**Formal AP Lab Reports**

**Total possible points per write-up = 50 points**

**Formatting (5 points)**

Lab reports must be typed using size 12-Times New Roman or Arial font and single or double spaced. Name, date, period is clearly written in top corner. Titles for the sections of your lab report should be written in bold as shown below.

The sections that must be included in your lab report are the following:

1. **Title (1 points)**

Describing what the experiment is about. Lose points for weak/poor titles ex: Photo Lab

1. **Purpose (1 points)**

Clearly state the objective(s)/goal(s) for the lab

1. **Hypothesis (5 points)**

Clearly state the hypothesis or the hypotheses for the lab. Use the If/Then format. State why you believe this to be true using biological knowledge.

State a Null Hypothesis when comparing statistical data between two groups.

1. **Materials (3 points)**

List all of the materials used in the experiment, including the samples observed, if any.

1. **Variables and Controls (2 points)**

List the independent variable, dependent variables and all controlled variables

1. **Procedures (3 points)**

List, step-by-step, all of the methods used for completing the experiment.

Note: A person must be able to repeat this activity with your methods, so be very descriptive.

1. **Data and Observations (5 points)**

In this section of your lab report you should include all of the observations gathered during the experiment(s). The observations may be organized into tables so that they can be easily interpreted. Drawings and pictures are also common in this section as they may help in describing your observations. Do not confuse data with results.

1. **Analysis (10 points)**

In this section a graph is usually used to interpret data. Pay attention to what you are graphing and have a proper title for what the graph is showing. Data may also need to be mathematically manipulated here. Use Chi Square here when statistical analysis is needed. Your analysis should give you a better understanding of how your experiment went.

1. **Conclusion (10 points)**

Write a conclusion that relates back to your hypothesis. First, restate your hypothesis in its entirety. Does your research support or refute your hypothesis? Use SPECIFIC data from your lab to support or refute. In this section you should also discuss any possible problems that might have affected your results, i.e. error analysis. Discuss what might have been done differently and what future directions would be important to follow up in your studies.

1. **Prelab (5 points)**

The stamped prelab needs to be stapled to the back of the formal lab write up.

**\*\*\*Data collected in a lab group should be the same, however, any other component of the lab copied or very similar to another student will receive a zero and be given an ethics referral. Your work must always be your own. Do not complete lab write-ups together.**