

Designing an Experiment

Purpose/State the Problem:

Background/Observations:

1. What do you already know about the topic from textbook and research?
2. What observations have you made that relate to the topic? It could even be a behavior that you have observed but do not understand.

Formulate a Hypothesis:

If independent variable, *then* dependent variable ...

Design the Experiment: Must include! ...

1. Constants
2. Independent variable – Can it be reasonably tested?
3. Dependent variable
4. Control group
5. Experimental group
6. Sample size – Bigger is better!
7. Steps of procedure
8. Verification
9. Possible sources of error

Data Table/Graph:

1. Number & Title
2. Units!!
3. Graph-Label Axes!



Conclusion: Was your hypothesis right? **EXPLAIN** based on your data.