

### How to use computers purposefully and safely.

- Explore a range of codes, from simple cyphers to the Enigma code used by the Nazis in WW2.
- Discover how hacking can work and the importance of secure passwords.
- Learn about the role of Bletchley Park in WW2 and the birth of computers.
- Understand how key people have influenced computing and the development of computers.

### Key Skills

Using trial and improvement to decipher codes:

### Problem solving



XIZ BSF TFDSFU DPEFT VTFGVM?

Can you work out what this says?

### Key Vocabulary

Cipher	A secret or disguised way of writing. Often called a code.
Hacking	An attempt to get into a computer, computer system or a private network without the permission of the owner.
Brute force hacking	A strategy for guessing account passwords. This involves a program automatically checking through all possibilities of a password until it finds the correct one.
Password	A series of letters, numbers or symbol used to log a user on to a computer system. It acts like a digital key to unlock the device.
Secure	A secure password is difficult to guess by both humans and computer programs, effectively protecting the computer or file from being hacked.
Chip and pin	A system of protecting things using a secret number (personal identification number or PIN) and card that has an electronic chip in it.
Trial and error	A process of experimenting with various methods of doing something until you find the most successful. Often called trial and improvement.
Encryption	To scramble or jumble information using a cipher so that it can be sent safely without anyone being able to read it unless they know the code.

### Websites to help:

To find out more about code-breaking (cryptology!):  
[https://www.cerias.purdue.edu/education/k-12/teaching\\_resources/lessons\\_presentations/cryptology.html](https://www.cerias.purdue.edu/education/k-12/teaching_resources/lessons_presentations/cryptology.html)  
 If you really like a code-cracking challenge:  
<https://teachinglondoncomputing.org/code-cracking-puzzles/>