GCSE COMPUTER SCIENCE
Plans for Year 10 Curriculum

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10 (OCR J277)	**Memory and Storage** To understand the role of specific hardware devices and the operation of a computer system parts and understand the link between ***hardware*** and ***software***.	**Systems software** To understand the purpose and functionality of ***operating system*** and ***utility*** software.	**Computers networks, connections, and protocols** To understand the use of ***wired*** and ***wireless*** networks in modern communication, how ***data packets*** are transmitted between electronic devices and the protocols used.	**Network security** To understand the importance of keeping data ***safe*** from malicious intent, in identifying the ***risks*** and applying methods to ***protect*** it.	**Systems Architecture** To introduce the concept of a ***computer system*** and the components of the ***CPU***.	**End-of-Year Examination period**
	Boolean Logic To understand and use the use of ***AND***, ***OR*** and ***NOT*** logic gates in diagrams and ***truth tables***.	**Algorithms** To understand the concept that a set of instructions completed in-order is an ***algorithm***.	**Algorithms & Programming fundamentals** To know the use of standard algorithms and the core programming constructs of ***sequence***, ***selection*** and ***iteration***.		**Producing robust programs** To understand the aspects of writing computer code that supports its ***maintenance*** and development. **Mini Project intro.**	**Mini project** To develop a programming project to consolidate programming techniques in practice and preparation of the Practical Programming Task.
		Practical Programming To develop programming skills in **Python** and **SQL** to be able to identify ***sequence***, ***selection*** and ***iteration*** in code, to solve problems, create web pages, and query database data over the duration of the course.				
Assessed through	*Targeted class and home learning tasks and end of unit tests.*	*Programming exercises, targeted home learning tasks and end of unit tests.*	*Home learning tasks based on examination questions and end of unit tests.*	*Home learning tasks based on examination questions and end of unit tests.*	*Programming exercises, targeted home learning tasks and end of unit tests.*	*A working and fully tested coded solution to the set problem.*

GCSE COMPUTER SCIENCE
Plans for Year 11 Curriculum

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11 (OCR J277)	**Ethical, legal, cultural and environmental Concerns &** To explore the ***wider implications*** of the use of computers in the modern world. **Producing robust code and Programming languages IDEs** To understand how the tools of an Integrated Development Environment (IDE) are used to help create computer code. **Practical Programming Task 2** A programming project based on the ***design, write, test, refine.*** To create a solution to a given school-based task. The coded solution can be developed outside of the classroom.		**Mock Examination period (02)** To review and revise the entire examination ***Component 01*** and ***Component 02*** specification.	**Revision** **Review and Revision** To review and revise the entire examination specification.	**Examinations**	
Assessed through	*Completion of project work.*	*Home learning tasks based on examination questions and revision tasks.*	*Formal Component 01 and Component 02 examination papers*	*Home learning tasks based on examination questions and timed unit tests.*		