

# KS4 & KS5 Curriculum Journey

## GCSE & A-Level in Computer Science

### Careers

Apprenticeships, traineeships, internships, degree courses, employment in Computing, Engineering, Scientist, Research

### NEA

Programming Project (20%)  
Analyse, Design, Develop, Test & Evaluate a Software Project

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Focused on mastering all topics and completing NEA

### Components

Unit 1 – Computer Systems (40%)  
Unit 2 – Algorithms & Programming (40%)  
Unit 3 – Programming Project (20%)

A-Level  
Computer  
Science

### Skills and Knowledge Building

- 1.1 Processors, IO & Storage
- 1.2 Software & Software Development
- 1.3 Exchanging Data
- 1.4 Data Types, Structures & Algorithms
- 1.5 LMCE
- 2.1 Computational Thinking
- 2.2 Problem Solving & Programming
- 2.3 Algorithms

Focused on introducing all topics

### Components

Unit 1 – Computer Systems (40%)  
Unit 2 – Algorithms & Programming (40%)

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GCSE  
Computer  
Science

### Next Steps

Apprenticeships, traineeships, internships, employment, A-levels, Cambridge Technicals

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Focused on mastering all topics

### Components

Unit 1 – Computer Systems (50%)  
Unit 2 – Computational thinking, algorithms & programming (50%)

### Skills and Knowledge Building

- Unit 1
  - 1.1 Systems Architecture
  - 1.2 Memory & Storage
  - 1.3 Networks & Protocols
  - 1.4 Network Security
  - 1.5 System Software
  - 1.6 ELCE
- Unit 2
  - 2.1 Algorithms
  - 2.2 Programming
  - 2.3 Robustness
  - 2.4 Boolean Logic
  - 2.5 Programming Languages & IDEs

### Skills for Life

Independence, Resilience, Problem solving, Creativity, Time Management, Communication, Logical Thinking, Digital Literacy

### Components

Unit 1 – Computer Systems (50%)  
Unit 2 – Computational thinking, algorithms & programming (50%)

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Focused on introducing all topics

