Curriculum Content Map

Subject: Computer Science

Year group: 8

	TERM 1		TERM 2		TERM 3	
Unit title & description	Layers of computing systems. Exploring the fundamental elements that make up a computer system	Developing for the web Using HTML and CSS to create webpages	Introduction to Python programming Applying the programming constructs of sequence, selection, and iteration in Python.	Media - Vector graphics Creating vector graphics through objects, layering, and path manipulation.	Representations - from clay to silicon Representing numbers and text using binary digits.	Mobile app development Using event-driven programming to create an online gaming app
Sequencing	The unit assumes no prior knowledge.	The unit assumes no prior knowledge.	Students were introduced to programming using scratch in Y7 and is building on top of their knowledge	The unit assumes no prior knowledge.	Students will know number bases from Maths.	The unit assumes no prior knowledge.
Knowledge	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 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	Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems	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	Create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability	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
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	Explore the components of a computer system	Build their own website	Write their own program	Create their own Vector Graphic	Use binary to solve problems	Create their own app
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

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	 Online bullying Online relationships Privacy and security 	 Online bullying Online relationships Privacy and security 	 Online bullying Online relationships Privacy and security 	 Online bullying Online relationships Privacy and security 	 Online bullying Online relationships Privacy and security 	 Online bullying Online relationships Privacy and security
Character	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	Computer Technician Computer Developer	Web Designer Web Engineer Web Developer	Programmer Program Developer	Media Content Creator Media Designer	Computer Scientist	Mobile App Developer
Assessment opportunities	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 Challenge for all	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