# 19

## Word search

Words can appear horizontally, vertically or diagonally, running backwards or forwards. Different names can cross and overlap.

Find the following computing words in the word search grid below.

BAR ENGINE KEY NETWORKING SAVE SCAN SCANNER SCREEN SCREENSHOT SCRIPT SCROLL

SEARCH SECURITY SERVER SHAREWARE SHELL SHIFT SNAPSHOT SOCIAL SOFTWARE SPAM

SPAMMER SPREADSHEET SPYWARE STATUS STORAGE SUPERCOMPUTER SURF SYNTAX

S Y N T A X E N G I N E R A B

A C S H C R A E S P A M E S H

V F A S H I F T P Y S T T E S

E B R N N E D W A N O O U C O

X I A U N S P O S T F H P U C

T C S B S E S R C O T S M R I

O O P E R N R K R C W P O I A

H S U T A T S I I I A A C T L

S P Y W A R E N P A R N R Y R

N S H E L L R G T Y E S E N E

E C H L L A V R E S U C P S M

E O E O E S E K S H E R U T M

R R R S H A R E W A R E S O A

C C W S P R E A D S H E E T P

S T O R A G E S N A C N A C S

### A bit of computational thinking wisdom

Perhaps you can improve your algorithm for finding words so that it is more efficient? For example, some letters may appear less often in the grid than others, so are quicker to search for. Perhaps searching for the first letter of a word is not the best idea.20

## Word ladder

Convert the word ALICE into the word GENES in 13 steps or less. You must only change one letter of the word on each step. On every step you should have created an English word that is in the dictionary. ALICE in Wonderland was written by Lewis Caroll, who also invented this kind of puzzle. The binary version of the word ladder is called Gray code - a way of encoding numbers. Our bodies encode information using the 4 symbols of DNA rather than the 2 of binary. Its all in our GENES.

A L I C E

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G E N E S

# 21

## Lovelace’s life ladder

Ada Lovelace is famous as the ‘first programmer’ and also predicted computers would one day compose music. Born on the 10th December 1815, she died at the age of 36. Use the clues to fill in the missing numbers that completes the move from life to death, changing only one digit at a time?

|  |  |
| --- | --- |
| **Date**  |  **Clue**  |
| 1 8 1 5  | Ada Lovelace was born |
| \_ \_ \_ \_  | Tchaikovsky’s famous Overture |
| \_ \_ \_ \_  | Ada Lovelace died |