

Design an Experiment – Yeast Fermentation

Your notebook report should include all of the following, in this order. The first four parts are done before data is collected. This project is worth a total of 50 points. Use the **boldfaced** headings in your report

1. **Testable Question** – aka a “problem”, this can also be your title. (3 pts)
2. **Hypothesis** – one sentence beginning with something like... “I predict that...” (3 pts)
3. **Materials** – include all things used in the experiment. (3 pts)
4. **Procedure** – list and number all steps as instructions for replicating your experiment. (3 pts)
5. **Data** – table(s) of your raw data (3 pts) and/or printed data
6. **Analysis** – graph(s) of your data with clearly labeled axes (3 pts)
7. **Conclusion** – One or 2 paragraphs stating your interpretation of the results (15 pts) Include the following:
 - 1) *Identify your input and output variables. (... remember that your input variable is the one you set up ahead of time and your output variables are what you measure) (3 pts)*
 - 2) *Identify all variables you controlled. (3 pts)*
 - 3) *Does your data support your hypothesis or not? Explain. (3 pts)*
 - 4) *Why do you think your experiment turned out as it did? (3 pts)*
 - 5) *What unexpected factors might have affected your results? (3 pts)*

Whiteboard Presentation

Your whiteboard presentation should include all of the following, in the given order.

1. **Testable Question** – aka a “problem”, this should be your title.
2. **Hypothesis** – your prediction about the results
3. **Materials** – (do not write; just show us)
4. **Procedure** – (do not write; just explain to us)
5. **Data** – table(s) of your raw data
6. **Graph** – bar graph showing your results
7. **Conclusion** – a sentence stating your interpretation of the results

Design an Experiment Scoring Sheet

Title _____

Your Name _____

Partners _____

Class _____

Date _____

Notebook Report:

Testable Question	3	2	1	0
Hypothesis	3	2	1	0
Materials	3	2	1	0
Procedure	3	2	1	0
Data	3	2	1	0
Graph	3	2	1	0
Conclusion:				
<i>Variables identified:</i>	3	2	1	0
<i>Controls specified:</i>	3	2	1	0
<i>Hypothesis supported?</i>	3	2	1	0
<i>Explanation of results:</i>	3	2	1	0
<i>Unexpected factors?</i>	3	2	1	0

Whiteboard Presentation

Completeness of whiteboard	3	2	1	0		
Organization of whiteboard	3	2	1	0		
Ability to answer questions	3	2	1	0		
Clarity of verbal presentation	3	2	1	0		
Teamwork	5	4	3	2	1	0

Total Points: _____ / 50

Comments
