

## MIXTURES LAB REPORT GUIDELINES, HONORS

Use the following guidelines to write your formal lab report.

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TITLE OF THE LAB  
Students' Names  
Date  
Class and Period Number

### I. Question

A well-written question that covers the overall purpose of the lab.

### II. Hypothesis

A statement of what you think the outcome of your work will be. This statement should be in the format: "If (what you do in the lab), then (what will happen), because (the scientific reasons for the outcome)." For example, "*If I build a vehicle with a belt and pulley system, then the vehicle will travel 5 meters, because the belt and pulley system will provide enough torque to move the vehicle.*" **Do not use** passive words such as "I think," "I believe," "might," or "maybe."

### III. Materials

A detailed list of everything used in the lab. Be sure to include quantities.

### IV. Procedures

Provide a numbered list with complete, REPRODUCIBLE, step-by-step instructions. This should be written so that anyone reading it can completely understand what to do and how to do it. The writing should be free of all personal references (we, you, us, etc.) and should be present tense.

Incorrect: My partner and I poured the water in the beaker.

Correct: Pour the water into the beaker.

### V. Data

Include tables of all raw data collected during the lab. This can be numeric data as well as observational data. **Do not** include calculations in this section.

### VI. Analysis

This section includes many parts. See the original "Separating a Mixture" lab handout for the 6 topics to be covered in this section (calculations, analysis of error, etc).

Complete calculations must be provided – either in a calculations table or neatly typed.

Analysis of error (#4-6) must be in separate paragraphs with full explanations and reference to percent error calculations.

You should not number your answers like a homework assignment. This is a lab report – use paragraph separations to distinguish one topic from another.

### VII. Conclusion

Answer the original lab question and explain whether the data supports or refutes the hypothesis. It might be necessary to restate your original question or hypothesis, but your conclusion must include supporting data (numeric values) from the lab.

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Things to **always** do in a lab report:

- Type
- Use proper spelling and grammatical conventions.
- Proofread and edit before turning it in.
- Properly label your tables and graphs, use rulers.

Things to **never** do in a lab report:

- Never use the words "I", "we", "our", "my", or any pronouns expressing personalization. Lab reports are formal and factual and do not include any personal reference (except for a reflection, if there is one).