

Study Technique for Laboratories

Preparing for a lab exam may involve recalling the steps that were performed during the lab as well as the purpose and the outcome of the lab. Summarizing each lab onto a matrix allows you to ensure that you know what occurred during each lab while providing a way to compare one lab to another. Of course, the questions would vary depending on the type of lab, but your summary should answer most of these questions:

- **What:** What procedure did you perform and what equipment/supplies were used?
- **When:** When would you use such a procedure?
- **Why:** Determine what circumstances or reasons would necessitate this procedure.
- **How:** What were the steps for this procedure?
- **Implications:** Understand the possible results of completing the procedure.
- **Solutions:** Determine the steps/procedures necessary to rectify the results if the required results are not achieved.

Here is an example of how to organize a matrix based on the questions above:

	Lab #1	Lab #2	Lab #3
What?			
When?			
Why?			
How?			
Implications			
Solutions			

Study Technique for Quantitative Content (Math, Calculus, Statistics, Accounting)

Preparing for a math test or any other quantitative exam involves repeated practice to ensure that you are able to complete the required calculations or procedure. However, you must also know *when* to apply *which* formula. For each formula/procedure you must know:

- **What:** Determine what type of procedure it is.
- **When:** Determine when you would perform this procedure.
- **How:** What were the steps for this procedure?

Several formulas or procedures could be compared on a matrix with the format below.

Study Matrix

	Formula 1	Formula 2	Formula 3
	e.g., $R_T = R_1 + R_2 + R_3$		
What	Calculates total resistance		
When	In Series circuits only		
How	Add the individual resistances to equal the total		
Example			

Study Technique for Maps and Diagrams

This strategy is used when you need to master specific, detailed information on diagrams or maps. It requires a sheet of acetate (overhead transparency), a water-soluble pen, and a blank copy of the diagram you need to learn.

Step One

Obtain a blank copy of the diagram that you need to learn. If your instructor cannot provide one for you, you can quickly sketch one of your own, photocopy a blank copy, or cover up the information on the labeled copy you are studying using post-it notes or flash cards.

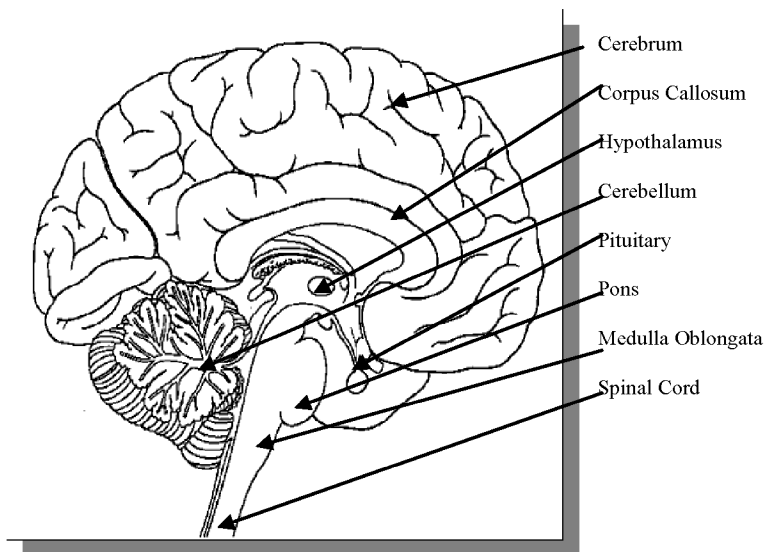
Step Two

Study the information you need to learn and then, place the acetate over the blank copy of the diagram. With a water-soluble pen, try writing in the information that you need to know without looking at the completed diagram. (A fine-tipped overhead pen works best for this.)

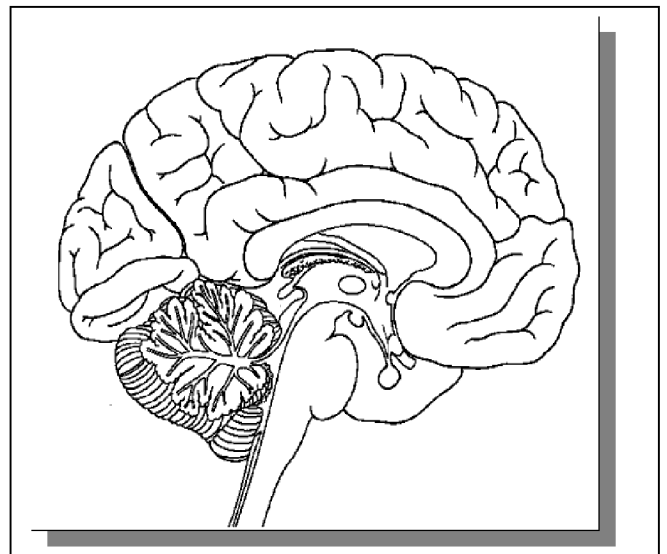
Step Three

Once you have written everything that you know, check to see how much you got correct by placing the acetate over top of the original diagram. Next, correct the information that you did not have right, then wipe off the acetate using a damp paper towel. Continue to practice until you get all of the information correct.

Original Diagram with labels



Blank Diagram with acetate on top



Studying in Groups

While most of your study/review should be done alone, many students find study groups can be beneficial for several reasons.

Why use study groups?

- Study groups give students an opportunity to share materials/resources, clarify understanding of ideas, concepts, theories, etc.
- Study groups can provide a venue to test one another regularly.
- Study groups allow students to see material presented in alternative ways than it was presented in class.
- The material is often put into the student's own words which enhances the likelihood of effective recall.
- Teaching is the most effective way to master information.

The following is a list of guidelines for developing effective study groups:

1. Form a study group of 3 to 5 serious members for each of your classes.
2. Establish group rules or guidelines.
3. Schedule weekly meetings.
4. Make practice tests and generate content summaries.
5. Take turns teaching each other course content.
6. Be prepared for each study session by completing reading and assignments as well as attending all classes.
7. Stay on task – keep it a study group not a support or “gripe” group.
8. Be cooperative not competitive.
9. Ask “non-contributors” to commit to making a contribution or leave the group.

Caution: Make sure that the focus of your study group is studying, not socializing.