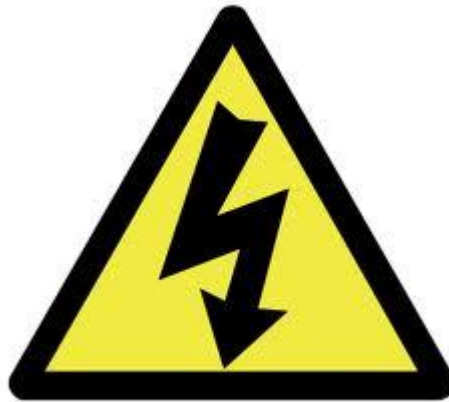




# Mystic Valley Regional Charter School

## ENERGIZED



A Science fair of Energy Conversions and  
Transfers

# **K - 4 Science Fair 2012**

Information Packet

Thursday, February 23<sup>rd</sup>

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## Introduction

Welcome to Science Fair 2012!

This packet includes Science Fair Guidelines that will help you start, create, and maintain an organized project for the Science Fair. Please be aware that there are rules that must be followed. Carefully refer and adhere to the information listed under the pages titled 'Safety Rules' and 'Displaying Your Project'.

You have a wide range of information just waiting to be discovered! Use your imagination. Some resources to consider:

- MVRCS library
- Your local library
- Bookstores such as Barnes and Nobles or Borders have books with ideas in the science and education sections
- You can read science textbooks, lab manuals, magazines, encyclopedias, and newspapers.
- Local museums such as the Museum of Science library (5<sup>th</sup> floor) can provide ideas as well as resources
- An educational store such as Learning Tree has lots of books.
- Talk with professionals who are involved with your subject.
- Search the Web.

You can obtain supplies from many sources: supermarkets, craft stores, pet stores, and office supply stores.

You may work on your project alone, with friends (no more than 3), a parent, or a sibling.

The Sign Up sheet on page 9 must be completed and returned to your homeroom teacher by February 2, 2012.

Your teacher, Mr. Colburn (dcolburn@mvracs.org) will be happy to help you with any questions you may have.

Be safe and have fun!

### ▪ **Safety Rules**

- *The safety of students and those attending the Science Fair is most important.* In order to assure a safe environment, the following safety rules will be implemented. Keep them in mind when deciding on a project for the fair.
- Please use common sense and think about the safety aspects of your project. Don't hesitate to contact your teacher if you have any questions.
- The following are **not allowed**:
  - Open flames
  - Highly toxic materials
  - Radioactive materials
  - Explosive materials
  - Poisonous plants
  - High voltage equipment
  - Controlled substances (drugs)
  - Blood products or use of obtaining blood specimens
  - Hazardous substances
  - Carcinogens (substances known to cause cancer)
  - Projectiles (see special notes page 5 below)
  - Animals (see special notes page 5 below)

### **Other Notes**

- Think about your presentation board. Make sure that the final display board is stable when it is set up.
- Practice your presentation! Entertain and educate your family and friends while practicing the presentation you will give to the judges.
- For helpful information, look at the Judges' Evaluation Sheet on page 8.
- Special Notes:
  - You *are* allowed to use a **projectile** such as a rocket or airplane in your experiment, but you must *keep safety in mind*. Have an adult present when you do your experiment. Projectiles *cannot* be

launched at school, so you will need to take photographs as you work on your project.

- If you decide to do an experiment involving an **animal**, only experiments that observe *normal* animal behavior and conditions will be allowed. An animal cannot be brought to school, so you will need to take photographs as you work on your project.
- **Electrical outlets** are limited, so you **MUST** request a plug on your sign up sheet *and* bring an extension cord with your name on it to school the day of the fair.
- If you choose to present your project on a **laptop**, you must also have a hard copy (printout) of your project. The laptop **MUST** stay with the student at all times. You will bring it to the hall for judging and take it back to class when you are finished. Do not leave it in a cubby or locker.
- Sometimes, students request to use a **TV and VCR** to show a video they have made while working on their projects. Keep the following in mind:
  - You must be able to provide an explanation why you cannot show your work in any other way.
  - The tape you prepare to show the judges must be less than three minutes long. This is because your time with the judges is limited
  - If you wish to show an informational video during the family viewing time, the tape length (time) is up to you.
  - You must bring in your own TV and VCR; the school cannot take responsibility for it.
  - You must stay with your project the **ENTIRE** family viewing time.

## **General Guidelines**

**The Scientific Method** is a method of organization for a research project or experiment. The 5 steps of this method are outlined below.

