COMPUTING YEAR 7

	Kodu	
AUTUMN TERM 1	Detects and corrects errors, i.e. debugging, in algorithms	[ ]
	Creates programs that implement algorithms to achieve given goals	[ ]
	Can use logical operators, such as >=, <=, <>, AND, and OR to narrow selections	[ ]
	Can use 'if' statements in their solutions to achieve an outcome	[ ]
	Can declare, assign and use a variable to provide the program or user with information	[ ]
	Understands the difference between inputs and outputs	[ ]
	Has produced an evaluation for their solution	[ ]
	Collects feedback from other users	[ ]
	Is able to create a basic design for a program	[ ]
	Can design a program using key elements (e.g. characters, behaviours, modules)	[ ]
	Shows evidence of rapid application development (screen shots of implementation)	[ ]
	Can design a program so that another student could recreate the same/similar program	[ ]
	Is able to include success criteria in their work	[ ]
	Understands that selections can be nested to narrow questions	[ ]
	Understands that a variable contains values for use in a program	[ ]
	Understands that instructions can repeat	[ ]
	Breaks a problem down into smaller parts for solution	[ ]
	Demonstrates that they have broken a problem down into smaller, more manageable chunks	[ ]
	Understands that a selection allows the computer to make a choice (if..then..else)	[ ]
	BBC MicroBit	
AUTUMN TERM 2	Detects and corrects errors, i.e. debugging, in algorithms	[ ]
	Designs solutions (algorithms) that use repetition and two-way selection i.e. if, then and else.	[ ]
	Can use logical operators, such as >=, <=, <>, AND, and OR to narrow selections	[ ]
	Can declare, assign and use a variable to provide the program or user with information	[ ]
	Understands the difference between, and appropriately uses, 'if', 'if, then', and 'else' statements	[ ]
	Has produced an evaluation for their solution	[ ]
	Is able to create a basic design for a program	[ ]
	Can design a program using key elements (e.g. characters, behaviours, modules)	[ ]
	Shows evidence of rapid application development (screen shots of implementation)	[ ]
	Is able to include success criteria in their work	[ ]
	Understands that a variable contains values for use in a program	[ ]
	Includes detailed success criteria in the design	[ ]
	Breaks a problem down into smaller parts for solution	[ ]
	Has used a loop	[ ]
	Understands that generalisation is adapting code for a different purpose	[ ]
	Has shown that success criteria have been used to evaluate the solution and that there are WWWs and EBIs discussed	[ ]

	Understands that iteration is the repetition of a process such as a loop	[ ]
	Spreadsheets	
SPRING TERM 1	Is able to use basic formulas with cell references to perform tasks	[ ]
	Uses the autofill tool to replicate cell data	[ ]
	Can collect data	[ ]
	Can explain the difference between data and information	[ ]
	Can explain the difference between primary and secondary sources of data	[ ]
	Can analyse data	[ ]
	Can create appropriate charts in a spreadsheet	[ ]
	Uses the functions SUM, COUNTA, MAX, and MIN in a spreadsheet	[ ]
	Can use a spreadsheet to sort and filter data	[ ]
	Can use the functions AVERAGE, COUNTIF, and IF in a spreadsheet	[ ]
	Flowol	
SPRING TERM 2	Detects and corrects errors, i.e. debugging, in algorithms	[ ]
	Designs solutions (algorithms) that use repetition and two-way selection i.e. ‘if, then’ and ‘else’	[ ]
	Declares and assigns variables	[ ]
	Uses post-tested loop e.g. 'until', and a sequence of selection statements in programs, including an ‘if, then’ and ‘else’ statement.	[ ]
	Can declare, assign and use a variable to provide the program or user with information	[ ]
	Recognises that a range of digital devices can be considered a computer	[ ]
	Understands the difference between inputs and outputs	[ ]
	Knows that computers collect data from various input devices, including sensors, switches and application software.	[ ]
	Is able to write a program that uses an input to change/create an output	[ ]
	Utilises input data within a program to influence what the program does next	[ ]
	Has produced an evaluation for their solution	[ ]
	Can describe an algorithm using different diagrams, including flow charts	[ ]
	Shows evidence of rapid application development (screen shots of implementation)	[ ]
	Understands that there is a difference between switches and sensors	[ ]
	Understands that a variable contains values for use in a program	[ ]
	Understands that instructions can repeat	[ ]
	Includes detailed success criteria in the design	[ ]
	Includes some inputs and outputs in the design	[ ]
	Can declare and assign a variable	[ ]
	Understands that decomposition is breaking a problem down into smaller parts	[ ]
	Demonstrates that they have broken a problem down into smaller, more manageable chunks	[ ]
	Understands that abstraction means getting rid of unnecessary detail	[ ]
	Has shown that some unnecessary detail has been removed	[ ]
	Has shown that success criteria have been used to evaluate the solution and that there are WWWs and EBIs discussed	[ ]

	Cyber Explorers	
SUMMER TERM 1	Demonstrates use of computers safely and responsibly, knowing a range of ways to report unacceptable content and contact when online	[ ]
	Understands what is meant by personal data	[ ]
	Understands that privacy cannot be assured when using the Internet	[ ]
	Has the ability to communicate ways to keep themselves and others safe when using the World Wide Web	[ ]
	Can evaluate information found on the World Wide Web for reliability	[ ]
	Can explain the difference between data and information	[ ]
	Can identify some methods for keeping data safe	[ ]
	Understands what is meant by a brute force attack	[ ]
	Can give examples of methods of preventing a brute force attack	[ ]
	Understands and can list some forms of malware	[ ]
	Has completed at least one level of Cyber Explorers	[ ]
	Understands that organisations must take reasonable steps to protect their data	[ ]
	Has knowledge of the existence of legislation that governs the use of computers	[ ]
	Has knowledge of some of the methods that can lead to data being stolen or lost	[ ]
	Understands that any unauthorised access to data is regarded as hacking	[ ]
	Can describe some common methods used to try and gain unauthorised access to data	[ ]
	Able to identify and explain some of the common methods used by organisations to protect their data	[ ]
	Able to solve problems and explore techniques to access data	[ ]
	Able to use methods to protect data	[ ]
	Has completed at least one puzzle in Cyber Explorers	[ ]
	Digital Artefacts - Canva	
SUMER TERM 2	Shows an awareness for the quality of digital content collected.	[ ]
	Has shown that success criteria have been used to evaluate the solution and that there are WWWs and EBIs discussed	[ ]
	Has an understanding that images are groups of pixels	[ ]
	Has the ability to combine different media to produce an outcome	[ ]
	Has an understanding that the greater the quality of a multimedia, the larger the file size	[ ]
	Has the ability to discuss how images and video are formed from pixels, each of which is coded as binary numbers	[ ]
	Is able to communicate an understanding of the term ‘digital artefact’	[ ]