

Osmosis and Diffusion in an Egg Lab

Objective: In this investigation, you will use an egg to determine what happens during osmosis & diffusion across membranes.

Materials: 1 egg, masking tape and marker, distilled water, Karo syrup, vinegar, 500mL beaker, electronic balance, paper towels, paper, and pencil

**Record your responses on a separate sheet of paper

Procedure:

Day 1:

1. Label the beaker with your lab group name and class period.
2. Mass the egg with the electronic balance & record in the data table.
3. Carefully place the raw egg into the beaker and cover the egg with 250mL of vinegar.
4. Predict how the vinegar will affect the egg.
5. Allow to sit for 24 to 48 hours.

Day 2:

1. Carefully remove the egg to a paper towel and pat it dry.
2. Record the appearance of your egg in your data table.
3. Answer question 1 under Questions and Conclusions.
4. Mass the egg on an electronic balance and record.
5. Measure the amount of vinegar remaining in the beaker. Record.
6. Answer question 2, parts a-c.
7. Clean the beaker.
8. Carefully place the egg into the beaker and cover the egg with 250mL of clear syrup.
9. Predict how the syrup will affect the egg.
10. Allow the egg to sit in the syrup for 24 hours.

Day 3:

1. Carefully remove the egg & rinse off the excess syrup under slow running water. Place on a paper towel and pat it dry.
2. Record the appearance of your egg in your data table.
3. Mass the egg on an electronic balance and record.
4. Measure the amount of syrup remaining in the beaker. Record.
5. Answer question 3, parts a-c.
6. Clean the beaker.
7. Carefully place the egg into the beaker and cover the egg with 250mL of distilled water.
8. Predict how the distilled water will affect the egg.
9. Allow it to sit in the distilled water for 24 hours.

Day 4:

1. Carefully remove the egg to a paper towel and pat it dry.
2. Record the appearance of your egg in your data table.
3. Mass the egg on an electronic balance and record.
4. Measure the amount of distilled water remaining in the beaker. Record.
5. Answer question 4, parts a-c.
6. Clean up your work area and put away all lab equipment.