

How to Use Your Biology Interactive Learning Log (BILL)...

What is an Interactive Biology Notebook?

- It is a portfolio of your work in **ONE convenient spot**. This is **great for studying for quizzes & tests**.
- It is a great **ORGANIZATIONAL tool** that gives you permission to be thoughtful and **CREATIVE** in your responses without “messing up” your notes.
- It allows you to THINK, RECORD AND REFLECT like a **REAL SCIENTIST!!!!**

On any given day, we could be doing one of the following in your BILL:

- ➔ Solving practice problems or answering review questions
- ➔ Interpreting graphs, data, or diagrams
- ➔ Building models and answering questions about them
- ➔ Creating graphic organizers or concept maps
- ➔ Writing practice free response questions
- ➔ Collecting data for a lab investigation
- ➔ Reflecting upon a lesson, assignment, article, or video

Notebooking Rules:

- Have your BILL in class **EVERY DAY**.
- **DATE AND NUMBER** each page.
- All entries must go into the **Table of Contents**.
- Your notebook should be used for **BIOLOGY ONLY WORK**.
- Be **COLORFUL** & be **PROUD** of your notebook.

How to Get Started:

- Use only a **composition notebook** – it is more durable than other notebooks.
- Decorate your **cover** – your name should be clearly visible, add images, photos, letters, etc of things that “say something about you”. We will cover it with clear packing tape in class to protect it.
- Glue (or tape) this booklet in the inside cover.
- Starting with the next page, **number** several **pages** in the upper right hand corner. Don’t forget to do this as you continue working in your BILL.
- Page 1: Leave blank for now. I will give you the online textbook login details later this week.
- Page 2: Make a pocket. Label it **Syllabus** and **Lab Safety Agreement**. Place the 2 handouts in the pocket.
- Page 3: Glue down the **notetaking skills booklet**.
- Page 4: Each unit will begin with a **cover page**. Label this one “Chapter 1 – Biology”. Then add images related to what we will be learning in chapter 1. You can cover these with clear packing tape if you like. I will give you a place tab to place on the page. Label it with a #1.
- Page 5-6: Each unit begins with a **Table of Contents** and a **Unit Overview** that contains the unit learning objectives and a vocabulary list. Glue these in. You will have to fold the overview as shown by Mrs. McCarter. Record **ALL assignments** in your Table of Contents (always keep it up to date!)
- Page 8-9: Glue your Unit 1 vocabulary flipbook and Venn diagrams.

Why You Should Color Code Your BILL, and How to Do It

Color-coding and highlighting your learning log can help you organize information.

Color-coding or highlighting can help you distinguish what information is truly important from what is not as important. For example, as you read this tip sheet, you are probably noticing that the headers for each paragraph are in boldface type and in red. The information in boldface red type is the key information, while the information that is highlighted in orange-yellow represents supporting information.

Color-coding and highlighting your learning log can help retain more information.

Research indicates that students who read information that was color-coded were better able to retain information since their eyes would immediately track to what had been marked as important. Additionally, this led to improved performance on tests.

So how do you begin using a color coding system?

- **Choose a color coding or highlighting scheme.** Whatever colors you choose is up to you, as long as you identify what information belongs to what color. Another way you can do this when taking notes is this:
 - Highlight or underline information you thoroughly understand in green.
 - Highlight or underline information you still are unsure about or have questions about in yellow.
 - Highlight or underline information you truly do not understand in red.
- **The number of colors you use matter.** If you narrow down the number of colors you plan to use, this will reduce confusion for you when you go back to study later on.
- **The colors you use must make sense to you.** The colors you choose must make some sort of organizational sense for you. If you feel that all key terms should be circled in blue, then by all means, do that!
- **Use colored symbols to identify items that require further review or study or to identify items you are confident you know.** When you are going back over your notes after you have taken them, it is a good idea to identify those items that you need to ask questions about, or need further instruction about. For example, you could put a red star by the things that you need more help with. Conversely, you could use a green star to note the concepts and ideas you are confident you understand.

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 the book and 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. Use construction paper under diagrams, color them, etc. I will show you some examples.
- **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 exams. 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 or star them in a certain color so that you can ask about them in class the next period!
- **KEEP THINGS IN ORDER.** Don't put things from one unit in another unit's section. Do not put notes half-way through a lab.
- **Tab off chapters:** 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.

Most importantly:

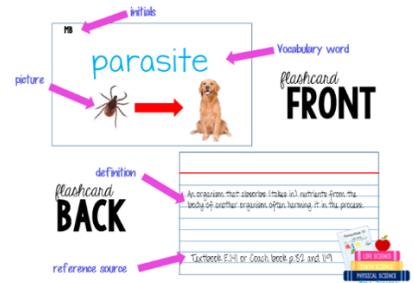
- **Keep it neat and organized!:** If your BILL isn't neat and organized, you will find it difficult to use this notebook as a study tool.

