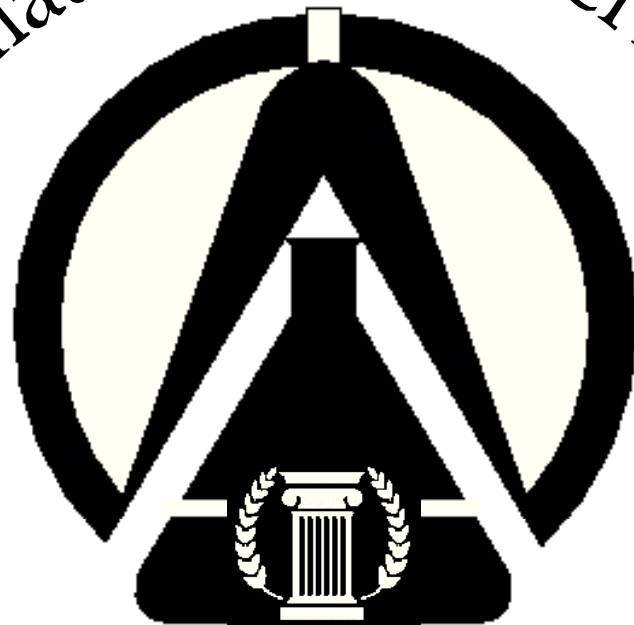


# 47th Annual

## Central California Regional Science, Mathematics & Engineering Fair



### **RULES, PROCEDURES, FORMS & DEADLINES**

**Restricted Project Forms - due by Friday, January 28, 2000**

**Entry Forms - due by Wednesday, February 23, 2000**

**Grades 6, 7 and 8 - Junior Division - Entry fee: \$7 per student**

**Grades 9-12 - Senior Division - Entry fee: \$10 per student**

**March 28 - 30, 2000**

**FRESNO CONVENTION CENTER EXHIBIT HALL**

**The Fresno County Office of Education  
Dr. Peter G. Mehas, Superintendent  
is proud to be the principal sponsor of the  
Central California Regional Science,  
Mathematics & Engineering Fair**



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### Important Senior Division Information

**Senior Division:** With the exception of the Entry Form (which is on page 14 of this booklet) all forms for the Senior Division are found in the ISEF Rulebook or on the Internet at <<http://www.sciserv.org>>. Students pursuing a Restricted Project must submit all required pre-approval forms from the ISEF Rulebook at the latest by 5:00 PM January 28, 2000. All Senior Division entries ultimately require the submission of an Abstract (p. 32), the three Forms found on page 33 (Checklist), page 34 (Form 1A) and Page 36 (Form 1B), one Entry Form (page 14 of this booklet) and a \$10 entry fee for each student on or before February 23, 2000.

**All mail is to be sent to:**

**Regional Science Fair, Fresno County Office of Education, 1111 Van Ness, Fresno, CA 93721**

Forms and entries may also be delivered in person to the Fresno County Office of Education at 1111 Van Ness in Fresno.

Forms or entries may be submitted at any time on or before the deadline. **There is no grace period.**  
**Late, incomplete or illegible forms or entries will be rejected and returned with no refund of the entry fee.**

# Regional Science, Mathematics & Engineering Fair Advisory Committee

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## Who Is Eligible to Enter?

**Students in grades 6 through 12** are eligible to enter the Central California Regional Science, Mathematics & Engineering Fair. The Fair serves students in public, private and parochial schools in Fresno, Madera, Kings and Tulare counties and is affiliated with the International Science and Engineering Fair (ISEF). The Regional Fair complies with the ISEF International Rules for Pre-College Science Research.

**Senior Division:** Students in grades nine through twelve are eligible to enter individual projects in one of the 14 ISEF categories listed on page 15. Teams of two or three students may enter one project in the Team Category.

**Junior Division:** Students in grade six, grade seven, and grade eight are eligible to enter individual projects in one of the 14 ISEF categories listed on page 15. Teams of two to four students in each grade level may enter one project in the Team Category. Junior Division students compete only within their grade level.

