

OCR 9-1 J277 GCSE Computer Science - Year 11 - Learning Journey 2023-2024

Week	Date	Key Construct	Topic	Assessment
1 (Wed)	04.09.23	20 Hour Practical Programming Project Set by OCR Exam Board 8 weeks 2.5 x 60 min +1 extra week in case of lost lesson time from other school activities e.g. Development Day	Analysis of a given problem to consider what it involves. Listing the requirements and success criteria for new system. Considering data, structures and files that new system will need. Designing the workings of new system using algorithms or flowcharts. Planning how to test the new system, including appropriate test data and anticipating results/outcomes. Implementing the new system – writing code and ongoing testing. Final testing and evaluating the extent to which the new system works.	Project report submitted to teacher as single PDF. A01 A02 A03
2	11.09.23			
3	18.09.23			
4	25.09.23			
5	02.10.23			
6	09.10.23			
7	16.10.23			
Half term				
8	30.10.23	Finish and hand in project report	As above	As above
9	06.11.23	Preparation for Mock Exam		
10	13.11.23	Mock Exams		
11	20.11.23	Mock Exams		
12	27.11.23	1-5-1 Operating Systems	Need for an O/S, device management and drivers, user interfaces, user management, file management, memory management and multi-tasking.	Unit Test H: System Software A01 A02
13	04.12.23	1-5-2 Utility Software	Encryption, defragmentation and data compression utilities.	
14	11.12.23	Data Drop / Mock Results / Contingency Lesson		
CHRISTMAS				
15 (Tue)	02.01.24	1-4-1 Threats to computer systems and networks	Forms of attack and threats: Malware, social engineering, brute-force attacks, denial of service attacks, data interception, SQL injection.	Unit Test I: Network Security A01 A02 Algorithms A02 A03
16	08.01.24		Common prevention methods: Pen testing, anti-malware software, firewalls, user access levels, passwords, encryption, physical security.	
17	15.01.24	1-4-2 Identifying and preventing vulnerabilities	Linear and binary searches Swapping values and bubble-sort. Insertion sort and merge sort. Comparing the efficiency of methods with different sets of data.	
18	22.01.24	2-1-3 Searching and Sorting Algorithms		
19	29.01.24			
20	05.02.24			
Half term				
21	19.02.24	2-5-1 Programming Languages	Characteristics and purpose of high-level and low-level languages. Translators: compilers, interpreters and assemblers.	Unit Test J: Languages A01 A02 Robustness and Testing A01 A02 A03
22	26.02.24	2-5-2 Integrated Development Environments (IDEs)	Commons tools and features of Integrated Development Environments: text-editors, error diagnostics, run-time environment, translator.	
23	04.03.24	2-3-1 Defensive Design (Producing Robust Programs)	Anticipating the misuse of programs, authentication, input validation Maintainable code: sub-programs, naming, indentation, comments.	
24	11.03.24	2-3-2 Testing	Types of errors. Different kinds of testing.	Unit Test K: Issues A01 A02
25	18.03.24		1-6-1 Ethical, Legal, Cultural and Environmental Impact	
26	25.03.24	Data Drop / Contingency Lesson		
EASTER				
27	17.04.24	REVISION, PRACTICE QUESTIONS AND EXAM TECHNIQUE A01 A02 A03	Recap of key topics. Mixed questions from both exam papers.	
28	24.04.24			
29 (BHol)	02.05.24			
30	08.05.24			
31	15.05.24	FINAL EXAMINATIONS PAPERS 1 AND 2	Paper 1: Computer Systems – 1.5 hours	
32	22.05.24		Paper 2: Computational thinking, algorithms & programming – 1.5 hours	
Half term				
33	05.06.24	Exams - Other GCSE Subjects		
34	12.06.24			
35	19.06.24			

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.

OCR 9-1 J277 GCSE Computer Science - Year 11 - Assessment Progress Tracker 2023-24

Name:			Autumn	Spring	Summer
Subject Target		Flightpath			
Annual Exam Grade:		BFL			

Year 11 Programming Project

20 hours at the start of Year 11 – worth 0%

Formal assessments – deciding your final GCSE grade

Exam Paper 1 (J277/01)
Computer Systems
 1.5 hours – 80 marks
 End of Year 11 – worth 50%

Exam Paper 2 (J277/02)
Computational thinking, algorithms and programming
 1.5 hours – 80 marks
 End of Year 11 – worth 50%

Date	Assessment	Flight-path Grade	Action(s) to make progress
Autumn Term Part 1	Project report submitted to teacher as single PDF. A01 A02 A03		
Autumn Term Part 2	Unit Test H: System Software A01 A02		
Autumn Term Part 2	Mock Exam Paper 1		
Spring Term Part 1	Unit Test I: Network security A01 A02 Algorithms A02 A03		
Spring Term Part 2	Unit Test J: Languages A01 A02 Robustness and Testing A01 A02 A03		
Spring Term Part 2	Unit Test K: Issues A01 A02		
Spring Term Part 2	Mock Exam Paper 2		