

Year: 12

Subject: Computer science

Autumn Term		
	Core	Extension
The Big Questions (What questions will students be able to answer upon mastery of the topic?)	<ul style="list-style-type: none">• What is "Computer Science"?• What are the components of a CPU, and what do they do?• How does a CPU work?• How is the performance of a CPU determined?• What are the differences between the RISC and CISC architectures?• How are input, output and storage devices used in typical applications of Computer Science?• What is an operating system?• What is an interrupt?• What is a kernel?• What is a virtual machine?• Why do we need application software?• How does a VB program become the binary code that a computer can execute?• Why do programmers use libraries?• How are large scale programming projects undertaken?	<ul style="list-style-type: none">• How has CPU design changed?• What needs to be considered when developing CPUs for mobile devices• What does the future hold for operating systems?• Are working practices for tech firms likely to change?
	Skill/Technique	How students will develop and demonstrate this
Key skills	Writing and following algorithms Refine and improve solutions Working independently Solving problems Programming in high and low level languages	During assessments, classwork and homework, students will: <ul style="list-style-type: none">• complete tasks that test the knowledge and understanding.

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		<ul style="list-style-type: none">Students create a summary sheet for each topic that requires them to condense the topic into one A3 piece of paper. solve problems in VB.NET & other languages
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