

# Get ready to show off your knowledge of Science at the Central School 2010 Science Fair Thursday, March 25, 2010

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## Dates and Times:

Tri-Fold Display Board order form due back to school: **Wednesday, February 10th**

Tri-Fold Display Boards (pre-ordered) delivered to classroom: **Friday, February 26th**

Student Science Entry Forms are due back at school: **Wednesday, March 3rd**

Parent Volunteers for Set-Up in the Gym: **Wednesday, March 24th, 6:00 PM**

Student/Parent Science Project Set-Up in the Gym: **Wednesday, March 24th, 7:00 - 8:30 PM**

Science Fair: **Thursday, March 25, 2010**, Class presentations during the day. Parents welcomed.

Open to the Public, **Thursday evening, March 25<sup>th</sup>** from **6:30 - 8:30 PM**.

Breakdown, **Thursday evening, March 25<sup>th</sup>**, projects removed from Gym, **8:30-9:00 PM**

## Who Can Enter?

All Students in **grades K-5**. You may work by yourself or partner with one other student.

## How Do You Enter?

Complete the entry form, have a parent sign it, and return it to your class teacher as soon as possible, but no later than **Wednesday, March 3rd**. Don't wait until then to begin planning and working on your project. You'll want to get started right away, so you have plenty of time to complete it by **March 24<sup>th</sup>**, in time for the Science Fair set up night in the Gym. **If you are working as a team with one other student, please submit the student entry forms stapled together in an envelope. This will help us coordinate the setup of the students in the gym.**

## What Do You Enter?

Students come up with a question they are interested in, and then turn that question into a testable and measurable investigation or experiment. Students can choose any science topic, as long as the question is testable, explainable, measurable, and/or demonstrable at the Fair. *See sample Fair Project ideas.*

Over the next few weeks, you'll prepare for and create your project. Then at the Science Fair, you'll set up your project, demonstration, or experiment, and present your project on a tabletop display, so everyone can see what you did, and how you did it!

All projects must be displayed on a self-standing (tri-fold) display board. For your convenience, we will be offering the display boards for sale, for \$5.00. Tri-fold Display boards need to be **pre-ordered by Wednesday, February 10th**. Please attached with your \$5.00 cash or check, made out to Central School H S A. Boards will be delivered to your child's classroom at Central School on **Friday, February 26th**.

## Where Do You Bring Your Entry?

All Projects must be set up on **Wednesday evening, March 24<sup>th</sup>**. Students will set up their projects in the gym from **7:00 to 8:30 PM** on **Wednesday, March 24th**. We are requesting parent volunteers to assist us with set-up and breakdown in the gym, and parent staffers during the day and evening, on **Thursday, March 25<sup>th</sup>**.

**Thursday March 25<sup>th</sup>**, students will tour the fair with their class during the day. During the day, each student will present their project to their class. Parents are invited to see their child's presentation, class schedules to follow. We could use parent volunteers throughout the day, please let us know if you will be available.

The Fair will also be open for public viewing on **Thursday evening, March 25<sup>th</sup>** from **6:30 – 8:30 PM**. All projects will need to be taken home that evening.

## Who Can Answer Your Questions?

Your class teacher, or the Central School Science Fair contacts will be happy to answer your questions.

Central School Science Fair parent sponsor: Lisa Sheldon, [lisasheldon1@yahoo.com](mailto:lisasheldon1@yahoo.com), 201-857-8500.

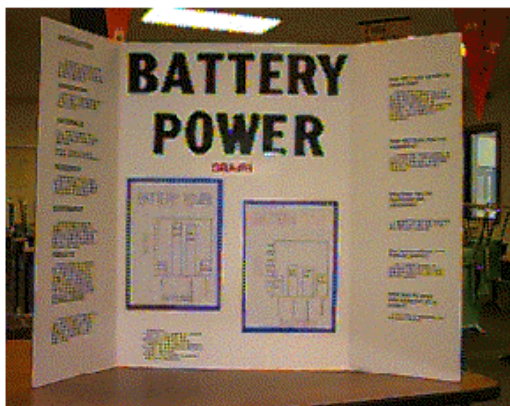
Central School Science Fair teacher sponsor: Ms. Jessica Boyle, [BoyleJ@glenrocknj.org](mailto:BoyleJ@glenrocknj.org), Grade 4B

\*\*\*\*\*ALL FORMS CAN BE DOWNLOADED via <http://centralschoolhsa.com> \*\*\*\*\*

## Sample Science Fair Project Ideas

**Check out** the books the library has to offer (the J500.00 section of the children's library) or visit one of the many websites available [www.ScienceBuddies.org](http://www.ScienceBuddies.org) or <http://www.terimore.com/>

For those new to the science fair, we have provided an example of what your project board could contain? Your demonstration or experiment would be in front of the tri-fold. Student's display space is shared at each tabletop, with up to four other students, back to back. Space is limited, so keep that in mind with your design. Use your own creativity.

