

The Cell and Systems Maze

Your body, like every living thing, is made of cells. Cells are organized into tissues, organs, and systems that work together to keep you alive ([Topic](#)). This maze reviews how cells work as the basic unit of life. It covers how plant and animal cells differ. It shows how materials move across cell membranes. It explains how cells function as the basic unit of life and how they move gases and liquids through diffusion and osmosis. Before you start, look over the word bank below. Every term appears somewhere in your notes on this unit. Knowing what each one means will help you understand the science, not just solve the puzzle.

Word bank (8 terms): cell, tissue, organ, cell membrane, cell wall, diffusion, osmosis, circulation

How to play

1. Find the entry point at the top of the grid and the exit point at the bottom.
2. Trace a single path from Start to Finish. You may move up, down, left or right, one cell at a time. You cannot move diagonally, and you cannot cross a wall.
3. Only one path connects Start to Finish. Work slowly and backtrack if you hit a dead end.
4. As you trace your route, say each word bank term out loud and give a one-sentence definition. For example: "A cell is the basic unit of life" ([Outcome](#)). This keeps the vocabulary fresh while your eyes are busy scanning the grid.
5. When you reach Finish, check your route against the answer key on the back of this sheet, or ask your teacher for the key once the whole class has finished.

Formative checkpoint: Before flipping to the answer key, write down two ways a plant cell differs from an animal cell ([Outcome](#)). Also write one example of a human body system responding to a change in conditions, such as heart rate rising during exercise ([Outcome](#)).

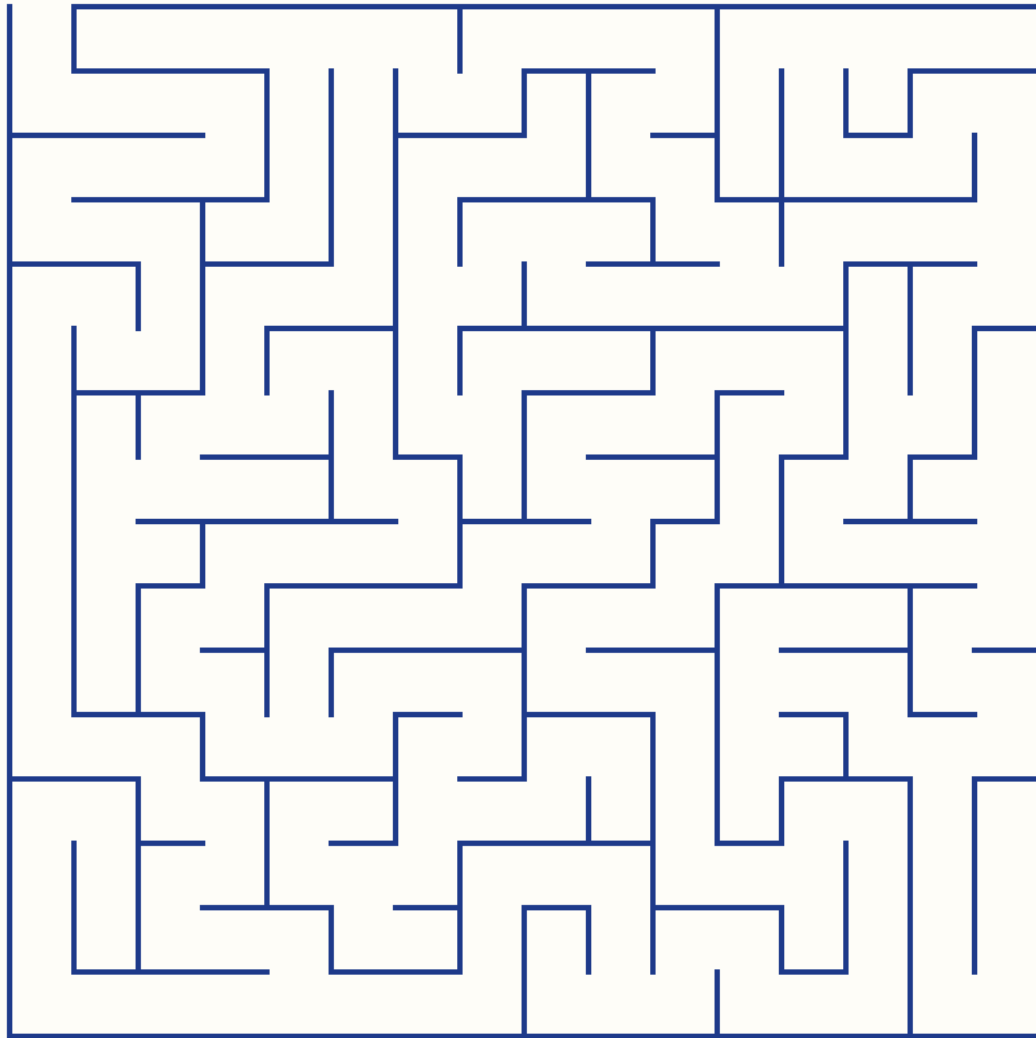
Support: If the grid feels overwhelming, cover all but one quarter of it with a sheet of paper. Solve it in sections. Partner with a classmate and take turns calling out the next move.

