THA Computer Science Learning Journey

YEAR 11

- What are the ethical, cultural, legal and environmental impacts of digital technology?
- Why is testing and testing documentation important?
- How do you identify network security threats?
- How do you prevent network vulnerabilities?
- What is network security?
- What is an integrated development environment (IDE)
- What is robust programming?
- What are the fundamentals of programming?
- How do you put into practice programming skills?
- What are connection protocols?
- How do you investigate, solve and evaluate a problem appropriately?
- What is system software
- What is file compression?
- What are search and sort algorithms?

YEAR 10

- What are Network topologies?
- What is a CPU and how does it function?
- What is an embedded system?
- How is data stored?
- What is Boolean logic?
- What is system architecture?
- How do you calculate file sizes?
- What is encryption?
- What is network hardware and software?
- What are primary and secondary storage and how do they work?
- How do you create a function?

YEAR 9

- What is an iteration statement?
- How do you write output statements?
- How do you write input statements?
- What are the fundamentals of software licensing?
- What are the fundamentals of the copyright and patents act?
- What are the fundamentals of creative commons licensing?
- How do you plan a GUI based on the needs of a user?
- How do you create a GUI?
- What is a selection statement?
- What is a variable and how do you create one?
- How do you produce a promotional product?
- What are the fundamentals of GDPR?
- What are the fundamentals of the computer misuse act?
- What are navigation maps and how do you create one?
- What are the common features in effective graphical user interfaces?
- How do you identify advanced problems?
- What are the key functions of Python?
- How do you create an algorithm to solve a problem?
- How are images stored in computers?
- How do you convert ASCII code?
- What is Python?
- How do you test a solution against the needs of the client?
- How do you evaluate a solution using Client Requirements?
- How do you add 2 8-bit numbers together?
- What is the ASCII character set?
- What is decomposition and abstraction?
- What are the key tools and techniques for formatting digital graphics?
- How do you format a digital graphic?
- What are Vector and Bitmap graphics?
- What is the Computer Misuse Act?
- What are fraudulent emails?
- How do you convert into hexadecimal?
- How do you convert into binary?
- How do you think algorithmically?
- What are file types and formats?
- How do you protect yourself online?
- How do you identify security threats?
- What is online criminal activity?

YEAR 8

- What is the difference between the internet and WWW?
- How is the whole world connected?
- What are the different components of a computer?
- How do you identify a problem?
- How do you solve a problem using Scratch?
- How do you test that your solution is appropriate?
- What are the components of a network?
- What are the different connection methods?
- What is an algorithm?
- What are programming constructs?
- What is Scratch and how do you use it?
- How do you evaluate your solution?

YEAR 7

- What are basic spreadsheet formulae?
- How do you format a spreadsheet to meet the users needs?
- What are Boolean search techniques?
- How do you access, send and receive emails appropriately ?
- How do you identify potential threats online?
- How and to who do you report to when at risk online?
- What are the potential threats and dangers online?
- What are the basic features of a spreadsheet?
- What are the advance features of MS Teams?
- How do you use Microsoft packages?
- What are the purposes and uses of ICT equipment?
- What is MS Teams and how do we use it?

Welcome

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