CHEMISTRY HONORS
SCIENCE FAIR PROJECT OUTILINE

CATEGORIES

Your project must be a Chemistry project. However, chemistry experiments can apply to many of the ISEF (International Science and Engineering Fair) categories. ***(See our website)*** *All experiments must be original and cannot be copies of previous Science Fair Experiments.*

More Specific areas of Chemistry:

Structure and Properties of Matter
Electromagnetic Spectrum and Quantum Theory
Chemical Reactions
Mole Concept & Stoichiometry
Kinetic Molecular Theory & Gas Laws
Thermochemistry
Redox Reactions
Acids and Bases
Nuclear Chemistry

PRODUCT

Research Paper

- As you do your research, follow your **background research plan** and take notes from your sources of information. These notes will help you write a better summary.

The purpose of your **research paper** is to give you the information to understand why your experiment turns out the way it does. **The research paper should include:**

- The history of similar experiments or inventions
- Definitions of all important words and concepts that describe your experiment
- Answers to all your background research plan questions
- Mathematical formulas, if any, that you will need to describe the results of your experiment

Your research paper needs to have these sections:

- Title page *(with the title of your project, your name, and the date)*
- Your report *(2-3 pages)*
- Bibliography *(APA format)*

More information on writing the research paper can be found on the link provided by our classwebsite.

Display Board

You need to prepare a display board to communicate your work to others. Use a three-panel display board that unfolds to be 36" tall by 48" wide.

Organize your information like a newspaper so that your audience can quickly follow the thread of your experiment by reading from top to bottom, then left to right. Include each step of your science fair project: **Abstract, question, hypothesis, variables, background research, and so on.**

*****See our classwebsite for more information on the Display Board.*

Final Report

Your science fair project final report will just entail pulling together the information you have already collected into one large document.

- Your final report will include these sections:
    - Title page.
    - Abstract. An abstract is an abbreviated version of your final report.
    - Table of contents.
    - Question, variables, and hypothesis.
    - Background research. This is the Research paper you wrote before you started your experiment.
    - Materials list.
    - Experimental procedure.
    - Data analysis and discussion. This section is a summary of what you found out in your experiment, focusing on your observations, data table, and graph(s), which should be included at this location in the report.
    - Conclusions.
    - Ideas for future research. Some science fairs want you to discuss what additional research you might want to do based on what you learned.
    - Acknowledgements. This is your opportunity to thank anyone who helped you with your science fair project, from a single individual to a company or government agency.
    - Bibliography.
- Write the abstract section last, even though it will be one of the first sections of your final report.

** You can find more information and details for each of the components of the final report on our class website.*

TIMELINE

ITEM	DUE DATE:
Project Title and Purpose	Friday 18 February 2011
Project Research Plan	Friday 4 March 2011
Project Research Paper	Monday 21 March 2011
Hypothesis & Experimental Design	Monday 4 April 2011
Data & Observations	Friday 9 May 2011
Results Summary	Wednesday 18 May 2011
Complete Project (Final Report & Display Board)	Friday 27 May 2011

***** The research paper will count as a test grade. The complete Science Experimental Project will count as 2 test grades. All other components of your project will count as a quiz/lab grades.***