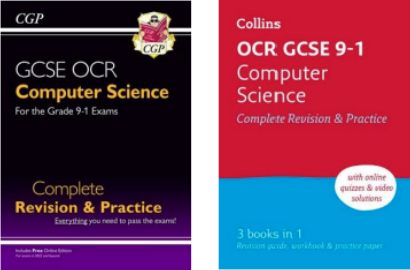


Computer Science

Exam Board	Recommended Revision Guide	Support Available at QE
OCR		Week 1 Monday Lunchtime Room: A211 Week 2 Friday Lunchtime Room: A212
Useful online resources		Exam dates
Smart Revise Craig 'n' Dave Videos Seneca Learning Isaac Computer Science Computer Science UK eRevision BBC Bitesize GCSE Computer Science Guru Pseudocode Challenges	http://bit.ly/3ivEp4W http://bit.ly/3ivE5mB http://bit.ly/3QvUrYY http://bit.ly/3k84IEa https://bit.ly/3k7147Y http://bit.ly/3Gvjzof https://bbc.in/3IJVXF0 http://bit.ly/3vVrk84 http://bit.ly/3CHPIOm	Paper 1: Computer Systems Wednesday 15th May 2024 pm Paper 2: Computational Thinking, Algorithms and Programming Tuesday 21st May 2024 pm
Week beginning	Topic / Content to revise	Completed / RAG rate
26th February 10 weeks to go	Converting between denary and 8-bit binary Converting between denary and 2-digit hexadecimal Adding two 8-bit binary integers Binary shifts Representing characters and character sets Representing images Representing sound Compression	
4th March 9 weeks to go	Abstraction Decomposition Algorithmic thinking Structure diagrams Inputs, processes and outputs How to produce algorithms using pseudocode and flow diagrams Identifying errors and suggesting fixes Trace tables	
11th March 8 weeks to go	Binary search Linear search Bubble sort Merge sort Insertion sort	

	The use of variables, constants, inputs, outputs and assignments The use of the three basic programming constructs The common arithmetic and comparison operators The common Boolean operators The use of data types and casting	
18th March 7 weeks to go	How to identify syntax and logic errors The purpose and types of testing Suitable test data Refining algorithms to make them more robust Simple logic diagrams Truth tables Applying logical operators in truth tables to solve problems Combining Boolean operators	
25th March 6 weeks to go	Characteristics and purpose of different levels of programming language The purpose of translators Characteristics of compilers and interpreters IDEs The use of basic string manipulation The use of basic file handling operations The use of arrays How to use sub programs Random number generation	
1st April 5 weeks to go	Defensive design considerations - Part 1 Defensive design considerations - Part 2 Maintainability The units of data storage How data needs to be converted into binary to be processed by a computer Data capacity and calculation of data capacity requirements The need for primary storage RAM and ROM Virtual memory The need for secondary storage Common types of storage Suitable storage devices and storage media	
8th April 4 weeks to go	The purpose of the CPU - the FDE cycle Common CPU components and their function Von Neumann architecture Common characteristics of CPUs Embedded systems Types of networks Client-server and peer-to-peer networks Factors that affect the performance of networks Hardware to connect to a LAN Star and mesh network topologies Modes of connection, wired and wireless	
15th April 3 weeks to go	The internet Wireless encryption The use of IP and MAC addressing Standards Common protocols The concept of layers	

<p>22nd April 2 weeks to go</p>	<p>Forms of attack Threats posed to networks Identifying and preventing vulnerabilities The purpose and functionality of operating systems Operating systems - Part 1 Operating systems - Part 2 Utility system software</p>	
<p>29th April 1 week to go</p>	<p>How to investigate and discuss computer science technologies Privacy issues Cultural implications of computer science Environmental impact of computer science Impacts of digital technology on wider society Legislation relevant to computer science Open source vs proprietary software</p>	
<p>6th May 0 weeks to go</p>	<p>The use of records to store data The use of SQL to search for data</p>	
<p>13th May</p>	<p>Past Papers and Marks Schemes (On Google Classroom)</p>	