## Do I Have to Qualify?

**YES!** To qualify for the Regional Fair each project must have been among the top entries at a preliminary school site, district, or county science fair or judged to be of regional quality by a teacher, science fair coach or Regional Fair Advisory Committee Member.

## Who Is Involved in Supervising a Research Project?

**Adult Sponsor/Teacher/Qualified Scientist/Designated Supervisor:** Students are expected to be under the direct supervision of a teacher, parent or adult mentor familiar with the Rules and who reviews and signs the student's Project Plan before work begins (Form CC1, page 9).

**IRB:** If students wish to pursue projects involving human subjects, an Institutional Review Board (IRB) must review and approve the Project Plan (Forms CC1, page 9 and 4B, page 10). An IRB may be established at a school site made up of: (1) a science teacher, (2) a school administrator and (3) one of the following: psychologist, psychiatrist, medical doctor or nurse. If there is no school site IRB, a student may contact a member of the Regional Fair IRB found on page 9 to review and sign the Project Plan.

**SRC:** The Regional Fair has a Scientific Review Committee to examine **all** projects for compliance with ISEF Rules. The SRC reviews all "Restricted" Projects submitted by January 28, 2000, and all projects entered in the Fair to ensure there was appropriate supervision and to deal with other concerns. To contact a member of the SRC, consult the list found on 9.

## What are "Restricted" Projects?

Projects involving human subjects, nonhuman live vertebrate animals, pathogenic agents, controlled substances, recombinant DNA and human or animal tissue are "Restricted" **to prevent potential problems of invasion of privacy, cruelty to animals, risk of infection or other hazards**. Before starting work on a "Restricted" Project, students **MUST complete the appropriate forms including signatures from a qualified professional** (science teacher, college instructor, IRB or SRC member.) A condensed version of the ISEF Rules for "Restricted" Projects is on page 6 of this booklet and a plain language version is on page 7. Complete explanations are in the ISEF Rulebook or can be accessed on the Internet at <[www.sciserv.org](http://www.sciserv.org)>.

**Restricted Project FORMS are due no later than January 28, 2000. A "Restricted" Project submitted after the January 28 deadline with no forms on file will be rejected and returned with no refund.**

## Condensed Version of Official ISEF "Restricted" Project Regulations\*

Obtain approvals **before** starting work to **safeguard good science and the well-being of everyone involved.**

**a. Human Subjects:** All projects involving human subjects including surveys, professional tests, questionnaires and projects in which the researcher is the subject must be pre-approved by an IRB before experimentation begins **with the exception of** projects conducted at school involving normal educational practices, observing legal public behavior, or studying existing, publicly available data. However, projects involving exercise, emotional stress or ingestion of any substance which may result in *the probability and magnitude of harm or discomfort anticipated in the project being greater in and of themselves than those ordinarily encountered in DAILY LIFE or during performance of routine physical or psychological examinations or tests*, exceed the federal definition of minimal risk, and **require** Informed Consent (Form 4B). The criteria for selecting human subjects should be clearly defined and any risks assessed, including allergic reactions to foods or beverages.

**b. Live Nonhuman Vertebrate Animals:** ISEF defines an animal as any live, nonhuman vertebrate, mammalian embryo or fetus, bird eggs within three days of hatching, and all other vertebrates (fish, amphibians, reptiles, etc.) Because of the potential for causing discomfort to animals, students should explore all possible alternatives. Alternatives may include replacement with cells and tissue cultures, plants, mathematical or computer models, invertebrates with primitive nervous systems (e.g., protozoa, planaria, insects, worms, molluscs, crustaceans, etc.), or chicken embryos prior to three days of hatching.

If vertebrates are used as laboratory animals for research and testing, Form 5 **must** be submitted, and both students and Adult Sponsors are responsible for granting the animals every humane consideration for their comfort and well-being before, during, and after the research. All laboratory research animals must be legally acquired from reputable animal breeders. Pets and pet store animals, except fish, are inappropriate as laboratory animals because their genetic, disease and nutritional history are unknown. Experiments altering the well-being of common laboratory animals including fish, mice, rats, hamsters, guinea pigs, or rabbits are only allowed in an institutional or school setting under direct supervision, and **not in a student's home**.

