

Curriculum Map – Computer Science Year 11 (2024 – 2025)

		2	3	4
Y11	<p>Topic Title: Data representation, Computer networks, Cyber security, Databases (and coding)</p> <p>Big questions: What is a computer network and how do you keep it secure? <i>(3.5 Fundamentals of computer networks)</i> Recap networks. What is a network protocol? What is the need and importance of Network Security? What is the 4 layer TCP/IP model? What is cyber security and why is it important? <i>(3.6 Cyber security)</i> What are Cyber security threats? What is Social Engineering and how can it be protected against? What is Malicious Code and how can it be protected against? What methods are used for detection and prevention of Cyber security threats? What is the purpose of databases? <i>(3.7 Relational Database and Structured Query Language)</i> What is a database? What are the different types of databases? How are databases created, deleted, updated? How do I use SQL to manipulate data? <i>(3.2 Programming)</i></p>	<p>Topic Title: Impact of Computers on society (and coding)</p> <p>Big questions: What are the current ethical, legal and environmental impacts and risks of digital technology on society? <i>(3.8 Ethical, legal and environmental impacts of digital technology on wider society, including issues of privacy)</i></p> <p>What are the ethical impacts of technology in society? What impact does legislation and privacy have? What is the impact of technology on society and on the environment? <i>(3.2 Programming)</i> Revision of Python work.</p>	<p>Topic Title: REVISION</p> <p>Big questions: Revision and exam practice <i>(this will have been ongoing throughout).</i></p>	<p>Topic Title: REVISION</p> <p>Big questions: Revision and exam practice <i>(this will have been ongoing throughout).</i></p>

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	<p>Can I combine my coding skills successfully?</p> <p>Recap search and sort algorithms, sequence, selection, iteration, flowcharts, pseudocode.</p> <p>How can I make my code efficient?</p> <p>How I make my code robust and secure by using data validation?</p> <p>What is test data and how do I identify and categorise errors?</p>			
ASSESSMENT	<p>CFU itsLearning quiz – Networks, Cybersecurity, Databases</p> <p>CFU HW Seneca learning & retrieval assessments.</p> <p>Coding challenges/project (live marking)</p> <p>Assessment 3.5, 3.6, 3.7</p>	<p>CFU itsLearning quiz – Computing ethics</p> <p>CFU HW Seneca learning & retrieval assessments.</p> <p>Coding challenges (live marking)</p> <p>Assessment 3.8 Ethical, legal & environmental impacts</p>		