KS2 National Curriculum	Time	7	8	9	10	11	KS5	Careers
Design, write and debug programs that accomplish specific goals Use sequence, selection, and repetition in programs Use logical reasoning to explain how some simple algorithms work Select, use and combine a variety of software Use search technologies effectively Understand computer networks	**Autumn Term 1**	Digital Literacy & E-Safety Password importance, staying safe on social media, being aware of our digital presence, spreadsheet and presentation **National Curriculum ref: 9**	Digital Literacy Using PowerPoint to create Digital Artefacts, MS Word, Publisher, Business; Marketing Mix **National Curriculum ref: 7**	Digital Literacy More advanced spreadsheet, and other application software's, Web Design undertaking a creative project, Business knowledge **National Curriculum ref: 7**	1.2 Memory and Storage	2.1 Algorithms 2.4 Boolean Logic	Holly Cross College: A-Level Computer Science. Entry Requirement General College entry requirements. Grade 4 or above in GCSE Maths. Loreto College: A-Level Computer Science. Entry Requirement General College entry requirements. Grade 4 or above in GCSE Maths.	-Artificial intelligence and machine learning engineer. -Business analyst. -Chief information security officer. -Cloud computing engineer. -Computer science professor. -Computer scientist or computer science researcher. -Data scientist. -Database administrator. -Computer Programmer -Software Engineer
	Autumn Term 2	Data Representation Looking at converting Binary to Denary & back, what is ASCII **National Curriculum ref: 6**	Data Representation Images as binary, Binary Addition & Hexadecimal **National Curriculum ref: 4**	Data Representation Boolean and Logic Gates, Truth Tables **National Curriculum ref: 4**	1.1 Systems Architecture	2.2 Programming Fundamentals		
	Spring Term 1	Graphics Using Paint.net software, Introduce terms bitmap and vector, discerning users of digital content, audience **National Curriculum ref: 8**	Graphics Self-Image knowledge, more in depth looking at bitmap and considering impact binary, undertake a creative project **National Curriculum ref: 8 &9**	Graphics Advanced Photoshop skills including layers, Animation skills to design a usable digital artefact **National Curriculum ref: 8**	1.3 Computer Networks 1.4 Network Security	2.3 Producing Robust Programming		
	Spring Term 2	What are Computers Peripherals, how we Back up, Inputs, Outputs, Software & Hardware **National Curriculum ref: 5**	Understanding Computers Memory, Storage Types, operating Systems, open source v Proprietary **National Curriculum ref: 5**	Cyber Security Malware, Hackers and Social Engineering **National Curriculum ref: 9**	1.5 Systems Software	**Review of Topics**		
	Summer Term1	Algorithms Computational Thinking Decomposition and Abstraction **National Curriculum ref: 1**	Algorithms Flow Charts and used to create an App **National Curriculum ref: 1**	Algorithms 3 Searches programming techniques and Pseudo Code **National Curriculum ref: 2**	1.6 Ethics, Legal and Culture	**Review of Topics**		
	Summer Term 2	Programming Block based using Scratch to learn programming sequences **National Curriculum ref: 3**	Programming Text-based programming moving from Small Basic **National Curriculum ref: 3**	Programming Creating programs in Python Selection, Sequence and Iteration **National Curriculum ref: 3**	2.5 Programming Languages and IDEs			