



STEM EXPO Project

Student Packet

Orange Park Junior High



Student Name: _____

Science Teacher: _____ Period _____

Dear Parents,

During the next few months your child is required to complete a science project which uses the scientific method to solve a real world problem. Science projects are primarily independent study assignments involving experimentation on a topic of individual interest. The educational benefits to the student who completes a project are numerous including developing skills in writing, oral presentation, creative thinking and problem solving.

In addition to this book; each student will be given instructions during class for the various steps of his/her project. Most assignments for this project will be completed with the student's Science teacher, but others will be completed in Math, and Language Arts. This allows for collaboration among the subject areas and will give the students a comprehensive learning approach to research, writing, investigation and analysis. **Most of the work will be completed at home, and students will receive a timeline noting due dates for each part of this project.**

Your child may need you to monitor his/her progress and provide encouragement. Your support is key to a successful project, but please do not allow your involvement to extend beyond support in order to promote student learning. Also, be aware that a prize-winning project can be completed for under \$10.00

If you have any question, please feel free to contact us.

Sincerely,

Orange Park Junior High Teachers

Please sign the space below in acknowledgement of the above information:

Parent Signature: _____ Date: _____

Student Signature: _____ Date: _____

Student academic integrity pledge:

I, _____ understand that it is my responsibility to complete a Science Fair project and research paper in the time frame provided by my teachers. I understand that this project is to be completed independently and should express my own original thoughts and ideas. If an idea is used for this project or research paper that is not my own, I will cite the source of that information to avoid plagiarism and give credit where it belongs.

Student Signature: _____ Date: _____

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2017 Science Fair Project Due Dates

Wednesday, Sept. 20th – Project Topic and Hypothesis

Friday, Sept. 22nd – Science Project Approval Form

Monday, Nov. 6th – Introduction Outline

Thursday, Nov. 9th – Materials List and Procedure

Friday, Nov. 17th – Annotated Bibliography (at least 5 sources and 3 from books/journals)

**Tuesday, Nov. 28th – PROJECT DUE – PAPER AND
BACKBOARD**

December 6th – 8th - SCIENCE FAIR in Media Center

**Please DO NOT fall behind...it will make this project
harder than it is!**

Research Paper Notes

Research Notes #1

Please fill out as much of the following information as possible; some resources will not have information for all fields. This information will be used for your work cited page.

These notes are from, Circle One: A Book A Magazine A Website A Newspaper

Title of book/magazine/website: _____

Article Title (for website or magazine): _____

Author(s) Full Name: _____

Copyright date OR if website, date you used website: _____

Publisher of book Or Sponsor of website: _____

Place of publication OR full website address: _____

What important facts can I learn from this document? (These notes will be used to write your research paper.)

1.1 _____

1.2 _____

1.2 _____

1.4 Use for extra notes if needed:

_____Below information may be used for Social Studies DBQ practice_____

Overall what is the main idea of this document? _____

How does this document help answer the hypothesis/thesis of the paper? _____

Research Paper Notes

Research Notes #2

Please fill out as much of the following information as possible; some resources will not have information for all fields. This information will be used for your work cited page.

These notes are from, Circle One: A Book A Magazine A Website A Newspaper

Title of book/magazine/website: _____

Article Title (for website or magazine): _____

Author(s) Full Name: _____

Copyright date OR if website, date you used website: _____

Publisher of book Or Sponsor of website: _____

Place of publication OR full website address: _____

What important facts can I learn from this document? (These notes will be used to write your research paper.)

2.1 _____

2.2 _____

2.3 _____

2.4 Use for extra notes if needed:

—————Below information may be used for Social Studies DBQ practice—————

Overall what is the main idea of this document? _____

How does this document help answer the hypothesis/thesis of the paper? _____

Research Paper Notes

Research Notes #3

Please fill out as much of the following information as possible; some resources will not have information for all fields. This information will be used for your work cited page.

These notes are from, Circle One: A Book A Magazine A Website A Newspaper

Title of book/magazine/website: _____

Article Title (for website or magazine): _____

Author(s) Full Name: _____

Copyright date OR if website, date you used website: _____

Publisher of book Or Sponsor of website: _____

Place of publication OR full website address: _____

What important facts can I learn from this document? (These notes will be used to write your research paper.)

