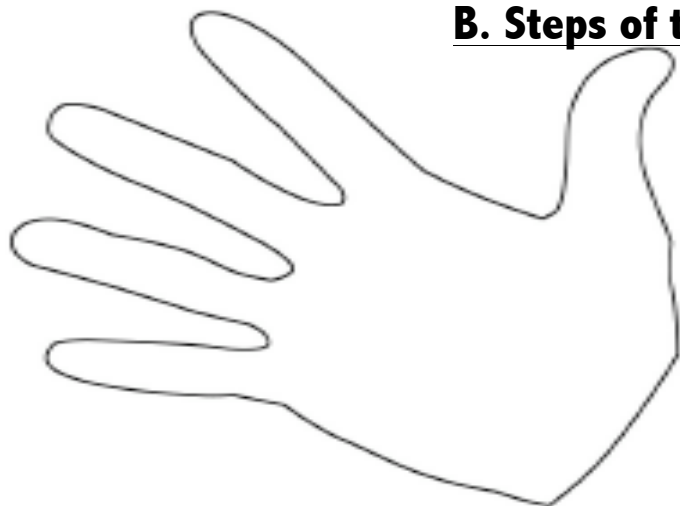


I. SCIENCE INVESTIGATIONS:

A. TERMS TO KNOW:

#	TERM	DEFINITION
1	OBSERVE	To gather information using your senses: See, Smell, Touch, Taste & Hear Usually leads to a question
2	QUESTION	Something you wonder about after an observation
2	INVESTIGATE /RESEARCH	To study something carefully in order to answer a question about it; ex. Examine specimens, read about, search the Internet, etc.
3	HYPOTHESIS	A suggested explanation for an observation that is testable; An educated test
4	PREDICTION	A guess about what you think will happen in the future
5	EXPERIMENT	A controlled test used to test a prediction that you make on your observations
6	DATA	Pieces of information such as notes or drawings that are usually kept in a science notebook
7	RECORD	To write down or make note of something and save that information for future use
8	CONCLUSION	A statement about what you think your data means made at the end of the scientific process after you study your data
9	CONTROL	
10	VARIABLE	
11	PURPOSE (APPLICATION)	The part of an experiment that answers the question "How can I use this information?" or "Why is this important?"

B. Steps of the Scientific Method



- 1 Question-Investigate**
- 2 Hypothesis**
- 3 Plan & Experiment**
- 4 Results-Analyze**
- 5 Conclusion**

C. Parts of a Good Science Fair Project

1. Title - Gives a general idea of what your project is about; Should be "catchy" and is best named after the project is finished
2. Acknowledgements - Make sure to thank anyone who helped with your project; Give credit for any part(s) that were not your words; this does NOT mean a person who did your project for you! This means those businesses, professionals, participants, etc...
3. Question/Purpose - The question you ask should be testable/measurable according to science standards; Opinions are not provable; Your question should be revisited in your conclusion
4. Background Information/Research - This is the part where you should cite all reliable sources from which you gained facts about your topic
5. Hypothesis - (Generally around ___ sentences long.) This is where you write what YOU think the answer your question; It should be based on investigation & research & is NOT a blind guess
6. Materials - A list of all supplies you needed & used to complete the experiment; Make sure you go through the entire project so you do not forget anything
7. Procedures - This should be a complete list of STEPS, usually numbered & in complete sentences, that detail EVERY step along the way of your experiment
8. Results - This is where you document the results of your experiment usually in a data chart so that the information is organized and easy to read; A science journal, log or notebook is acceptable to include, but a chart for your display board should be included; Exclude all opinions & Conclusions!
9. Graphs or Charts - Use analytical organizational tools such as bar graphs, pictographs, line graphs, circle graphs and the like; This indicate trends and make analyzing the data you recorded more apparent or easy to see
10. Conclusion - This is where you restate the hypothesis as correct or an incorrect statement; This should be done after you have conducted the experiment & analyzed the results; If your conclusion does NOT confirm your hypothesis, this does NOT mean that your project was a failure; Even disproving the hypothesis means that something was learned and that you are that much closer to finding the correct answer to the question
11. Bibliography - This is where you site any sources of information gathered during the investigation or experiment

Mrs. Ortiz' Tips and Advice:

1. Don't PROCRASTINATE_____;

Projects usually take a lot of time and experiments can last over a period of days and weeks; Then you need to analyze it, organize it, and put it all together. Last minute projects are obvious, and parents don't like science projects for this reason! You should ask for help when necessary, but do not burden your parents with those most dreaded words all parents hate to hear "My science project is due tomorrow!" This is YOUR project, not your parents. Make it your own and impress everyone with your creativity, maturity & ability to be responsible.

2. Pick something that INTERESTS you_____;

EXPLORE; Be CURIOUS; Observe things around you & WONDER! Consider topics (sports) related to you. If you pick something that interests you, the process more fun, and will most likely reflect positively on your project...

3. Follow the SCIENTIFIC METHOD & Steps_____;

Use a checklist that either the teacher gives you, or that you make yourself from the criteria the teacher gives you to make sure you don't forget anything; Use a computer to make a rough draft that can be easily modified. Wait a day to check your work. You will be more likely to catch an error if you wait a day because you are less likely to remember what you meant to say & are more likely to see if it makes sense and is complete. Also, have another person such as an adult check it for you as well.

4. Projects should be ATTRACTIVE_____;

In this case, LOOKS COUNT! Make your project board, eye-catching, and appealing enough to draw people to your project and WANT to see what it's about! Use BOLD colors, a computer for charts/graphs, and LARGE font