

Name _____

Date _____

Osmosis Lab

Preparation

1. Soak a raw egg in vinegar for 3 days.
2. After the 3rd day, carefully remove the egg, pour the vinegar down the drain, and rinse out the cup.
3. Very gently, wash the remaining shell residue from the egg.
4. Working with a partner, decide if you want to place your egg in syrup or in distilled water.
5. Place one egg in enough distilled water, so that it covers the egg.
6. Place the other egg in enough syrup, so that it covers the egg.

Hypothesis

Make a prediction about what you think will happen to the egg that was placed in distilled water:

Make a prediction about what you think will happen to the egg that was placed in syrup:

Results

1. After the eggs have sat overnight, examine and compare the egg in the distilled water to the egg in the syrup, as well as to the control egg. Record your observations below:

a. Egg in distilled water: _____

b. Egg in syrup: _____

2. Were your predictions correct? _____

Analysis

Distilled Water

1. Which has a higher concentration of water, the egg or the distilled water? _____

2. During osmosis, which way does water flow? _____

3. Using the information in the previous two questions, explain why the egg placed in distilled water changed the way it did:

Syrup

1. What has a higher concentration of water, the egg or the syrup? _____

2. During osmosis, which way does water flow? _____

3. Using the information in the previous two questions, explain why the egg placed in syrup changed the way it did: _____

Application

1. Which solution is saltwater most similar to, the distilled water or the syrup? _____

2. What do you think would happen to an egg that was placed in saltwater? _____

3. Plasma is the fluid in which blood cells are immersed. Plasma consists of water and some dissolved ions. It is very important that the concentration of water in your plasma remains about the same as the concentration of water in your cells. If the concentration of water in plasma changes then the blood cells can either swell and burst or shrivel up and die. Based on this information, what do you think would happen to an egg that was placed in plasma? _____