3.1 _____

3.2 _____

3.3 _____

3.4 Use for extra notes if needed:

—————Below information may be used for Social Studies DBQ practice—————

Overall what is the main idea of this document? _____

How does this document help answer the hypothesis/thesis of the paper? _____

Research Paper Notes

Research Notes #4

Please fill out as much of the following information as possible; some resources will not have information for all fields. This information will be used for your work cited page.

These notes are from, Circle One: A Book A Magazine A Website A Newspaper

Title of book/magazine/website: _____

Article Title (for website or magazine): _____

Author(s) Full Name: _____

Copyright date OR if website, date you used website: _____

Publisher of book Or Sponsor of website: _____

Place of publication OR full website address: _____

What important facts can I learn from this document? (These notes will be used to write your research paper.)

4.1 _____

4.2 _____

4.3 _____

4.4 Use for extra notes if needed:

—————Below information may be used for Social Studies DBQ practice—————

Overall what is the main idea of this document? _____

How does this document help answer the hypothesis/thesis of the paper? _____

Research Paper Notes

Research Notes #5

Please fill out as much of the following information as possible; some resources will not have information for all fields. This information will be used for your work cited page.

These notes are from, Circle One: A Book A Magazine A Website A Newspaper

Title of book/magazine/website: _____

Article Title (for website or magazine): _____

Author(s) Full Name: _____

Copyright date OR if website, date you used website: _____

Publisher of book Or Sponsor of website: _____

Place of publication OR full website address: _____

What important facts can I learn from this document? (These notes will be used to write your research paper.)

5.1 _____

5.2 _____

5.3 _____

5.4 Use for extra notes if needed:

—————Below information may be used for Social Studies DBQ practice—————

Overall what is the main idea of this document? _____

How does this document help answer the hypothesis/thesis of the paper? _____

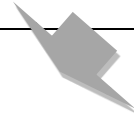
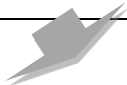
Introduction Outline

Use this space and the guidelines on the next page to help organize your writing. For each body paragraph, you must have at least 3 research-based facts to support your thesis/hypothesis. Do not forget to write the research citation number in the parentheses.

Introduction paragraph: (Must include Thesis/Hypothesis statement) _____



Body 1: Background	Body 2: The science behind your project	Body 3: Application of the project
1. _____ _____ _____	1. _____ _____ _____	1. _____ _____ _____
2. _____ _____ _____	2. _____ _____ _____	2. _____ _____ _____
3. _____ _____ _____	3. _____ _____ _____	3. _____ _____ _____
4. _____ _____ _____	4. _____ _____ _____	4. _____ _____ _____
5. _____ _____ _____	5. _____ _____ _____	5. _____ _____ _____



Conclusion Paragraph: _____

Introduction Guidelines

Introduction:

- This should be a paragraph that introduces the reader to your topic.
- An interesting fact can be used to start this introduction, such as, “Did you know...”-Make sure your fact is still relevant to your paper, do not say something like “did you know that there are many different species of dogs?” and your entire paper is about magnets.
- Be sure not to state too much information in the introduction. Leave your facts for your body paragraphs.
- The introduction can be vague as long as you develop your ideas in the body paragraphs.
- It must include your hypothesis/thesis statement.

Body: You must have AT LEAST 3 body paragraphs.

- Introduce the main point or idea of your body paragraph.
- Support that main idea with evidence or facts that you have found in your research.
- Everything that you did not already know from personal experience before writing this paper should be cited with the source number from your research.
- Use transition sentences to tie each of your facts/evidence together. DO NOT JUST STATE FACT AFTER FACT!!!

Conclusion:

- Your conclusion should briefly (as in one sentence each) summarize the main point of your paper and each of your body paragraphs.
- End with a statement that will make your reader either continue to think about your topic or make them feel accomplished. EXAMPLE: With this new information, maybe you will be able to make a healthier choice next time you are selecting a shoe style.

