Lesson: How To Write a Formal Lab

FOR THE TEACHER

Summary
In this lesson, students learn how to put the parts of a formal lab write up together.

Resource Type          Grade Level
Lab Rubric               High school

Objectives
By the end of this lesson, students should be able to
- Write a formal lab write up.

Chemistry Topics
This lesson supports students’ understanding of
- Writing in chemistry

Time
Teacher Preparation: No time
Lesson: depends on the lab

Safety
Safety precautions for the individual lab experiment should be observed.

Teacher Notes
- Having students familiarize themselves with this format expedites teacher grading.

FOR THE STUDENT

Student Activity Sheet: How To Write a Formal Lab Report

Lesson
Background
- Contains supporting information (from research or class notes) that will lead to an educated guess as to what should occur in the data.
- Contains definitions of vocabulary or applicable laws

Purpose
Clearly states why you are doing the lab investigation

Hypothesis
May be a statement of what you expect to occur OR may be a prediction of results OR may be a starting point for experimentation.

Procedure
- Bulleted or numbered list of what was done
- Written in third person (Heat for 10 minutes vs. I heated the sample)
- Should not contain data
- Should be specific enough to be replicated but not too intricate
  - obtain materials
  - heat chemical in hot water bath
  - record data every 30 seconds

**Data**
- Should be a chart of results
- May be after the procedure or may be next to the procedure, as long as it is somehow separated

**Conclusion**
- Must refer to the Hypothesis
- Must answer the purpose of the lab
- May contain graphs or diagrams
- May contain narrative of results

**Errors**
- Must contain at least three items that may have affected data
- Should be procedural (Age of chemicals may cause a slow reaction)
- Should not be personal (My lab partner spilled......)