyright Designs and Patents Act The Law: Freedom of Information Act The Law: Computer Misuse Act Being a Programmer Database Essentials SQL Cultural Impacts Privacy and Surveillance
Term 3
Environmental Impact Ethical Impacts Searching Algorithms: Linear/Binary Sorting Algorithms: Bubble, Merge and Insertion
Term 4
Revision & Refresh
Term 5
Revision & Refresh
Term 6

Independent learning

Students in Year 11 will be set 30 minutes of independent study every week and Year 10 students will have 30 minutes of independent homework per fortnight. The nature of these activities will include the use of Smart Revise.

Students should endeavour to complete and submit the independent study tasks set by their teacher to ensure that they embed key learning, develop a good work ethic and to allow them to make as much progress as possible.

Assessment

Assessment will take place every lesson through Do Now Retrieval Practice questions, teacher questioning and exit tickets. In addition to this, students will be given ample opportunity to show their knowledge and understanding of key concepts through the completion of key, pre-identified assessment tasks. These assessment tasks will be in the form of past paper questions at the end of every term.

At the end of the course, students will sit two exams. Each exam is 90 minutes long and is worth 80 marks.

Useful websites and reading materials

[BBC Bitesize](#)

[Revision notes](#)

[My Revision Notes: OCR GCSE \(9-1\) Business. Second edition](#)