

Formal Lab Report Format- PreAP Biology

Format:

[5 points]

- ◆ Must be Hand-Written (EXPECT FOR CHARTS AND GARPHS)
- ◆ **IN YOUR OWN WORDS...NOT COPY**
- ◆ Include a Title Page for each Lab Write-up with the following:
 - Title of experiment
 - Your name
 - Group members names
 - Start and end date of experiment
 - PreAP Biology
 - Period

--PreLab--

I. Framing the Investigation:

Purpose/Objective:

[10 points]

- ◆ 1-2 sentences
- ◆ A purpose is a clear and concise statement of the reason for doing the experiment (nutshell).
- ◆ State the problem or question that is being studied as it relates to biological principles or concepts being tested during this laboratory investigation.

Hypothesis: [When appropriate]

[15 points]

- ◆ For many experiments it will be appropriate for you to form a hypothesis before conducting the procedures (after you have thoroughly read the lab).
- ◆ A hypothesis is an educated answer to the question or problem before performing the experiment. It must follow the **If, Then** format.
Ex: **If** leaf color change is related to temperature, **then** *exposing plants to low temperatures will result in changes in leaf color.*
- ◆ 1 sentences (~20 words)

--Post Lab--

II. Collecting and Presenting Data:

[30 points]

Results:

- ◆ All qualitative and quantitative data must be organized in a data table.
- ◆ Always use units, metric whenever possible, for your measurements.
- ◆ If appropriate, construct a graph to represent your data. Be sure to properly label the x, y axes of graph, including units (cm, % Transmittance).
- ◆ All tables and graphs should be labeled/titled. *See table examples in instruction packet*
- ◆ When your experiment involves calculations, show how you carried out the calculations for a representative sample. Show your work!

III. Analyzing and Interpreting Results:

[40 points]

Questions and Answers:

- ◆ Answer the assigned questions in complete sentences or question/answer format.

Discussion:

- ◆ This is interpretation of data, explaining the significance of your results and how the data supports the problem or question (purpose) being studied?
- ◆ State your hypothesis, how do you know that your hypothesis is correct or incorrect?
- ◆ You must support your conclusion or hypothesis by restating, and supporting with actual data and/or observations collected in the experiment.

Experimental Error:

- ◆ Explain at least 3 factors that could have caused your results to be inaccurate or to vary.

What next?:

- ◆ What questions do you have after performing the experiment?
- ◆ What questions need to be answered to continue learning more about the problem studied?
- ◆ What important factors might have affected your results or influenced the data collected?