



YEAR 9 ROADMAP

Programming Techniques

How do we store data within a program? How might we store different data types (numbers/text)? What are the key programming constructs?



Security

What are the threats that a computer network faces?
How could these threats be prevented?



Computational Logic

Why is data represented in binary? What are the different logic gates used to perform computing operations? Do you know the rules of each gate?



Data Representation cont....

How do computers use binary to represent characters, audio and images?



Wired/Wireless Networks

Why do we network computers together? What hardware components do we need to create a network? What can improve the performance of the network?

Into YEAR 10....



Systems Architecture

What acts as the brain of the computer? How did stored program computers revolutionise the fixed program alternative? What affects the performance of a device?



Memory and storage

Why is there a need for different storage within a computer? Can you name different storage options and note their characteristics?



Data Representation

What are the different units of measurement within computer storage? Why is there a need to convert between binary, denary and Hexadecimal?

Ethical and legal

How do we protect devices, data, rights and environment in an increasingly digital world?



Algorithms

What is an algorithm? How could it help us to solve a problem?