

JOHNS HILL SCIENCE FAIR

Date: Friday, March 23 Time: 5-730

Dear Parents and Students,

Students are invited to participate in our Science and Cultural Arts Fair. The fair will be held on Friday, March 23 from 5-730.

Students may complete and enter a Science Fair project for one of the following areas:

Experiment - a display and an explanation of an experiment which follows the scientific method.

Invention - a working model which solves a specific problem or makes a job easier to do. Inventions should test a variable and follow the scientific method.

Models-Models should be accurate with labels and written displays or explanations of functions, importance, how things work, etc.

* Students should be able to demonstrate an understanding of their project in a discussion with observers and judges. Documentation should be a part of their project.

**Biological and zoological projects are acceptable at the discretion of the student's teacher. However, live and preserved specimens may not be displayed at the science fair.

Parents are encouraged to **guide** students, but not build the project. Remember, a good project is planned and developed over a period of time. Start planning now! Please complete the information below and return it to your teacher by **February 16th, 2018.**

Elizabeth Bartimus-Science

SCIENCE FAIR REGISTRATION FORM

NAME _____ GRADE/TEACHER _____

Science Category _____

Type of Project (Experiment, Invention, Model) _____

The name of my project will be _____

___ Science Safety Rules are understood and will be followed.

___ My project needs an electric outlet.

___ My project involves liquid.

___ My project may require a loan of some science equipment

Please list equipment needs. We may be able to help out with some consumable materials if we are given a list AND the student discusses it with Mrs. Bartimus

PARENT SIGNATURE _____ Date _____

STUDENT SIGNATURE _____ Date _____

B. There are eight important steps in any successful Science Fair project. These eight steps are:

1. **The scientific method.** The scientific method is the tool that scientists use to find the answers to questions. The scientific method includes doing research, identifying the problem, stating a hypothesis, conducting experimentation, and reaching a conclusion.

2. **Topic research.** Remember that the objective of a science project is to learn more about science. You do not need to have a complex project to be successful. Excellent projects can be developed that answer very basic questions about events that happen on a daily basis. "I wonder . . ." questions can lead you to developing a Science Fair project that will be fun and interesting.

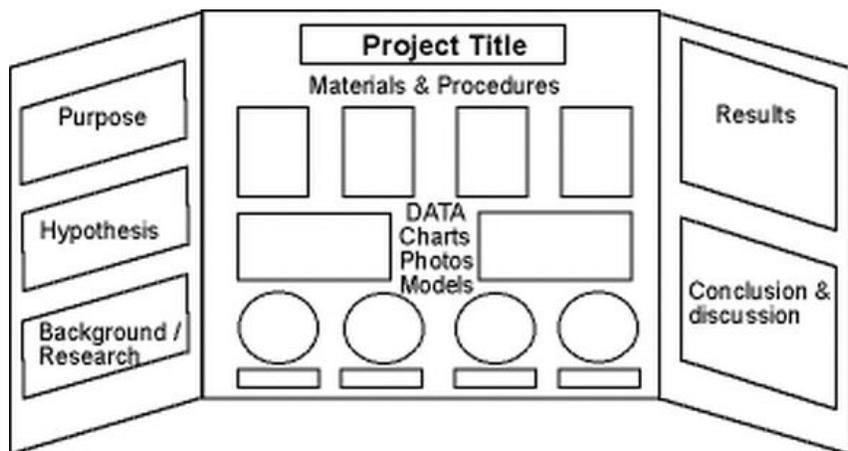
3. **Categories** It is important to correctly identify the category, as the judges base their evaluation on the category in which your project is entered.

4. **Project research.** Once you have decided on a topic, it is time to do some research. This involves more than just reading materials you find in the library. You will want to interview people who know a lot about the topic and do experiments to help gather data. Every step of the way, you will keep a journal to record the progress of the project.

5. **Experimentation.** This step helps to test your hypothesis. You will be doing experiments that will allow you to collect data. Be sure to take pictures of your experiment and write in your Science Fair notebook what happened at every step of the way. Additionally, you need to identify any variables in your experiment. Remember that an independent variable is the variable you purposely manipulate, or change. The dependent variable is the variable being observed which changes in response to the independent variable. The variables that are not changed are called controlled variables. The data may and may not support your hypothesis. You will need to report the truth in your conclusion.

6. **The report.** This is the written record of your entire project from start to finish. The report will include an abstract, safety sheet, endorsement sheet, title page, table of contents, acknowledgements, purpose and hypothesis, Review of Literature, materials, methods of procedure, results, conclusions, reference list.

7. **The display.** Your science fair display represents all the work that you have done. It should consist of a display board, the project report, and anything that represents your project. It must tell the story of the project in such a way that it attracts and holds the interest of the viewer. It has to be thorough, but not too crowded, so keep it simple. Charts, graphs, tables, or other visual aids are a must for this part of your project.



8. Presentation and evaluation. An oral presentation is required for Science Fair projects. You will need to discuss the project and explain its purpose, procedure, results, and conclusions with a judge. Be sure to practice what you are going to say before the Science Fair!

C. IDEAS-This a list of a few ideas to help you start thinking about a topic for Science Fair:

- How does nature's design of an organism help it to survive in it's environment?
- How accurately do people judge temperature or time?
- What keeps things colder plastic wrap or aluminum foil?
- Product testing. How well does a specific brand work? Does one brand work better than another?
- Does using different amounts of fertilizers on plants affect their growth rate?
- Effects of salt on freezing or boiling points of water.
- Evaporation rates.
- Effects of additives on evaporation, boiling, or freezing of water.
- Temperature differences in different rooms, at different times of the day.
- How is lung capacity affected by height?
- Do showers take less water than tub baths?
- Do thick liquids boil as fast as thin liquids?
- Do iron nails rust more quickly in saltwater or freshwater?
- Which type of battery lasts longer: regular or alkaline?
- Which brand of chocolate chip cookie is the most popular? Has the most number of chocolate chips? Has the most in the package? Etc.
- What type of stick-on bandage is most comfortable? Stays on the longest? Etc.
- Which kind of laundry detergent cleans stains the best?
- What brand of dish soap cuts grease the best?
- What difference does the kind of wire make in the resistance of an electric current?
- How can resistors and capacitors be used to regulate the flow of electricity?

Additional ideas can be found on science fair websites.

It is fine to look at different science fair projects. However, I do not want you to copy an experiment that you found in a book or on a website. You must have a unique project that you research and experiment for yourself. Getting ideas is ok, but copying a project is not.