## Conway's Game of Life

Just right

The Game of Life is a cellular automaton, or self-operating machine, devised by the British mathematician John Conway.

Like checkers, the board is divided into squares. Some squares start with live *cells* inside. That is how the game begins.

Each turn, there are three rules to follow. The rules depend on how many neighbors are alive.

- Any live cell with just  $\bigcirc$  neighbor dies. Too lonely — Any live cell with 4 or more neighbors dies. Too crowded Any dead cell with 3 neighbors comes to life.

## Here's an example

Turn 1 Turn 2

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| alive! |       | alive! |  |
|--------|-------|--------|--|
|        | died! |        |  |
| alive! |       | alive! |  |
|        |       |        |  |

Invent your own Game of Life patterns and try to figure out how they will behave. When you're ready, come up and try them on the computer.

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