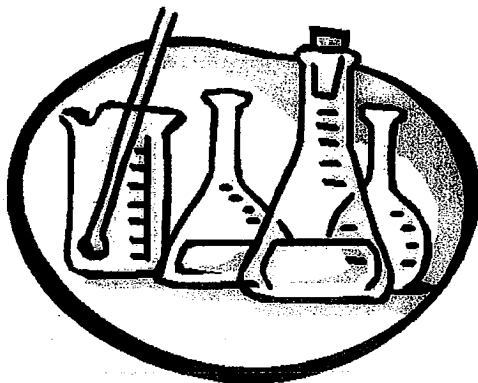


# Yeast Lab



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## Objectives:

- to determine the best conditions to grow yeast
- to view gas production by yeast
- to record observations and measurements.
- to create a line graph.

## Procedure:

1. Label your flask with your assigned group letter: **A**, **B**, **C**, **D**, or **E**.
2. For each Flask:
  - A - 5 mL sugar, 3 mL dry yeast,
  - B - 15 mL sugar, 3 mL dry yeast
  - C - 15 mL sugar, 5 mL salt, 3 mL dry yeast
  - D - 5 mL salt, 3 mL yeast
  - E - 15mL sugar, 5 mL salt
3. Fill the flask with 100mL of warm water

4. Place balloon over top of flask and rubber stopper (with one hole) tightly
5. Swirl flask to mix contents
6. Record observations in Table 1.
7. (Due to 45 min class, flasks were left overnight)
8. Measure the height of the balloon from the top of the stopper to the top of the balloon and record in Table 1.

### Data:

**Table 1 : Observations and Measurements of Balloon height in cm**

Flask	Observations	Period 1	Period 2	Period 3	Period 5	Period 6	Average
A							
B							
C							
D							
E							

**Figure 1: Graph of Balloon Height in cm**

- Make a full page line graph in your lab notebook.
- X-axis Periods 1-6, Y-axis Height in cm.
- Key: Flasks A-E with point protectors.
- 5 lines on line graph.

### Analysis:

1. Compare what happened to each of the balloons for flasks A through E.
2. Why did we use warm water instead of cold water?
3. What flask(s) had the **Most** CO<sub>2</sub> production? **Least**? How do you know? Be sure to describe **WHY**!
4. Describe what happened using the following terms : yeast, warm water, sugar, salt, and carbon dioxide.
5. Was there anything besides CO<sub>2</sub> produced in the flask? What was it?