Works Cited:

- It is expected that you use EasyBib to generate your works cited page(<http://www.easybib.com/>)
- List your citations in alphabetical order.
- You must have at least 5 citations.
- One citation must be ISEF Rules: <http://www.scisvc.org/isef/>

All final papers must be typed:

- The length of the paper should include:
1- title page, 2- pages for research paper (minimum), 1- works cited page
- NEVER use the words **I** or **ME** in your paper!
- Only use the metric system when writing about anything that includes measurements.

Science Fair Project Paper Requirements

12 Point font- Times New Roman or Arial (that's it....pick one)
Double Spaced.

5 Main parts + Bibliography. Add Bib after Part 5

PART 1

Introduction

- 1) Background information
- 2) Research
- 3) What are you doing (describe your experiment)
- 4) Hypothesis

PART 2

Materials and Methods

What you used and how you used it in paragraph form. No bullets.

PART 3

Results

- 1) A paragraph or two about what happened. Do not try to explain why it happened in the results section.
- 2) Graphs and tables. Make sure they have a caption so I know what they are referring to.

PART 4

Discussion

- 1) What happened and why it happened.
- 2) More research to support what happened
- 3) What you think could have gone wrong/right and why
- 4) Any adjustments or improvements you could have made to your project

PART 5

Conclusion

- 1) Summary of what happened and why it happened.
- 2) Was your hypothesis supported or not.

Hypothesis

Due Date: _____

Hypothesis should be stated as:

If (Independent variable: What you are testing),

Then (Dependent variable: This is what will occur),

Because (Research: Give a reason behind your thinking)

Write your hypothesis in the IF...Then...Because...format. Do not write in the first person.

Science Project Approval Form

Due Date: _____

Title of Project: _____

Problem:

Independent Variable – What you are testing/changing in the experiment.

Dependant Variable – What you are measuring in the experiment.

Controlled Variables – What you are controlling in the experiment.

Parent Signature: _____

Teacher Signature: _____

Material List and Procedure

Due Date: _____

Materials – List all materials used in the experiment.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Procedures – List all procedures in your experiment in order. You may add more steps if necessary.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Observations or Data Collection Table

Use this space to create a data table that will allow you to accurately record the observations you make during your experiment.

Conclusion

Your conclusion should summarize how your results support and/or rejects your original hypothesis.

1. Summarize your results in 1 -2 sentences.

2. State whether your results support or rejects your hypothesis.

3. Summarize your experimental procedure making comments about its success and effectiveness.

4. Suggest changes in the experimental procedure (or design) and/or possibilities for further study. Examples: use different material, switch steps around, allow more time, control more variables, etc.

Abstract

This is a paragraph (7-10 sentences long, **not to exceed 250 words**) that will grab the judges and public's attention. This is NOT a full report about EVERYTHING that happened in your project, just a summary of the whole thing. Your abstract should include 1-2 sentences summarizing each of the topics listed below.

1. Introduction: Motivate the reader to be interested in your project. Explain why you did this project (what was its purpose) and what importance does your project have to them or society (application). _____

2. Hypothesis: State your hypothesis (IF...THEN...BECAUSE...)

3. Procedures: How did you do this experiment? Do not go into full detail; just explain what is important for the reader to know in order to understand what you did and how you did it.

4. Results: What did you find out? Be specific with your results, use real data and numbers and do not use vague terms like most, some, a few and a lot.

5. Conclusions: Was your project successful and did everything go according to plan? What would you have changed or would you do everything the same?

Display Board

Design a display board which is simple, yet thorough, and easy to set up. The display items **MUST BE TYPED** and neatly organized. The display should be able to stand by itself. The average viewer should be able to quickly grasp what your project is all about without you present.

Display Board Checklist:

- ___ Title
- ___ Background Research
- ___ Purpose
- ___ Problem
- ___ Hypothesis
- ___ Procedures
- ___ Data Tables/Graphs
- ___ Conclusion
- ___ Abstract *****REQUIREMENT – IT MUST BE PLACED IN THE LOWER LEFT HAND CORNER OF THE BOARD WHEN FACING THE DISPLAY.**
- ___ On the Back of Board – Your name, Science Teacher’s name and class period.

Sample Display Board