

LAB 5 Cellular Respiration

Follow the guidelines in: Writing Laboratory Reports

Pre-lab:

1. Read through the lab in your Biology Lab Manual
2. Prepare your lab notebook prior to class
3. There will be a pre-lab quiz at the beginning of class on lab day.
4. Set up your Lab Notebook. It should include the following
 - a. Title
 - b. Purpose
 - c. Objectives
 - d. Procedure
 - i. Your procedure should include a table like that on page 56.
 - ii. You may then copy the procedure from the Lab Manual, but only if the directions make sense to you. Otherwise, you should write the steps in a way that you understand and can follow.
 - e. Data Collection Table
 - i. **BE CAREFUL!** Note that in your Lab Manual, Table 5.1 does not match the pictures in Figures 5.1 and 5.2. Discuss the setup with your Group and plan to set up your Table in the same order as you set up your respirators.

Measurement of O₂ consumption using Respirometers

1. Gather with your Group and plan how you will set up your lab and collect the data. Assign tasks and duties to individuals and stick to your plan. Talk through the plan so that all of you understand what you are going to do. You may choose to do the room temperature set up and then do the cold or you may choose to divide your group and have two of you do one set up and the other two do the second. Remember, you must control your variables between your groups so if you split up, it is important that both groups are following the same plan except for the temperature difference.
2. Proceed with the set-up and data collection of your lab.
3. SAFETY
 - a. You will be using potassium hydroxide (KOH). It is a hazardous chemical. When you have completed your data collection DO NOT break down your respirometers. Mrs. Douma will break down the setups and discard the materials appropriately.
4. After you have gathered the data and are finished, please inform Mrs. Douma so that she can take care of the set ups.
5. Analysis of Results
 - a. Complete the analysis of your results on pages 59-63 of the Lab Manual. Questions are to be answered in paragraph form with the question understood. (Do not write the question then the answer)
 - b. **Your graphs must be to scale.** You may do them on another paper and tape it into your Lab Notebook. Don't forget to make two copies (use a copier) one to turn in and one for your records.