Curriculum Content Map			Subject: Computer Science		Year group: 9	
TERM 1		TERM 2		TERM 3		
Unit title & description	Introduction to cybersecurity Identifying how users and organisations can protect themselves from cyberattacks	Data science Using data to investigate problems and make real- world changes.	Media - Animations Creating 3D animations through object manipulation, and tweaking and adjusting lighting and camera angles	Python programming with sequences of data Manipulating strings and lists. Creating a programming project	Representations - going audiovisual Representing images and sound using binary digits.	Developing physical computing projects Sensing and controlling with the micro:bit
Sequencing	Students may know some of the concepts due to daily life usage, however, no prior knowledge is assumed	Students will have used some of the techniques in Maths however no prior knowledge is assumed	No Prior knowledge is assumed	Students are building on their programming knowledge from Y7 and Y8	No prior knowledge is assumed	Students have studied python in Y8 and Y9. They will be expected to apply this knowledge in practical sense
Knowledge	Understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	Create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability	Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems	Understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem	Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users	Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns.
Retrieval Practice	Knowledge tests Quick quizzes DO Now recall tasks	Knowledge tests Quick quizzes DO Now recall tasks	Knowledge tests Quick quizzes DO Now recall tasks	Knowledge tests Quick quizzes DO Now recall tasks	Knowledge tests Quick quizzes DO Now recall tasks	Knowledge tests Quick quizzes DO Now recall tasks
Sequencing Skills	To use a network emulator to protect a network as well as other practical protection methods.	Use dummy data to analyse and provide insights into a scenario	Creating their own animation	Write their own program	Create their own reel using specific software	Write their own program
Literacy	Students to be introduced to unit specific terminology	Students to be introduced to unit specific terminology	Students to be introduced to unit specific terminology	Students to be introduced to unit specific terminology	Students to be introduced to unit specific terminology	Students to be introduced to unit specific terminology
Numeracy X ÷	Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits

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Enrichment learning		Practical opportunities, which includes working in groups. Possibility of investigation or project work.	Practical opportunities, which includes working in groups. Possibility of investigation or project work.	Practical opportunities, which includes working in groups. Possibility of investigation or project work.	Practical opportunities, which includes working in groups. Possibility of investigation or project work.	Practical opportunities, which includes working in groups. Possibility of investigation or project work.	Practical opportunities, which includes working in groups. Possibility of investigation or project work.
British values and SMSC	4	- Copyright and ownership - Managing online information					
Character	Ť	Redrafting extended answers allows development of resilience. Working in groups develops confidence. Homework and projects develop independence	Redrafting extended answers allows development of resilience. Working in groups develops confidence. Homework and projects develop independence	Redrafting extended answers allows development of resilience. Working in groups develops confidence. Homework and projects develop independence	Redrafting extended answers allows development of resilience. Working in groups develops confidence. Homework and projects develop independence	Redrafting extended answers allows development of resilience. Working in groups develops confidence. Homework and projects develop independence	Redrafting extended answers allows development of resilience. Working in groups develops confidence. Homework and projects develop independence
Careers		Cyber Security Specialist Professional Hacker Pen Tester	Data Scientist Data Analyst Data Champion	Cartoon Creator Animation Specialist	Programmer Program Developer	Cartoon Creator Animation Specialist	Programmer Program Developer
Assessment opportunities	\$=\begin{align*} \begin{align*} \beg	Keyword spelling and definition tests, AP assessments, extended writing exam questions, homeworks	Keyword spelling and definition tests, AP assessments, extended writing exam questions, homeworks	Keyword spelling and definition tests, AP assessments, extended writing exam questions, homeworks	Keyword spelling and definition tests, AP assessments, extended writing exam questions, homeworks	Keyword spelling and definition tests, AP assessments, extended writing exam questions, homeworks	Keyword spelling and definition tests, AP assessments, extended writing exam questions, homeworks
Personalised Cha	llenge for	SEND to focus developing Los: recall, identify, match. Scaffolds to support SEND. HPA to be extended with the exceeding Los	SEND to focus developing Los: recall, identify, match. Scaffolds to support SEND. HPA to be extended with the exceeding Los	SEND to focus developing Los: recall, identify, match. Scaffolds to support SEND. HPA to be extended with the exceeding Los	SEND to focus developing Los: recall, identify, match. Scaffolds to support SEND. HPA to be extended with the exceeding Los	SEND to focus developing Los: recall, identify, match. Scaffolds to support SEND. HPA to be extended with the exceeding Los	SEND to focus developing Los: recall, identify, match. Scaffolds to support SEND. HPA to be extended with the exceeding Los