Osmosis lab report assignment

The process of Natural Importance Introduction Osmosis is when a fluid passes threw a semi permeable membrane. Moving from an area in which a solute such as salt is present in low concentrations to an area in which the solute is present in high concentrations. There are three types of osmosis: hypersonic is when there is high concentration and the cell has no water inside it (shrunk), hypotonic is when there is low concentration and the cell has swelled up or in other words has a lot of water inside it, isotonic is when he water comes in and out of the cell and stays the same shape.

All the carrots we put in the salt solution was from the same carrot, the 0% carrots mass was 6. Grams, the 5% salt solution is 14. 6 grams, the 10% salt solution is 6. Grams and the salt solution is 6. 8 grams. My hypothesis was that the carrot would shrink and be very small and gooey, but it was wrong. The controlled variable in this lab is the carrot and time, the manipulated variable is the salt solution, and the resulting variable in this lab is what happens to the carrot. Materials and Methods: Salt solution (0-15%) . Carrot pieces from same Carrot(Cut carrot in half if needed) . 4 Beakers . Water Triple beam balance First of all you need to have water with salt, 4 beakers with the solution inside, you also need to find out the weight of the carrot when you put it on the triple beam balance, After that you need to put the carrot in the beaker for minutes, then take it out of the beaker and find out its final mass when you re put it on the triple balance beam thing. Qualitative The results for the osmosis lab is that the 0% salt solution with the carrot inside ass increased a lot.

Making it the most changed mass carrot in all of the solutions. The 5% salt solution carrot mass also increased quite a bit but not that much, this is low

concentration or hypotonic in other words. The 10% salt solution also increased, but this carrot we cut it in half before we put it in the beaker because it was too big to fit. The 15% salt solution also increased a lot! Not that much actually but all of them increased or in other scientific words, it used low concentration or the cells inside the carrot started swelling.

Quantitative Discussion

My hypothesis was very wrong, I thought it WOUld be high concentration not low, Osmosis is the diffusion of molecules threw semi permeable membrane, there is only 1 part of the cell that is responsible for maintaining homeostasis(Plasma membrane). The 0% salt solution has a higher concentration, the 10% had a lower concentration of water. Found out from the lab that we did in class. I thought that the carrot cells would absorb water because it is the same solution. Think that they salted their meat to kind of keep it fresh and free of bacteria. Supermarkets spray vegetables with water so it can stay fresh.

The independent arable is salt, the dependent variable is will the carrot grow or stay the same shape? The control variable is a carrot. The difference between the lab results and my hypothesis is that the carrot got bigger and swelled up. Conclusion learned that when you put a carrot in salty water, it well swell. Also learned that water with salt will make any fruit swell because almost all fruits are low concentration when they are in water with salt or other than that they are isotonic. I also learned that my hypothesis is false and that we should always love you Mrs… Gender!!! Citations our new text book and our lab paper.