

Names _____



Case of the "over easy" osmosis

Objective: to observe osmosis in cells (egg=cell)

Background info: the main job of the cell membrane is to maintain balance (homeostasis) in the cell. It does this by determining what will go in & out. This is known as selective permeability. One thing that must pass in & out of the cell is water. The movement of water in & out of the cell is called osmosis.

Materials: (per group)

1 raw egg	Beaker (or plastic cup)	Vinegar
Spoon	Grease pencil	Digital balance
Distilled water	Corn syrup	Graduated cylinder
Plastic wrap	Paper towel	Wax paper

Procedure:

Day#1:

- 1.) Take a close look at your egg. **Record** your observations
- 2.) Use balance to find the mass of the egg. **Record.**
- 3.) Use grease pencil to label your beaker with your initials and the word "vinegar"
- 4.) Measure out 200ml (w/ graduated cylinder) of vinegar into the beaker.
- 5.) **Gently** set your egg in the beaker. Cover beaker w/ plastic wrap.
- 6.) Put beaker in space designated by teacher to set overnight.
- 7.) Clean up!

Day #2:

- 1.) Observe the egg. **Record** observations
- 2.) Use spoon to remove egg from the beaker. Be **extremely** careful!! Egg is **fragile!!**
- 3.) Gently rinse egg. Find the mass and **record.** (Put directly on balance, but clean balance afterwards). Set egg aside on piece of wax paper.
- 4.) Using a graduated cylinder, measure the amount of vinegar left in the beaker. **Record.**
- 5.) Rinse beaker and wipe off previous day label of "vinegar" and write "syrup." Be sure to include your initials again.
- 6.) Pour approx. 100ml of corn syrup in beaker.
- 7.) Measure out approx. 100mL of tap water. Add to syrup and stir well.
- 8.) **Gently** place egg in syrup/water mix. Cover with plastic wrap.
- 9.) Put beaker in designated space overnight.
- 10.) Clean up!

Day #3:

- 1.) Observe the egg. **Record** observations.
- 2.) Use a spoon to remove egg from beaker. **Be careful, egg is very fragile!!**
- 3.) **Gently** rinse egg and find the mass.(like day 2) **Record**. Set egg aside on wax paper
- 4.) Using graduated cylinder, measure amount of liquid in beaker. **Record**.
- 5.) Rinse beaker and wipe off previous day label of "syrup" and write "water"
- 6.) Pour 200 ml of distilled water in the beaker.
- 7.) **Gently** put egg in the beaker. Cover with plastic wrap.
- 8.) Put beaker in designated place over night.
- 9.) Clean up!

Day #4:

- 1.) Observe the egg. **Record** observations
- 2.) Use spoon to remove egg from beaker. **Egg is very, very fragile!**
- 3.) Gently rinse the egg and find the mass. **Record**.
- 4.) Use graduated cylinder to find amount of liquid in beaker. **Record**.
- 5.) Dispose of egg according to teacher directions
- 6.) Clean up
- 7.) Answer questions.

DAY	MASS OF EGG (g)	VOLUME OF LIQUID (ml)	OBSERVATIONS OF EGG
1		200 ML	
2			
3			
4			

