

Agenda for Wednesday, October 14th 2015

Agenda	Homework
1. Observing Spirogyra (IBI H20) 2. Osmosis in Elodea (IBI H15)	- Prepare portfolio submission: need to submit a perfect scientific drawing. If you already have a 100% on a scientific drawing, you're already done! Due tomorrow, 10/15 at 8am in Schoology.

Why are we doing this?

Today we need to discuss our analysis of the Spirogyra: what did you observe and how would you classify it based on your data?

Having now studied 5 different organisms and their cells we need to answer an important question: how do materials enter and leave a cell? All cells need certain substances to survive. For example, our cells need proteins, nucleic acids, water, nutrients, and glucose for survival. We get these materials from our environment and by consuming other organisms. But how, exactly, do these materials enter our cells? Answering this question will be the focus of our next investigation.

Today's Procedure

1. Open IBI Handout 20. Let's discuss/review the responses.
2. Download IBI Handout 21 from 7bscience.com.
3. Divide and conquer: setup the microscope, use the flat slide, get one drawing sheet per person, and get one elodea leaf from the salt water container.
 - a. **NOTE:** This drawing sheet is different. The box **is not** a field of view. It represents **one cell** of the elodea plant.
4. Draw one elodea leaf cell under normal conditions (what we previously observed). You do not need the microscope for this portion.
5. Focus the elodea from the salt water at 400X. You should observe a noticeable difference between these elodea cells and what you previously saw. If you do not:
 - a. See Mr. Ower for an image of what you should observe.
6. Draw one elodea leaf cell under salt water conditions.
7. On both drawings, label the cell wall, cell membrane, cytoplasm, chloroplasts, and if you can observe them: vacuole and the nucleus.
8. Clean up:
 - a. Rotate to red, lower the stage, and remove the slide.
 - b. Throw away the leaf and cover slip.

- c. Rinse and dry the slides (paper towels are under your sink).
- d. Organize your materials.
- e. Have your microscope checked.

9. Finish handout 21.

10. Let's discuss the handout if we have time.

I finished early, now what?

1. Work on your scientific drawing for your portfolio submission. Have another student check it against the 10 rules for scientific drawings.
2. Visit futurism.com/thisweekinscience for selections of fascinating science news.
3. Optionally complete any of the lesson extensions Schoology (look in the Extensions Folder). This is a good way to challenge yourself with our current topic.