Guide to Keeping Laboratory Notebooks

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The laboratory notebook may provide a way to teach students not only about science but also about how to keep good records. Good record keeping skills will be useful in a variety of job situations such as accounting, cashier, college, etc. The following general format is one of many ways to organize laboratory notebooks and as such provides a good starting point for learning to keep a laboratory notebook.

One easy way to keep a laboratory notebook is to have students use a spiral bound 1 subject notebook. The students can then handwrite any information in the notebook or the teacher can handout instructions and allow students to tape the information in the notebook. Regardless, all methods, data, analysis of results and conclusions should be recorded in the notebook. It is helpful to have the students number the pages of the notebook and use pen when writing in the notebook. Students should not remove pages from the notebook. These basic guidelines should help students understand the importance of accurate, valid data.

Several pages of an example laboratory notebook have been included in this packet.

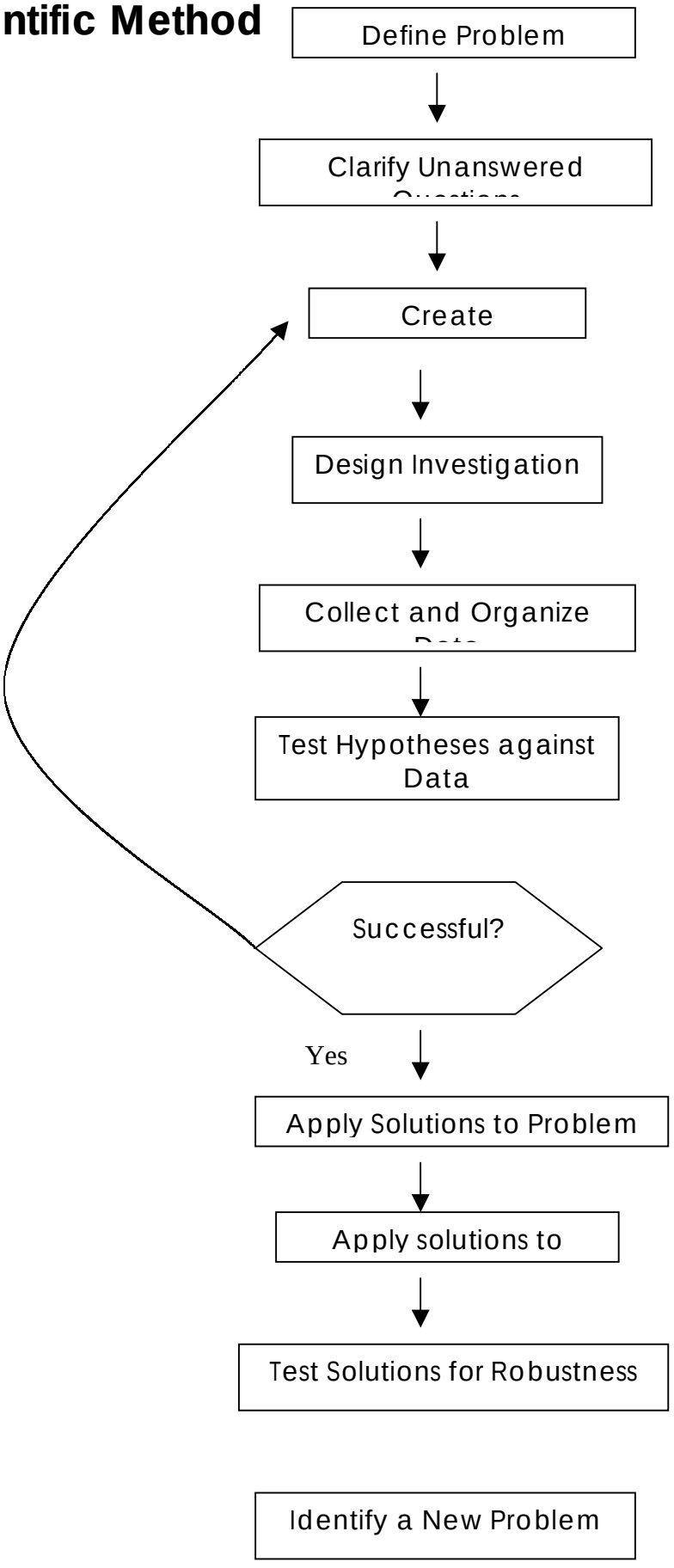
Front Cover

Student's Name: _____

"Decorations" - Choice of student

Inside Front Cover

The Scientific Method



General Outline for Laboratory Notebooks

Front Cover
Name

Decorations

Inside Front Cover: Scientific Method Flow Chart

Pg. 1: General Outline for Laboratory Notebooks
-includes, " Things to keep in mind when maintaining a Laboratory Notebook"

Pg. 2 and 3: Table of Contents

Pg. 4- to end of experiment
Top of the Page: Experiment number, Title of Experiment, Date of Experiment
Purpose

Hypothesis

Methods/Experimental Instructions

Results

Conclusions

***Repeat format from Pg. 3 onward for future experiments.**

Things to keep in mind when maintaining a Laboratory Notebook:

1) Accuracy
2) Legibility and Neatness
3) Reproducibility
4) Organization

Table of Contents

Table of Contents

Experiment #: ___ Experiment Title: _____ Date:_____

Purpose

This section should include1-2 sentences which explain the purpose or reason behind the current experiment.

Hypothesis

This section should includes a one sentence hypothesis (guess or prediction) which outlines what the student expects results of the experiment to be.

Methods/Experimental Instructions

1) How did you perform your experiment?
2) How did you collect your data?
3) What supplies did you use?

Results

1) This section should include any data tables on which pieces of data were recorded during an experiment, graphs of the data, or statistical analysis performed on the data
2) It may also be useful for students to include a section for errors during experiments or problems with the method.

Conclusions

A conclusion should consist of one paragraph (3-5 sentences) which answers the following 3 questions.

1) What did you do?
2) What did you predict would happen?
3) What were your results? Did your results support your prediction?