

## Agenda for Monday, September 28th 2015

Agenda	Homework
<ol style="list-style-type: none"><li>1. Introduce the Fast Plants lessons</li><li>2. Construct your Fast Plant Systems</li><li>3. Read about Plant Food</li><li>4. Observe your ponds and document any changes</li></ol>	<ul style="list-style-type: none"><li>- Read pages 25-27 in the SDRO textbook.</li><li>- Complete the reading check for "Nutritional Needs of Plants" in Schoology by Wednesday, September 30th at 8am.</li></ul>

### Why are we doing this?

This activity serves several purposes. First, you are constructing a system for an organism nick named the Wisconsin Fast Plant. The construction of this system will show me how well you can follow a procedure. A successfully constructed system will provide an optimal home for the Fast Plant so we can document its entire life cycle. Second, the Fast Plants are needed for another organism we will study in the near future: the Cabbage White Butterfly. These organisms rely on each other for various activities. Third, the reading "Nutritional Needs of Plants" will address a common misconception about the substance plant food. It will also tell you what plants need to carry out their life functions.

### You are being graded today!

You will be graded on how well you follow today's procedure. This includes following the steps below and, when indicated, the steps in the textbook. In general, you will be graded as a group. However, individual students can be graded down/up for their individual actions. You can earn up to 5 points for following today's procedure.

### Today's Procedure

1. Read the introduction to lesson 2 on page 20 of the SDRO textbook (it has the birds on the front of it).
2. Verify your kit has the following materials:
  - 1 pair of scissors
  - 1 strip of white felt wicking mat
  - 1 small tube of 8 seeds
  - 1 clear 20oz cup
  - 1 clear 8oz cup
  - 1 bag of soil (may or may not be completely full)
  - 1 blue/white copper sulfate square
  - 1 dissecting needle (it has a wooden handle)
  - 1 Sharpie
  - 1 clear 250mL graduated cylinder

*Notify Mr. Ower if you are missing any materials!*

3. Locate the following in the room: your class period's blue plant light house, the 12.5% nutrient solution (blue liquid in a 2L plastic bottle).
4. Take your group's 12.5% nutrient solution bottle to your table. You will return this at the end of the period.
5. Use the tip of the dissecting needle to work the strip of white felt through the hole in the 8oz cup. See page 23 in the SDRO book for an example.
6. Place the 8oz cup into the large cup. The wick should extend to the bottom of the large cup. See diagram 2.4 on page 24 of the SDRO book for an example.
7. Follow the procedure for inquiry 2.3 on pages 28-30 of the SDRO textbook. This will create your plant system. Here are some helpful tips for a successful planter:
  - A. Do not over water the soil with the nutrient solution. Pour a small amount in and wait. If any comes out the wick or the hole in the bottom of the small, 8oz cup, stop adding solution.
  - B. Keep track of where you have placed the seeds in your cup. You can do this by making a mark on the rim of the plastic cup wherever you have added a seed.
  - C. Measure how much nutrient solution you have added to your reservoir. It is helpful to track how much fluid the plants use. To do this, you will have to know how much you have added.
  - D. Label your plant system with your period and table number.
  - E. Keep your system at your table for grading. Only place it in the plant box when told to do so.
8. Follow this clean up procedure:
  1. Restock your kit so that it has all of the necessary materials for the next class. See step 2 above for all materials that are needed. Materials are available on the front table.
  2. Return your 12.5% nutrient solution bottle to the back counter.
  3. Clean your table and organize the materials.
9. Have Mr. Ower check your table and grade your Fast Plant system.
10. Read "Nutritional Needs of Plants" on pages 25-27 of the SDRO textbook.
11. Download SDRO Handout 1 and complete it.

### **I finished early, now what?**

12. Document any changes in your pond. Take pictures of your pond and insert them into handout 15.
13. Observe your pond water up to 100X with the microscope. Pipettes and cover slips are available on the front table.
14. 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.