



Dear Parents/Guardians:

Here are the guidelines for the San Mateo County Science, Math & Technology Fair, sponsored by the San Mateo County Office of Education and hosted by the Hiller Aviation Museum. The goal of the Fair is to foster a greater interest and deeper understanding of science through projects developed by students.

If your child is a public or private school student, in grades 5 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 bring it with your child's project during the check-in period for the Fair (see calendar of dates below).

2008 SAN MATEO COUNTY SCIENCE, MATH & TECHNOLOGY FAIR INFORMATION

2008 San Mateo County Science, Math & Technology Fair Calendar of Events

- February 3 & 4 • Projects set up (Sunday, 11 am - 5 pm; Monday, 8 - 10 am, 2 - 4 pm)
- February 5 & 7 • Judging (finalists' interviews on the 7th)
- February 6 • Fair Open House, 7 - 8 pm. *This will be the only time visitors can view the projects free. All projects may be removed between 8 - 9 pm. This is the preferred day and time; unclaimed projects may be picked up at the San Mateo County Office until Thursday, February 14th. After the 14th, unclaimed projects will be discarded.*
- February 8 • Science Fair Awards Ceremony, 7 to 9:30 pm
Note: All Fair events will be held at the Hiller Aviation Museum, San Carlos

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.
- **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.
- **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 our judges to compare similar types of projects.

Each of the seven subject categories will have grade level divisions: 5th, 6th, 7th, 8th, and high school. **However, the Bay Area Fair accepts only projects from 7th through 12th grade; the CA State Fair, from grades 6 through 12.** Pair projects will be accepted at the San Mateo County Science Fair at ALL grade levels, and will be judged with the individual projects in the same category unless there are a significant number of group projects in a category. **Only individual projects are accepted at Bay Area Science Fair.**

Fair Guidelines

Note: The following Fair Guidelines have been developed so that an award-winning entry in the County Fair will also be eligible for the Bay Area Science Fair and/or the California State Science Fair without any significant modifications to the project or display.

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.

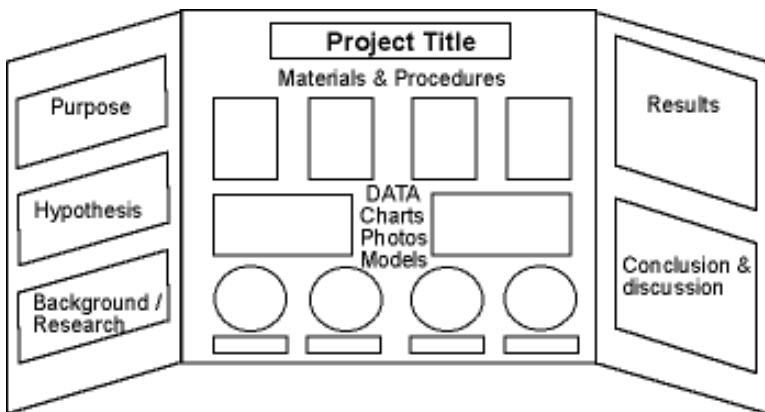


3. **No names or photos of participants or their schools should be visible on the project display;** this includes project reports, data notebooks, etc. Please remove any awards or ribbons that were received from previous school or district science fairs.
4. **Projects requiring electricity may be displayed, but not plugged in.** Hiller Aviation Museum does not allow the project to be turned on during the display hours; judges may ask for a demonstration during the interviews. All electrical apparatus must be built according to standard electrical safety laws. 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.
5. **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.
6. **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.
7. **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.
8. **No hypodermic needles or syringes** can be displayed with projects.
9. **Food samples may not be included in the display.** Drawings, plastic food or photos should be used instead.
10. **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.)
11. **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 scattered.
12. **Protists (bacteria, fungi, molds, etc.) may not be exhibited.** Photos or drawings may be used instead of Petri dishes or culture
13. **Gravel, sand, dirt must be tightly enclosed and sealed** securely if they are on display.
14. **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.** (See enclosed guidelines). For grades 7-12, Bay Area Science Fair Special Project Proposal Forms must be filled out prior to experimentation for possible project entry into the Bay Area Science Fair. Special Project Proposal Forms can be obtained by downloading them from the Bay Area Science Fair website: (<http://home.pacbell.net/sfbasf/>).



15. **All entrants are responsible for the installation, maintenance and removal of their projects.** (See Calendar of Events.) No taping, securing or gluing display or items to the tables, as projects need to remain moveable.

16. **The project display should be within the following dimensions: 4122 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 should be labeled according to the example below (please see example below; not to scale):



17. **An abstract is required with each project submitted by 6th-12th graders.** Abstracts are optional for 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.)

A research notebook is optional at the County Science Fair. If one is displayed, a backup copy should be kept at home since there is the possibility of loss or damage during public display.



Fair participants and their parents/guardians of are required to sign a copy of the following, which will be a printed on the back of the official entry form that must be submitted with the project when it is brought to Hiller Aviation Museum for submission to the Fair:

Remember that hundreds of people will be enjoying your project. Please think carefully about what you want on display since everything will be handled. Projects that include any of the items indicated in the Guidelines as not permitted will be disqualified. If you are in doubt about a material, leave it out or call us.

Hiller Aviation Museum, the San Mateo County Office of Education and its affiliates shall not be responsible for the damage, loss, or theft of any articles left in the Museum's possession.

I have read and understand the Science Fair Guidelines and have complied with the guidelines. I understand that the project will not be exhibited or entered into the Fair unless it complies with all of the guidelines.

Signed,

Fair Participant(s)

Parent(s) or Guardian(s)

Awards:

- All students will receive a participant ribbon for their project.
- Each of the seven subject categories will have first, second and third place awards for the 6th, 7th, 8th and high school divisions. (No awards for 5th grade projects.) However, the judges reserve the right to award multiple winners; e.g., two seconds, or not to award all places; e.g., no third.
- Special awards by various organizations, such as NASA or the USGS will be given for unique projects in certain categories.
- Cash scholarships will be given for outstanding projects by high school students.

Bay Area & State Science Fair

The San Mateo County Fair serves as the qualifying event for the top science projects from San Mateo County public and private schools for the Bay Area and State Science Fairs. Individual schools within San Mateo County are no longer eligible to enter projects directly into the Bay Area Fair. For general questions about the Bay Area Science Fair, contact Robert Fabini, Assistant Director (SFBASF), c/o El Cerrito High School, 450 Ashbury Ave., El Cerrito, CA 94530, phone: (510) 527-2898; website: <http://home.pacbell.net/sfbasf/>

Questions?

Please contact Gary Nakagiri, (650) 802-5350, gnakagiri@smcoe.k12.ca.us or Christine Joy, (650) 802-5337, cjoy@smcoe.k12.ca.us.