## SEND A MESSAGE SOS Using Morse Code

 to send secret messages
## What is Morse Code?

In the 1830s, with the rapid spread of railways, people needed a new way of sending messages quickly over long distances. A revolutionary new system was invented called the telegraph which used electrical signals travelling along wires to activate buzzers or lights at the receiving end.
Morse code is named after Samuel Morse who owned a telegraph company in America. He and his assistant Alfred Vail developed a code made up of "dots" and "dashes" (short and long pulses) for all the letters in the alphabet and numbers from 0 to 9 . Morse code operators would tap out the message using a "key" which was like a simple sprung electrical switch.

When radio communication came along in the 1890s, the Morse code messaging system was quickly taken up for transmitting messages by radio signals. Because of the combination of Morse code and radio


Samuel Morse 1791-1872 communication, over 700 lives were saved when the Titanic was sunk when it hit an iceberg on its maiden voyage in 1912!

## ACTIVITY: Learn how to use Morse code

The activity on the following pages will help you become Morse code experts!

1. Print off the pages (one for you, and one for a friend or family member).
2. Download and print off the 'International Morse code' and 'Morse code translator' sheets.
3. You will both need a pencil or pen and a flashlight.
4. Read the instructions first and then try transmitting the words given on the sheets to each other using your flashlight and Morse code.
5. HINT: Make sure you leave a good space between each letter and give your partner time to record the signal before moving on to the next letter!


## SEND A MESSAGE

Telegraph Operator Alpha

## Getting to know Morse code

1. Try turning the following words into Morse code. Draw out the Morse code in the boxes below the letters. DO NOT SHOW YOUR WORDS TO YOUR PARTNER!

| $\mathbf{r}$ | $\mathbf{a}$ | $\mathbf{d}$ | $\mathbf{i}$ | $\mathbf{0}$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |


| $\mathbf{m}$ | $\mathbf{u}$ | $\mathbf{s}$ | $\mathbf{e}$ | $\mathbf{u}$ | $\mathbf{m}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

2. Now take it in turns to communicate your words (one by one) to your partner by Morse code using buzzers or a flashlight.
Alpha goes first.
Record the Morse code signals you receive from your partner in the boxes below and see if you can work out their words.

First word:

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |

## Second word:

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

3. Now try making up your own mystery word (up to 5 letters) and communicate it to your partner by Morse code. Use the box below to work out the code for it.
Give your partner some time to work out your word!

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |

Well done! Now you are an expert at Morse code, see if you can make up a secret message to send to your partner.


## SEND A MESSAGE SOS

## Telegraph Operator Bravo

## Getting to know Morse code

1. Try turning the following words into Morse code. Draw out the Morse code in the boxes below the letters. DO NOT SHOW YOUR WORDS TO YOUR PARTNER!

| $\mathbf{m}$ | $\mathbf{o}$ | $\mathbf{r}$ | $\mathbf{s}$ | $\mathbf{e}$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |


| $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{n}$ | $\mathbf{g}$ | $\mathbf{e}$ | $\mathbf{r}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

2. Now take it in turns to communicate your words (one by one) to your partner by Morse code using buzzers or a flashlight.
Alpha goes first.
Record the Morse code signals you receive from your partner in the boxes below and see if you can work out their words.

First word:

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |

## Second word:

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

3. Now try making up your own mystery word (up to 5 letters) and communicate it to your partner by Morse code. Use the box below to work out the code for it.
Give your partner some time to work out your word!

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |

Well done! Now you are an expert at Morse code, see if you can make up a secret message to send to your partner.

