**Controlled Experiment Design Worksheet**

PROBLEM OR QUESTION TO BE INVESTIGATED:

HYPOTHESIS:

INDEPENDENT VARIABLE (what is being tested/purposely varied):

LEVELS OF INDEPENDENT VARIABLE INCLUDING A CONTROL FOR COMPARISON (what is the one variable that will be different in each test – 3 levels are usually a minimum):

NUMBER OF TRIALS OR REPLICATIONS OF EACH LEVEL/EXPERIMENT (2, 3, 4…):

DEPENDENT VARIABLE (what is affected by changing the independent variable – what will be measured, and in what units, to see the effect of changing the independent variable):

LIST OF CONSTANTS (what will be the same in all treatments?):

DRAW A TABLE LISTING SPECIFICALLY WHAT EACH TREATMENT WILL HAVE TO MAKE IT EASIER TO SET UP THE EXPERIMENT (One row per treatment/independent variable, one column for the independent variable amount, one column per constant.).

WHAT SPECIFIC STEPS WILL YOU FOLLOW TO COMPLETE THIS EXPERIMENT AND MEASUREYOUR DEPENDENT VARIABLE? NUMBER THE STEPS.

CONSTRUCT A DATA TABLE SHOWING THE VALUES THAT WILL BE COLLECTED, INCLUDING, INCLUDING SPACES FOR OBSERVATIONS THAT WILL BE MADE.

IF APPROPRIATE, CONSTRUCT A GRAPH WITH LABELED X AND Y AXES AND A DESCRIPTIVE TITLE THAT YOU WILL USE TO DISPLAY YOUR AVERAGED RESULTS.