Year 9 Learning Journey

Computer Science | Learning Journey

Year 10

Unit 4 – Networks

Network Infrastructure

Unit 5 – Software and Security

Utility Software

Unit 6 – Python Project

Iteration

Selection

Data Types and Structure

Malware and Countermeasures

Operating Systems

Network Topology

Number Theory Conversion and Arithmetic

Arrays and Lists

Arithmetic Operators

Software

Hardware

Image Representation

Unit 3 – Binary and Data

Flowcharts

Unit 2 – Programming Theory

Operating Systems

IOS Devices

Unit 1 - Hardware and Software

YEAR 9

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Year 10 Learning Journey

Computer Science

Learning Journey

Year 11

YEAR 10

Unit 2a – Practical Assessment

Planning: Flowcharts and Pseudocode

Program the game

Testing Plan

Evaluation and Developments

Analysis of the NEA project

Unit 2 – Programming Fundamentals

Making improvements

Advanced Pseudocode and Flowcharts

Decomposition, Abstraction, Algorithmic Thinking

Unit 3 – Integrated Development Environments

Compilers vs Interpreters

Binary, Decimal and Hex systems

Robustness and Maintaining Code

Advanced Computational Thinking

Unit 1 – Computational Thinking

Unit 4 – Searching and Sorting Methods

Boolean Logic

Trace Tables

Debugging code

Linear and Binary Search

Types of Testing

Testing Tables

Insert and Merge Sort

Sorting Issues, Bubble Sort

Unit 6 Programming Project

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Year 11 Learning Journey

Computer Science

Learning Journey

Final Exams

Tailored 1:1 support

Exam Practice Papers

Revision

Units 5, 6, 7 and 8

Data Storage (e.g. Sound, Images)

Unit 8 – Data Representation

Threat Prevention

Network Threats

Protocols and Layers

Unit 7 – Network Services

Cultural and Environmental Impacts

Ethical and Legal Issues

Uni 6 – Operating Systems and SMSC

CPU Performance

Unit 5 – Systems Architecture

CPU Architecture

Embedded Systems

Further Operating Systems

Units 1, 3 and 4

Additional Programming Techniques

Compression

Algorithms and Coding Techniques

Paper 1 – walkthrough and practise

Paper 1 – walkthrough and practise

YEAR 11

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