

Term	Week	Focus	Summary	Learning Outcomes	Learning skills
Term 1.1	1	Curriculum orientation, expectations and system setup			
	2	Data Representation	Number systems Number bases Binary number system	Understanding the different types of numbers that exist within Computing and Maths Comparing the working of various number bases and ability to convert between these. Representing floating points numbers, two complements and fractions in binary	Critical thinking Research skills
	3		Binary number system Coding systems	Representing floating points numbers, two complements and fractions in binary To compare and contrast Unicode and ASCII To present research on error checking types.	Critical thinking Analysing Linking
	4		Coding Systems	Describe the workings of bitmapped and vector graphics Describe the process of ACD and DAC's	Analytical thinking Linking Research skills
	5		Sound compression	Explore Nyquist theorem and various audio compression methods Describing sound synthesis and MIDI and their benefits to the real world	Real-world application and impact: Problem Solving
	6		DIRT Encryption	Exploring several encryption methods	Problem solving

Term 1.2	7	Computer Systems	Hardware and software Classification of programming languages and translation	Analysing the relationship between hardware and software including translators. The roles of software including resource management, virtual memory, paging and file management	Critical Evaluation Linking Collaboration
	8		Logic gates and Boolean algebra Simplifying Boolean expressions	Explain the working of logic gates and the ability to construct circuits to manipulate binary. Demonstrate how to change an expression into its simplest form	Critical thinking Collaboration
	9		Simplifying Boolean Expressions including De Morgan's Law mini assessment and DIRT	Demonstrate how De Morgan law is applied in expressions	Critical thinking Research skills Realising
	10	Computer organisation and architecture	I/O devices Storage devices Internal hardware	Describe the working of and the most efficient use of the various hardware	Analysing Collaboration
	11		Internal hardware including buses, main memory The CPU, addressable memory, stored program concept Assembly language	Describe the working of the internal hardware of a PC and how binary is used within this process	Linking Creativity Real world application
	12		Assembly language Fetch execute cycle Assessment	To write a low level language/assembly language for given tasks	Critical thinking Linking
	13		Feedback and DIRT Examination technique	Assessment and reflection time	Critical thinking Linking Meta thinking
	14	Networking and Communications	Communication basics Networks	Explore the fundamentals of networking communication methods and how networks send/receive data using CSMA	Critical thinking Linking Analysing and evaluation