			Year 10 Computer Science Curriculum Plan			
Component 1 Core		Hinterland		NC Coverage	Assessmen	
	Knowledge	Skills	Knowledge	Skills		
(Autumn Term 1 & 2) Fundamentals of computer networks	 Wired and wireless networks Network topologies Network security Protocols and layer 	Interpret network types. Analyse network topology and protocols. (Servers, browsers, pages, HTTP and HTTPS protocols.)	 Mobile network technologies of 3G, 4G AND 5G 	• Surfing on the internet using	• 4CC2 • 4CC3	 PLC End of topic ass PR point assess
Fundamentals of cyber security	 Cyber security threats Social engineering Malicious code Detection and prevention 	 Interpret technologies designed to protect network, computers, and programs. Identifying security threats like viruses, data breaches. 	Understanding the manipulation of people through social engineering	 Configure access right Creating strong password. Updating software on systems 		
(Spring 1 & 2) Databases & SQL	 Concept of relational database SQL Tables Queries Forms Reports 	 Creating table. Using SQL to create, modify and update databases. 	Understanding data redundancy and data inconsistency	Searching and sorting of data in a database online.		
Ethical, legal & environmental issues	 Ethical issues Digital technologies in society Legislation and privacy 	 Differentiate between moral principles that governs one. 	Legal and environmental impacts.	Risk of digital technology on society.		

Assessment	Whole Education
	Opportunities
	a CNACC athical and
	Sivisc- ethical and
PLC	cultural uses of
End of topic assessment	computer systems
PR noint assessments	
	SMSC-Data collection and
	usage-e.g. monetising
	nersonal data

(Summer Term 1 & 2) Structured Programming	 Procedure and functions Validation and authentication Determining the purpose of algorithm Errors and testing Classification of programming languages 	 Develop programming using more than one parameter Use subroutine concept in solving complex problem Write simple authentication routines in programming 	Data validation techniques	Setting up of username and password with set of rules.	
Fundamentals of Algorithm	 Algorithms Decomposition Abstraction Searching algorithm Sorting algorithm 	 Apply decomposition, abstraction, and algorithmic thinking to solve problem Use Flowcharts and pseudocode to represent solutions to problems. 	Understanding of managing problems.	Strategies for problem- solving	