learning

- $_{\mbox{\tiny TO}}$ To understand that messages can be sent and received secretly
- To learn encrypt/decrypt simple messages
- To understand that messages can be sent electronically over distances
- $_{\ensuremath{\nearrow}\ensuremath{\square}}$ To understand that data can be transmitted as binary (on or off)
- $_{\mbox{\tiny TM}}$ Understand the algorithm of a simple shift cipher
- 👝 To use frequency analysis to decipher encrypted text
- To understand the importance of cryptography historically and today

Key Vocabulary

Cryptography	Sending/receiving secret	
	information	
Encrypt	Convert information into a code to	
	stop it being understood	
Decrypt	Make an encrypted (coded)	
	message understandable	
Cipher	Secret information	
Кеу	Information needed to work out	
	(decipher) what codes or ciphers	
	mean	
Shift	How many letters of the alphabet	
	the first letter of an encrypted	
	message is shifted to the right	
Binary	Base 2 number system of 0 and 1	
Frequency	Finding out how often letters or	
Analysis	groups of letters appear in a	
	cipher; which makes them easier	
	to crack	

Knowledge Organiser

Year 5





Examples

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Key Questions

What is a cipher	A secret message
What is the shift to decode this message?	E.g. 3 or 4
Why is encryption important today?	We use computers to send/receive sensitive information which can be intercepted and read if it isn't protected
Give me two examples of methods of encryption	E.g. Morse Code, semaphore, Caesar Cipher
Which letters and words alphabet are more likely than others to appear frequently in a cipher?	Vowels, a, the, to, and etc.

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