

When studying for your quiz tomorrow, review the following questions and review your notes (powerpoint online), vocab words, practice membrane quiz, and TURKEY facts (along with any other pertinent activities).

1. Explain **concentration gradient** and **diffusion** with a picture or diagram. Also write a real-life example of **diffusion**.

2. Discuss the similarities and differences between **diffusion** and **osmosis**.

3. Water generally travels from (**hypertonic to hypotonic** / **hypotonic to hypertonic**) environments.

4. What would happen to a cell if placed in the following solutions (describe and illustrate).
 - a. **Isotonic** solution:

 - b. **Hypotonic** solution:

 - c. **Hypertonic** solution:

5. Intravenous solutions must be prepared so that they are **isotonic** to red blood cells. A 0.9 % salt solution is **isotonic** to red blood cells.
 - a. Explain what will happen to a red blood cell placed in a solution of 99.3% water and 0.7% salt.

 - b. Explain what would happen to a red blood cell placed in a solution of 90% water and 10% salt.

6. Describe a plant cell in a **hypotonic** solution. How will a plant cell respond differently than an animal cell? Why?

7. Draw and describe a plant cell experiencing plasmolysis. What type of a solution (hypo, hyper, iso) would cause **plasmolysis**?

8. For the most part, plants and animal live in either a salt water environment or a fresh water environment, not both. Explain this using the principles of **diffusion**.

9. Explain, using pictures and terms mentioned in this sheet, what happens when salt is poured on a slug.