Extension: Once you solve the maze, sketch a second, smaller maze of your own (5 rows by 5 columns). Model the path of a red blood cell traveling from the lungs to a muscle cell. Label at least three organs it passes on the way ([Outcome](#), [Outcome](#)).

The maze

The Cell and Systems Maze

START



END

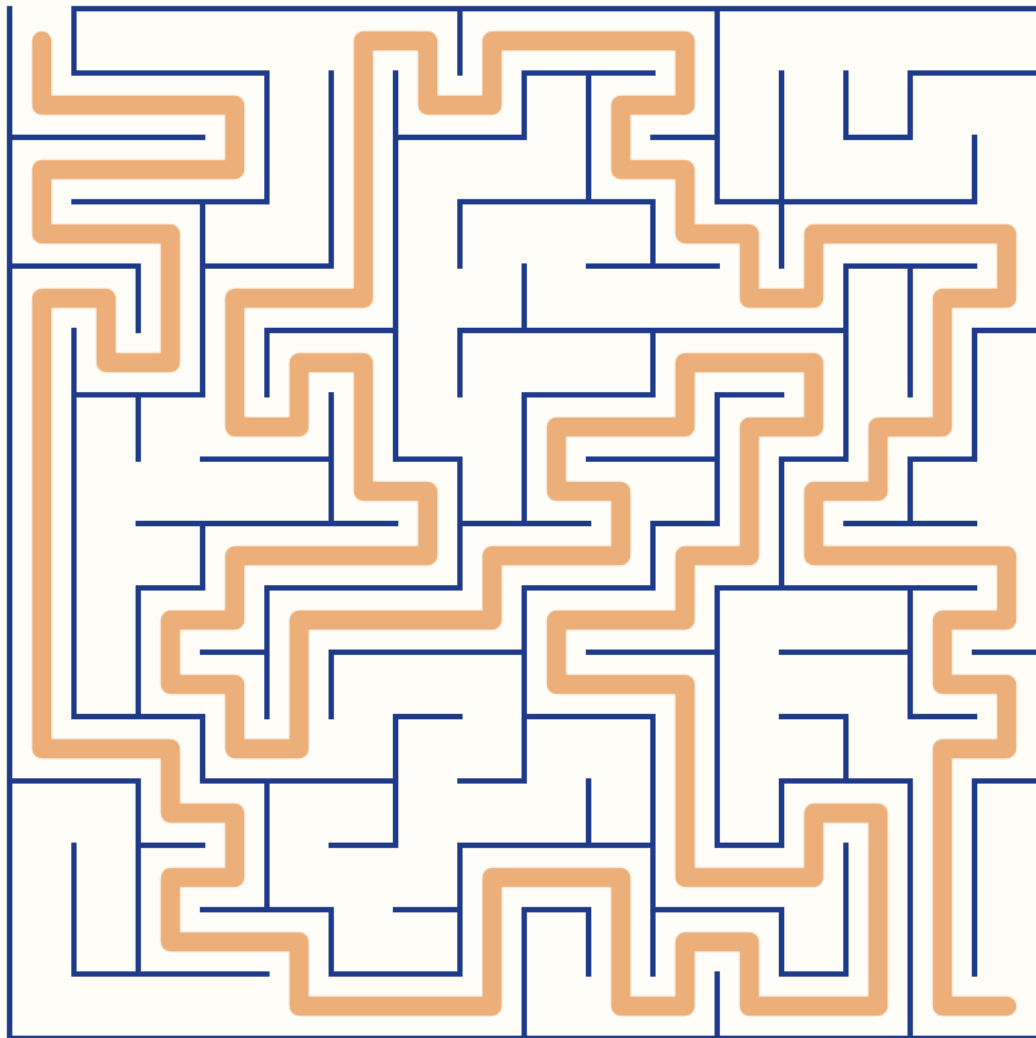
Maze

Answer key

The traced route below shows the only path from Start to Finish. Compare it against your own solution cell by cell.

The Cell and Systems Maze (solution)

START



END

Maze solution

Path: down 1, right 3, down 1, left 3, down 1, right 2, down 2, left 1, up 1, left 1, down 7, right 2, down 1, right 1, down 1, left 1, down 1, right 2, down 1, right 3, up 2, right 2, down 2, right 1, up 1, right 1, down 1, right 2, up 3, left 1, down 1, left 2, up 3, left 2, up 1, right 2, up 1, right 1, up 2, right 1, up 1, left 2, down 1, left 2, down 1, right 1, down 1, left 2, down 1, left 3, down 2, left 1, up 1, left 1, up 1, right 1, up 1, right 3, up 1, left 1, up 2, left 1, down 1, left 1, up 2, right 2, up 4, right 1, down 1, right 1, up 1, right 3, down 1, left 1, down 1, right 1, down 1, right 1, down 1, right 1, up 1, right 3, down 1, left 1, down 2, left 1, down 1, left 1, down 1, right 3, down 1, left 1, down 1, right 1, down 1, left 1, down 4, right 1