

***In your lab notebook start on a fresh page and title this activity “I. Pond vs River Sample Analysis” and add it to your table of contents.***

Next add the following sections to your lab notebook:

II. *Introduction:*

### **BACKGROUND INFORMATION**

- A. Briefly compare and contrast the Petaluma River and the PHS Pond. Cite any sources you use using in-text citation in MLA format)
- B. **Evidence-based HYPOTHESIS** If we examine samples of water from the PHS pond and from the Petaluma River, then I would expect (here add your expectation) because (provide your REASONING).
- C. **PURPOSE** We are doing this (here propose a logical purpose or two; skills and knowledge)
- D. **VARIABLES:** The dependent variable in this experiment will be (what you will measure) & the independent variable is the source of the water (pond or river).
- E. Other variables that might affect the outcome of our lab include list of possibilities with explanation of *how* they might affect outcome.

III. *Methods:*

**MATERIALS** List of all supplies

**PROCEDURE:** a numbered, sequential list of steps to be followed.

For the next section of this lab include the following tables. Be sure to make your sketches fairly big and in pencil. Also be sure to include the scale (size of the cells) as well as a description of them.

IV. *Data:*

Data table of observed cells in water samples

source	PHS Pond	Petaluma River
total number of cells observed		
number of different kinds of cells observed		

Observations Table with sketches of cells observed (make it BIG)

PHS Pond	Petaluma River

V. *Analysis & Conclusion:*

- Comparing to total number of cells we found in each sample
- Include here a titled, labeled **graph of the numeric data**
- Describe what you can see from the graph; what it shows (be specific)
- Also comparing & contrast the observational data
- Restates the purpose
- Based on our data was your hypothesis supported or refuted based on what you found? Explain.
- Some sources of experimental error include (list possible issues, errors or procedural

issues, that might affect the outcome).

- How might our experiment have been improved (by doing what ? provide reasoning)?

#### VI. *Sources*:

complete listing in MLA format