

Common Lab Report Errors

Abstract

A. Include main conclusion

Experiments

B. Be specific about what species, temperature, time span, etc. you used in the experiment.

C. Mention how you normalized metabolic rate by the mass of each animal.

Results

D. Refer to the graph that supports or demonstrates each result statement.

Example: The metabolic rate of the endotherm (mouse) was much greater than that of the ectotherms (toad and earthworm) (Fig 1).

E. Begin the results section with the results for your broadest question, then get into more detailed nuances of your results.

F. Interpretation of results belongs in the discussion, not the results section.

Graphs and Tables

G. Graph and table titles need to be more descriptive & comprehensive.

H. Label each graph axis with what you are measuring (eg Temperature) AND the units it was measured in (eg °C). Without either of these, your graph is meaningless.

I. Don't include a legend if the graph shows only one data series, just say what you are graphing in the title.

J. Change the axis scale to avoid large spaces with no data points.

K. Use appropriate significant figures on your axes.

L. Graphs are more easily read without grid lines, get rid of them.

Q. Label each graph (eg. Figure 1, Figure 2 etc) below the graph figure.

S. Use the appropriate type of graph to display your data clearly. For the Metabolism lab, an x-y scatter plot of all class data was necessary to see the expected results. A line graph will not show you the same thing.

Discussion

M. Compare your hypothesis to your results and explain the biological significance of your results.

N. Suggest reasons for discrepancies between your hypothesis and your results.

O. This is not what we would hypothesize based on the biology of ectothermic and endothermic animals.

P. Integrate study questions into your discussion.

R. Include more explanation of how the results demonstrate the biological processes we are studying.