Computer Science A Level

Year 12 Curriculum Map

Term/Time	Miss C Bugeja (CBU) - Theory	Mr M Sheehan (MSH) – Programming
September	**1.4.1** Data Types (worksheets)	Introduction to Pascal (Data types, variables, operators, selection etc.)
	1.4.3 Boolean Algebra (worksheets)	
October	**1.2.4** Types of Programming Languages (from now on using purple text book)	Pascal continued. This links across the specification including:
	Test on Binary and Boolean	• data structures
1 week	**1.2.4 (c)** Little Man Computer (plus practical resources)	• iteration • file handling • procedures and functions
October half term		
1 lesson	**(d)** Addressing modes	**2.1.** Computational thinking
1 week	**(e)** Object-oriented languages (plus practical resources)	• Thinking Abstractly • Thinking Ahead
2 weeks	**1.2.1** Systems Software **1.2.2** Software Applications	• Thinking Logically • Thinking Procedurally • Thinking Concurrently
Bebras Computational Thinking Competition around November		
1 lesson	**1.2.2** Applications generation	Programming using a GUI
December	**1.2.3** Software development	
2 weeks	**1.1.** Hardware – processors, input, output and storage devices	Searching and sorting algorithms (Linear, binary, bubble)
	Autumn Term test on all topics covered	Programming data structures such as Stacks/Queues
Christmas Break		
2 weeks	**1.4.2** Data Structures **2.3.1** Algorithms	**2.2** problem solving and programming
1 week	**1.3.1** Compression, encryption and hashing	Searching and sorting algorithms (Linear, binary, bubble etc.)
2 weeks	**1.3.2** Databases	
1 week	**1.3.3** Networks (Data transmission)	Project Set up and choosing an idea
February Half Term		
	Java Script – weekly visits from Imperial University student include possible lunch and lesson sessions	
1 week	**1.3.4** Web Technologies (The internet)	Programming data structures such as Stacks
1 week	**1.5.1** Computing related legislation.	Merge and Quick sort
1 week	**1.5.2** Moral and ethical issues	Recursion
	Discussions Leading in to essay writing to prepare for QoWC questions in exams	**3.1** Coursework – Analysis Section
	Assessment essays	
Easter Break		
Summer Term		**3.2** Coursework – Design Section
	2.1 Computational thinking	
	Exam preparation	
Year 12 Exams		
	2.3.1 Algorithms	**3.3** Coursework - Implementation

Fortnightly assessments set based on work covered.

Computer Science A Level

Year 13: Curriculum Map

Term/Time	Miss C Bugeja (CBU) - Theory	Mr M Sheehan (MSH) – Programming
September	**Assessment past paper**	**3.3** Coursework – Implementation and Testing
	Using Heathcote, exam board resources and exam type questions	
	1.1 Processors, input, output, storage	
October	**1.2** Software and software development	
November	**1.3** Exchanging Data	
	Mock 1 exam – prep, sitting and reviewing.	
	Bebras Computational Thinking Competition around November	
December	**1.4.1** Data Types	**3.4** Coursework - Testing
	1.4.2 Data structures and algorithms	
	Christmas Break	
January		**3.4** Coursework - Evaluation
	1.5 Legal, moral, cultural and ethical issues	
February	Mock 2 exam – prep, sitting and reviewing.	
Feb/March	Java Script – weekly visits from Imperial University student	
March	Discussions Leading in to essay writing to prepare for QoWC questions in exams	Coursework Hand in
	Easter Break	
Summer Term	**Assessment essays**	**2.1** Computational thinking
	2.1 Computational thinking	
	2.2 problem solving and programming	**2.2** problem solving and programming
	2.3 algorithms	
		2.3 Algorithms
	Exam preparation	
	Exams	