

Name: _____ Period _____ Date _____

The science fair is approaching fast. I hope everyone has made some final decisions on their choices, research, and investigation. The science fair will be on Jan. 27th 2016. Judging will take place at 4pm with the public allowed to come between 5pm-7pm. Your project, due dates, and points are as follows:

Who is your partner _____

YOUR
SCORE

5pts.	Proposal page 1	10-23-2015	
5pts.	Parent/student sign page 2	10-30-2015	
5pts.	Outline (short)	11-13-2015	
15pnts.	Rough draft outline Fill in.	11-23-2015	
20pnts	Rough draft Separate papers	12-17-2015	
20pnts.	Final draft Separate papers in report sleeve	1-06-2016	
30pnts.	Presentations	1-20-2016	
			/100pnts.

Science Fair Project Proposal

(One per group) DUE _____

Partner #1: Name: _____
Phone # _____

Partner #2: Name: _____
Phone # _____

A. Choosing a Partner

Did you ask yourself/partner:

- Can you work closely with him/her until January (and possibly beyond)?
- Do your schedules work so that you are able to meet outside of class?
- Is it okay with your parents to work with this person?
- Do you trust him/her to help with half of the work?

choose WISELY!



B. Topic Choices Did you: (Please check)

- Go to www.sciencebuddies.org? It's a great place to start! Try the "Topic Selection Wizard" and the computer will choose a best fit for you!
- Choose something you are truly interested in?
- Consider the time of year? (eg. If you need to be outside to collect data, do it before the snow hits!)
- Check you have ONE independent variable (one factor you are testing)?
- Check you have a dependent variable (MUST be able to MEASURE it)?
- Determined if it's possible to control the necessary variables in order to make it a fair test?
- Check that your variables work! Fill in the blanks and make sure it makes sense!

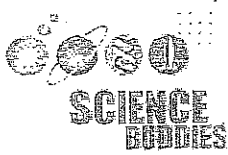
How does _____ affect _____?
Independent Variable Dependent Variable

C. Big No-Nos My project has: (Please check)

- No consumption of food or drink (eg. no energy drink testing)
- No cruelty to humans (eg. sleep deprivation) or animal subjects
- No explosives, firearms, weapons, pesticides, or hazardous (including biological) materials
- No surveys of preference (eg. Which is better, Coke or Pepsi?)
- No product testing (eg. Which shampoo/gum/moisturizer/etc. is the best?)
- Nothing blatantly obvious (eg. Do plants grow better in light or dark?)

Project Summary:

Title of Project (Try to make it interesting/funny/ creative/catchy)	
Independent Variable (What factor are you testing? 1 only.)	
Dependent Variable (What are you measuring for your results? What are the units? 1 only.)	
Control Variables (What stays the same throughout? List AT LEAST 5. Try for 10.)	



Science Project Proposal Form

Name: _____

The question I plan to investigate in my experiment (*please phrase as a question*):

Science Fair Project Question Checklist

1. Your teacher may put some restrictions on projects. Have you met your teacher's requirements?	Yes / No
2. Is the topic interesting enough to read about, then work on for the next couple months?	Yes / No
3. Can you find at least 3 sources of written information on the subject?	Yes / No
4. Can you measure changes to the important factors (variables) using a number that represents a quantity such as a count, percentage, length, width, weight, voltage, velocity, energy, time, etc.? Or, just as good, are you measuring a factor (variable) that is simply present or not present? For example, <ul style="list-style-type: none"> ◦ Lights ON in one trial, then lights OFF in another trial ◦ USE fertilizer in one trial, then DON'T USE fertilizer in another trial 	Yes / No
5. Can you design a "fair test" to answer your question? In other words, can you change only one factor (variable) at a time, and control other factors that might influence your experiment, so that they do not interfere?	Yes / No
6. Is your experiment safe to perform?	Yes / No
7. Do you have all the materials and equipment you need for your science fair project, or will you be able to obtain them quickly and at a very low cost?	Yes / No
8. Do you have enough time to do your experiment more than once before the science fair?	Yes / No
9. If you are planning to enter a science fair outside of your school: <ul style="list-style-type: none"> ◦ Does your project meet all the rules and requirements for the science fair? ◦ Have you checked to see if your science fair project will require approval from the fair before you begin experimentation? 	Yes / No Yes / No

I have discussed the project idea and the checklist with my parent(s) and I am willing to commit to following through on this project.

Student Signature

Date

I have discussed the project idea and the checklist with my student and I believe he or she can follow through with this project.

Parent Signature

Date

(1.2)

1. What question are you going to answer? (What is your topic?) _____

2. Why do you think this is an important topic to research? (Why does it matter? What would it help solve?) _____

3. What is your hypothesis? (What do you think you are going to find out?) _____

4. Before you start your project, you will need to do some background research on your topic. Find 3 possible resources (books, websites). (NO WIKIPEDIA or "answers.com" type sites.)

a) _____

b) _____

c) _____

5. What materials will you need for your study or experiment? (Be specific -- amounts/sizes/cost. Be sure you can afford it and know where they can be found or purchased. GMS cannot provide consumable materials.) _____

6. Using numbered steps, outline the procedure for your project. How will you get your results?

7. List the risks involved and what safety precautions you will take to make this project safe. (Include "consent forms required" if you are including human or animal subjects)

Due -

Name:
Date:

Period:

SCIENCE FAIR: PROPOSAL OUTLINE

This outline will help you organize your science fair proposal. Use the attached report as an example. You will use this outline to write your proposal in paragraph form.

1. **TITLE:** Write a sentence that connects the independent and dependent variables of the investigation. Example: The effect of (independent variable) on the (dependent variable).

2. **INTRODUCTION:** Give a brief summary of the investigation and describe the rationale, problem, and hypothesis.

- a. Summary. Briefly describe the project in 2-4 sentences.

- b. Why do you want to conduct the experiment? (Rationale)

- c. What do you hope to learn about? (Research Problem)

- d. What do you predict will happen? (Hypothesis)

3. **Background information.** List background facts/information that you have gathered about your problem from at least three different sources.

4. Experimental Design Diagram.

- a. Write the independent variable (what you change) (IV) across the top of the rectangle.
- b. Divide the rectangle into labeled columns to represent the different levels of the independent variable.
- c. Write the number of trials in each column.
- d. Write the dependent variable (what you measure/observe) (DV) , constants, and control beneath the rectangle.

IV:

--	--	--	--	--	--	--	--	--	--	--

DV:
 Constants:
 Control:

5. **Method.** How will you test your hypothesis? List ALL of the steps you will follow to complete the experiment. Include how long the experiment will take to complete.

List all materials and equipment you will need for your experiment.

6.

Results. Describe how you will collect your results.

a.

Design a data table. Specifically label the table.

b.

What other data will you collect? Sketches? Photographs? Samples?

c.

How will you display the data? Charts? Graphs? Photos?

7.

References. List at least **three sources** (books, websites, magazines, etc.) you used to gather background information for the project. Your sources **must be written in proper format**. You must **alphabetize** your sources on your proposal.

Source
1.

Source
2.

Source

3.

8. **Write your proposal.** Now you are ready to write your proposal in paragraph form, including the Experimental Design Diagram. Use this completed outline and the example proposal to help you write the proposal. Your report should be typed; using size 11 or 12 Arial or Times New Roman fonts.
9. **Title Page.** Create a title page that lists the title of your proposal, name, date, and class period. This should be the cover of your report.
10. **Attach** this outline, your "Getting Started" paper, and the "Grading Rubric" to the back of your final proposal.
11. **Turn in** the rough draft by: _____
- Turn in** the final draft by: _____