Year 12 Curriculum Map 2024

Lesson	Miss C Bugeja (CBU) - Theory	Lesson	Mr M Sheehan (MSH) – Programming	Study Tasks
1	Introduction to Paper 1	1	Introduction to Lazarus	N/A
2-3	The processor	2-3	Arithmetic and variables	**1.** Arithmetic worksheet
4-5	Types of processor	4	If statements	
6-8	Input, output, storage	5-7	For, repeat and while loops	**2.** 1.1 Exam Questions
9-10	The Operating System	8	String handling	
11-12	Memory management, interrupts	9-10	Arrays	**3.** Seneca covering 1.1
13	Scheduling	11	Case statements	
14	Types of OS	12-14	Procedures and functions	**4.** Complete unfinished coding
			October Half Term	
15-16	BIOS & Virtual Machines	15	Types and records	**5.** Systems Software Exam Questions
17	Nature of applications	16-17	File handling	
	Bebras Challenge		**Bebras Challenge**	
18	Open vs closed source	18-19	Linear and binary search	**6.** Revision
19-20	Translators	20-21	Bubble and insertion sort	
21-22	Software Development	22-25	Graphical user interfaces	**7.** Basic programming Assessment
23-24	Programming Paradigms	26-27	Thinking abstractly	**8.** Seneca on 1.2
			Christmas Holidays	
25-28	Object-Oriented languages	28-29	Thinking ahead	**9.** Thinking ahead exam questions
29-32	Assembly Language (LMC)	30-31	Thinking Procedurally	
33	Compression	32-33	Thinking logically	**10.** Watch video and answer questions.
34	Encryption	34-35	Thinking Concurrently	
35-37	Databases	36	Problem recognition and decomposition	**11.** Essay question
38	Methods of capturing data	37-38	Implementing a stack	**12.** Software Dev and OOP Essays
39	Referential Integrity	39-40	Implementing a queue	
			February Half Term	
40-41	Networks	41-43	Recursion	**13.** Recursion practice and exam questions
42-44	Network Security	44-45	Merge Sort	
45-46	Network Hardware	46-47	Quick Sort	**14.** Video and quick sort questions
47	Client-server and peer-to-peer	48-49	Object Orientated Programming	**15.** Revise for paper 1 assessment
48	Server and client-side processing	50-51	Code for linked lists and trees	**16.** Paper 1 assessment
			Easter Holidays	
Summer Term 1	Data Types	Summer Term 1	Coursework Set up/Pick a project	**17.** Binary Practice
	Number Representation Binary, Denary & Hex conversions		**Analysis Part 1** • Problem Identification • Stakeholders • Computational methods • Interview and survey	**18.** Seneca Assignment
	Binary Addition & Subtraction			**19.** Floating point videos & Notes
	Sign and Magnitude, Two's complement			**20.** Ensure coursework is up to date
	Floating Point binary			
			June Half term	
Summer Term 2	Character sets	Summer Term 2	**Analysis Part 2** • Existing Solutions • Key features and Limitations • Hardware/software/S. Criteria	**21.** Data Structure exam questions
	Data Structures Inc. 2.3.1 Algorithms			**22.** Revision for year 12 exams
	Boolean Logic			
			Year 12 Exams (June)	
Summer Term 2	Mock feedback	Summer Term 2	**Design Part 1** • Decomposition Diagram • Navigation Map	**23.** Mock improved answers
	Legal, Moral and Ethical issues			**24.** Legal, More and Ethical essays
	Exam focus/ Technique			

Key	
	Basic Programming
	Algorithms
	Computational Thinking
	NEA

Year 13 Curriculum Map 2024

Lesson	Miss C Bugeja (CBU) - Theory	Lesson	Mr M Sheehan (MSH) – Programming	Study Tasks
Autumn 1	Recap of 1.1	Autumn 1	**Design Part 2** • Screen Designs • Variables and data structures • Validation • Usability • Algorithms • Test plans	**1.** Programming recap
	GPUs			
	Recap of 1.2.1			**2.** Exam Questions on 1.2.2
	Device Drivers			
	Stages of Compilation			**3.** Programming techniques questions
	Linkers, Loaders and libraries			
	Recap of Software Dev			
	Modes of addressing			**4.** Questions on 1.2.4
October Half Term				
Autumn 2	Hashing	Autumn 2	**Implementation and iterative testing** • Prototype 1a	**4.** Databases questions
	Recap of Databases			
	Bebras Challenge		**Bebras Challenge**	
Autumn 2	Normalisation to 3NF	Autumn 2	**Implementation and iterative testing** • Prototype 1b	**6.** Revise for Year 13 mocks
	SQL			
	Transaction processing		**Implementation and iterative testing** • Prototype 2a	**7.** 1.3.2 Questions
	Recap of Networks			**8.** Computational methods exam questions
Christmas Holidays				
Spring 1	Web Technologies	Spring 1	**Implementation and iterative testing** • Prototype 2b	**9.** HTML, CSS practice
	HTML, CSS, JavaScript			
	Search Engine Indexing PageRank algorithm		**Implementation and iterative testing** • Prototype 3 • Complete and produce .exe	**10.** JavaScript questions
	Path Finding algorithms			**11.** Path finding Questions
	Data Types recap		**Post development testing** • Function, robustness, usability	**12.** Data Types videos & Notes
February Half Term				
Spring 2	Big O Notation	Spring 2	**Evaluation** • Measure against success criteria • Usability evaluation • Limitations and maintenance • Future development	**13.** Revise for Year 13 assessment Week
	Binary Search Tree &Hash Tables			
	Rules of derivation and simplification			
	D-type flip flops and Adders			**14.** Completing coursework
	Recap of 1.5 unit			
	Revision • Exam Technique		**Revision** • Go through weaker topics	
Easter Holidays				
Summer 1	**Revision** • Extended Written answers • Focus on weaker topics	Summer 1	**Revision** • Past papers • Model Answers	**15.** Revision
A level exam				

The above provides a rough estimate of when lessons will take place as there will be lessons dedicate to going through exams, sixth formers are sometimes off timetable and there will likely be interruptions during mocks/assessment week.

Key	
	Basic Programming
	Algorithms
	Computational Thinking
	NEA
	Revision