KESTEVEN AND SLEAFORD HIGH SCHOOL

Computing Scheme of Learning

<u>Year 9 – Topic 4 – Programming</u>

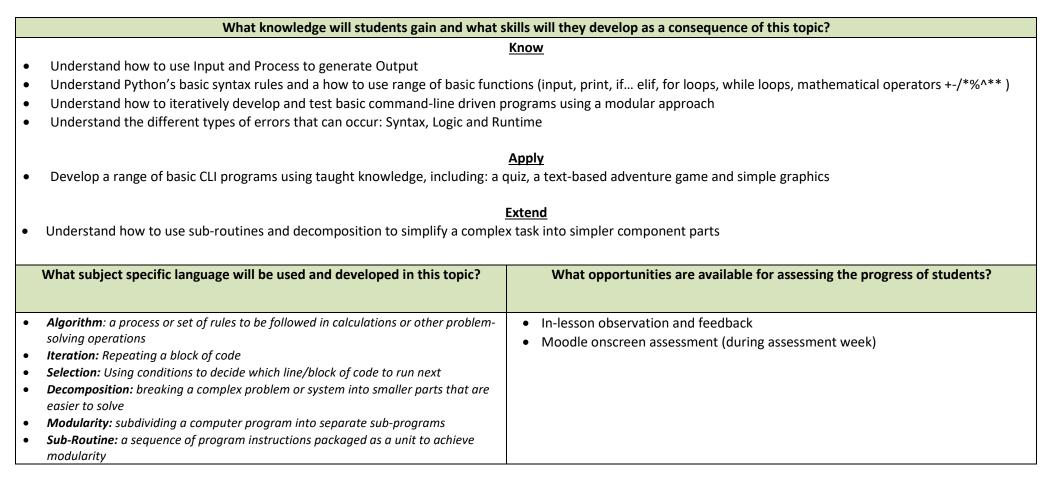
Intent – Rationale					
Topic Intent: Build on students' prior coding experience (sequence, selection, it Curriculum Intent: Developing an understanding of some of the underlying princ study of KS3 PoS: use two or more programming languages to solve a variety of com	teration) and introduce the concepts of modularity, nested selections and iterations ciples of Computer Science, with a focus on programming, in preparation for future f the subject putational problems; make appropriate use of data design and develop modular procedures or functions				
Sequencing – what prior learning does this topic build upon? Sequencing – what subsequent learning does this topic for the subsequent learning does the subsequent lear					
 Y7 Topic 3B Y8 Topic 3B 	 OCR GCSE Computer Science (2.1 & 2.2) OCR GCE Computer Science (2.2 & AO3) Further/Higher Education and Related Careers 				
What are the links with other subjects in the curriculum?	What are the links to SMSC, British Values and Careers?				
Mathematics (decisions)	• GB4e & GB4h				
What are the opportunities for developing literacy skills and developing learner confidence and enjoyment in reading?	What are the opportunities for developing mathematical skills?				
Directly linked to topic o <u>https://www.w3schools.com/Python/default.asp</u> Wider Reading/Interest: o <u>https://www.codecademy.com/learn/learn-python</u>	 BODMAS Conditional Operators (<, <=, ==, >, >==, !=) Modulus and Quotient 				

KESTEVEN AND SLEAFORD HIGH SCHOOL

Computing Scheme of Learning

<u>Year 9 – Topic 4 – Programming</u>

Intent – Concepts





KESTEVEN AND SLEAFORD HIGH SCHOOL

Intent – Concepts



Lesson title	Learning challenge	Higher level challenge	Suggested activities and resources
1 History of Programming, the role of	Develop a fake chatbot using	Introduce basic selection	
women and Python's print and input	input/print	statements to vary response	
instructions			
2 Using sequential selection	Develop a multiple-choice quiz	Include custom feedback based on	
		answers and results	
3-4 Introduction to modular programming	Students design and develop a	Include an inventory/reward	
	simple text-based adventure game	system	
5 Randomness & Binary Searching	Students develop a higher/lower	Accurately apply a binary search	
	guessing game and learn how to	on a very large data set	
	search ordered data efficiently		
6 Iteration and basic graphics	Students draw patterns/objects	Use nested iteration to improve	
	using efficient iterative code	efficiency/complexity	
7 Assessment			http://moodle.kshs.uk
			<u> </u>