



Subject		Year		Term																			
Computer Science		11		1																			
Topic																							
Algorithms and Moral and legal aspects of computing																							
Content (Intent)																							
Prior Learning (Topic)		Networks and protocols																					
<p>Understand how the main sort and search algorithms are applied and in what circumstances they are useful. Demonstrate the order in which they can reorganise data and why this might be useful in a given set of circumstances. How to interpret a given set of algorithms, modify and adapt them to a particular purpose Social, ethical and moral issues regarding environment, health and wealth. Main laws, including Data Protection Act, Computer Misuse Act. Under what circumstances the law can be applied and the sort of activities they are intended to combat. The general problems encountered with the blind application of technology.</p>																							
Future Learning (Topic)		Security threats and the law																					
What Knowledge and Skills will be taught (Implementation)			How will your understanding be assessed & recorded (Impact)																				
<p>The mains algorithms to sort and search data, bubble, insertion and merge sort, linear and binary searches. The main algorithmic constructions, functions, iteration, branching, sequence. Recap IDE for formal exam Translation of source code through interpreter and compilation, techniques used trap errors, types of errors. Breakpoints, stepping variable watches.</p>			<p>A test in class based on past questions and on those provided by the exam board which are part of the end of unit test package. Students will be given a grade based on published grade boundary data. Assorted Google Forms to test knowledge.</p>																				
<p>The laws that govern how computers, data and information can be used. The moral and ethical dilemmas of computer use, including environmental impacts, social well-being.</p>			<p>Long answers, extended questions, to be marked with reference to how the exam board require social and moral questions to be answered. Feedback based on how to improve responses. Assorted Google Forms to test knowledge.</p>																				
How can parents help at home?																							
Ensure students revise for class tests, and do the homework's																							
Helpful further reading/discussion (including Reading and Vocabulary Lists)																							
<p>Reading CGP Computer science ISBN: 9781782946021 GCSE pod teach-ict.com</p>			<p>Vocabulary Lists</p> <table border="0"> <tr> <td>Translation</td> <td>Sort</td> </tr> <tr> <td>Interpreter</td> <td>Linear</td> </tr> <tr> <td>Compile</td> <td>Binary Search</td> </tr> <tr> <td>Variable</td> <td>Aware</td> </tr> <tr> <td>Swap</td> <td>Comment Pose</td> </tr> <tr> <td>Available</td> <td>Previous</td> </tr> <tr> <td>Bubble</td> <td>Relevant</td> </tr> <tr> <td>Insertion</td> <td>Require</td> </tr> <tr> <td>Merge</td> <td>Response</td> </tr> </table>			Translation	Sort	Interpreter	Linear	Compile	Binary Search	Variable	Aware	Swap	Comment Pose	Available	Previous	Bubble	Relevant	Insertion	Require	Merge	Response
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