

## Howe PTA Science Fair Wednesday February 15, 2017

Information Packet:

Rules and Guidelines

Judging Information

Entry Forms

Resources

**For future scientists and parents:** Please read the enclosed information carefully. Make it your business to learn as much as you can by doing your science project, and to HAVE FUN!!!

Questions? Please contact:

Tracie Imbarlina  
[tracieimbarlina@msn.com](mailto:tracieimbarlina@msn.com)

## **Julia Ward Howe Science Fair Rules**

1. Projects may be submitted that fall into one of three categories: (a) an investigation, (b) construction of a kit, model, or invention, or (c) demonstration of a scientific principle. Different judging rubrics will be used depending upon the type of project.
2. Projects may be the result of team or individual efforts. A team may not exceed 10 students. Adult support is encouraged; however, **it is critical** that the project clearly reflects the **student's** effort and understanding.
3. All projects must be durable and safe. Moveable parts must be firmly attached. We do not have facilities for electricity, running water, or drainage in our display area. Live animals and dangerous chemicals may not be exhibited.
4. Projects may be displayed on free-standing poster boards or tri-fold boards. Although not required, tri-fold boards seem to work the best.

## **Project Guidelines**

All exhibits should include a **project title** that is clearly displayed. The **name(s) of the scientists** should also be displayed. **Charts, drawings, diagrams, photographs, samples, handouts**, etc. may be used to enhance the poster exhibit (but keep #3 above in mind!). These enhancements should be considered completely optional, however. We recommend that students attempt a simple project with a clear objective that is well displayed, thorough, and that is clearly well understood by the scientist. A simple project can also be very creative!

Below you will find a description of the three types of projects that may be submitted in the Science Fair. The guidelines are provided to give you an idea of what we think would make an excellent presentation of your work, but following the guidelines is not required to participate in the Science Fair.

## **Category A Projects: Investigations**

This type of study involves finding the answer to a question that hasn't been answered before. You can also replicate a previous investigation to see if you get the same result(s). In an investigation, the scientist manipulates one or more variables and then measures the results of manipulating the variable.

Examples of this category follow:

- In what kind of material (sand, soil, water) do plants grow best?
- What is the effect of temperature on activity levels of animals? (mealworms, crickets, etc)
- How is the distance a cart rolls affected by the weight in the cart?

In the first example, the scientist is manipulating growing medium and measuring plant size. In the second example, the scientist is manipulating temperature (low, medium, high) and measuring activity levels of animals. In the third, the scientist measures the rolling distance of carts of different weights.

## **Category B Projects: Construction of a kit or model or an original invention**

The model or the kit should be designed to demonstrate some kind of scientific principle, and, most importantly, the participant should be able to explain on their display and to the judges what the principle is (how it works).

Examples of this category follow:

- A model of a solar home
- An ecology terrarium
- Insulation materials and their uses

## **Category C Projects: Demonstration of a Scientific Principle**

The participant should be able to explain on their display and to the judges what the principle is, and how their project demonstrates the principle

Examples of this category include:

- Demonstrate how pressure changes (in air or water, for example) cause movement
- Demonstrate how changes in the mass of an object affect how fast the object will vibrate

### **\*FOR ALL CATEGORIES\***

**The following information MUST be included on your display board:**

1. Statement of your **purpose**
2. **Hypothesis:** What did you predict you would find? Keep in mind the question you are trying to answer, or the principle you are trying to demonstrate when you state your prediction.
3. **Procedure:** Describe in a very detailed and organized way what you did. List all of the things you used and the people or animals that you tested. Someone else should be able to do your experiment just like you did if they read your procedure.
4. **Observations:** Describe the results you found. You may use words, charts, graphs, pictures, or diagrams to make your results easier for a reader to understand.
5. **Conclusions:** Do you have an answer to your original question? What did you find out? Try to explain possible reasons if your results did not prove your hypothesis.

**\*Please do not hesitate to call Tracie Imbarlina (412) 418-3562 if you have questions regarding your project. I will be more than happy to clarify how your project might fit into the above categories.\***

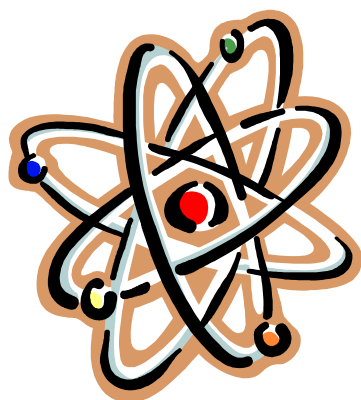
## **Information about Judging:**

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For the 2017 Howe School Science Fair, we will continue to use the same format for conducting the fair as in past years. During the judging, students or team members will talk to the judges about their projects for about 10 minutes. The judges will probably have some questions to ask the students, and may have some tips for the students. A rubric will be used by the judges to help guide their evaluation of student projects.

### **Awards**

In keeping with the last few years' format, instead of presenting awards reflecting levels of accomplishment, students will be presented awards for participating in the Science Fair. In this way, the Science Fair will be more like an exhibition of talent and knowledge than a competition. Each participant will receive a certificate that will include the title of the student's project. In addition, the students will receive the written feedback from the judges that will provide them with the opportunity to learn and perhaps refine their projects should they wish to pursue participation in competitive local and regional, or perhaps even national science fairs as they advance in school!



## Howe PTA Science Fair 2017

### ELEMENTARY SCIENCE FAIR ENTRY FORM

This form is to be completed and returned to the classroom teacher by **February 3, 2017**. Please note that by submitting this entry, you are notifying us of the intent to participate. It is not a deadline for completion of the project. **The Fair is February 15, 2017.**

Student Name(s):

Grade:

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Title of the Project (Please write clearly since this title will be included on the student's award)

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Category of Project (circle one): A B C

Parent Signature: \_\_\_\_\_  
e-mail address: \_\_\_\_\_ Phone: \_\_\_\_\_

We will plan on communicating with you via e-mail regarding the Science Fair. Will this work for you? Yes No (circle one)

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