Computing Road Map

Year 1

Year 2

Years 3/4

Years 5/6

Year 7

- Computational thinking
- Block Based coding using Micro:Bits

- Using computers safely and effectively
- Computing hardware
- Data Representation - Binary

- Real life problem solving using Flowol
- Block Based Coding – Scratch Projects

Year 8

- Python Programming (Part 1)
- How computers work – Inside the Computer

- Python Programming (Part 2)
- Data Representation – ASCII & Unicode
- Cybersecurity

Year 9

- Ethical and Unethical uses of technology - Legislation
- Website design – Introducing the Software Development Cycle

- Introducing Logic and Data Representation – Hexadecimal and Images
- Network Topologies
- Viruses and Malware

- Encryption
- History of Computing
- Understanding Artificial Intelligence

Year 10

- Ethical and Unethical use of Technology (Part2)
- Internet of Things
- 3D Design – Understanding smart devices

2.1.1 Computational thinking
1.2.4 Data storage
2.2.1 Programming fundamentals
2.2.2 Data types
1.2.5 Compression
1.1.3 Embedded systems

1.1.1 Architecture of the CPU
1.1.2 CPU performance
1.2.1 Primary storage (Memory)
1.2.2 Secondary storage
1.3.1 Networks and topologies
1.3.2 Wired and wireless networks, protocols and layers
2.1.2 Designing, creating and refining algorithms

Year 11

1.4.1 Threats to computer systems and networks
2.2.3 Additional programming techniques
1.4.2 Identifying and preventing vulnerabilities
1.5.1 Operating systems
1.5.2 Utility software

1.6.1 Ethical, legal, cultural and environmental impact
2.1.3 Searching and sorting algorithms

2.3.1 Defensive design
2.5.2 The Integrated Development Environment (IDE)

2.4.1 Boolean logic
2.3.2 Testing
2.5.1 Languages
Revision

Key

Primary Curriculum

Temperance Term

Justice Term

Courage Term

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