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

10 Top Ways to Review:

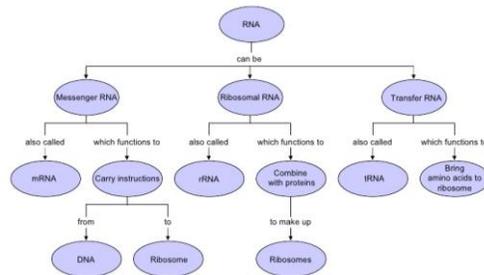
1. Make your own **Venn diagrams** and **flashcards**. Make a **crossword** or **bingo** card (there are several websites that can help with this), then trade with a study buddy. Making your own **Quizlets** helps MUCH more than using someone else's. Don't forget to use images!

<https://bingobaker.com/>



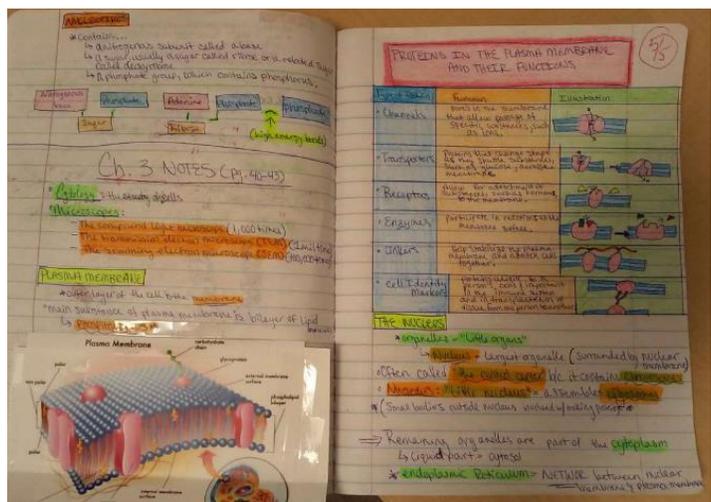
<https://worksheets.theteacherscorner.net/make-your-own/crossword/>

2. Create your own **concept map** - will show relationships within the unit.



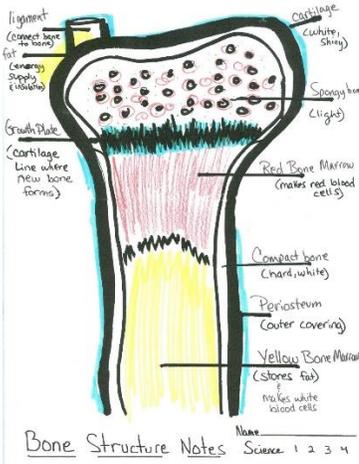
3. **Flipbooks** and other **foldables** will help you organize info and interact with it. This helps you remember terms better and helps you relate concepts. Add color and images. I have many templates that you can use on your computer or printed out.

4. **Color** – using highlighters, colored pens or pencils, colored paper, etc.



5. Make your own **study guide** or **practice test**. I have some great templates for study guides that you can fill in. Create your own test questions. Switch them with a study buddy.

6. **Sketch, label, repeat.** Drawing your own sketch is the most helpful, but I always keep blank copies of diagrams on our class website.



MEMBRANE TRANSPORT

PASSIVE TRANSPORT	ACTIVE TRANSPORT
NO ENERGY NEEDED NO ATP REQUIRED	REQUIRES THE USE OF ENERGY IN THE FORM OF ATP
DOWN A CONCENTRATION GRADIENT FROM HIGH TO LOW CONCENTRATION	AGAINST A CONCENTRATION GRADIENT FROM LOW TO HIGH CONCENTRATION
FACILITATED DIFFUSION REQUIRES THE USE OF PROTEIN CARRIER/TRANSPORT MOLECULES	SOME TYPES REQUIRE THE USE OF PROTEIN CARRIER/TRANSPORT MOLECULES
INCLUDES OSMOSIS AND SIMPLE DIFFUSION WHICH DO NOT REQUIRE ANY SPECIAL PROTEIN CARRIER/TRANSPORT MOLECULES	INCLUDES ENDOCYTOSIS – MOVEMENT OF LARGE MOLECULES INTO A CELL (CELL MEMBRANE FOLDS AROUND THE MOLECULES)

7. **Tables** will help to organize your thoughts or compare/contrast.

8. **Mnemonic devices** – **ROY G BIV**

9. **Hand-write** everything. Research shows that the muscle movement of your hand writing down information helps with recall much better than typing. **Practice writing** answers to the free response questions for each test. I will usually give you the topic beforehand.

10. **Teach to others** – you are 50% more likely to remember something that you have spoken out loud as opposed to reading it over and over. Study buddies help!! Have your parents or a sibling test you using questions from the end of the chapter or using your vocabulary flashcards.

