**Scientific Method Challenge Rubric**

**Rubric For the Written Portion:**

1. Hypothesis: (3 points)

\_\_\_ Statements predicts a trend or a relationship

\_\_\_ Statement consists of both independent and dependent variables

\_\_\_ A reason is given for the hypothesis.

2. Variables:

Independent Variable (IV) (2 points)

\_\_\_ IV is correctly stated in the section

\_\_\_ There are at least three IV provided

Dependent Variable (DV) (2 points)

\_\_\_ DV is correctly stated in the section

\_\_\_ DV is operationally defined

Controlled Variables (CV) (3 points)

\_\_\_ One CV stated correctly

\_\_\_ Two CV stated correctly

\_\_\_ Three CV stated correctly

3. Materials (1 points)

\_\_\_ All materials used in the experiment are listed

4. Procedure (2 points)

\_\_\_ Procedure is written in a logical sequence

\_\_\_ Diagrams are given (not required for every step of the procedure)

5. Qualitative Observations (3 points)

\_\_\_Observations about procedure/deviations

\_\_\_Observations before the experiment is tested

\_\_\_Observations after the experiment is tested

6. Quantitative Data (5 points)

\_\_\_ All raw data is given

\_\_\_ All data has units

\_\_\_ Condensed table with data included

\_\_\_ Table(s) labeled properly

\_\_\_ Example calculations are given (mean, median, mode)

7. Graph(s) (4 points)

\_\_\_ Graph is titled

\_\_\_ (2pts)Graph is labeled properly (x/y axis)

\_\_\_ Units are given

\_\_\_ Scale is clear

8. Experimental Errors (4 points)

\_\_\_ One Human Error

\_\_\_ Two Possible EXPERIMENTAL errors

\_\_\_ (2pts)Effect errors had on data

9. Conclusion (4 points)

\_\_\_ Hypothesis is restated

\_\_\_ Accept/ Reject Hypothesis

\_\_\_ Reasons for Accepting/Rejecting Hypothesis

\_\_\_ Data is evaluated

**Total Points \_\_\_\_/ 33**