

TKS KS4 GCSE Computer Science Curriculum Journey

"Unless in communicating with a computer one says exactly what one means, trouble is bound to result." Alan Turing

KS5
Options

2.5 – Software and ethics

- LO1: Purpose of an operating system
- LO2: Standard roles of an operating system
- LO3: Purpose of utility software
- LO4: Standard utility software
- LO5: Impacts of digital technology
- LO6: Computer Science legislation

2.4 - Languages

- LO1: Characteristics of low-level and high-level languages
- LO2: Purpose of translators
- LO3: Characteristics of translators
- LO4: Integrated Development Environments (IDEs)

2.3 – Boolean logic

- LO1: Logic diagrams
- LO2: Truth tables
- LO3: Combining Boolean operators
- LO4: Solving logic problems

2.2 – Robust programming

- LO1: Defensive design
- LO2: Input validation
- LO3: Maintainability
- LO4: Testing

2.1 – Programming techniques

- LO1: Basic programming constructs
- LO2: Handling inputs and outputs
- LO3: Using data types
- LO4: Sub-programs
- LO5: File handling
- LO6: Databases

1.6 – Algorithmic thinking

- LO1: Computational thinking
- LO2: Algorithmic thinking
- LO3: Standard algorithms

1.4 – Networks

- LO1: Types of network
- LO2: Network performance
- LO3: Network usage and topologies
- LO4: Addressing
- LO5: Network protocols and standards
- LO6: Layers

1.5 – System security

- LO1: Forms of attack
- LO2: Common prevention methods

1.3 – Data and compression

- LO1: Binary and hexadecimal
- LO2: Binary shifts
- LO3: Character formats

- LO4: Image formats
- LO5: Sound formats
- LO6: Compression

1.2 – Memory

- LO1: Primary storage
- LO2: RAM and ROM
- LO3: Virtual memory
- LO4: Secondary storage
- LO5: Types of storage device
- LO6: Units of data storage

1.1 – Hardware

- LO1: Purpose of the CPU
- LO2: Common CPU components
- LO3: Von Neumann architecture
- LO4: CPU performance
- LO5: Embedded systems

Y10

Baseline
Test

Y11

