BIOL 121 Lab 6 Notebook Guide

Research Proposal I. Crayfish & Cellular Respiration

# Section 1. Research Question

## What is your primary research question?

Our primary research question is…

# Section 2. Research/Literature Review

## List five key concepts that are instrumental in understanding your research questions. These concepts should link your question with general biological concepts and the scientific literature.

1.

2.

3.

4.

5.

# Section 3. Your Study & Hypothesis

## 3.1 What is your hypothesis and potential mechanism? Be sure to include a null hypothesis.

We hypothesize that…

Because…

Our null hypothesis is that…

## 3.2 What is your predicted outcome?

We predict that…

# Section 4. Experimental Design

## 4.1 Provide a brief description of your proposed experiment.

What will you do and how will you do it?

## 4.2 Use the table below to identify the variables in your experiment.

|  |  |
| --- | --- |
| Dependent Variable (DV) | Our DV will be… |
| Method of Measurement of DV | We will determine our DV by… |
| Independent Variable (IV) | Our IV will be… |
| Method of Measurement of IV | We will determine our IV by… |
| List all potential confounding variables and methods of control. | List all variables and control mechanisms here. |

# Section 5: Think about Your Potential Results

## 5.1 What statistical test will you use to test your hypothesis?

Paired or unpaired? One-tailed test or two-tailed test?

5.2 How might you graph your data? What might they look like if you reject your H0?

You can describe your graph here, draw one out (using shapes) or create one in Excel.

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Research Proposal II. Chloroplasts & Photosynthesis

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