

Scientific Method

Problem The question the experiment is designed to examine. Must be in form of a question and a complete sentence.

Hypothesis An educated guess about what will happen or how the problem will be solved.

- Usually in this format: "I think..... because....."

Materials What is needed for the experiment. List in point form with exact amounts.

Variables:

- **Manipulated** The one thing or aspect of the experiment that you change to do the experiment
- **Controlled** What things or aspects that will stay the same for every trial of the experiment
- **Responding** What will change or happen because of the manipulated variable

Procedure This is the recipe of how to complete the experiment. You must list everything you do and number each step in order. If someone else reads the procedure, they should be able to redo the experiment the exact same as you so don't leave anything out.

- Repeat the experiment at least 3 times to make sure you have accurate results

Observations or Results Describe what happened in your experiment. What do you see happening during the experiment. You only describe facts, don't try and explain why.

- Ways to record your observations/results
 1. Recording Data (ex. chart or graph)
 2. Written description
 3. Picture/Drawing/Diagram
- Use all 5 senses (smell, taste, touch, hear, see)

Conclusion What happened in your experiment. Was your hypothesis correct or incorrect and why? What did you learn? Explain your observations. Always written in complete sentences.

- Include any other important information you want to discuss and explain

Questions Thinking of the experiment, ask any questions that you are unsure about? What can you do next time in another experiment? Because of this experiment, is there something else you want to know?