

## Curriculum Map 2023-24

## Year 13

Half term	Unit title with hyperlink to scheme of work	Unit summary	Skills & content covered	Skills & content revisited	Links to GCSE skills and content	Summative assessment schedule, including assessment criteria
Autumn 1	Unit 12: OOP and functional programming. Students will also work on their NEA alongside all topics being taught.	Students will expand their knowledge from procedural to OOP. They will look at real life scenarios as classes and objects and will program them.	draw and interpret a class diagram explain what is meant by inheritance and polymorphism, interpret and correct a simple object-oriented program, explain why the object-oriented paradigm is used state the meaning of the domain and co-domain of a function give examples of first-class objects in a functional programming	Computational thinking, application of procedural programming knowledge and problem solving	Paper 2 - computational thinking, problem solving and programming.	<a href="#">Teams assignments, programming tasks and exam style questions.</a> <a href="#">Homework</a>
Autumn 2	Revision for Mocks	Revising contents covered so far.		All content learned in GCSE and A level		<a href="#">Past exam papers</a>
Spring 1	Searching and sorting algorithms and recursion	Students will learn about various searching and sorting algorithms and their benefits and drawbacks. Recursion vs iteration	Linear and binary search, merge, quick, insertion, bubble sort, pathfinding algorithms such as Dijkstra and A*. The efficiency of algorithms; Big O notation	Programming skills as students will be coding these algorithms. Procedural and OOP skills.	Searching and sorting algorithms covered in GCSE	<a href="#">Past exam questions, programming tasks, homework</a>
Spring 2	<a href="#">Database and SQL, other revision as needed as we aim to cover all content by now.</a>	Key concept of Database, normalisation and SQL queries	define the terms attribute, primary key, composite primary key and foreign key. produce a simple entity relationship diagram involving two or three entities, use SQL to retrieve, update, insert and delete data from a single table	Analysing skills, application of theory to practical work	Database and SQL taught in GCSE	<a href="#">Teams assignments, exam style questions, practical tasks on MS access.</a> <a href="#">Homework</a>
Summer 1	<a href="#">NEA</a>	Students will be completing their coursework - final deadline	Analysis, design, coding, testing and evaluation	Black box, white box testing, OOP and Procedural, software development cycles	All aspects of computational thinking and programming skills.	<a href="#">Sample coursework as provided by the exam board</a>
Summer 2	<a href="#">Exam revision</a>	Targeted areas + all contents	Independent learning			<a href="#">All past exam questions</a>