



## 7<sup>th</sup> Annual Elementary Science Fair

We are excited to announce that the 7<sup>th</sup> Annual BHA Elementary Science Fair will be taking place on **Wednesday May 29, 2019** iA. The Fair is open to all BHA Elementary students (TK – 5<sup>th</sup>). Please read the rules and guidelines in this packet. The **registration form at the bottom of this page must be attached to the FRONT (not the back) of your project.**

Participants will place either First, Second, or Third Place ribbons if they meet the criterions. Have fun while you expand your knowledge, and we'll see you at the fair!

**Please note that any project not following the attached rules and guidelines will not be judged and the participant is not expected to earn any place.**

**Date: Wednesday May 29, 2019**

**Where: Multipurpose Room**

**When: Set up your project beginning at 7:30 AM on the day of the fair. All projects must be taken home at 2:00 PM same day.**

(Cut here.)



### **BHA Elementary Science Fair Registration**

Please attach to the **FRONT** of your project. Print clearly.

Names for certificates are copied from this form.

**Name** \_\_\_\_\_

**Grade** \_\_\_\_\_ **Teacher** \_\_\_\_\_ **Room #** \_\_\_\_\_

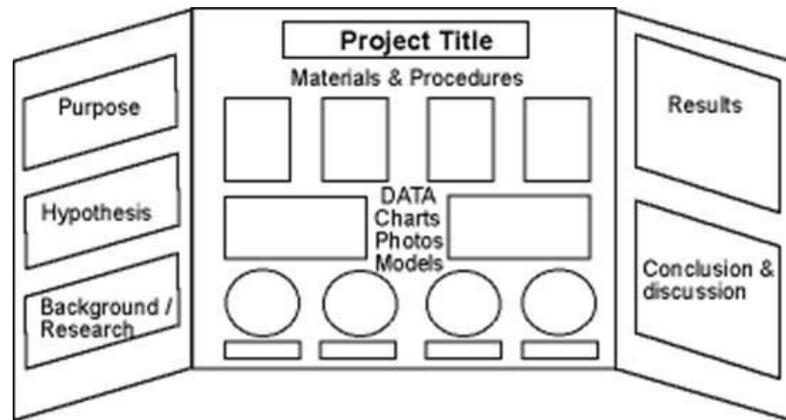
My project is in this category: **(Please check one)**

- Life Science
- Physical Science
- Earth Science
- Engineering

## Elementary Science Fair Guidelines and Rules

- Size limit: 36" x 48". (This is a standard display board). It must stand on its own. You may also cut a display board across the width and share the other half with a friend.

Below is an example of a display board.



- Choose one of the categories: earth science (geology, meteorology/weather), life science (biology, microbiology, botany, zoology), of physical science (chemistry, physics, astronomy-not to be confused with astrology), Engineering (buildings, bridges, electrical and mechanical, robots).
- No open flames, dangerous chemicals or live animals allowed.
- If you need electricity, you must provide your own LONG extension cord. You will be limited to a certain area of the MPR.
- Projects should be completed by the students. Parents support and engagement is welcome as long as the learning and work that takes places in the project is that of the student. (Please see the guidelines for parent involvement section).
- **Judges will interview the participants.**
- Projects will be set up by grade level.
- Students may work groups of twos even if they are from different grades. Each participant is expected to explain and present the project to the judges. If a student was not able to explain the majority of their project then points will be deducted from the overall grade.

## The Main Three Science Areas

Choose a science area for your project. Make sure you circle that area on your registration form, which must be attached to the front of your project for judging.

**Earth Sciences** are concerned with how our planet works and how it came to be the way it is. It includes geology (the study of the earth's crust, rocks, fossils, etc.) and meteorology (the study of weather).

**Life Sciences** include the study of living things on the earth and their life processes. Biology fits into this category, as does Botany (the study of plants) and Zoology (the science that deals with animals).

**Physical Sciences** include Chemistry, Physics, and Astronomy (not to be confused with astrology, which is not one of our sciences). These are the most highly developed of the sciences and have a close relationship with mathematics. Physics includes the study of matter, motion, electricity, and magnetism. Astronomy is the study of planets and outer space. Chemistry is the study of properties and reactions of matter, particularly at the level of atoms and molecules.

### **What is the Scientific Method?**

**The Scientific Method is what scientists use to learn about things.**

**It has four major steps:**

- ✓ **State the problem.** What is it that you want to find out? *Example: Do plants need sunlight?*
- ✓ **State your testable hypothesis.** What do you think is going to happen, or how do you think it works **based on a scientific background guess**. *Example: If two plants are given the same good care, except that one is kept in a dark box, it will not grow as well as one kept outside.*
- ✓ **Record your data and make graphs. It is encouraged to make graphs manually for the students to practice doing them from grades TK-2<sup>nd</sup>. The experiment should be repeated three times at least to be able to take the average of your results from grades 3<sup>rd</sup>-5<sup>th</sup>, and total results for TK-2<sup>nd</sup> graders for the three trials. Write down your results. **Pictures are encouraged** when you try your experiment. NOTE: Keep track of your data; it will be exciting to see if your guess was right. *Example: Six daisy plants were bought. Three were kept in my bedroom window; the other three were kept inside a foil covered toy box. Each plant was watered every other day. Each plant was measured every week. After four weeks,***

*the ones in my window grew an inch and made nine flowers. The other plants shriveled and almost died.*

- ✓ **State your conclusion.** What did you expect to happen? What did you learn? NOTE: Your conclusion should tell us what your data showed you. *Example: Light is very important for plants to grow and bloom. It is acceptable if the results did not support the hypothesis, this is part of the scientific inquiry.*

You may visit the following websites for suggested ideas. These websites are intended for reference purposes. You do not need to choose your topic from these websites.

<http://www.sciencebuddies.org/>

<http://chemistry.about.com/od/sciencefairprojects/a/sciproelem.htm>

<http://www.hometrainingtools.com.elementary-project-ideas/a/1308/>

<http://www.cool-science-projects.com/elementaryScienceProjects.html>

<http://www.good-science-fair-projects.com/elementary-science-fair-projects.html>

## GUIDELINES FOR PARENT INVOLVEMENT

The Science Fair is designed to help your child develop the ability to explore and investigate a scientific topic in depth and use the scientific method. The process will allow each student to integrate writing, math, science, English, and other curriculum areas. We hope Science Fair will be a fun and unique way for your child to engage in learning and to explore science in more depth.

While the Science Fair is designed for your child's benefit we wanted to share with you how much and what type of parental involvement and input is permitted.

- Parents may assist their child in creating a visually appealing display. For example, parents may help with measuring, cutting, pasting, gluing, and placement of work on display board. The work however, should be that of your child.
- The research, design, and investigation should be completed primarily by the student. The parent's role is to provide the resources and directing necessary help while also being a constant source of encouragement, questioning and support. While you are welcome to be involved we ask that you think about how much of the work is your child's verses your work. Obviously younger students need more support and help and this is to be expected. Again, the goal is to get your child interested and engaged in a science and experiments so use your judgment on the appropriate level of support.

- Topic selection should be that of your child but parents are welcome to offer suggestions and encourage exploration of topics they might not consider.
- Parents are welcome to proofread a student's work, but corrections should be made by the child.

In short, a good rule of thumbs is to think about the learning your child is engaged in. Sometimes the best learning comes from making a mistake or designing a project that may not end up the way that is expected. While everyone gets a ribbon for participating, the true winning comes from the learning that will take place with your child.

Jazakum Allah khair,

For more information, please contact your child's teacher.