Extension activity: Unbreakable route cipher

This activity asks the students to develop their own cipher and hard-to-crack key (i.e. order of encrypting the letters). There are no set answers.

Take- home activity: Rail Fence Cipher

A. Encryption

1. Market: MREAKT

2. Encrypt: ECYTNRP

Extension:

3. Summer day: SMEDYUMRA

4. Phone Call: POEALHNCL

5. Dark Alley: DRALYAKLE

Further extension:

6. I like Cake: IIEAELKCK

7. I can write codes: IAWIEOECNRTCDS

8. Today is a school day: TDYSSHODYOAIACOLA

B. Decryption

1. TOSRRUES → TOSR   RUES → trousers

2. EEHNLPAT → EEHN   LPAT → elephant

Extension:

Encrypted word	Number of letters	Show how you would split the encrypted word	Decrypted message
3. DOWYORA	7	DOWY ORA	doorway
4. COOIERCDL	9	COOIE RCDL	crocodile

Further extension:

5. HLOOLELWRD
   Number of letters: 10 → HLOOL   ELWRD → Hello world

6. BUWAELEHL
   Number of letters: 9 → BUWAE   LEHL → Blue whale

7. MTSSSFLAHIUEU
   Number of letters: 13 → MTSSSFL   AHIUEU → Maths is useful