Suggested teaching order for AQA A Level Computer Science

PAPER 1 CONTENT		PAPER 2 CONTENT		
Year 12	*Year 13*	*Year 12*	*Year 13*	GCSE recap
Autumn Term	**Autumn Term**	**Autumn Term**	**Autumn Term**	
4.1.1: Programming Basics	Investigate Skeleton Code	4.5.2.1 Number base	4.7.3.6 Interrupts	
4.1.1 Data Structures and Abstract data types	4.2.8 Vectors	4.5.3.1 Bits and bytes	4.7.3.7 Factors affecting processor performance	
4.1.1.3 : Basic Operations	4.3.6 Dijkstra's Pathfinding Optimisation	4.5.3.2 Units	4.7.4.1 Input and output devices	
4.1.1.2: Selection / Iteration	4.4.1.1 Solving Logic Problems	4.5.4.1 Unsigned binary	4.7.4.2 Secondary storage devices	
4.2.1: Arrays	4.4.4.4 Limits of Computation	4.5.4.2 Unsigned binary arithmetic	4.9.1.1 Communication methods	
4.1.1.10: Subroutines Local v Global	4.4.1 Abstraction & Automation	4.5.4.3 Signed binary using two's complement	4.9.1.2 Communication basics	
4.1.1.16: Recursive Algorithms	4.4.2.1 Finite State Machines & Mealy Machines	4.5.4.4 Numbers with a fractional part	4.9.2.1 Network topology	
4.2.3: Stacks	4.4.2.2.Sets	4.5.4.5 Rounding errors	4.9.2.2 Types of networking between hosts	
4.2.2: Queues	4.4.2.3 Regular Expressions	4.5.4.6 Absolute and relative errors	4.9.2.3 Wireless networking	
4.2.3b: Linked Lists	4.4.3. Backus Naur Form	4.5.4.7 Range and precision	4.9.3.1 The Internet and how it works	
4.1.1a Object Oriented Programming	4.4.5 Turing Machine	4.5.4.8 Normalisation of floating point form		
4.3.4 Search Algorithms + Binary Search Trees		4.5.4.9 Underflow and overflow		
4.4.4: Big O notation				
Spring Term	**Spring Term**	**Spring Term**	**Spring Term**	
4.3.5: Sorting Algorithms	4.3.3 Reverse Polish Notation	4.6.1.1 Relationship between hardware and softwar	4.9.3.2 Internet security	
4.2.4 Graphs	4.12 Functional Programming	4.6.1.2 Classification of software	4.9.4.1 TCP/IP	
4.2.5 Trees	4.12.1.3 Function Application	4.6.1.3 System software	4.9.4.2 Standard application layer protocols	
4.2.6 and 7 Hash Tables & Dictionaries	4.12.3 Lists in Functional Programming	4.6.1.4 Role of an operating system (OS)	4.9.4.3 IP address structure	
4.10 Introduction to Databases and SQL	4.11 Big Data	4.6.2.1 Classification of programming languages	4.9.4.4 Subnet masking	
START PROJECTS	END PROJECT -> HAND IN	4.6.3.1 Types of program translator	4.9.4.5 IP standards	
		4.6.4.1 Logic gates	4.9.4.6 Public and private IP addresses	
		4.6.5.1 Using Boolean algebra	4.9.4.7 Dynamic Host Configuration Protocol (DHCP)	
			4.9.4.8 Network Address Translation (NAT)	
			4.9.4.9 Port forwarding	
			4.9.4.10 Client server model	
			4.9.4.11 Thin- versus thick-client computing	
Summer Term	**Summer Term**	**Summer Term**	**Summer Term**	
4.5.1 Number Systems	Revision....	4.7.1.1 Internal hardware components of a compute	Revision....	
4.5.2 and 3 Number Bases		4.7.2.1 The meaning of the stored program concept		
4.5.5 Coding Systems (ASCII / error checking)	EXAMS	4.7.3.1 The processor and its components	EXAMS	
4.5.6 Images & Sound		4.7.3.2 The Fetch-Execute cycle and the role of registers within it		
4.5.6.10 Encryption		4.7.3.3 The processor instruction set		
4.3.1 and 2 Graph-Traversal		4.7.3.4 Addressing modes		
END OF YEAR EXAMS		4.7.3.5 Machine-code/assembly language operations		
		END OF YEAR EXAMS		