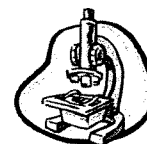


## Experiment Vocabulary

Term	Definition	Example
variable	This is any condition you can change in an experiment that could change the results.	If you are studying what makes plants grow well, the variables might be soil, amount of water, amount of sun, temperature, size of pot and many other things. Any of these could be changed.
controlling the variables	This does NOT mean that you are in charge of the variables, although you probably are. It means keeping all variables the same except the one you want to find out about.	If we wanted to know if plants grow better with soda, we would give all plants the same amount of fertilizer, soil, air and warmth. We would say we controlled those things. This way, we can know that any differences in the plants are caused by the soda.
control set	This is the thing or group of things to which you are comparing your experimental set. The control set often gets the more "normal" treatment.	In the plant and soda experiment, the plants that would get the plain water instead of soda would be the control set.
experimental set	This is the thing, animal, plant rotocopter, etc., that is given unusual treatment in order to answer your problem.	If you want to know if plants will be healthier given water or soda, the plants getting the soda would be the experimental set.
experimental variable	This is the one variable that you change between your control set and your experimental set in order to answer your problem.	In the plant experiment, what we watered the plants with was the experimental variable, because it is the condition that we changed.



Here is a sheet of paper that will help you remember the parts and details of a laboratory report.  
Keep this in your binder ALL YEAR!!!

## The Laboratory Report Format

- Problem:** Tell what you are trying to find out by doing the lab. This is in the form of a question. (Don't forget the "?")
- Hypothesis:** The hypothesis answers the question that you came up with in the problem section. Here, you say what you will do, then what you expect will happen, then why you think it will happen. It often looks like this:
- "If we give plants no light **then** they will die **because** plants need light in order to do photosynthesis."*
- Materials:** List the things you will need to complete the lab. DON'T number them.
- Procedure:** Describe how the lab was or will be done. Make sure to number the steps and put each step on a separate line. Also, specify amounts, times and what type of data to record.
- Data:** Record what you observed. We often use data tables to make it clear. Remember to include:
- A title for the table
  - Units for measurement
  - Both the control and experimental set
  - Straight, ruled lines
- Conclusion:** This section is where you show the reader what you learned or discovered from the experiment or laboratory. As we learn more, we'll add to this section.
- ✓ First, you explain what you learned.
  - ✓ Summarize your results and explain what you infer from these results.
  - ✓ Support every inference with EVIDENCE from your experiment and explain your reasoning.
  - ✓ Discuss any possible errors you may have made and if these errors could have changed your results.
  - ✓ How could you be more accurate if you did this experiment again?
  - ✓ Write a final statement about how what you learned affects you, your community and/or the environment.

