

**LAB REPORT FORMAT – 100 pts**  
**Science Department**

<b>TITLE</b>	State the primary topic of the experiment. Be specific. If you have a hard time thinking of a title, use the sentence: “The effect of... on...”.	<b>3 pts</b>
<b>ABSTRACT</b>	<p>An abstract is a shortened version of the paper and should contain all information necessary for the reader to determine:</p> <ul style="list-style-type: none"> <li>• what the objectives of the study were,</li> <li>• how the study was done,</li> <li>• what results were obtained, and</li> <li>• the significance of the results.</li> </ul> <p>This section should be written in as few words as possible. Although it appears as the first section in a paper, most scientists write the abstract section last.</p>	<b>5 pts</b>
<b>INTRODUCTION</b>	<p><b>Primary Question</b> State the question that the experiment is designed to answer.</p> <p><b>Background Context</b> This section should include summary of background information or research that has been done on the problem in the past and how the present experiment will help to clarify or expand the knowledge in this general area. All background information gathered from outside sources must be appropriately cited.</p> <p><b>Hypothesis</b> State what you think will happen and briefly explain your reasoning. A hypothesis should not only predict results; it must also be testable.</p>	<p><b>3 pts</b></p> <p><b>5 pts</b></p> <p><b>3 pts</b></p>
<b>METHODOLOGY</b>	<ul style="list-style-type: none"> <li>• In paragraph form, provide an overview of the procedure. Include specific amounts of materials used.</li> <li>• Include variables (independent and dependent), control group, and constants.</li> </ul>	<p><b>10 pts</b></p> <p><b>5 pts</b></p>
<b>RESULTS</b>	<p>Include <b>data tables, graphs, and statistical analysis</b>. Tables and graphs should be computer generated when appropriate, preferably in Excel. Never fudge data!</p> <p><b>Data Table(s)</b></p> <ul style="list-style-type: none"> <li>• Include a title of the table.</li> <li>• Rows/columns should be titled and calculations need to be completed.</li> <li>• The 1<sup>st</sup> row in the data table needs to be the independent variable.</li> </ul> <p><b>Graph(s)</b></p> <ul style="list-style-type: none"> <li>• Title that addresses the x-axis and the y-axis.</li> </ul>	<p><b>10 pts</b></p> <p><b>10 pts</b></p>

	<ul style="list-style-type: none"> <li>• Axes need to be labeled with title and units. The x-axis should show the independent variable while the y-axis denotes the dependent variable.</li> <li>• Intervals must be uniform. For clarity, you do not have to label each interval. You can label every five or ten intervals, or whatever is appropriate.</li> <li>• Include a legend if more than one set of data is on the same graph.</li> </ul> <p><b>Statistical Analysis</b> Include <b>statistical analysis</b> of your data such as mean, percent error, standard deviation, chi-square, etc. Check with your teacher if you are not sure which statistical test to use.</p>	<b>10 pts</b>
<b>CONCLUSION</b>	<p><b>Results Summarized</b></p> <ul style="list-style-type: none"> <li>• Present a summary of your findings (general trends and patterns). Back up your statements with reference to appropriate findings.</li> <li>• Specifically address your hypothesis.</li> <li>• Include a relevant discussion of the data to biological principles.</li> </ul> <p><b>Errors Identified</b></p> <ul style="list-style-type: none"> <li>• Identify limitations of the experiment and point out any experimental error(s) with a relevant discussion about their impact.</li> </ul> <p><b>Suggestions for Improvement</b></p> <ul style="list-style-type: none"> <li>• Make specific references about improvements to methodology and how these improvements might impact the quality of data.</li> </ul> <p><b>Questions</b></p> <ul style="list-style-type: none"> <li>• Identify questions for further investigations and discuss their significance.</li> </ul>	<p><b>15 pts</b></p> <p><b>4 pts</b></p> <p><b>4 pts</b></p> <p><b>4 pts</b></p>
<b>LITERATURE CITED</b>	<p>Any information taken from outside sources must be properly cited. Always cite alphabetically. Here is an example of a citation:  Miller, C.A., A.J. Fivizzani, and A.H Meier. 1983. Water temperature influences salinity selection in the Gulf killfish, <i>Fundulus grandis</i>. Can. J. Zool. Vol. 61(6), 1265-1269.</p>	<b>4 pts</b>
<b>CORRECT USE OF LANGUAGE</b>	<p><b>Avoid the use of personal pronouns (for example: never..."we used a cross-section of a plant....", but rather "a cross-section of a plant was used").</b></p> <p>Use proper grammar and spelling.</p>	<b>5 pts</b>