

Year 10 – GCSE (9-1) Computer Science - Learning Journey 2018-2019

Week	Date	Topic and assessment objectives	Key Constructs	Assessment
1	03.09.18	1.1 Systems Architecture A01 A02	Stored program concept and the Von Neumann Architecture. Parts of CPU. Fetch-Decode-Execute Cycle. Performance of CPU. Embedded Systems.	Unit Test 1.1
2	10.09.18			
3	17.09.18			
4	24.09.18			
5	01.10.18	2.6a Data Representation A01 A02	Introduction to denary, binary and hexadecimal. Characters, character codes and character sets. Units of data storage.	Unit Test 2.6a
6	08.10.18			
7	15.10.18	Round-up and RAP	Exam practice and unit tests.	
H/T				
8	29.10.18	1.2 Memory A01 A02	RAM and ROM. Virtual Memory. Flash Memory.	Unit Test 1.2
9	05.11.18			
10	12.11.18			
11	19.11.18	Round-up and RAP	Exam practice and unit test.	
12	26.11.18	1.3 Storage A01 A02	Primary vs Secondary Storage. Data Capacity and Types of Storage. Characteristics of Storage Devices.	Unit Test 1.3
13	03.12.18			
14	10.12.18			
15	17.12.18	Round-up and RAP	Exam practice and unit test.	
XMAS				
16	07.01.19	1.4 Wired & Wireless Networks A01 A02 A03	LANs and WANs, Client-Server and Peer-to-Peer. Network Hardware, Performance of Networks. The Internet, IP and MAC Addressing. Routing and Packet Switching. Domain Name System, Virtual Private Networks.	Unit Test 1.4
17	14.01.19			
18	21.01.19			
19	28.01.19	1.5 Network Topologies, Protocols & Layers A01 A02	Star and Mesh Topologies. Wi-Fi and Ethernet. Protocols and Layers.	Unit Test 1.5
20	04.02.19			
21	11.02.19	Round-up and RAP	Exam practice and unit tests.	
H/T				
22	25.02.19	2.1 Algorithms A01 A02 A03	Computational Thinking: abstraction, decomposition and algorithmic thinking. Flow-charts and pseudo-code. Tracing the execution of algorithms. Linear and binary searches. Swapping values and sorting: bubble-sort, insertion sort and merge sort.	Unit Test 2.1
23	04.03.19			
24	11.03.19			
25	18.03.19			
26	25.03.19			
27	01.04.19	Round-up and RAP	Exam practice and unit test.	
EASTER				
28	22.04.18	2.2 Programming Techniques A02 A03	Recap of Sequence, Assignment, Selection, Iteration. Data-types, variables and constants, casting. Working with 1D and 2D arrays. Structures and records. Procedures, functions and recursion. Reading and writing files of text.	Unit Test 2.2
29	29.04.18			
30	06.05.18			
31	13.05.18	Year 10 Exam		
32	20.05.18	Exam Feedback	Unit test.	
H/T				
33	03.06.18	2.4 Computational Logic A01 A02	Common operations: + - / * ^ MOD DIV. Logic diagrams using AND, OR, NOT. Truth tables and logical expressions.	Unit Test 2.4
34	10.06.18			
35	17.06.19			
36	24.06.19			
37	01.07.19	Round-up and RAP	Exam practice and unit test.	
38	08.07.19	College Discovery Week		
39	15.07.19	Work Experience		

What do the Assessment Objectives mean?

- A01** Demonstrate knowledge and understanding of the key concepts and principles of Computer Science.
- A02** Apply knowledge and understanding of key concepts and principles.
- A03** Analyse problems in computational terms / make reasoned judgments / design, program, evaluate, refine solutions.

Year 10 – GCSE (9-1) Computer Science - Progress Tracker

FLIGHT PATH STICKER	<p style="text-align: center;">Overview of exam Breakdown of exams, length and weighting</p> <p>Non-Examined Assessment Programming Project 20 hours at the start of Year 11 – worth 0%</p> <p>Computer Systems Exam Paper 1 (J276/01) 1.5 hours at the end of Year 11 – worth 50%</p> <p>Computational thinking, algorithms and programming Exam Paper 2 (J276/02) 1.5 hours at the end of Year 11 – worth 50%</p>
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Date	Assessment	Flightpath Grade	Action (s) to make progress
	End of Unit Test 1.1 Systems Architecture		
	End of Unit Test 2.6a Data Representation		
	End of Unit Test 1.2 Memory		
	End of Unit Test 1.3 Storage		
	End of Unit Test 1.4 Wired & Wireless Networks		
	End of Unit Test 1.5 Network Topologies, Protocols & Layers		
	End of Unit Test 2.1 Algorithms		
	End of Unit Test 2.2 Programming Techniques		
	End of Unit Test 2.4 Computational Logic		