## Curriculum Outline 2023-2024

Department:

Computing

Year 13

Timing	Unit Title	Key Question	Knowledge	Assessing Understanding
Autumn Term	Data Structures	How is data stored on a computer system?	<ul> <li>Lists</li> <li>Linked lists</li> <li>Stacks and Queues</li> <li>Trees</li> <li>Graphs</li> </ul>	<ul> <li>How understanding is assessed : <ul> <li>Set exercises throughout unit</li> </ul> </li> <li>Skills <ul> <li>Ability to analyse a situation and propose storage solution</li> <li>Technical ability to structure data storage</li> </ul> </li> <li>Assessment point information <ul> <li>Exercises, together with BM data, feed into an AP.</li> </ul> </li> </ul>
Autumn Term	Databases	How are Databases structured?	<ul> <li>Table-based systems</li> <li>Normalisation and table structure</li> <li>Advantages of Databases</li> <li>SQL</li> </ul>	<ul> <li>How understanding is assessed : <ul> <li>In-lesson BM data, based on a series of challenging exercises</li> <li>Homework task</li> </ul> </li> <li>Skills <ul> <li>Ability to create a database structure from a given situation</li> </ul> </li> <li>Assessment point information <ul> <li>The grades for the homework will feed into an AP.</li> </ul> </li> </ul>

Computing

	Advanced Methods	Sorting, searching and Traversals	<ul> <li>Quicksort</li> <li>Merge Sort</li> <li>Djikstra</li> <li>A*</li> </ul>	<ul> <li>How understanding is assessed : End of unit test</li> <li>Skills Ability to write peudocode for these</li> <li>Assessment point information Test marks feed into an AP</li> </ul>
	ООР	How does OOP aid Development?	<ul> <li>Comparison with procedural programming</li> <li>Encapsulation</li> <li>Inheritance</li> <li>Polymorphism</li> </ul>	<ul> <li>How understanding is assessed : <ul> <li>Homework exercise</li> </ul> </li> <li>Assessment point information <ul> <li>Homework feeds into the Assessment point, together with BM data.</li> </ul> </li> </ul>
Spring Term	Project	Can I run the full SA Cycle and write a program for someone else?	<ul> <li>Analysis</li> <li>Design</li> <li>Implementation</li> <li>Testing</li> <li>Documentation</li> <li>Evaluation</li> </ul>	<ul> <li>How understanding is assessed : <ul> <li>Via the Board's MS</li> </ul> </li> <li>Skills <ul> <li>Programming</li> <li>Project Management</li> </ul> </li> <li>Assessment point information <ul> <li>Progress BM data is fed into an AP</li> </ul> </li> </ul>

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Spring/Summer Term	Final Revision	What don't I know? How do I get the marks?	• All Theory Topics	How understanding is assessed : • Weekly homeworks Skills
				<ul> <li>Various</li> </ul>
				Assessment point information Weekly marks feed into an AP