

# Cornell notes: osmosis

Completed editorial example - September 11, 2026

Topic: Passive transport | Source: OpenStax Biology 2e, 5.2

Question: Which substance moves, in which direction, and why?

| CUES / QUESTIONS                                | NOTES / ANSWERS / CONDITIONS                                                                    |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>What can cross this membrane?</b>            | Water can cross; glucose cannot. Start with equal solution volumes, temperature and pressure.   |
| <b>Where is the initial net water movement?</b> | A: 0.10 mol/L glucose. B: 0.30 mol/L glucose. Initial net water movement: A to B.               |
| <b>Why does glucose not move from B to A?</b>   | The membrane blocks glucose. A concentration difference does not guarantee passage.             |
| <b>What does net movement mean?</b>             | Water molecules move both ways. Initially, more water crosses from A to B than from B to A.     |
| <b>What can I not conclude?</b>                 | No exact rate or final volumes follow from this setup. Pressure and membrane properties matter. |

## SUMMARY

Identify the substance and membrane conditions before drawing a transport arrow. In this simplified setup, water initially moves net from A to B while glucose stays on its own side. The direction alone does not predict the final volumes.

Original scenario and wording by Thetawave Team; not a student result.

Science reference: Clark, Douglas & Choi, Biology 2e, section 5.2 (OpenStax).

<https://openstax.org/books/biology-2e/pages/5-2-passive-transport>

Method: Cornell Learning Strategies Center. Layout and worksheet: Thetawave Team.

[thetawave.ai/blog/cornell-notes-examples](https://thetawave.ai/blog/cornell-notes-examples)