


Chapter 3 Section 2

SPI 0707.1.5 Explain how materials move through simple diffusion.

What you'll learn:

- 🌐 Describe the function of a selectively permeable membrane.
- 🌐 Explain how the processes of diffusion and osmosis move molecules in living cells.
- 🌐 Explain how passive transport and active transport differ.

Why it's important:

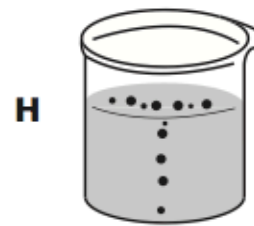
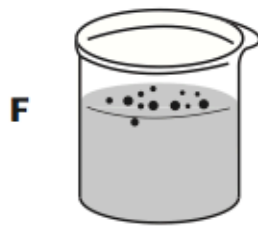
-  Cell membranes control the substances that enter and leave the cells of your body.

What does mastery look like?

A student adds drops of dye to a beaker of room-temperature water, as shown in the diagram below.

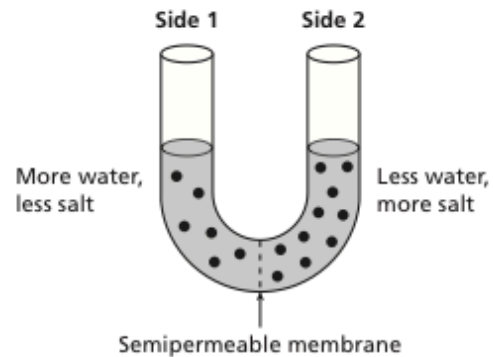


Which diagram best shows the end result of diffusion?

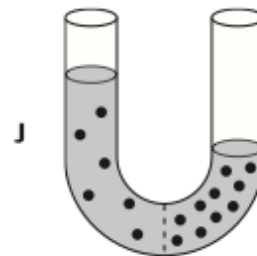
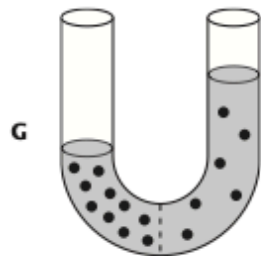
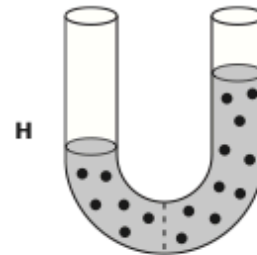
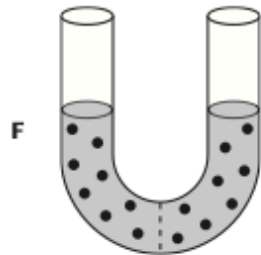


What does mastery look like?

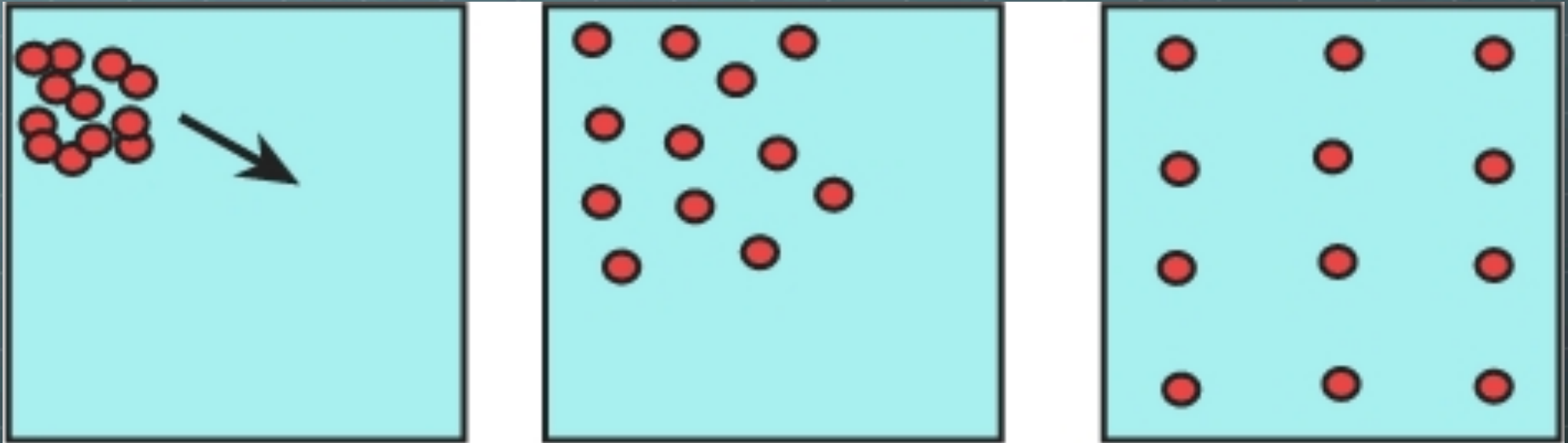
18 A teacher set up a lab investigation using a semipermeable membrane. Water can pass freely across the membrane but the salt cannot.



How will the setup most likely appear after one hour if left undisturbed?



Diffusion



Brain Pop - Diffusion



<http://www.brainpop.com/science/matterandchemistry/diffusion/>

Quietly Listen

- 🌐 When I say, I want everyone to **SILENTLY** move to the corner of the room. (Make sure you tuck in your chair.)
- 🌐 Once everyone is there, I'll say, "Diffuse!"
- 🌐 I want you to diffuse until you believe that equilibrium has been reached.
- 🌐 **GO!**

Diffusion - Group

- 🌐 With your group, think of places you see diffusion.
(An example that was NOT given in the video.)

Osmosis

The Diffusion of Water

- The diffusion of water through a cell membrane is called _____.
- Now! Think back to the picture I showed you earlier!
- <http://www.youtube.com/watch?v=eQsAzXroUCU>
- How are we going to remember this?
- If cells weren't surrounded by water that contains few dissolved substances, water inside of cells would diffuse out of them.
- Losing water from a plant cell causes its cell membrane to come away from its cell wall. (Figure 8)
- This reduces pressure against its cell wall, and a plant cell becomes limp.
- http://highered.mcgraw-hill.com/sites/0072495855/student_view0/chapter2/animation__how_osmosis_works.html

White Board



Questions to ponder:

<http://www.biologylessons.sdsu.edu/ta/classes/lab4/TG.html>



Answer these with your group.

Exit Ticket

 Brain Pop Scoot