KS3 Computer Science Curriculum Map

Maths Faculty

Yr 7

- Microsoft and e-Safety
  - -Begin to develop key ICT skills to include:
  - -using Microsoft products
  - -Saving documents
- **Organising documents Using different software Staying safe**
- Binary representation
  - Converting between computer number systems
- **What data looks like Developing mathematical skills**
- **Problem solving and thinking hard**
- Python Turtle
  - Developing computational thinking skills
  - Programming skills
  - Problem solving
  - Developing resilience

Yr 8

- Systems architecture
  - Understanding how computers work
- **How do computers work?**
- Flow charts
  - Problem solving with real world problems
- **Computational thinking**
- Spreadsheets
  - Formatting skills
  - Creating basic formulae
- **Developing for the web**
- Web development
  - Learning HTML in developing websites
  - Basic CSS to style websites
- **Problem solving and coding**
- Python Programming
  - Developing problem solving skills by solving problems through code
- **Creating digital artefacts**
- Animation
  - -Stop-motion animation
  - Using animation software
  - Developing creativity
- **Programming Problem Solving Computational Thinking**

Yr 9

- Algorithms
  - Search and sort algorithms
- Data rep.
  - text, image and sound on computers
- **How does the internet work?**
- Networks
  - -Introduction
  - -Topologies
  - -The internet
  - -Network Models
- **How do computers work?**
- AI
  - Generative AI
  - Understanding how it works
  - pros and cons
- **How to keep computers safe from attack**
- Cybersecurity
  - -Threats to computers
  - -Protection
  - -The law
- **Mastering programming**
- Advanced programming
  - Mastering programming skills and problem solving in Python

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