

**Year 10-11 curriculum skeleton - computer science**

<b>Term</b>	<b>Half Term</b>		<b>Year 10</b>	<b>Year 11</b>
<b>Winter</b>	<b>Autumn 1</b>	<b>Topic</b>	Units Data storage Compression	Revisit Computational Thinking Revisit Programming fundamentals Data types
		<b>Skill</b>	Converting between different number systems. Applying mathematical skills of indices. Basic multiplication and addition.	Application of fundamental principles of abstraction, decomposition, logic and algorithms.
	<b>Autumn 2</b>	<b>Topic</b>	Primary Secondary Storage Networks and topologies	Additional programming techniques Searching and sorting algorithms Designing, creating and refining algorithms
		<b>Skill</b>	Knowledge of digital system components	Analysis of problems in computational terms Program design, code writing and debug skills
<b>Spring</b>	<b>Spring 1</b>	<b>Topic</b>	Wired and wireless networks, protocols and layers Network Security	Producing robust programs Boolean Logic
		<b>Skill</b>	Knowledge of digital system components	Logical thinking Creative thinking, critical thinking and problem analysis
	<b>Spring 2</b>	<b>Topic</b>	Systems Architecture Systems Software	Programming languages and IDEs Revision for exam
		<b>Skill</b>	Knowledge of digital system components	Revision skills
<b>Summer</b>	<b>Summer 1</b>	<b>Topic</b>	Systems Software continued Ethical, legal, cultural and environmental impact	
		<b>Skill</b>	Analysis and knowledge of impacts of digital technology to the individual and to wider society	
	<b>Summer 2</b>	<b>Topic</b>	Computational Thinking Programming fundamentals	
		<b>Skill</b>	Application of fundamental principles of abstraction, decomposition, logic and algorithms. Logical thinking Creative thinking, critical thinking and problem analysis	