Computing

Year 10

What are the aims and intentions of this curriculum?

Students are to develop their knowledge of the theory behind Computing. The students will cover a range of Computer Systems topics before working through their live NEA which must be completed by the end of the course.

Term	Topics	Knowledge covered	Skills developed	Assessment
Autumn 1	System Architecture	CPU Memory Storage	Students are to cover the system architecture topic in detail. Students are to understand what the CPU is and how it works. They will also cover the memory and storage in computer systems.	Written system architecture assessment
Autumn 2	Networks	Wired and wireless networks Network topologies Network protocols	Students are to cover the network topic in detail. The students will cover all of the networks section which includes wired and wireless, topologies and network protocols.	Written network assessment
Spring 1	System Security	Threats to systems Protection methods System software Ethical, legal and cultural concerns	Students are to cover the system security section which includes knowledge such as threats and protection methods, system software and the ethical, legal and cultural concerns surrounding Computing.	Written system security assessment
Spring 2	Algorithms	Logic gates Algorithms Data representation	Students are to cover the algorithm topic which includes logic gates, algorithm skills and data representation.	Written algorithm, programming and representation assessment
Summer 1	Programming Project - Live NEA	Students will work through a live NEA set from the exam board. Students are required to use a range of skills to plan, design, create, test and evaluate a solution they created to a problem using computational thinking methods.	Students are to plan, design, create, test and evaluate a solution to a problem.	NEA report
Summer 2	Programming Project - Live NEA	Students will work through a live NEA set from the exam board. Students are required to use a range of skills to plan, design, create, test and evaluate a solution they created to a problem using computational thinking methods.	Students are to plan, design, create, test and evaluate a solution to a problem.	NEA report