

## Egg Lab Student Observations and Conclusions

### 1. Define the following terms:

Osmosis:

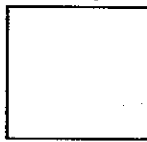
Diffusion:

Hypotonic:

Hypertonic:

Isotonic:

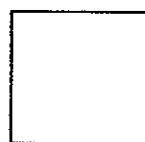
### 2. Food Coloring Diffusion Observations:



Before



Middle



End

### 3. Weight and Observations of Egg (define weight: \_\_\_\_\_)

Day	What the egg has been in	Original Weight of Egg	Final Weight	Observations of Egg (color, texture, density...)
1	Nothing			
2	Vinegar			
3	Water			
4	Syrup			

### 4. Volume of the Egg (define volume: \_\_\_\_\_)

Day	Contents in the Cup	A = Volume Before Egg Was Added	B = Volume After Egg Was Added	Egg Volume = B - A
1	Water	150 ml		
2	Vinegar	_____ ml		
3	Water	_____ ml		
4	Syrup	_____ ml		

### Questions and Conclusions:

#### Day 2:

- (a) What happened to the egg after remaining in vinegar?
- (b) When you took the egg out of the jar was there more or less liquid left in the jar?
- (c) Did water move into or out of the egg? Why?

**Day 3:**

- (a) What happened to the size of the egg after remaining in distilled water?
- (b) When you took the egg out of the jar was there more or less liquid left in the jar?
- (c) Did the water move into or out of the egg? Why?

**Day 4:**

- (a) What happened to the size of the egg after remaining in syrup?
- (b) When you took the egg out of the jar was there more or less liquid left in the jar?
- (c) Did water move into or out of the egg? Why?

**Final Questions:**

1. \_\_\_\_\_ was a hypotonic liquid, as evidenced by the egg \_\_\_\_\_.
2. \_\_\_\_\_ was a hypertonic liquid, as evidenced by the egg \_\_\_\_\_.
3. Draw and explain, what would happen if you placed the egg in a salt water solution.

**APPLICATIONS:** Using concepts developed from the two experiments, Answer the questions of application.

1. Why do grocery store owners spray fresh fruits and vegetables with water?
2. If a shipwrecked crew drinks sea water, they will probably die.  
Why?
3. If a bowl of fresh strawberries is sprinkled with sugar, a few minutes later the berries will be covered with juice. Why?