

SCE 4310

In Class Experiment Project Diary

For _____

Date: _____

Group Members:

Research Question: Does _____ affect _____?

Predictions: (List three ways the experiment might end up.)

Hypothesis: (State the prediction you think will most likely happen.)

Manipulated Variable: (The one thing will you change in the experiment.)

Responding Variable: (What will you measure to see if it is effected.)

Set-Up Conditions: (List all of the things that you will keep constant to ensure a fair trial.)

Materials: Supplied (List each of the items that will be used. Include size, quantity, and descriptions such that someone else could duplicate your project.)

Directions: Supplied(Step-by-step list of what you did with each item in the materials list, in the exact order it was done. Someone else should be able to follow your steps to duplicate exactly what you did. Be sure you have set up a control group and an experimental group.)

Data Collection: (An organized and complete account of everything that was measured and observed in your experiment. Measurements should be in **metric units**, and there should be **many repeated trials**. Each entry must be dated, and any other factor that might affect your experiment should be recorded. Data is usually presented in chart form with appropriate units of measure listed, and averages of the trials given.)

Graph: (Mathematical picture of the data. Use the (mean) averages to plot your graph.)

Results: (Use your data and graphs to tell what happened in the experiment. Did your manipulated variable affect your responding variable? Describe the effect.)

Conclusion: (Tell whether your data supports, or fails to support your hypothesis.)

Real World Uses: (In paragraph form, describe ways, places, or situations where information from your experiment might be useful.)

Reflections: (Include your thoughts, concerns, discoveries, further questions, what you might do differently next time, etc.)