

Dear Parents,

Do you have a budding Einstein, Madame Curie, or Linus Pauling on your hands? Why not work to harness that creativity and energy into a project for the annual Alameda Science Fair?

Save the date: **Wednesday, April 29th from 6:30 pm to 8:00 pm** (in the cafeteria).

Your Alameda PTA, a volunteer organization, sponsors this event.

The fair is open to all students at the school – Kindergarten through 5th Grade. We welcome entries from both individuals and teams of students. A team could be comprised of a few friends collaborating on a project, siblings working together or perhaps even an entire class of kindergarteners.

To enter a project in the Science Fair, please:

- ✓ Complete the attached registration form and return it to your child's teacher **no later than Wednesday, April 1st, 2009**. Submit one form per team.
- ✓ Submit a full, detailed description of your experiment/project. It is extremely important for everyone's safety that we have all the details of your experiment.
- ✓ Remember, photos or drawings are a wonderful way to present your ideas – on the registration form as well as in the final project presentation.

During the next few weeks, we ask that you work with your child/team to design a science project that uses the scientific method to answer a question or solve a problem. Many interesting and successful projects can be completed for less than \$10.

To promote the learning process, the project should be the **child's** work - and it's fine for it to look like it! However, adults are invaluable for providing guidance, direction and encouragement.

On the night of the Science Fair, judges with scientific backgrounds will review the content of all entries. Students should be available to discuss their work and the question they solved with their experiment.

If you have any questions, please contact me. We all look forward to watching the children enjoy this unique opportunity to explore and discover the wonders of science.

Sincerely,

Sara Freedman
(Sara_Freedman@earthlink.net), 503-493-3023

Alameda Science Fair - Details

Judging

Entries will be divided into four categories for judging:

- K-1st grade
- 2nd and 3rd grades
- 4th and 5th grades
- Class projects

Judging will take age and grade level into account.

Project Displays

- Projects should be able to stand alone on a cafeteria table (71" long X 31" wide)
- Three-sided back boards work well

Project Topics

Students should choose a project they are interested in – perhaps something from their own experience. The project should be designed to test a specific hypothesis and the problem should be solved experimentally using the scientific method (see attached sheet for more information.)

Example Topics

How long does it take a pinto bean to begin growing?

How can you make a model of an insect's body parts?

What type of paper makes the best paper airplane?

What is the best insulator to keep ice from melting?

Which detergent removes stains the best?

From: Janice VanCleave's Guide to MORE of the Best Science Fair Projects, Janice VanCleave (John Wiley & Sons, Inc., 2000) and <http://school.discoveryeducation.com/sciencefaircentral/>.

Safety

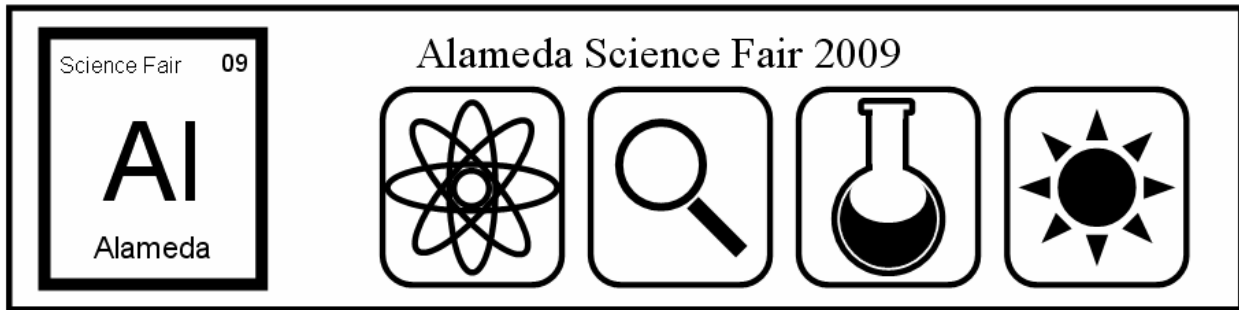
Please keep safety in mind.

- **No** food sampling on school property.
- **No** animals on school property (except animals that are already classroom 'pets').
- **No** combustible materials, sharp items, or hazardous chemicals

Resources

For more ideas and information on science fair projects, check out the school and local libraries! The internet is another excellent source for ideas. For example, check the 'Science Fair Central' website at <http://school.discoveryeducation.com/sciencefaircentral/>.

