Name _____ Date _____

My Science Project Packet

12 Easy Steps to Science Project Completion

A Step-by-Step Guide for Students

Step 1: Choose a topic. Think about what science topic interests you or a question that you want to find the answer to.

☐ Check here if you have picked a science project. Write your name on it and place it in your science fair folder.

Project Topic: _____

What is the purpose of your project/experiment?

PURPOSE: _____

_____

_____

_____

Create an interesting and catchy title that relates to your purpose and project topic.

Title **of your Project:** _____

Step 2: Write a *problem.* Turn the purpose into a question. You will investigate this big question during your experiment.

PROBLEM: _____

_____

_____

_____

_____

How long will your project take to complete? When will you need to start your project so that it is ready in time for the fair?

_____

_____

Name _____ Date _____

Step 3: Research your project topic. You can use books, encyclopedias, magazines, the internet, and other sources. Write five or more facts about your topic below:

Topic: _____

RESEARCH: _____

_____

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REFERENCES: **Where did you find your information? Write the names and authors of the books and websites you used to find your facts below.**

_____

_____

_____

_____

_____

Name _____ Date _____

<u>Step 4</u>: Write a *hypothesis* for your project. This is an educated guess about what you think the outcome of your experiment will be. Look back at your research. Really think about what could happen in your experiment based on what you learned about your project topic. Once you complete your experiment your hypothesis will either be proven (you were right) or rejected (what you thought would happen didn't). It is ok if your hypothesis is rejected. You just need to explain in your conclusion why you think it was rejected and what you might change for the next time.

A good hypothesis has these four elements:

1. **Restates the question**
2. **Provides an educated guess about what will happen in the experiment (predicts the answer to the question)**
3. **Explains why you think this will happen and uses ideas from research to back it up**
4. **Can be tested with an experiment.**

First Draft Hypothesis: Write a hypothesis below that follows the four elements above. Have you teacher read it over and offer suggestions for improvement.

_____

_____

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_____

Once your hypothesis has been edited, write a final draft below.

<u>HYPOTHESIS</u>: _____

_____

_____

_____

_____

_____

_____

Name _____ Date _____

Step 5: List the materials and write a procedure.

MATERIALS: List the materials needed for your project. Make sure to include amounts with units. Don't forget to include measurement tools if you used any (example: ruler, measuring cup).

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

PROCEDURE: Write the directions for completing your experiment. Number each step. Be very detailed in what has to be done. Someone else should be able to follow your procedure and complete the experiment just as you did. *Use your own words!*

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Use another sheet if you need more space.

Name _____ Date _____

AT HOME

Step 6: Gather the materials needed for your project.

☐ Check here if you have gathered all of your materials.

Step 7: Conduct your investigation and collect data.

- Record the data from your experiment below. Use another sheet if you need to.
  - Write down **all** of your **observations** and **measurements** below.
  - Be sure to write your data in an organized like in a table or chart.
  - Draw pictures of your experiment on another sheet. Don't forget labels!
  - ***Take photos of the experiment and yourself performing the experiment***.

Journal of Data and Observations:

Name _____ Date _____

Step 8: Write your results. Write one paragraph to summarize your results. Create a table and graph to display your data.

RESULTS:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Table:

Type your table into Microsoft Excel and use this program to create a graph.

Name _____ Date _____

Step 9: Draw a *conclusion*.

CONCLUSION: What happened in your experiment? What do your data and observations tell you? Was your hypothesis proven or rejected? What did you learn from this project? Look back at your research and include science concepts and ideas in your conclusion. After doing this experiment do you have any new questions that you would like to explore?

Name _____ Date _____

<u>Step 10</u>: Type your project into the project PowerPoint. When you are finished typing you must proofread and edit your work before printing your final copy.

Follow the directions below to open the PowerPoint template and save it:

1. Go to Park Avenue School's webpage: http://orange.schoolwires.com/park/site/default.asp
2. Click on *Staff Websites*.
3. Click on *Samantha Sica.*
4. Click on *Science Fair Resources.*
5. Click on *Science Project Presentation Template.*
6. Follow the directions on the screen.

All students will receive computer lab time to type their projects.

Proofread and edit.

- Proofread your project and edit any mistakes. Did you adjust your materials and procedure to match what you actually used and what you actually did? Did you describe your results in detail? Did you write a conclusion stating what you found out in your experiment and what science concepts you learned during the project?

- Have a classmate proofread and edit your project.

Student Proofreader's Name: _____ Date: _____

- Have an **<u>adult</u>** proofread and edit your project.

