Curriculum Summary Document
Year 7 - Computing

Module/Unit of Learning	Taught During	What will students learn?	How does this help to build a broad and strong foundation?	Links to other Subjects
Digital Literacy and Computing at Penrice	**Autumn - Term 1**	This unit allows learners to further develop their digital literacy skills. The aim of the unit is to develop computer skills that will be used throughout their time at Penrice not just in computing but across the whole school curriculum.	This unit aims to develop learners skills in using email, spreadsheet software, word processors and the web safety and responsibly	
Modelling Data Using Spreadsheet	**Autumn – Term 2**	This unit allows leaners to gain a fundamental understanding of the use of spreadsheets to model data. The unit aims to allow students to have confidence in modelling data through a spreadsheet, critically analyses data sets and biases and create data visualisations.	This unit aims to equip students with the skills to understand the construct of data sets through modelling in spreadsheets. Additionally, it aims to allow learners to critically analyses data processing.	Maths – Application of mathematical operators
Computing Systems (Hardware and Software)	Spring – Term 1	This unit takes learners on a tour through the different layers of computing systems: from programs and the operating system, to the physical components that store and execute these programs, to the fundamental binary building blocks that these components consist of. The aim is to provide a concise overview of how computing systems operate, conveying the essentials and abstracting away the technical details that might confuse or put off learners.	This unit aims to introduce learners to the fundamentals of computer architecture covering what is meant by hardware and software and how they work in unison to process data and instructions.	Maths – Number systems (binary and denary)

Scratch Programming Part 01	**Spring – Term 2**	The aim of this unit and the following unit ('scratch programming part 2') is to build learners' confidence and knowledge of the key programming constructs. Importantly, this unit does not assume any previous programming experience, but it does offer learners the opportunity to expand on their knowledge throughout the unit.	The aim of this unit is to build learners' confidence and knowledge of key programming constructs as well as developing leaners problem solving skills.	Math – Algebra through the use of variables Math – application of mathematical operators Math – Boolean Logic
Scratch Programming Part 02	**Summer – Term 01**	This unit begins right where 'Programming I' left off. Learners will build on their understanding of the control structures' sequence, selection, and iteration (the big three), and develop their problem-solving skills. Learners will learn how to create their own subroutines, develop their understanding of decomposition, learn how to create and use lists, and build upon their problem-solving skills by working through a larger project at the end of the unit.	This unit builds on learners foundational programming skills and introduces them higher-level constructs by creating a series of programming projects.	Math – Algebra through the use of variables Math – application of mathematical operators Math – Boolean Logic
Networks	**Summer – Term 02**	As networks have evolved, society has become increasingly reliant on the services that they provide. They have changed the way we learn, work, play, and communicate. This unit begins by defining a network and addressing the benefits of networking, before covering how data is transmitted across networks using protocols. The types of hardware required are explained, as is wired and wireless data transmission. Learners will develop an understanding of the terms 'internet' and 'World Wide Web',	This unit introduces students to fundamentals of computer networks.	

		and of the key services and protocols used. Practical exercises are included throughout to help strengthen understanding.		