AQA Computer Science A Level

Paper 1
Tests a student's ability to program, as well as their theoretical knowledge of computer science
Paper 2
Tests a student's ability to answer questions on Computer theory

Year 12	Term1	Term 2	Term3	Term4	Term5	Term6
Paper 2	Data representation		Fundamentals of Communication and Networking		Fundamentals of Computer Organization and Architecture	Data Structures
Paper 2	Hardware / Software		Fundamentals of Computer Systems		Mock Exams	Consequences of uses of Computing Moral, Ethical, Legal and cultural issues.
Paper 1	Procedural programming Programming concepts		Programming concepts Structured Object Oriented Programming		Mock Exams	Software Development NEA Perperation

Year 13	Term1	Term 2	Term3	Term4	Term5	Term6
Paper 2	Algorithms	The Internet	Fundamentals of Computer Systems		Paper 1 Exams	
NEA	NEA Technical Solution - Completeness		Fundamentals of Computer Systems			
Paper 1	Programming/Practical work/Algorithms		Programming Paper 1 preperation / Regular languages		Paper 2 Exams	

Year 12

Autumn

Theory

- Representation of text
- Representation of images
- Representation of sound
- Representation of numbers
- Number systems and sets
- Compression
- Encryption

Programming/Practical

- Procedural programming
- Programming concepts
- String handling
- Subroutines
- File handling
- IDE's

Spring

Theory

- Software
- Operating systems
- High- and low-level programming languages
- Translators
- Boolean logic
- Systems architecture

Programming/Practical

- Object-oriented programming

Summer

Theory

- Memory and storage
- Hardware
- File organisation
- Database concepts
- SQL

Programming/Practical

- Event-driven programming
- Software engineering principles
- Programming project/NEA
- Analysis
- Document design

Year 13

Theory

- Computational thinking
- Data structures
- Searching algorithms
- Sorting algorithms
- Pathfinding algorithms
- Complexity

Programming/Practical

- Recursion
- Software project
- Program design
- Testing

Theory

- Communication (AQA)
- Network fundamentals
- Network hardware
- The Internet
- Web technologies
- Network security
- Models of computation

Programming/Practical

- Programming project/NEA

  Technical Solution - Completeness

  Technical solution – techniques used

  Testing

  Evaluation

Theory

- Legislation
- Impacts of technology
- Social engineering
- Malicious software
- Mathematical functions
- Big Data

Programming/Practical

- Programming project/NEA
  - Functional programming