Dear Parents/Guardians:

Here are the guidelines for our newest Science Fair event: the San Mateo County Science, Math & Technology NOVICE Fair, sponsored by the San Mateo County Office of Education and hosted by the Hiller Aviation Museum. The Fair will be held on April 27 & 28, 2010. The goal of this Fair is to provide a special, first-time opportunity for students to participate in a county-wide Science Fair-type event. And, of course to foster a greater interest and deeper understanding of science through student-designed projects.

If your child is a public or private school student, in grades 4 through 12 AND has been selected to participate in this Fair, you will receive an official entry form. Be sure to complete the form and have your son/daughter bring it with their project during the check-in period for the Fair (see Calendar of Events below). All projects must be set up by the students themselves.

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**2010 San Mateo County NOVICE FAIR INFORMATION**

**2010 San Mateo County NOVICE FAIR Calendar of Events**

- **Tues., April 27**  
  Project check-in and set-up (3 to 6 pm)

- **Tues., April 27**  
  Novice Fair Open House (7 to 8 pm)  
  *We invite ALL students, their parents/relatives and friends to attend – free of charge!*

- **Wed., April 28**  
  Student interviews with advisory teams (6:30 to 9:30 pm)  
  *After the interview, students should pick up and take home their projects - and save them for next year’s regular County Fair in February!*
  
  *Note: All Fair events will be held at the Hiller Aviation Museum, San Carlos*

**Interview Process**

When students check in their projects, they will receive an "appointment" time to be interviewed by a team of science advisors. These advisors may be scientists, engineers, college/university instructors, or science teachers. They will discuss the project with the student(s) involved and encourage them to make the necessary improvements so that it will do well in next year’s County Science Fair, held in early February. Please have your son/daughter arrive 15 minutes before their scheduled appointment that will last for about 20 minutes. Be sure to remind your child that s/he is to pick up their project after the interview and take it home.

**Open House**

We are hopeful that students will bring their parents, friends, and relatives to our Fair Open House. This will provide an opportunity for every one to see all of the projects entered in this year's Novice Fair.

**Questions?**

For general Fair questions, please contact Christine Joy, (650) 802–5337, cjoy@smcoe.k12.ca.us.
Project Categories

• **Behavioral/Health/Social Sciences**
  Projects that are related to health and the social sciences. Examples would be perception studies, aptitude and attitude surveys, and various exercise studies.

• **Biological Sciences**
  Projects involving living or once-living things. Examples of projects in this category would be studies of plant growth, cell structure, bacteria, molds, preservatives or growth and development.

• **Earth Sciences**
  Projects involving the earth and its processes. Examples of project topics would be the weather, astronomy, rocks/minerals, and water.

• **Ecology/Environmental Science**
  Projects relating to the environment and the interdependency of living and non-living things on earth. Examples of project topics in this category would be the impact of products or processes on the environment, and solutions to environmental problems.

• **Engineering/Technology**
  Projects that incorporate the design, manufacture, and operation of original and creative mechanisms that involve scientific principles. This category will have slightly different judging criteria, emphasizing originality, model or prototype design, testing, and refinements.

• **Inventions**
  Projects that demonstrate a useful or unique prototype and will have different judging criteria. Previous projects have included an automatic bed-maker, a musical page-turner, and an automatic dog washer. (This category open only to 4th, 5th or 6th grade projects.)

• **Materials Sciences**
  Projects that compare various types of materials as to their durability, effectiveness or other characteristics. Examples include comparisons of various home products, such as insulation, detergents, or teeth whitening products. Also various building materials, energy-conservation materials, etc.

• **Mathematics**
  Projects that solve and attempt to solve complex or sophisticated mathematical problems, including those involving computers. Examples would be graphical explanations of the Pythagorean Theorem, the four-color problem or unique math-related computer programs.

• **Physical Sciences**
  Projects involving non-living things. Examples of project topics would include aerodynamics (such as flight comparisons of various types of paper airplanes), catalysts, crystal growth, evaporation rates, and electrical circuits.

Note: It is the teachers’ responsibility to determine the appropriate category for each of their students’ projects. However, the Fair has the discretionary right to re-classify projects if necessary, in order to allow the advisors to compare similar types of projects.
Project Guidelines

1. All work should be done by the student and must be an experiment using the scientific method unless entered in the Engineering category. **Appropriate** assistance may be provided by teachers, parents, or others.

2. The TWO entry forms for each project submitted must be completed; both should be either typed or printed. During the project check-in, one form will be collected and one firmly attached to the project on the upper right corner with the information facing inward.

3. **All entrants are responsible for the installation, maintenance and removal of their projects. Students MUST be present to set up their own projects; only minimal assistance from parents, old brothers/sisters, or other adults is allowed.** (See Master Calendar for set-up date and time.) No taping, securing or gluing display or items to the tables, as projects need to remain moveable in case they are reclassified or it is necessary to move it to another table.

4. **The project display should be within the following dimensions: 122 centimeters (48 inches) wide, 76 centimeters (30 inches) deep and 274 centimeters (108 inches) high.** Project display should be self-supporting during the public display period, and may be labeled according to the example below (not to scale):

5. **An abstract is required with each project submitted by 6th-12th graders.** (Abstracts are optional for 4th or 5th graders.) An abstract helps facilitate the work of the judges. An abstract is a brief summary (200 words or less) of the purpose of the project, the method of solution, and significant conclusions. (See Abstract form.) Note: A research notebook is optional but recommended. If one is displayed, a backup copy should be kept at home since there is the possibility of loss or damage during public display.

6. **No names or photos of participants or their schools should be visible on the project display.** This includes project reports, data notebooks, etc. Please remove any awards or ribbons that were received from previous school or district science fairs.

7. **Projects requiring electricity may be displayed, but not plugged in.** Hiller Aviation Museum does not allow the project to be turned on during the display hours; however, judges may ask for a demonstration during the interviews. All electrical apparatus must be built according to standard electrical safety law. Projects that use 110 volts or more may not use push-button switch (doorbell type) or open-knife switches. All projects using 110 volts or more must have a main disconnect switch of a type approved by the National Board of Underwriters. All wires must be of the size and insulation appropriate for the current and voltage used.
8. **No liquids of any kind** should be in project displays. Please substitute photographs or drawings instead. If there are sample liquid containers in the display, they must be empty.

9. **Controlled substances, hazardous materials or sources of open flames cannot be exhibited or used in any project**; e.g., marijuana; firearms of any kind, bullets, fireworks, carbon dioxide bombs; candles.

10. **Valuable items**, such as special equipment, cameras, recorders, microscopes, etc. **will NOT be allowed to be displayed**; please use photographs or drawings to illustrate their use.

11. **No hypodermic needles or syringes** can be displayed with projects.

12. **Food samples may not be included in the display**. Drawings, plastic food or photos should be used instead.

13. **Live animals, mounted birds, mammals, or any stuffed specimens will not be allowed in the displays.** Projects that use animals should substitute pictures or drawings for the display. Bones are acceptable if they are clean and free of decaying matter. (Note: Bones ARE NOT accepted for display at the Bay Area Science Fair.)

14. **If plants are in the display, they should be completely covered and sealed** (either the entire plant or the pot and soil). This includes vermiculite and any product that could be easily spilled or scattered.

15. **Protists (bacteria, fungi, molds, etc.) may not be exhibited.** Photos or drawings should be displayed instead of the actual Petri dishes or cultures.

16. **Gravel, sand, dirt must be tightly enclosed and sealed** securely if they are on display.

17. **Projects that include the use of animals or humans (including surveys) must follow the Science Fair Guidelines established by the State Humane Association of California.**