**Solutions in Disguise Lab Poster Rubric**

**Due:**

1. Lab Procedure (10)
2. Describe your group’s lab procedure to determine the solution concentration order. Make sure you include equipment, times, amounts, etc. Another scientist should be able to recreate your lab from this information.
3. Identify the independent and dependent variables.
4. Hypothesis/IF-THEN statement (5) Justifications must be provided for your *testable educated guess.*
5. Data-make sure this is a titled and labeled data table that is legible. Data tables must include units. (10)
6. Graphic representation of data. Graph the change over time of each solution. (if you did not record mass as your data, see Mrs. Handest if you need assistance)
7. Conclusion Paragraph (15)
8. List the solutions in order from most concentrated to least concentrated according to your data. Explain your answer.
9. Did your order from ‘a’ match the actual color coded list? Did your data support your hypothesis? Explain.
10. Given the following concentrations, calculate the solute potential of each solution assuming we kept a constant temperature of 22 degrees C in containers.

A(0.8M) B(0.2M) C (0.6M) D (0.4M) E (dH2O)

Which solution would have the highest water potential? Which solution would have the lowest water potential?

1. Based on YOUR DATA and the calculations in ‘c’, can you estimate the sucrose molarity inside potato cells?
2. We used plant cells for this experiment. If we left them over the weekend would the plant cells in a hypotonic solution burst? Why or Why not?
3. Could this experiment be done as effectively with animal cells/tissue? Explain.
4. Address sources of error-make sure to include HOW they would affect your data.
5. Extension Questions: Where could the lab go from here? What other cell types would you like to try and why? How could you improve the lab interest and/or efficiency?