

Woodland Junior High School

3rd Annual Science Project

Information Booklet



2018

Rules and Regulations

1. You may have a partner. You and your parent **AND** your partner and their parent will have to sign the same agreement form, before your application is approved. **Partners must be in the same class.**
2. There are seven categories in which you can enter, if you do not know what category your project falls under please see your science teacher. **ALL science fair questions WILL FALL INTO ONE OF THESE SEVEN CATEGORIES.**
3. There will be a 1st, 2nd, and 3rd place winner for each category.
4. Once the judges have selected the winners for each category, they will then determine a grand prize winner. The judge's ballot scoring will be used for **PLACEMENT ONLY** in the science fair.
5. Your science fair project (lab write-up) will be scored by your science teacher using the science fair rubric. The components of this project will include many grades along the way as well as the final overall grade.
6. There *may* be some class time to work on the typed report; however, **YOUR EXPERIMENT and most of the project** will need to be done at home. You will have to follow the time line that will be given to you in class.
7. Your science fair project must be submitted before going to advisory on Monday, April 30th.
8. You must use the **scientific method format** (see information packet for guidelines) or your project may be disqualified for placement by the judges. ex.- I. Question II. Hypothesis...
9. No living organisms (plants or animals) are allowed at the science fair or with your display. **NO EXCEPTIONS.** You may use living organisms for your project; however you will need to use pictures of the living organisms on your board.
10. You **must** follow these regulations and the regulations listed in the **display hints**. Failure to do so may result in disqualification of placement in the science fair.
11. Measurements must be taken using the metric system. (ex. meters, liters, grams)
12. Use Roman Numerals (where applicable) on all part of your science fair project. ex.- I. Question II. Hypothesis...

How To Do the Report (a.k.a. typed lab write-up):

TITLE PAGE - (4 items)

Title, Name(s), Category Name, Your science fair project number (assigned to you by teacher)

Introduction: This should discuss why you chose your question and some background information (research) on your topic. Typically two to three paragraphs (at least one paragraph for why you chose the question and one paragraph for researched background information).

I. QUESTION

Problem stated in the form of a question
Your question must be testable

II. HYPOTHESIS

Explain in terms of research
You must state your hypothesis using If... then... form.
Your hypothesis must **DIRECTLY ANSWER YOUR QUESTION. ATQA**

III. EXPERIMENT

A. Materials: You must list all the materials used in the experiment
B. Procedure: Procedure for conducting the experiment – **at least three trials per variable.**
The procedures should be very detailed to the point that anyone reading your paper could conduct your experiment. It must be in a numbered step by step format, one procedure per number. ex. Step 1 ..., Step 2 ... (Note: 3 trials - good, 5 trials - better, 7 trials - best)

IV. Results/Data

Your results must include at least two of the following: graphs, charts, and/or pictures including a description of each. All information needs to be in **metric units**. Pictures must be of **DATA**. Remember, you must complete at least three trials, repeated **EXACTLY THE SAME** each time.

V. CONCLUSION

The conclusion must be written based on your results. Your conclusion must be no less than three paragraphs long including restating hypothesis, stating if accepted or rejected, and then explain in detail why the hypothesis was accepted or rejected **BASED ON YOUR RESULTS**. It must be at least one page, double spaced.

ACKNOWLEDGEMENTS:

Give credit to everyone who helped you finish this project. This may include teachers, parents/other family members, student volunteers, businesses, and educational or research institutions. Identify any financial support or material donations received.

BIBLIOGRAPHY (Work Cited):

This list should include any documentation that is not your own, such as books, articles, interviews, and information from the Internet that you used. Use proper bibliography format. Use citationmachine.net on the WJHS library page.

Body of the report must be in Times New Roman or EB Garamond, 12 point font and all parts should be double spaced.

Project Board and Display Hints

1. You will need a tri-fold project board that is 36" high X 48" wide. **NO HEADERS** allowed. You can purchase a project board at a variety of stores in town.
2. Any items you bring to enhance your project cannot take up more space than the area in front of your board. This means any models, digital devices, or other displays cannot be placed below, behind, or to the side of your board. Any of the above will be placed in front of the board. **WE ARE NOT RESPONSIBLE FOR ANY LOST, DAMAGED OR STOLEN ITEMS THAT ARE USED WITH YOUR DISPLAY.**
3. Your project number must be in the **TOP LEFT HAND** corner of your display board. It needs to be big enough for the judges to see it.
4. Your name must be on the **back of the board behind your number**. You cannot put your name on the front of your board.

Your display board should look professional- something that a businessperson might want to use. It should attract the attention of a viewer and make him/her want to come over and read about your project. **It must be a tri-fold project board. NO HEADERS.**

It is good to use some color in your display, but not too colorful. Do not use colors that clash. Use colors sparingly; you don't want the judges focusing on the color instead of the content.

The title is very important in a display board. It should be eye-catching and easy to read. Be sure that the letters are large enough to read across the room. Use dark colors for the title.

The most traditional way to set-up a display board is:

Left Panel

I. Question
II. Hypothesis
III. Experiment
A. Materials B. Procedure

Center Panel

Title
IV. Results/Data
Photos/Illustrations
Graphs/Charts/Data

Right Panel

IV. Results/Data
(continued)
V. Conclusion

*You do not have to set-up your display in this format. Use information from your report to set-up your display.

