IGCSE 0478 Specification map

Notes: Units 7 and 8 are designed to cover the theoretical elements of Section 2.
It is intended that the remainder of the guided learning hours are spent learning how to program.

		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
1.1	**Data representation**								
1.1.1	Binary Systems	✓							
1.1.2	Hexadecimal	✓							
1.1.3	Data storage	✓	✓						
1.2	**Communication and Internet technologies**								
1.2.1	Data transmission		✓						
1.2.2	Security aspects		✓						
1.2.3	Internet principles of operation		✓						
1.3	**Hardware and software**								
1.3.1	Logic gates			✓					
1.3.2	Computer architecture and the fetch-execute cycle			✓					
1.3.3	Input devices				✓				
1.3.4	Output devices				✓				
1.3.5	Memory, storage devices and media			✓					
1.3.6	Operating systems					✓			
1.3.7	High-and-low-level languages and their translators					✓			
1.4	**Security**								
1.4.1	Safety of data					✓			
1.4.2	Firewalls, protocols and encryption					✓			
1.4.3	Online system security					✓			
1.4.4	Real-life applications					✓			
1.5	**Ethics**								
1.5.i	Copyright and plagiarism						✓		
1.5.ii	Software, freeware and shareware					✓			
1.5.iii	Ethical issues, hacking, cracking and malware		✓				✓		
2.1	**Algorithm design and problem-solving**								
2.1.1	Problem-solving and design							✓	✓
2.1.2	Pseudocode and flowcharts							✓	
2.2	**Programming**								
2.2.1	Programming concepts							✓	
2.2.2	Data structures; arrays							✓	
2.3	**Databases**								
2.3	Data types, primary keys and QBE								✓