

**JOURNAL : WHAT ARE DIFFUSION AND OSMOSIS?**

**PROCEDURE**

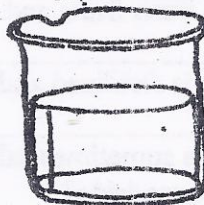
**PART A: DIFFUSION**

1. Add water to the beaker until it is three-fourths full. Let the beaker stand until the water is very still. Do not bump the table.
2. Carefully drop one drop of food coloring on the surface of the water. Observe what happens.
3. Draw what happens in the beakers below for the time allotted.

Beginning



After 1 min.



After 3 min.



**QUESTIONS:**

1. What did you observe when food coloring was dropped on the water in Part A?
2. How is this an example of diffusion?

**PART B: OSMOSIS DEMONSTRATION**

FILL IN THE FOLLOWING CHART:

JAR	AMOUNT PRESENT WHEN EGG WAS		OBSERVATIONS RESULTS (CHANGE)	TYPE OF SOLUTION
	PUT IN JAR	REMOVED FROM JAR		
Ethyl alcohol				
Corn syrup				
Water				

**QUESTIONS:**

3. In Part B, what happened to the shell of the egg?
4. How can you explain the amount of liquid remaining when the egg was removed from the syrup?
5. When the egg was placed in water after being removed from the syrup, which way did the water move?
6. When the egg was placed in syrup after being removed from the water, which way did the water move?

**VOCABULARY REVIEW:**

7. The movement of a substance from where it is in large amounts to where it is in small amounts is \_\_\_\_\_
8. Water diffuses across a membrane by a process called \_\_\_\_\_
9. The outer covering of a cell that controls what enters and leaves is called the \_\_\_\_\_

**APPLICATIONS**

10. Why are fresh fruits and vegetables sprinkled with water at a market?  
\_\_\_\_\_
11. If a lawn is fertilized and it doesn't rain, the grass often dies. Why?  
\_\_\_\_\_
12. Roads are sometimes salted to melt ice: What does this salting do to the plants along the roadside?  
\_\_\_\_\_
- Why?  
\_\_\_\_\_
13. Why do dried fruits and dried beans swell when they are cooked?  
\_\_\_\_\_