## Year 6 Encryption

| Key Vocabulary    |  |  |  |  |  |
|-------------------|--|--|--|--|--|
| Code              | A system of words, letters and<br>symbols that are used to represent<br>others, especially for secrecy     |  |  |  |  |
| Encryption        | The process of encoding a message  |  |  |  |  |
| Encode            | Transform data from one format to<br>another to change the usability of<br>the data, not its accessibility |  |  |  |  |
| Binary            | A number system used by<br>computers using a series of 0 and<br>1s. The way computers send<br>information. |  |  |  |  |
| Denary            | The decimal number system  |  |  |  |  |
| Data              | Values with no context e.g. 12 or blond  |  |  |  |  |
| Information       | Data with a given context or<br>heading e.g. 12 out of 20 in a maths<br>test                               |  |  |  |  |
| Cipher            | A disguised or secret way of writing   |  |  |  |  |
| Bletchley<br>Park | The principle centre for allied code<br>breaking during World War 2  |  |  |  |  |
| Alan Turing       | He was an English Mathematician<br>who was instrumental in breaking<br>the German Enigma code in WW2       |  |  |  |  |

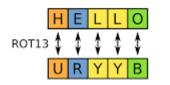
## Binary

Each heading is Base 2 or a power of 2.

| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|-----|----|----|----|---|---|---|---|
|     |    |    | 1  | 0 | 0 | 1 | 1 |

10011 represents 1+2+16 = 19

|               | A       | В  | С  | D  | Е  | F  | G  | Н  | Ι  | J  | Κ  | L  | М  |
|---------------|---------|----|----|----|----|----|----|----|----|----|----|----|----|
| NOPQRSTUVWXYZ | ROT13 🛊 | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
|               | N       | 0  | Ρ  | Q  | R  | S  | Т  | U  | ٧  | W  | Х  | Υ  | Ζ  |



Example of a cipher. Each letter has been shifted to represent a different one.