Name Period Date

Unit	Handout
1	21

Lesson 5: Osmosis in Elodea

Purpose: To observe how osmosis effects individual cells by observing elodea leaves placed in isotonic and hypertonic environments.

Question How do leaf cells change when put into a non-isotonic solution?

Research/Background:
One of the questions we need to ask is how do materials get in and out of cells? Part of this can be answered by observing cells in different types of solutions. One simple solution we can use is salt water. I've placed elodea leaves into salt water. We will observe these cells and compare them to the original elodea cells we saw last week.

Instructions: Draw a picture of one cell of your original elodea. Label the cell wall/ membrane, chloroplasts, and vacuole. Then, make a wet mount slide of an elodea leaf in salt water (do not add any fresh water to the slide!). Again, just draw one cell and label the cell wall, cell membrane, and chloroplasts. Use the drawing sheet provided. Each box on the drawing sheet represents one cell (not a field of view).

Insert picture of drawing sheet here.

Answer questions on the back!

1. What difference(s) did you notice between the original cell (elodea in fresh water) and the new cell (elodea in salt water)?

2. What do you think caused this/these difference(s)? Explain.

3. What do you think would happen if we were to place the new cell (elodea in salt water) into fresh water? Explain.