

BILL: Biology Interactive Learning Log

This year you will be getting to know your Biology Interactive Learning Log very well. We are going to call it **BILL** for short. You might know BILL already, he has been known by the alias *interactive notebook*. **BILL** is going to be your **Biology Study Buddy**. He will be used in this class daily to help you learn and remember important scientific concepts. Why do they work? This notebook uses both the right and left brain hemispheres to help you sort, categorize, remember and creatively interact with the new knowledge you are gaining.

BILL--The Biology Interactive Learning Log

You will also be spending a lot of time with something called BILL. In our course, students keep an science interactive notebook (SIN), where you will document your learning and interact with course content. Our ISN is called a Biology Interactive Learning Log, and we will use it daily.

On any given day, we could be doing one of the following things in our notebook:

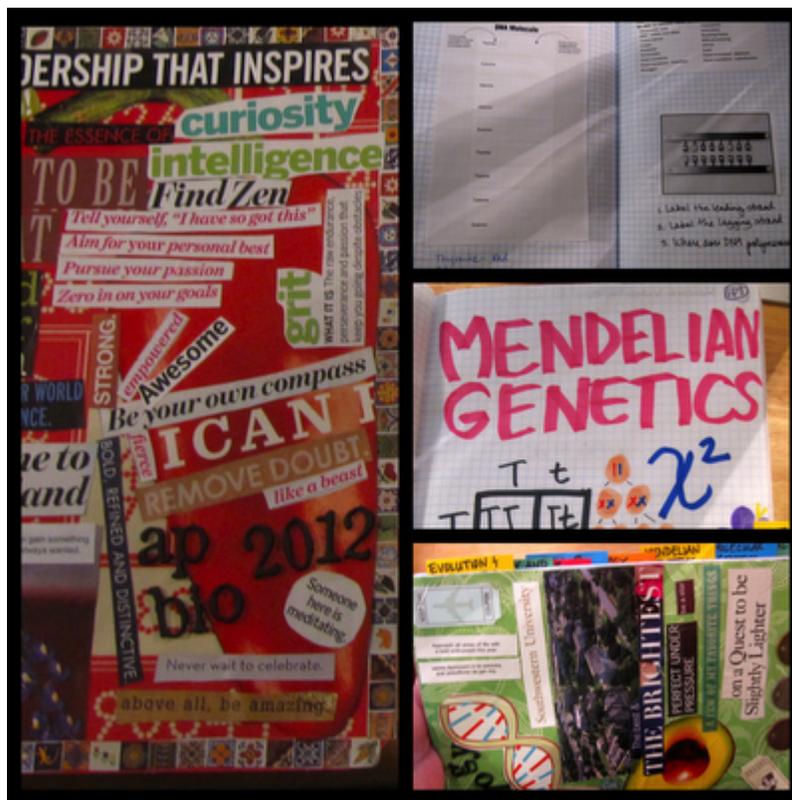
- Solving practice problems
- Interpreting graphs or diagrams
- Creating graphic organizers or concept maps about biology content
- Writing practice free response questions

The activities we will do in our BILL are meant to allow you to interact with the biology content of our class in various ways. The more ways you interact with biological concepts, the more likely you will be able to apply them to new situations, whether it is a test or a lab investigation.

To create your BILL, you will use the bound composition graphing notebook. Composition notebooks are much more durable and less likely to have pages lost than the spiral-bound notebooks. This is important because by the end of the year, you will have a homemade study guide.

You will need to decorate the cover of your BILL with a collage of some sort that represents you. I recommend that you cover the front of your notebook with clear packing tape once you have completed the cover to add durability, but also to protect the collage you make.

It is important that you keep up with your BILL on a daily basis, since this learning log is the physical representation of your processing of course concepts. We will use this notebook in class on a daily basis to catalog all the learning that you do both inside and outside the classroom, so it is important that you have it with them each day. Below is a collage that illustrates a little bit about what a BILL is, and how it might appear.



At left: The cover of Mrs. Ferguson's BILL for this school year.

At top right: A sampling of what you might be expected to do in the BILL.

At middle right: A unit cover page in Mrs. Ferguson's 2011-2012 BILL.

At bottom right: The cover and unit tabs of Mrs. Ferguson's 2011-2012 BILL.

Instructions for Setting up the Notebook.....

Materials needed to setup your interactive notebook:

- ✓ Bound-Composition Graphing Notebook.
- ✓ 2 Glue stick (you will probably need more than one as the term progresses)
- ✓ Colored pencils
- ✓ Pencil
- ✓ Pen
- ✓ decorations

Setup Instructions:

- ✓ Using a permanent marker, write your **Full Name, Class, Period, and Teacher** in the center of the cover.
- ✓ Open the front cover and write the same info as above in the center of the page.
- ✓ Flip the page, and label the next 4 pages "Table of Contents"
- ✓ Starting with the next page, Number **all pages** of the notebook in the top outer corners of the page
- ✓ All right hand pages have an odd number
- ✓ Each page right hand page is titled with the date and subject title on the top line of the page.
- ✓ All notes are written on right side of paper
- ✓ All graphic organizers given by teacher are glued into notebook, before the lecture starts
- ✓ Each day is logged in table of contents with subject, page number.

