	Intent			
Computer Science	• Understand and apply the fundamental concepts and principles of Computer Science. • Analyse problems in computational terms through practical problem-solving experience. • Think creatively, analytically, logically. • Understand the components that make up digital systems and how they work together to compute. • Understand the impacts of digital technology to individuals and wider society.			
Year 11	**Programming (All year)**	**Networks (First half of Autumn Term)**	**Security and ethics (Second half of Autumn Term)**	**Databases and SQL (Spring Term)**
Knowledge (facts, information, concepts and key terminology)	• All knowledge of programming form year 10 and some new concepts • Nested selection and iteration. • User-defined functions.	• Advantages and disadvantages. • Scale, wired/wireless and topology. • Protocols. • Security.	• Cyber security threats: social engineering, malware, pharming, weak passwords, access rights, unpatched software. • Prevention and detection. • Understand principles around ethical issues in computing, e.g.: wearables, autonomous vehicles, cloud storage.	• The concept of a relational database. • Fundamental concepts: Table, field, record, primary key, foreign key. • Understand that SQL is used to create, retrieve, update and delete data.
Understanding (ability to connect and synthesise knowledge within a context)	• Understand when to apply particular concepts in programming.	• Suggest suitable network types for different circumstances. • Explain reasons for installing networks and explain any disadvantages. • Suggest security measures that need to be applied.	• Explain the security threats and how they can be prevented. • Explain which security methods can be used to prevent particular threats. • Discuss ethical issues within a unseen context.	• Describe how relational databases make use of primary and foreign keys to
Skills (successful application of knowledge and understanding to a specific task)	• Write programs with some assistance using all of the concepts listed above. • Read pseudo code.	•	•	• Write SQL to apply CRUD principles.
Formal Assessments (those done by all/vast majority of the cohort)	Mock exams in November and March.			
By the end of the year students on course for at least a grade 5 will…				