Design Strategies Week 4: Word Searches
Presented by Prof. Fred Martin and Mark Sherman

Your task:

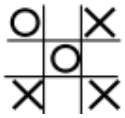
Develop a process to find all the straight-line words that are hidden in a grid.

Example: Tic Tac Toe

Solving tic-tac-toe is pretty easy. There is a simple series of rules, which if you follow, will guarantee you won't lose. You can think of these rules as a *strategy*, but when you follow them all strictly is can be considered an *algorithm.* An algorithm is just a set of instructions that make up a process.

Instruction Set for Tic Tac Toe

1. If you have two in a row, and the third is empty, take the empty to make 3.
2. If the opponent has two in a row, and the third is empty, take the empty to block.
3. If a fork can be created, do it. *(In the figure to the right X has created a fork, where O needs to block in two places at once.)*



4. If the opponent is about to make a fork, block the fork.
5. If the center is open, take it.
6. If a corner is open, take it.
7. If a side is open, take it.

> **Algorithm**
>
> A process or set of rules to be followed in calculations or other problem-solving operations.