***Remember:** your **project number must be in top left corner** of your display board.

*Your **name(s) must be on the back** of the board directly behind your project number.

***Do not** put your acknowledgements or bibliography on your board.

*Use Roman Numerals on your display board. ex. I. Question II. Hypothesis...

Science Fair Resources @ Woodland Junior High Library

Idea Books – We have many titles on a variety of science topics. **REMEMBER**, we can borrow from all the schools in the district.

Subscription **databases** such as *Britannica Online*, *Gale Group* and *World Book Online* provide articles and links to accurate and current background information about all topics. The *Access Science database* is also available for students who need more advanced research and articles. **REMEMBER THAT YOU MAY ACCESS THESE USING YOUR DISTRICT USERNAME AND PASSWORD, THE SAME INFORMATION YOU USE TO LOGIN TO COMPUTERS.**

CITING SOURCES – Every student is required to include a list of **works cited** (bibliography) with the final product. Use the *Citation Maker* link on the WJHS Library page (MLA format). Either format will be accepted, but APA is the preferred for science reporting. **citationmachine.net**

Need **help?** Please feel free to contact librarian, Ms. Miller, if you need any **help** finding resources for your project, tracy.miller@fayar.net.

The **Fayetteville Public Library** will also have many resources for you to check-out for your **Science Fair Projects**.

Web Sites: Looking for help with ideas for a project? Check out the following web sites.

<http://www.sciencebuddies.org>

www.billnye.com

www.ipl.org/div/projectguide/

<http://www.sciencefair-projects.org/>

<http://pbskids.org/dragonflytv/scifair/index.html>

www.sciencefairadventure.com

www.sciencefair-projects.org

<http://www.education.com/science-fair/eighth-grade/>

Need help making a graph check out these sites:

<http://nces.ed.gov/nceskids/createagraph/default.aspx>

<http://chartgo.com/>

Woodland JHS Science Fair Project Ideas

Science **questions** that can be answered by gathering evidence through experiments, can be repeated and have proof based on your data are good. Questions for your project cannot involve opinions because these cannot be tested, repeated or measured. (no questions with just “yes/no” answers or which is “best” b/c it’s an opinion)

- What material is the best insulator?
- Do soap bubbles last longer on warm or cold days?
- How does temperature affect the water uptake in celery plants?
- On which foods does fungus grow the fastest?
- How does color affect the rate at which an ice cube melts?
- How does the shape of an ice cube affect its melting rate?
- Which shape of parachute will make a toy fall more slowly?
- Which liquid evaporates the quickest?
- Which brand of popcorn makes the largest yield?
- How does color affect the evaporation rate of water?
- How does the design of paper airplanes affect their flight patterns?
- How does the way food is stored affect its freshness?
- How does temperature affect mold growth?
- Which type of plastic wrap protects food the longest?
- Which brand of paper towel is the strongest?
- Which soil would be the best for building a house?
- How does the size of the particle affect the settling rate?
- Which type of soil is best for retaining water
- How does temperature affect crystal formation?
- How does the amount of water affect the size of the wave?
- How does the volume of a stream affect its flow rate?
- Which fruit (vegetable) contains the highest percentage of water?
- Which vegetable (plant) makes the most concentrated dye?
- How does the type of water affect the growth of a plant?
- Which color of light causes plants to grow the fastest?
- Which type of artificial light causes a plant to grow the fastest?
- How does the size of the seed affect the height of a plant?
- How does temperature affect the way ants behave?
- Which type of light, incandescent or florescent, causes a plant to grow taller?
- How does a magnetic field affect the way a solution conducts electricity?
- How does color affect the behavior of crickets?
- How does overpopulation affect the behavior of an ant colony?
- How does microwaving affect seed germination?
- Which method is the most effective way to get a stain out of cotton clothing?
- Which brand of detergent removes more of a stain from cotton clothing?
- Which method of removing germs from your hands is the most effective?

CATEGORIES – ALL projects WILL FALL into one of these seven categories

1. Life Science – Plants

- *plant growth
- *plant reaction
- *plant cells

2. Life Science – Animals

- *animal behavior
- *animal cells
- *human body

3. Life Science – Bacteria, Molds, Fungus

- *bacteria
- *mold
- *fungus

4. Earth Science – General

- *oceans
- *weather
- *earth’s surface

5. Physical Science – Chemical

- *chemistry
- *chemical change

6. Physical Science - General

- *physical change

7. Physical Science – Mechanical

- *forces
- *machines
- *pulleys and levers

* These are just a few of the possible subcategories within each category.
This does not mean your project must fit into one of these subcategories.

Science Fair Application and Partnership Agreement Form

Please cut along the dotted line above, fill out the application/agreement form **USING A PEN** and turn it in to your science teacher. If you are entering the science fair with a partner you must turn in the partnership agreement found on the bottom half of this application.

Name of applicant: _____

Signature of applicant’s parent/guardian: _____

The section BELOW is ONLY for students working with a partner:

COMPLETE ONLY ONE PARTNERSHIP AGREEMENT FORM TO TURN IN TO YOUR TEACHER.

I am aware that agreeing to have a partner in the science fair means that my partner and I will receive the same score, regardless of my partner’s actions and work ethic. I acknowledge that in order for my application to be accepted my partner and I and our parents must sign the same agreement form.

Signature of applicant: _____

Signature of applicant’s parent/guardian: _____

Signature of applicant: _____

Signature of applicant’s parent/guardian: _____