



Computing Year 9 Half Term 1

Computing Strands:
Information Technology
Computer Science
Digital Literacy



Online Reputation

How does the things you post affect how you are perceived online?
What dangers should you be aware of online?

Binary Addition / Shifts

How do computers process numbers? How is data stored on a computer? Learn how to add and multiply numbers in Binary

SKILLS TAUGHT:

- Online safety
- Awareness of digital dangers
- How to conduct yourself online
- Be able to convert different number systems
- Understand how text is stored as binary values
- Be able to sort data using algorithms

Logic Gates

Understand how logic gates are used to make decisions

Hexadecimal

Learn about a different number system that uses numbers and letters together!

ASCII/Unicode

Learn how computers can represent all languages from around the world.

Bubble Sort

Learn how computers use algorithms to sort data efficiently and quickly



Why are we learning this?

To be able to use the Internet safely, know the risks of posting information online. Be aware of how computers store and convert numbers, have an awareness of how text is stored.



Computing Year 9 Half Term 2

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Bebras Challenge - Problem Solving

Learn how to think like a Computer Scientist. Learn how to solve problems by applying Computation Thinking (Abstraction, Decomposition, Pattern Recognition & Algorithms)

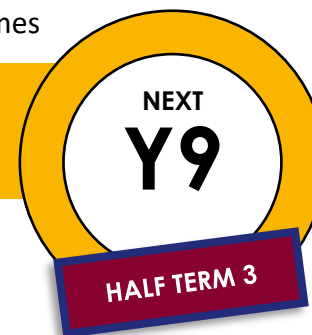
SKILLS TAUGHT:

- Problem solving
- Abstraction
- Decomposition
- Pattern Recognition
- Algorithmic thinking
- CyberSecurity Awareness

CyberSecurity

Learn how your data could be at risk online. Be able to spot online threats and how to protect yourself. Be able to use data to identify suspects and solve crimes

The skills you will learn this half term will give you the knowledge to solve problems in your other subjects in school and in the real world.



Why are we learning this? To be able to look at a problem and understand how to solve it. Applying the skills in breaking a problem down into smaller parts and removing the unnecessary detail