

Unbreakable Route Ciphers

Make up your own unbreakable encrypted message and see if a friend can work it out.

1. Write out your **actual** message below.

2. Count the number of letters in your message. What is the next biggest square number?

3. You will need to use a **square** grid. Draw one of the correct size and write out your message along the rows. Remember to add in extra letters if there are spaces at the end.

4. Decide what encryption method you will use. Will you put the columns in a strange order, or use a wiggly path to hide your message? Draw this on your grid.

5. Work out what your **key** will be. This should tell someone how to decrypt your message. For example, it could be the order of the columns you have used to encrypt the message. Write your key here:

6. Use this encryption method to write out your **encrypted** message:

7. Write the encrypted message AND the key on a piece of spare paper. Swap messages with a friend and see if they can decrypt it by working backwards. You can use the space below to decrypt their message.