

Year 13 Computer Science Preview Sheet

Exam Board: AQA

Syllabus: 7517

Unit 12: OOP and functional programming

- Concepts of object-oriented programming
- Design principles
- Big data

Unit 6: Communications

- Communication methods
- Network topologies
- Client-server and peer-to-peer
- Wireless networking
- Privacy, social, cultural issues

Unit 10: The Internet

- Internet structure
- Packet switching
- Protocols
- IP addresses
- Security

NEA (due December)

- Documented design
- Technical solution
- Testing
- Evaluation

Unit 7: Fundamentals of data structures

- Queues
- Lists
- Stacks
- Dictionaries
- Graphs
- Trees
- Vectors

Unit 8: Algorithms

- Recursive algorithms
- Big-O notation
- Searching and sorting
- Graph-traversal algorithms
- Limits of computation

Unit 9: Regular languages

- Mealy machines
- Sets
- Regular expressions
- The Turing machine
- Backus – Naur Form
- Reverse Polish notation