Lab report on osmosis assignment

If one area has a read deal of water, it has a high water potential. If an area has a great deal of dissolved material (less water) it has a low water potential. Water will attempt to move down it gradient, that is, from high to low water potential. You job is to observe this using potato cores that are placed into various solutions of sugar water. The sugar is too big to easily move through the cell membrane/cell wall. So, depending on the water potential of the cells VS.. The solution water will move in or out. Hypothesis: If the potato cores are exposed to a higher concentration of sucrose in water, then Variables:

Independent- Sucrose concentration of water Dependent- Potato size Controlled- Water level, size of cores, size of cups, type of potatoes Materials: * Potato cores (4 per condition) * Sucrose solutions (. 2, . 4, . 6, . 8, 1. 0) * Distilled water * Electronic balance * Plastic weighing tray * Plastic cups (6) * Graduated cylinder (50 ml) * Scalpel * Marking tape * Blue tweezers Procedure: 1. Using marking tape, label 6 cups with the following solution types (. 2, . 4, . 6, . 8, 1. 0 and Did water) 2. Place approximately 50 ml of the various solutions, each cup receiving a operate solution.

Suggestion, measure the did water with the graduated cylinder, and fill the other cups to the same level 3. Obtain 24 potato cores and cut them to equal sizes (about 2. 5 CM). All the cores you use must be the same length 4. Divide your 24 cores into 6 groups and gently blot them dry with a paper towel 5. Using the electronic balance and plastic weighing tray mass (weigh) each group of potato cores and record the data in a table that is labeled with a detailed title and which provides the error measurement of the electronic scale. MAKE SURE TO TARE THE TRAY.

The table should record the type of solution in the cup and the mass of the potatoes in the cup. 6. Place the potato core sets in their appropriate cup and place in Mr... Borer’s back prep room in the fume hood that is labeled with your block (B or B). 7. AS make sure to indicate on your cup your group number, Mr.. Borer will assign group numbers during the lab 8. 24 hours later you will need to come and measure the mass of your potato cores. Dodo this you must pour out the fluid in the cup and use the plastic blue tweezers remove the cores, blot them dry just as you did in the set up phase and IANAL measure them using a plastic weighing tray.

MAKE SURE TO TARE THE TRAY. Record your potato group mass on your data chart. 9. Finally dump your potato cores in the trash and wash and dry your equipment (cups, tweezers) and return them to their stations 10. Calculations. For each setup (all 6) you will need to calculate a percent mass change. To do this you will use the following formula (final mass-initial mass)/ initial mass x 100. You will need to record this data in your data table as well. Make sure to keep track of the positive and negative changes if they occur