Gordon's School Computing Department
A-Level - Curriculum Map

Key Words / Skills:

- Computer Architecture
- Data Structures
- Computational Thinking
- Algorithms
- Programming Paradigms
- Computation

Revision and prep for exam

NEA Completion
Finishing the Computing project!

Mock Exams
Revision and prep for exam

Exams

Mock Exams

Introduction to the NEA
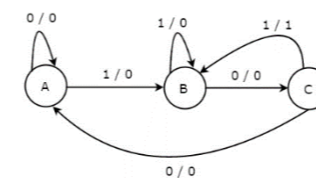Starting the Computing project!

Year 13

Fundamentals of data structures
Fundamentals of Algorithms
Creating solutions to problems using Algorithms and using data structures.

Regular Languages
FSMs, Mealy machines, Turing machines BNF and regular expressions

Theory of computation
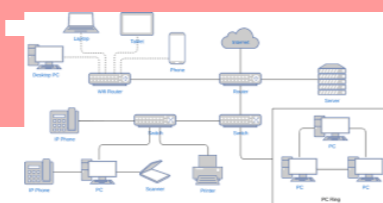Exploring algorithmic complexity and the limits of computation

Databases and Big data
Creating and using structured data stores and SQL

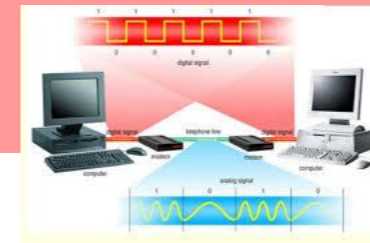**Programming Paradigms (OOP)**
Creating Objects in code…

Advanced Communication and networking
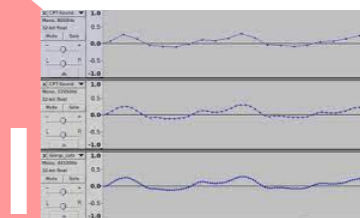How servers are used to deliver online services

Mock Exams

Fundamentals of communication and networking
How do computers communicate?

Fundamentals of data representation
How is data stored and manipulated?

Fundamentals of computer systems
Fundamentals of computer organisation and architecture
How the hardware works and interacts with itself and people

Consequences of uses of computing
How is society affected by computers?

Year 12

Fundamentals of programming
Systematic approach to problem solving and coding skills.