

Unit: Computational Thinking: Algorithms

Subject: Computer Science				
Year group: 9		Unit: Computational Thinking. Algorithms	Date (from and to): 22 nd February 2021 – 26 th March 2021	
Wk.	Big question / concept: What are algorithms and how are they created?	Learning intentions: Learners must be able to:	Resources	
			Offline:	Online including links on how to access these: -
1	Computational thinking Abstraction Decomposition Algorithmic thinking	<ul style="list-style-type: none"> Students understand and can apply computational thinking to problems. 	<ul style="list-style-type: none"> GCSE OCR Computer Science Revision guide page 33 	https://members.gcsepod.com/shared/podcasts/title/13843/83828 GCSE POD on Algorithms
2	<ul style="list-style-type: none"> Pseudocode and flow diagrams 	Students can show the steps for a solution in Pseudocode and flow diagrams	GCSE OCR Computer Science Revision guide page 34 - 35	
3 and 4	<ul style="list-style-type: none"> Search algorithms <ul style="list-style-type: none"> Binary Search Linear Search Sorting algorithms <ul style="list-style-type: none"> Bubble sort Insertion sort Merge sort 	<ul style="list-style-type: none"> Students understand how the various types of algorithms work. Students know when each type of algorithm should be used. 	GCSE OCR Computer Science Revision guide page 36 - 39	https://members.gcsepod.com/shared/podcasts/title/13843/83828 GCSE POD on Algorithms
5	Efficiency of algorithms Ensuring that algorithms work consistently and efficiently.	Students understand the factors that affect the efficiency of algorithms.	GCSE OCR Computer Science Revision guide pages	