### **Step 1: Define a problem**

Choose a topic to research or do an experiment on.

Determine a specific problem or a question you would like answered that is related to the topic.

Clearly state the question or problem you are trying to solve.

### **Step 2: Collect information**

Collect information and research your topic.

### **Step 3: Form a hypothesis**

Based on your research and what you know about your topic, what do you think will happen when you do your experiment?

### **Step 4: Test the hypothesis**

Do your experiment

Make observations and measurements

### **Step 5: Communicate the results**

This should take many forms: organize your data by making tables, graphs, charts, drawings and/or diagrams. You may make a presentation board, write a report, give a presentation, and answer questions. Be creative.

## The Day of the Fair

After you have done all of the steps of your project, you will be ready to have fun and present it at the Science Fair on Thursday, February 23rd.

- When you arrive at school between 7:30 and 8:00 bring your board and any items you have into St. Joseph's Hall. There will be volunteers there to help you.
- When you get into the hall, you will check in at the table for your group: K & 1 or grades 2-4. You will be given a table location and a stamp you may wear during the day.
- You will bring your project to your table location and a volunteer will help you set it up. **YOUR NAME, GRADE, AND HR TEACHER'S NAME MUST BE ON THE BACK OF THE BOARD AND THE BOX/BAG FOR YOUR ITEMS YOU MAY HAVE. SOMETIMES ITEMS ARE LOST AT THE END OF THE FAIR WHEN VOLUNTEERS RETURN ITEMS TO CLASSROOMS.** Labeling your items will avoid lost items.
- After all of your things are set up, you will go to your HR.
- During the morning, a volunteer will pick you up by grade level and bring you to the hall where you will then talk to two judges. (Be sure to practice explaining your project at home so you will be comfortable when talking to the judges.)
- After judging, you will be brought back to your HR.
- At the end of the school day, you may visit the Fair with your family to view all the projects. Judging will be complete by then and winning ribbons will be hung. (Students are not allowed in the hall without an adult.) Prizes will be awarded on Friday, Feb.24th.

Judge \_\_\_\_\_  
 Judge \_\_\_\_\_

**M V R C S SCIENCE FAIR 2012**  
**Judges' Evaluation Sheet**

Student Name (s) \_\_\_\_\_ grade \_\_\_\_\_

Project Title \_\_\_\_\_ # \_\_\_\_\_

Project type (circle one)    Experiment    Research    Collection    Model

1. Question/Hypothesis 1 2 3 4 5 6

Can the student(s) explain *why* they did their project?

2. Project Design 1 2 3 4 5 6

Can the student(s) explain *how* they did their project?

3. Results 1 2 3 4 5 6

For **experiment** or Research: Can the student(s) explain what happened with their projects?

For **collection**: Can the student(s) describe important information about their collection as a result of this project? (examples: obtained some new items, looked up information)

For **model**: Can the student(s) explain what the model represents?

4. Conclusion 1 2 3 4 5 6

Can the student explain something **new** they learned from doing this project?

Can the student explain **what** happened?

5. Clarity of Display 1 2 3 4 5 6

Is the display logical and organized?

Does the display contain all necessary information and items?

Is the display visually pleasing?

6. Oral Presentation 1 2 3 4 5 6

Was the student able to communicate information about their project?

Did the student(s) show an understanding of their project?

7. Use of Theme (up to 3 extra points) 0 1 2 3

How well was the theme followed and used in the project?

# Sign Up Sheet

## 12<sup>th</sup> Annual MVRCS Science Fair

To reserve your spot, be sure to return this completed form to your HR teacher *by* **February 2nd**.

PLEASE PRINT NEATLY

Student's first and last name \_\_\_\_\_

Grade \_\_\_\_\_ HR teacher \_\_\_\_\_

Partner's first and last name (if any) \_\_\_\_\_

Grade \_\_\_\_\_ HR teacher \_\_\_\_\_

Partner's first and last name (if any) \_\_\_\_\_

Grade \_\_\_\_\_ HR teacher \_\_\_\_\_

TITLE OF PROJECT \_\_\_\_\_

WILL YOU NEED ELECTRICITY AT THE SCIENCE FAIR? (circle one)

**Yes No** If yes, don't forget to bring an extension cord with your name on it on Feb. 24!

Parent name (print) \_\_\_\_\_

Phone # or email address \_\_\_\_\_

HR teachers: Please forward to Mr. Colburn, Grade 8. Thank you.