



CURRICULUM PLAN Computer Science (Year 11)

YEAR	TRINITY 2	MICHAELMAS 1	MICHAELMAS 2	LENT 1	LENT 2	TRINITY 1
11	<p>Fundamentals Of Data Representation, Computer Systems & Networks</p> <p>Within this unit pupils will revisit computer networks including network topologies, layers, protocols and the importance of network security.</p> <p>Pupils will embed their knowledge of computer systems including computer architecture, memory, operating systems and high and low level programming.</p>	<p>Databases & SQL</p> <p>In this unit of work pupils will work the topic of relational databases and structured query language. Pupil will already have knowledge of programming concepts.</p> <p>Pupils will be able to</p> <ul style="list-style-type: none"> • Explain the concept of a database and a relational database • Use SQL functions to retrieve, insert, update and delete data in a databases. 	<p>Revision & Further Programming Practice</p> <p>During this unit pupils will use key programming techniques to decompose a problem and create a solution or algorithm.</p> <p>Pupils will be able to test and debug code to create an efficient and robust solution.</p>	<p>Cybersecurity & ethical, legal and environmental responsibilities</p> <p>Pupils will develop an understanding of the following topics, applying knowledge and understanding of:</p> <ul style="list-style-type: none"> • Malicious code • Hacking • Malware • Wearable tech • Access rights • Unpatched & outdated software • Passwords • Social engineering • Copyright • Networking • Cyber security • Government privacy infringements • Penetration testing 	<p>Paper 1 and Paper 2 Revision</p>	