

## Rail fence cipher

To quote from the wikipedia article on the Rail Fence cipher:

In the rail fence cipher, the plain text is written downwards and diagonally on successive "rails" of an imaginary fence, then moving up when the bottom rail is reached. When the top rail is reached, the message is written downwards again until the whole plaintext is written out. The message is then read off in rows. For example, if 3 "rails" and the message 'WE ARE DISCOVERED. FLEE AT ONCE' is used, the cipherer writes out:

```
W . . . E . . . C . . . R . . . L . . . T . . . E
. E . R . D . S . O . E . E . F . E . A . O . C .
. . A . . . I . . . V . . . D . . . E . . . N . .
```

Then reads off to get the ciphertext:

```
WECRLTEERDSOEEFEAOCAIVDEN
```

Note that this particular example does NOT use spaces separating the words. The decipherer will need to add them based on context. If spaces are shown in the ciphertext, then they must be included in the count of letters to determine the width of the solution grid.

Keys can also be used in this cipher eg In this example shown above have Key=3 which means there is three rails, or three lines of text.

More info: [https://en.wikipedia.org/wiki/Rail\\_fence\\_cipher](https://en.wikipedia.org/wiki/Rail_fence_cipher)