

### Things you already know:

- Have an awareness that some data needs to be kept secure.
- Know how to use a web browser.

### Knowledge you will gain:

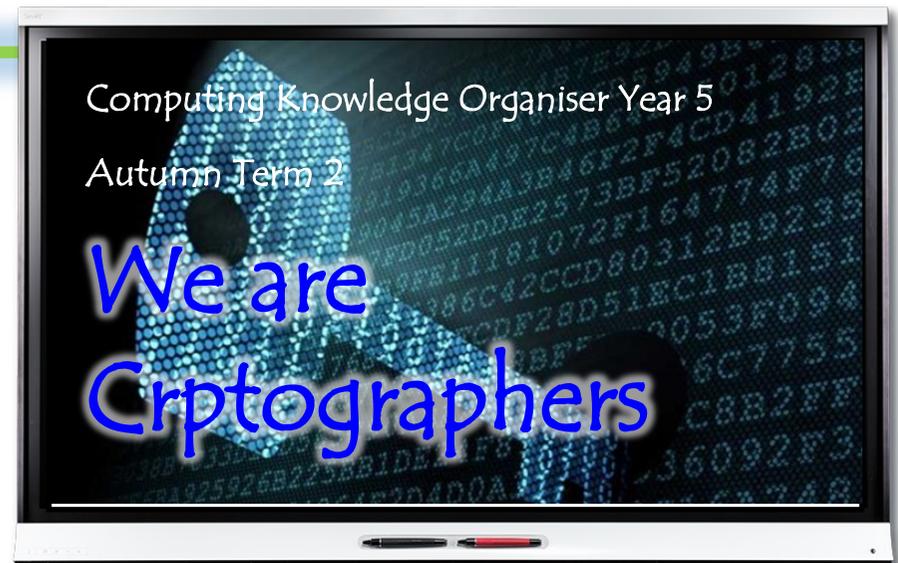
- Know that messages can be encoded.
- Know that there is plain text and encrypted text.
- Know that encrypted text can be decrypted using the correct cipher.
- Know what a binary code is.
- Know about various types of encryption and codes including some of the history around these.
- Encryptions covered will include: semaphore, Morse code, Caesar cipher and others.
- You will know how to identify that a website is encrypted and understand what that means in terms of entering personal data/bank details etc.

Websites that have HTTPS use SSL encryption. This means that the data entered on that website is sent in an encrypted form and is decrypted at the other end.



### Specific skills/understanding

Being aware of what type of data needs to be kept private. Becoming more tech savvy in identifying sites that are safer to use, but also being aware that sites that are encrypted may still not be run by reputable people.



### Vocabulary

**Algorithm:** a set of instructions or a pattern of things or events.

**Binary:** A code consisting of 2 states e.g. on and off

**Cipher:** The method used to encrypt the plain text.

**Decryption:** taking encrypted text and converting it back into plain text that can be easily understood.

**Encode:** Encrypting.

**Encryption:** converting plain text into code, usually to prevent people from accessing it.

**HTTP:** Hypertext Transfer Protocol— set of rules used by the web to communicate.

**HTTPS:** HTTP pages over SSL

**SSL:** Single Sockets Layer used to create an encrypted link between your computer and the website.

### Ongoing skill set

Use of hotkey shortcuts to copy and paste text and undo:

Copy = Ctrl+C    Paste= Ctrl+V    Undo= Ctrl+Z    Redo=Ctrl+Y