Term	INTENT	IMPLEMENTATION	IMPACT
	Substantive Knowledge This is the specific, factual content for the topic, which should be connected into a careful sequence of learning.	**Disciplinary Knowledge (Skills)** This is the action taken within a particular topic in order to gain substantive knowledge.	**Assessment opportunities** What assessments will be used to measure student progress? Evidence of how well students have learned the intended content.
Autumn Term Y12 1A	**Intent** **Boolean Algebra 1.4** Why is this taught now? This topic has in part been covered in Y1 but some of the more advanced content is covered in Y2. **Continue to work on Project** **DataBases** Students learn about how data is captured, stored and exchanged.	• Use the following rules to derive or simplify statements in Boolean algebra: De Morgan's Laws, distribution, association, commutation, double negation. • Relational databases • Transaction processing, ACID (Atomicity, Consistency, Isolation, Durability), record locking • and redundancy • SQL – Interpret and modify.	In class teacher assessment through Q & A Knowledge recall activities Homework activities and past paper questions Teacher assessment during lesson End of module test End of Year assessments
Autumn Term 1B	**Intent** **Web Technologies** Why is this taught now? Builds on knowledge gained through the GCSE course and a fundamental topic that forms the basis on which other topics will build on. **Continue to work on Project**	• HTML, CSS and JavaScript • Search engine indexing. • PageRank algorithm. • Server and client side processing.	In class teacher assessment through Q & A Knowledge recall activities Homework activities and past paper questions Teacher assessment during lesson End of module test End of Year assessments
Spring Term 2A	**Intent** **Legislations and Ethical, Cultural and Moral Issues 1.5** Why is this taught now? This topic will have been taught during Y1 but is also refreshed during Y2. Reasoning is to continue to develop student skills with	• Data Protection Act 1988 • Computer Misuse Act 1990 • Copyright Design And patents Act 1988 • Regulation of Investigatory and Powers Act 2000	In class teacher assessment through Q & A Knowledge recall activities Homework activities and past paper questions Teacher assessment during lesson End of module test

	extended essay questions in relation to this topic as well as others. **<u>Algorithms 2.3</u>** Big O notation Optimisation Algorithms Advanced A level content and suited to be taught during Y2.	• Measures and methods to determine the efficiency of different algorithms, Big O notation (constant, linear, polynomial, exponential and logarithmic complexity). • Understand and be able to trace Dijkstra's shortest path algorithms • Describe A* algorithm • Be aware of application of shortest path algorithms	End of Year assessments
Spring Term 2B	**<u>Intent</u>** **<u>Computational methods 2.2</u>** Why is this taught now? This topic is taught with the project as students are able to grasp concepts and apply to their project write-ups. **<u>Project Submissions</u>**	• Problem recognition • Abstraction and Decomposition • Learners should apply their knowledge of: backtracking, data mining, heuristics, performance modelling, pipelining, visualisation to solve given problems.	In class teacher assessment through Q & A Knowledge recall activities Homework activities and past paper questions Teacher assessment during lesson End of module test End of Year assessments
Summer Term 3A	**<u>Intent</u>** **<u>Recap and Refresh Y1/2 content and topics that need revising.</u>** Why is this taught now? Preparation for examinations Why is this taught now?	• Through the use of assessment data and student feedback, topics are revised and students begin their revision program.	In class teacher assessment through Q & A Knowledge recall activities Homework activities and past paper questions Teacher assessment during lesson End of module test End of Year assessments
Summer Term 3B	**<u>Intent</u>** **<u>Recap and Refresh Y1/2 content and topics that need revising.</u>** Why is this taught now?	• Through the use of assessment data and student feedback, topics are revised and students begin their revision program.	In class teacher assessment through Q & A Knowledge recall activities Homework activities and past paper

	Preparation for examinations		questions Teacher assessment during lesson End of module test End of Year assessments
	Intent Why is this taught now?		