

APPENDIX 1

Using Your *BIOLOG*

Throughout the Clemson Biology Project, you will keep a journal that your teacher will review periodically. This *BioLog* provides a means for you to record all your work: notes, data collected, interpretations, questions, and thoughts. Most scientists also keep a log of their work. The *BioLog* is very important. Here is why:

- Effective communication and writing are essential parts of science and life. Writing will make you more aware of your own thought processes and help to correct your misconceptions about science. Sometimes you don't know that you do not understand a concept until you try to express it in writing. Communicating science ideas and concepts through writing and discussion helps you to understand what you are doing.
- Your log will inform your teacher about what you have learned, what troubles you are having with the biology content, and what you think about the activities you have done.
- Your log is critical for doing the science work of this course. The information in your log will help you learn about biology and how science works.

Organizing Your Log

Your *BioLog* will be organized chronologically, with the date indicated for each activity. In every entry, you should try to include both thoughts and data. Thoughts are your own personal reflections and comments about assignments, readings, current events, videos, and class discussions. You will want to keep a summary of class discussions, activities, and questions for further research.

The data entries of your log contain laboratory, field, and library data, as well as procedures, calculations, and preliminary conclusions. Working notes, conversations with experts, survey information, worksheets, handouts, and your work on course activities are also considered to be data.

You will refer to your log many times during the year. Keep it up to date and thorough, and it will help you to complete many of your assignments.

Writing in Your Log

Try using some these sentence beginnings as you reflect and write in your *BioLog*:

What I do not understand is...	I would predict that...
This concept reminds me of...	What puzzles me is...
I wonder if...	Some observations about our discussion were...
What really surprised me was...	I used to believe...
The safety concerns with the activity are...	What would really help is...
I notice that...	I learned that...
I still don't understand...	What if...

Example of a Log Entry

January 15, 1998

Investigation #1: Observation Skills

Purpose: 1) To learn how I observe and to compare my way with how others observe. 2) To help me be more observant and aware of things that could be called observations. 3) To check for safety concerns.

Procedure: We viewed the first video and made as many observations as we could. Then we met in small groups to compare notes and ideas.

Data: I made 27 observations. Our group of 5 came up with 62 different observations! Angelina didn't make observations the same way I did. She wrote a whole bunch of questions about what she observed. Lucas convinced us that evening noticing the time of day of seeing that the same thing was happening in different locations were observations. Megan kept talking about my observations being "inferences." For example, I said that a barge smelled bad, but Megan said that I didn't actually smell the barge on the video.

Analysis: I learned that making observations requires more thought and discipline than I realized. Now when I make observations, I will be more creative and include ideas I wouldn't have had before doing this activity. The main thing I learned is that I need to use all my senses when making observations.

Summary: Observations are more than just the object you are looking at. Observations are all the things you notice about an object, a situation, or an action. What you observe depends on what you already know and what you expect to see. Observations