Adult Proofreader's Name: _____ Date: _____

- Submit your edited second draft to your teacher. Your teacher will do the final edit.

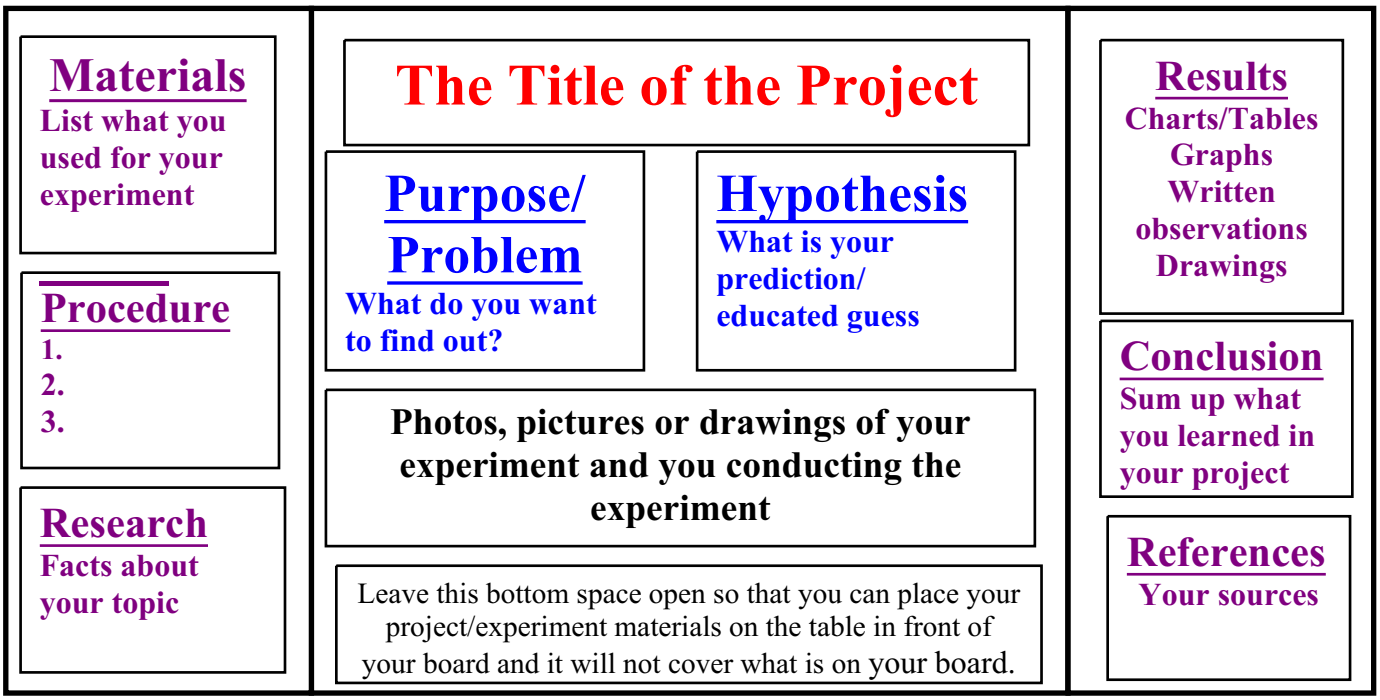
Once all parts of your PowerPoint presentation are complete and edited, your teacher will print your project for you and you will receive a display board.

Name _____ Date _____

Step 11: Build your display. Create your exhibit and presentation board.

- Use the layout below to create your display board.
- Make it neat, colorful and attractive! Include pictures!
- **Write your name, grade, teacher, and school on the back of your board.** This will keep things fair during the judging.

Science Project Display Board



Only projects that follow the criteria below will be submitted to enter the science fair

- ☐ Project displays an experiment with a hypothesis that can be tested
- ☐ Includes each category from the science fair judging rubric
- ☐ Follows the scientific method
- ☐ Typed with no grammatical, sentence structure or spelling errors
- ☐ Neat, colorful and attractive display board
- ☐ Display includes pictures or video
- ☐ Display of the experiment/materials used

All projects that do not meet the above criteria will be displayed in or outside the student's classrooms.

Step 12: Prepare an oral presentation.

- **Plan your presentation.**
  Place notes on index cards to guide you during your presentation. Be ready to answer questions from your classmates and teachers.
- **Bring your project display board and experiment to school on the due date.**
  *Carry the project materials in a bag, container, or box that has your **name** on it!*
- **Present your project to the class and demonstrate your experiment (if possible).**