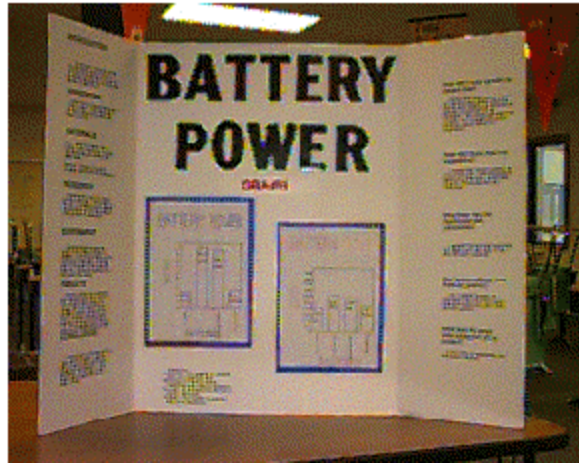


Students come up with a question they are interested in, and then turn that question into a testable and measurable investigation or experiment. Students can choose any science topic, as long as the question is testable, explainable, measurable, and/or demonstrable at the Fair.

- How does the surface change how far a toy car will roll?
- Which materials float and sink?
- Which materials dissolve in water?
- Which paper towel absorbs the most water?
- Will an ice cube melt faster when crushed up?
- How does vinegar affect eggshells?
- What do plants need to grow?
- Do plants grow better in tap water or distilled water?
- In which soil do plants grow best?
- How fast do kidney beans grow in soil vs. water vs. paper towels?
- Do large apples have more seeds than small apples?
- Do different kinds of apples have different kinds of seeds?
- What is the best condition for growing mold?
- Can people identify flavors of juice when blindfolded?
- Which brand of dishwashing liquid makes the most suds?
- How does the amount of salt in water affect its freezing?
- How does the height from which an object is dropped affect the size of crater it makes?
- How does the amount of light affect the growth of plants?
- Which setting on a three-way light bulb burns out first?
- What affect does temperature have on the ability of a ball to bounce?
- Which toothpaste is most abrasive?
- Which absorbs the best: a paper towel, a terrycloth towel, a sponge?
- How does the size of an object affect the rate at which it falls?
- Does the thickness of a wire affect how much an electromagnet will attract?
- How does surface area affect evaporation?
- How does the type of surface affect the speed of a remote control car?
- What metals rust the fastest in water?
- Does the color of water affect the rate at which it freezes?
- Which zip lock bag is leak proof? Or has the strongest seal?
- Does wick size affect the burning rate of candles?

\*\*\*\*\* see next page for sample project\*\*\*\*\*

## What should be in the Display Board?



### Title of the Experiment

### Your Name(s) and Grade(s)

#### ***Introduction***

In my project I was trying to find out what battery lasts the longest. I will also try to determine if the cost of the battery has anything to do with the power it has.

#### ***Hypothesis***

I think the Duracell battery will last the longest. I also believe that the more expensive the battery the longer it will last.

#### ***Materials***

Paper, wires, stop watch, battery holders, metal connectors, computer, light bulbs, and graph paper. Batteries - Duracell, Eveready, Energizer, and BA 30 "Army batteries."

#### ***Research/Sources of Information***

I researched on how a battery produces electricity. The battery is a dry cell. A chemical reaction between the electrolyte and the zinc electrode helps produce electricity.

#### ***Vocabulary***

- Electrodes - The negative or positive part of an electric cell.
- Electrolyte - A liquid or moist substance that conducts electricity.
- Dry Cell - An electrical cell that has a moist electrolyte.
- Terminal - The negative or positive end of an electrolyte.

#### ***Experiment***

I experimented by testing the power of four different brands of batteries. I did this by hooking up the batteries to a light bulb. I then kept track of the length of time each bulb stayed lit. I tested two batteries from each of the four brands.

#### ***Results***

After the testing was completed the following results were recorded: The Duracell battery lasted the longest, 101 hours and 20 minutes; Energizer battery, second, 99 hours and 17 minutes; Eveready battery, third, 28 hours and 30 minutes, and last but not least was the BA 30 batteries, 25 hours and 58 minutes.

#### ***Conclusion***

I thought the Duracell battery would last the longest. I guessed right! It was two hours and 3 minutes longer than the Energizer. I also determined that the cost of the battery does relate to the amount of battery power.