Example:

Output	Input
The left-hand pages show student understanding of information. They work with the input from the right side but present it in their own way. Creativity is key!	The right-hand pages are for students to write down information they are given.
<ul style="list-style-type: none">• Brainstorming• Concept Maps• Cartoons/Doodles• Vocabulary cards• Riddle Cards• Acrostics• Limericks• Haiku• Cinquains• Cartoons• Fables	<ul style="list-style-type: none">• Time, date, page #'s• Lecture notes• Procedural notes for labs• Vocabulary words• Textbook notes• Notes from films or videos• Lecture guides• Teacher questions• Guest speakers

Right Side Input (Notes)

The right spiral page demonstrates information that is given by the teacher. The best way to remember this is... "The Teacher is always right!". Make sure to take good notes because they will be used for you left side reflections and remember that you can find the notes on the class website if you are missing anything.

What goes on the Right Side?

Input goes on the Right Side!

ALWAYS start the page with the date and subject title at the top of the page.

- Each page is started with the date and subject title at the top of the page.
- The RIGHT page of the spiral notebook has only **odd** numbered pages.
- The RIGHT side is for writing down information you are **given in class**.
- All graphic organizers given by teacher are glued into notebook.
- Right Page must be logged in table of contents with subject, page number.
- When the teacher lectures, you take notes on the right side.
 - When you take **book notes** or **video notes** they also go on the right side.
 - Notes for labs and **lab instructions**, procedures and materials.
 - Teacher Questions and Sample Problems
 - Any other type of INPUT you get in class.
- You may use **Cornell-style** notes on the right page.



Sample Cornell Style Notes

<i>Questions/Key Terms</i>	<i>Notes/Factual Information</i>
<i>Why are plants green?</i>	Scientists note that plants are green. Many ideas have been proposed to understand plant color.
<i>What is photosynthesis?</i>	Photosynthesis means “to put together with light” meaning that plants use this process to produce food and energy from light.
<i>What does transmit mean?</i>	Plants are green because they transmit green light.

Left Side Reflections

The left spiral page demonstrates your understanding of the information on the right side page. You work with the input, and **INTERACT** with the information in creative, unique, and individual ways. The Prompts help focus your attention and guide your learning of the science concepts.

What goes on the Left Side?

Output goes on the Left Side!

- ✓ **Left Side Reflections must take up at least $\frac{3}{4}$ of the page**
- ✓ Left side of notebook is used for your interaction with the information.
- ✓ Pictures, graphs, ways to remember information go on left hand side.
- ✓ **Every left side page gets used! ALWAYS USE AT LEAST 4 COLORS**, because colors help the brain learn and organize information.
- ✓ **Reflections may include one or more of the following:**
 - 🍏 *Concept maps*
 - 🍏 *Pictures*
 - 🍏 *Diagrams*
 - 🍏 *Brainstorms*
 - 🍏 *Drawings*
 - 🍏 *Re-writing note*

Or any one of the prompts below!!



*Title: Interactive Notebooks Setup
31st, 2013*

Date: July

*Agenda: Setup Notebook
Notebook Setup*

HW: Finish

	<i>Reflection:</i>

Possible Reflection Topics:

- A. Write 5 questions you think you must know ... with answers
- B. Create Vocabulary cards or foldable for difficult terms
- C. Explain the application of this information to a real-life situation
- D. Describe the process in your own words with pictures
- E. Make a cartoon or illustration with labels
- F. Write a mnemonic or analogy for what you learned
- G. Compare & contrast using a Venn Diagram, T-Chart or Bull's-eye Diagram
- H. write a letter to someone explaining what you learned today

I. Write (4) “what if” questions about topic & (1) paragraph answer for each.

J. Write a eulogy or wanted poster for famous scientists or organism

K. Make a detailed list of what you know and what you don't know.

L. Write story, song lyrics, riddles or a poem for the topic

M. Create a concept map to connect the main points of the notes

N. Re-write your notes

O. Be Creative and come up with your own!

Tips to make your interactive learning log work for you

Use these tips to help you make the most of this notebook as a study and learning tool.

- **Use color:** Color-coding key phrases and terms is one way to make sure that they stick in your mind. For example, if there are unfamiliar terms/phrases you come across in your reading or viewing of videos, you might write them down in red ink. If there are questions you have about something you've seen/read, highlight them in yellow so that when you come to class the next day, you can remember to ask about them
- **Don't tear any pages out:** You want to keep the entire notebook intact. Ideally, this notebook will be your study guide for in-class tests as well as the AP exam in May. We will do some sort of interactive activity in your notebook nearly every day.
- **Create pockets for items such as flash cards or handouts that do not fit easily into the notebook:** Sometimes I will have you make flashcards or give you a handout that does not readily fit into the notebook. Use a half-sheet of paper or a 5x8 index card and some tape to create a pocket for these things to fit into.
- **Write down questions you have about things you do not understand:** Do this, and highlight them in a certain color so that you can ask about them in class the next
- **Tab off sections by unit of study:** This will help you keep your materials organized in a way that makes sense. I have an example of a BILL like this for you to look at.
- **Keep it neat and organized!:** If your BILL isn't neat and organized, you will find it difficult to use this notebook as a study tool.

We will use our BILL on a daily basis so be sure to bring it to class each period.