

Key Stage 4

Subject: Computer Science

Intent

The KS4 Computer Science curriculum is designed to cover the following areas
Computer Systems: Computational thinking, algorithms and programming.
The curriculum intent is to develop the student in one of the **STEM** areas by understanding and applying the fundamental concepts and principles of Computer Science. Analyse problems in computational terms through practical problem-solving experience. Enable learners to think creatively, innovatively, analytically, logically and critically. Understand the components that make up digital systems and how they communicate with one another. Understand the impacts of digital technology to the individual and wider society. Finally apply mathematical skills relevant to Computer Science.

Programme of study and assessment

	Autumn Term	Spring Term	Summer Term
Year 10	Component 1: Systems Architecture Memory Storage Systems Software Wired and Wireless Networks	Component 1: Network topologies, protocols and layers System security Ethical, legal, cultural and environmental concerns Comp 1 Exam practice and revision	Component 2: Algorithms Programming techniques
Assessment	Assessment will be through end of unit tests. End of unit test on Comp 1 covered so far. This being the topic above. This will be via multiple choice questions and short answers.	End of unit test on Comp 1 covered so far. This being the topic above. This will be via multiple choice questions and short answers.	Assessment will be via an end of Unit Coursework covering programming techniques and End of exam.
Year 11	Component 2: Programming Techniques Producing robust programs Analysis, Design, Development, testing and evaluation of conclusions. Programming Practice project	Component 2: Data representation Computational Logic Translators and facilities of languages	Exam Practice and revision
Assessment	Nov Mock exam on Component 2 Data representation, logic and translators as well topics	Feb Mock exam on both Component 1 and 2. Covering all topic since Year 10. The exam will	

	<p>from Comp 1 Networks, storage and system architecture. The exam will questions assessing students' ability to write or refine algorithms along with multiply choice, short answers and extended response questions.</p>	<p>questions assessing students' ability to write or refine algorithms along with multiply choice, short answers and extended response questions.</p>	
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