Information also will be posted on the Alameda website at <http://www.alamedaschool.org/>.



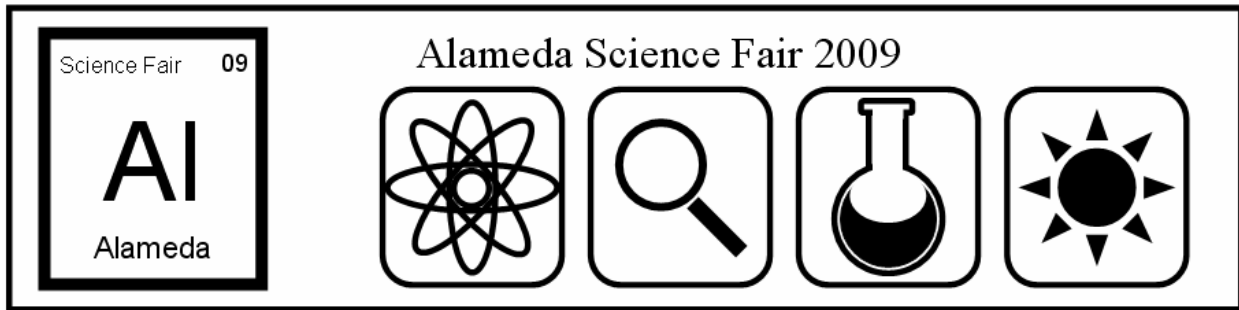
Individual Registration Form

PLEASE PRINT CLEARLY

Return COMPLETED form to your child's teacher
NO LATER THAN Wednesday, April 1st, 2009

Name	
Adult Contact	
Project Title	
Teacher/Grade	
Phone	
e-mail	

Full Project Description: Explain problem, hypothesis and experiments. Include any demonstration(s) and/or materials that will be displayed at the Science Fair. Photos, drawings, charts and other visuals are encouraged. Attach extra sheets if necessary.



Team Registration Form
 (one form per team)

PLEASE PRINT CLEARLY

Return COMPLETED form to your child's teacher
NO LATER THAN Wednesday, April 1st, 2009

Project Title: _____

Name	Adult Contact	Teacher/Grade	Phone	E-Mail

Full Project Description: Explain problem, hypothesis and experiments. Include any demonstration(s) and/or materials that will be displayed at the Science Fair. Photos, drawings, charts and other visuals are encouraged. Attach extra sheets if necessary.

Scientific Method

A science project is an investigation using the scientific method to discover the answer to a scientific problem. The scientific method is the "tool" that scientists use to find the answers to questions. It is the process of thinking through the possible solutions to a problem and testing each possibility to find the best solution. The scientific method involves the following steps: doing research, identifying the problem, stating a hypothesis, conducting project experimentation, and reaching a conclusion.

Research

Research is the process of collecting information from your own experiences, knowledgeable sources, and data from exploratory experiments. Your first research is used to select a project topic. After you have selected a topic, you begin what is called project research. This is research to help you understand the topic, express a problem, propose a hypothesis, and design one or more project experiments—experiments designed to test the hypothesis.

Problem

The problem is the scientific question to be solved. It is best expressed as an "open-ended" question, which is a question that is answered with a statement, not just a yes or a no. Do limit your problem. Do choose a problem that can be solved experimentally. For example, the question "What is a mold?" can be answered by finding the definition of the word mold in the dictionary. But, "At room temperature, what is the growth rate of bread mold on white bread?" is a question that can be answered by experimentation.

Hypothesis

A hypothesis is an idea about the solution to a problem, based on knowledge and research. While the hypothesis is a single statement, it is the key to a successful project. All of your project research is done with the goal of expressing a problem, proposing an answer to it (the hypothesis), and designing project experimentation. Then all of your project experimenting will be performed to test the hypothesis. The hypothesis should make a claim about how two factors relate.

Project Experimentation

Project experimentation is the process of testing a hypothesis.

Project Conclusion

The project conclusion is a summary of the results of the project experimentation and a statement of how the results relate to the hypothesis. Reasons for the experimental results that are contrary to the hypothesis are also included.

From: Janice VanCleave's Guide to the Best Science Fair Projects, Janice VanCleave (John Wiley & Sons, Inc., 1997)