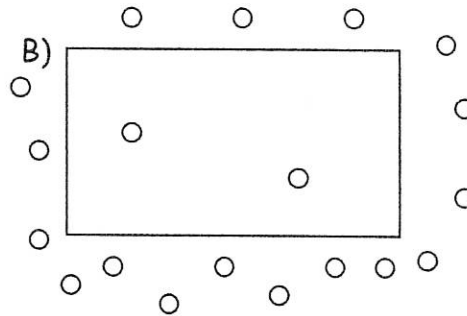
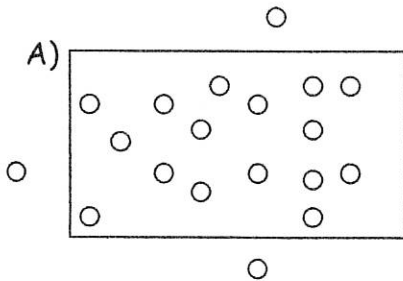


Diffusion and Osmosis Worksheet

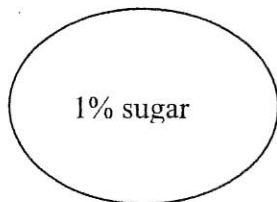
How are the molecules moving in the examples below (1-9)? Write *OSMOSIS* or *DIFFUSION*.

1. The student sitting next to you just came from gym class and forgot to shower and you can tell. _____
2. After sitting in the bathtub for hours, your fingers start to look like prunes. _____
3. The girl sitting two rows ahead of you put on too much perfume this morning. _____
4. One way to get rid of slugs in your garden is to sprinkle salt on them, so they shrivel up. _____
5. Yum! Something smells good. The neighbors are cooking on the grill! _____
6. Gargling with salt water when you have a sore throat causes your swollen throat cells to shrink and feel better. _____
7. Oxygen molecules move from the air sacs in the lungs across the cell membranes into the blood _____
8. Robert sprays water on the veggies in the produce section to "plump them up". _____
9. You put raisins in a glass of water and they plump up. _____

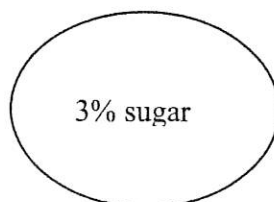
10. Use arrows to indicate the direction of diffusion in each case: ○ is a molecule that can pass through the cell membrane. □ is a cell membrane.



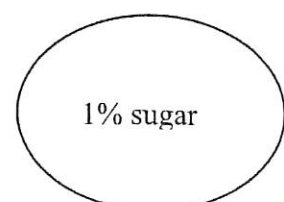
11. For each of the situations below use an arrow to indicate the net movement of sugar into or out of the cell. (Assume that the sugar molecules can pass through the cell membrane in each case.)



5% sugar



1% sugar



1% sugar

12. The cell membrane is made of a phospholipid bi-layers.

13. The cell membrane is semi permeable. This means that _____
_____.

14. Diffusion always causes particles to move from a region of _____ concentration
to a region of _____ concentration.

15. Does a cell use energy when molecules diffuse in or out of the cell down the concentration
gradient? _____