

Most Important Part of Science Fair

The Joy of Finding Things Out

General Suggestions

- Start early to give time for thoughts to fully develop
- Keep careful records
- Remember that science includes thinking creatively!
- Enjoy the process

“Statement of the Problem” Section

- What we don’t know and why we need to know that
- Why the problem is of interest
- Background research providing enough information to understand why the hypothesis is reasonable

“Purpose” Section

- What we want to find out, and how we will find that out

“Hypothesis” Section

- A reasoned guess
- Should tie back to research in the Statement of the Problem section.

Procedure Design

- Think deeply about control variables...the things that have to stay the same.
- There should be only one thing (variable) that is changed/different
- There can be more than one response measured

Results vs. Conclusions

- Results will include a summary of the data, with no interpretation
- Conclusions interpret the results and summarize how the results support or contradict the hypothesis. Infer & explain why things turned out the way they did.

“Conclusions” Section

- Data-based inferences
- Explain why things turned out the way they did
- Does this experiment suggest a next step?
- Scale up to real-world implications

Some sentence starters for conclusion section:

- My hypothesis was...
- The Results indicate that this hypothesis is supported/not supported...
- Because of the results of this experiment, I wonder...
- Results suggest...
- If I were to conduct this science fair project again I would....

Research-Based Projects

- Observations – Description of what can be observed/learned from the collection or model