

# Osmosis and simple diffusion assignment



**ASSIGN  
BUSTER**

Study guide questions: Movements through membranes

1. Prepare a graph that illustrate the diffusion distance of potassium in 10 minutes
2. Explain your graph :
3. Define simple diffusion:
4. Define osmosis: Osmosis can be defined as the movement of solvent molecules across a semipermeable or selectively permeable membrane , from a region of lower concentration of the solute to that of a higher concentration till equilibrium is attained.
5. What is the change in the level of molasses in 10 minutes?
6. What is the change in the level of molasses in 30 minutes? . What force is responsible for the movement of substances through the filter paper? The filtration by the filter paper is done by the volume and the surface
8. What substance did not pass through the filter paper
9. What factor prevented these substances from passing through
10. Define filtration
11. Which stage (phase) of the cell cycle was the most numerous in the blastula? Explain your answer
12. In what ways are the new cells (daughter cells), which result from a cell cycle similar?
13. How does the new cell slightly differ?
- 14.

Abdominal impact injuries often involve the spleen. Explain the structural tissue characteristics that make the spleen so vulnerable to serious injury.

15. Explain the advantage for melanin granules being located in the deep layer of the epidermis
16. Explain how a hair is formed?
17. What cells produce the pigment in hair?
18. Distinguish the locations and tissues among epidermis, dermis, and subcutaneous layer
19. How do the cells of stratum corneum and stratum basale differ?
20. What part of hair extends from the hair papilla to the body surface
- 21.

In which layer of skin are sebaceous glands found

22. How are sebaceous gland associated with hair follicles
23. In what layer of skin are sweat glands

usually located 24. Explain how bone cells embedded in solid ground substance obtain nutrients and eliminate wastes. By answering yes or no, indicate which of the following provides an example of simple diffusion. 1. A perfume bottle is opened, and soon the odor can be sensed in all parts of the room — 2. A sugar cube is opened into a cup of hot water, and without being stirred, all of the liquid becomes sweet tasting—— 3.

Water molecules move from a faucet through a garden hose when the faucet is turned on — 4. A person blows air molecules into a balloon by forcefully exhaling—— 5. A crystal of blue copper sulfate is placed in a test tube of water. The next day, the solid is gone, but the water is evenly colored——

By answering yes or no, indicate which of the following involves osmosis 1. A fresh potato is peeled, weighed, and soaked in a strong salt solution. The next day, it is discovered that the potato has lost weight —— 2.

Garden grass wilts after being exposed to dry chemical fertilizer —— 3. Air molecules escape from a punctured tire as a result of high pressure inside —— 4. Plant seeds soaked in water swell and become several times as large as before soaking —— 5. When the bulb of a thistle tube filled with is sealed by a selectively permeable membrane and submerged in a beaker of molasses', the water level in the tube falls—— By answering yes or no, indicate which of the following involved filtration 1.

Oxygen molecules move into cell and carbon dioxide molecules leave a cell because of differences in the concentrations of these substances on either side of the cell membrane —— 2. Blood pressure forces water molecules from the blood outward through the thin wall of a blood capillary —— 3.

Urine is forced from the urinary bladder through the tubular urethra by muscular contractions ??? 4. Air molecules enter the lungs through the airways when air pressure is greater outside these organs than inside—— 5. Coffee is made using a coffeemaker (not instant) ——