

Year group: 6	Term: Autumn 1	Unit: Code Breaking and Password Hacking	Online Safety: Understanding the importance of secure passwords and how to create them.
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Must have knowledge:

- To understand the importance of having a secure password and what “brute force hacking” is.
- To know that the first computers were created at Bletchley Park to crack the Enigma code to help the war effort in World War 2.
- To know about some of the historical figures that contributed to technological advances in computing.

Key Vocabulary:

Brute Force Hacking: When someone, known as a hacker, uses different types of methods, such as trial and error, to crack entry into secured information.


Encrypt: Converting information/data into a secret code or message, to avoid unauthorised access.

Cipher: Information that is written in a secret way, also known as a code

Technological Advancement: When scientific discoveries are made that can lead to the development of new or existing technologies to improve on current processes in life.

Key skills

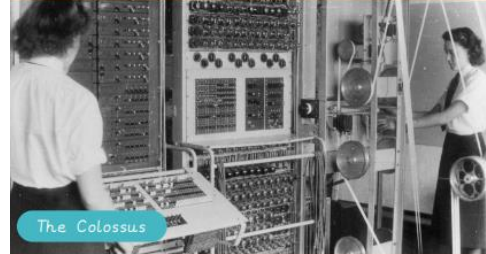
- Writing increasingly complex algorithms for a purpose.
- Remixing existing code to explore a problem.
- Using search and word processing skills to create a presentation



Katherine Johnson- the mathematical scientific pioneer who was instrumental in the moon landings and taking humanity into space.


Over 10,000 people worked for Bletchley Park. Over 75% of the workers were women.

In 1943, the Colossus computer was constructed by codebreakers during World War II. This enormous machine was the world's first electronic programmable computer. It took hours rather than days and weeks to crack encrypted messages to help win the war.



Enemy messages, which were encrypted, had to be written down on paper. Then they were sent over to Bletchley Park, often by motorbike.

Example:
Date shift cipher:



Visual representation:
Date used to encrypt the message: 1st January 1984
In number format this would read: 01 01 1984

Original message: h e l l o
Each letter shifted: o i o i i
Encrypted message: h f l m p
a b c d e f g h i j k l m n o p q r s t u v w x y z