Bishop Stopford's School

Curriculum Intent: To inspire every student to engage in lessons and want to explore the curriculum beyond the classroom

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit of work	App Creation - Launch	Algorithms	Scratch Programming	Computer-Crime-and-Cyber-Security	Database Development	Introduction to Python Programming
Core Skills	Ability to apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.	Ability to apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.	Evaluating and applying information technology, including new or unfamiliar technologies, analytically to solve problems	Being responsible, competent, confident and creative users of information and communication technology	Providing learners with the platform, knowledge base and skills to develop their programming skills, computational and problem-solving skills and logic.	Mathematical, investigative, analytical, reasoning, problem solving skills and Critical thinking.
Core Knowledge	Systems architecture; The CPU; Function and Characteristics of the CPU; Memory; Storage; Software; Assessment.	Data Representation, Units, Numbers, Characters, Images, Sound and Compression.	Programming Concepts. Introduction to Python and programming; Python IDLE and programming Problem solving ways of describing problems (algorithms, written description, flowchart, pseudo-code)	Operators: arithmetic operators, order of precedence and parenthesis Develop code: error messages, debugging, comment statements, writing, saving and retrieving program files Data types, variables and input	Algorithm - Computational Thinking Python Programming	Understand the hardware and software components that makeup computer systems, and how they communicate with one another and with other systems
Assesment & Feedback	This will be in the formats specified: Class structured assessments. End of unit and topic assessments. Diagnostic Assessments with detailed constructive feedback given to improve and progress. Half Term assessment of skills by the student based on units delivered. Termly assessment of skills by the teacher (In addition to formal school reporting.					
Link to prior learning	Students studied the importance of using Computers and technology safely and responsibly in Year 7. They developed their understanding in Networks and basic knowledge in Programming. In Year 8 students will consolidate your knowledge and skills in Programming. They will learn about Systems Architecture, how to represent data, the various hardware and software components of a computers and how they operate and develop your skills in programming basic algorithms and systems. Beyond Year 8, students will develop their knowledge in data representation and systems architecture, study binary arithmetic and hexadecimal. They will study Computer Networks, Topologies, Protocols and Systems Security.					
Outside learning/trips	Computing LIVE! Student Event at Disneyland Paris. Berlin - The Germany Museum of Technology.					