Programme of study for Year 9 Computer Science

Autumn (1 st term)	Autumn (2 nd term)	Spring (1 st term)	Spring (2 nd Term)	Summer (1 st term)	Summer (2 nd term)
Programming:(3)	Programming:(3)	Programming constructs:	Standard Algorithm	Standard Algorithm	Kodu Introduction
App design skills	Appshed introduction,	Programming Refresher	to process data	to process data	How 3D games are
Skills:	learning new skills Skills: Literacy: Technical terms Logical thinking	Variables	Serial Search:	Binary Search and bubble sort algorithm Skills:	created.
		- Operators =-/*,	Programming:		
Literacy: Technical terms		- Data types string, real,	Python lists and index		Skills:
creativity		integer, boolean, character.	positions. Loop refresher and coding a serial search	Logical thinking	Creativity
		- inputs and casting	Skille.		
		inputs and casting	JAMIS.		
		- Selection	Literacy: Technical terms		
		- Iteration	Logical thinking		
		- Sequencing			
		Skills:			
		Literacy: Technical terms.			
		Logical thinking			
End of term 1 evidence to cover:		End of term 2 evidence to cover:		End of year evidence to cover:	
Design and Programming Skills.		Understanding of a standard algorithm and coding a serial search		Understanding of standard algorithms	
				and creativity through gaming	
Rationale for sequence:		Rationale for sequence:	Rationale for sequence:	Rationale for sequence:	Rationale for sequence:
Using programming constructs in a block coding environment to produce a creative interactive app		introducing how data is stored on a computer and simple constructs	Having revisited a text based language we look at the simplest search algorithm and build up	Having looked at how to code a serial search we look at an alternative search algorithm and	Using programming skills learnt over KS3. An introduction to game coding for those wanting

			the coding skills to	introduce a sorting	to code at home at the			
			achieve this	algorithm	end of the year			
Home – Learning:	Home – Learning:	Home – Learning:	Home – Learning:	Home – Learning:	Home – Learning:			
Home learning related to	Home learning related to	Home learning related to	Home learning related to	Home learning related to	Home learning related to			
the topic completed	the topic completed	the next topic to be	the next topic to be	the topic completed	the next topic to be			
during the term.	during the term.	completed so that	completed so that	during the term.	completed so that			
		students get a chance to	students get a chance to		students get a chance to			
		become familiar with the	become familiar with the		become familiar with the			
		content.	content.		content.			
Reading / High Quality	Reading / High Quality	Reading / High Quality	Reading / High Quality	Reading / High Quality	Reading / High Quality			
Text:	Text:	Text:	Text:	Text:	Text:			
Numerous reading opportunities, students	Numerous reading opportunities, students	Numerous reading opportunities, students	Numerous reading opportunities, students	Numerous reading opportunities, students	Numerous reading opportunities, students			
read the objectives,	read the objectives,	read the objectives,	read the objectives,	read the objectives,	read the objectives,			
presentation slides and	presentation slides and	presentation slides and	presentation slides and	presentation slides and	presentation slides and			
other content related to	other content related to	other content related to	other content related to	other content related to	other content related to			
the lesson	the lesson	the lesson	the lesson	the lesson	the lesson			
https://appinventor.mit.e	https://www.linkedin.co	https://www.learnpython.	https://www.bbc.co.uk/bi	https://isaaccomputerscie	https://kodu.en.softonic.c			
du/explore/news	m/pulse/educations-new-	org/	tesize/guides/zgr2mp3/re	nce.org/concepts/dsa_se	om/			
	era-ai-how-empowering-		vision/2	arch bubble?examBoard=				
	young-generation-maria-			all&stage=all				
	<u>ko</u>							
Numeracy:	Numeracy:	Numeracy:	Numeracy:	Numeracy:	Numeracy:			
	Deserved his works as a		Maniah laa intaa mahama	Diagan ang ang akaining a	Mariahla manant			
research now many	Research big numbers e.g.	variables, float numbers	variables int numbers	Binary search, division	variable movement			
variations there are e.g.	How many apps are				speeds, nit counts, scores			
navigation?	Apple							
Enrichment / opportunities to develop cultural capital (including careers, WRL and SMSC):								

Are all apps good? Are all programmers doing good? SMSC

Encourage participation of masterclasses, hackathons and competitions