**Form 5 is not required for behavioral studies involving pets or livestock done at home or behavioral studies involving animals in their natural environment with no interaction between the student and the subject animal(s).**

**c. Pathogenic Agents:** All bacteria, viruses, viroids, prions, rickettsia, molds, fungi or parasites collected, isolated and/or cultured from any environment during student projects **must** be considered potentially pathogenic. Appropriate biosafety procedures including use of gloves and proper disposal **must** be done in a lab setting under the direction of an Adult Sponsor.

**d. Controlled Substances:** DEA classed substances, prescription drugs, alcohol, and tobacco must be acquired and used according to existing local, state and federal laws and the California Education Code. Students under 21 years of age are prohibited from purchasing and/or handling smokeless powder or black powder.

**e. Recombinant DNA (rDNA):** All research proposals involving rDNA must be reviewed and approved by a member of the Scientific Review Committee (SRC) **BEFORE ANY EXPERIMENTATION IS STARTED**. ISEF adheres to National Institute of Health and National Association of Biology Teachers guidelines. Students studying any microorganisms, whether or not they involve DNA, must always follow standard microbiological practices. **Students must not use ethidium bromide or handle gels stained with ethidium bromide.**

Exempt rDNA studies on bacterium *Escherichia*, bacterium *Bacillus subtilus* and yeast *Saccharomyces cerevesiae* may be conducted in non-federally registered laboratories, including school laboratories, under the direct supervision of a trained teacher following federal regulations. Students wishing to study non-exempt forms must work **only** in a federally registered research institution under the direct supervision of a Qualified Scientist.

**f. Human and Animal Tissue:** Several tissue types do not require prior SRC review and approval: a) plant tissue, b) established cell and tissue cultures (e.g., those obtained from the American Type Culture Collection with culture source and number identified), c) meat or meat by-products from food stores, restaurants or packing houses, and d) hair.

Although students using their own blood do not need HIV or hepatitis certifications, students wishing to conduct research on human blood, blood products or other body fluids not their own may do so only under the following conditions: a) tissue fluids are documented to be free of HIV and hepatitis B and C before the student receives them, or b) tissues are handled in accordance with standards and guidelines set forth in OSHA, 29CFR, Subpart Z, 1910.1030 - **Blood Borne Pathogens**. Otherwise, **all** research projects using human or nonhuman vertebrate animal tissue must be approved by a member of the Scientific Review Committee (SRC) **BEFORE ANY EXPERIMENTATION IS STARTED**. For the purpose of student projects, all body fluids, including saliva and urine (but excluding hair) are to be considered tissues.

\* The complete text is available on the Internet at <www.sciserv.org>

## Junior Division (grades 6, 7 & 8) “Restricted” Projects in Plain Language

If a teacher or school-site committee feels competent to approve a Restricted Project, Form CC2 and any other of the required Forms may be signed, so the student may begin, but the Regional Fair IRB and SRC have the final authority to accept or reject any proposed Restricted Project at their meeting following the Restricted Project deadline on January 28, 2000.

Projects involving (a) human subjects, (b) live non-human vertebrate animals and (c) pathogenic agents are the most common “Restricted” Projects submitted, and they are discussed below. The regulations governing (d) controlled substances and (e) recombinant DNA projects are clearly stated on page 6. Projects using (f) human or animal tissue are also discussed below.

**(a) Human Subjects:** The main concerns here are risk and/or invasion of privacy. Projects such as surveys done at school under a teacher’s direct supervision involving normal educational practices are not Restricted. (Surveys must include a statistical analysis of the data expressing the student’s confidence in the results.) If the Regional Fair IRB sees any project involving humans, the burden of proof is on the content of the student’s Form CC1 to establish that this project involving humans is, indeed, not Restricted. When in doubt, fill out Forms CC1, CC2, and 4B and file by the Restricted Project deadline.

- Human subjects ingesting foods, beverages, or other substances may experience allergic or other adverse reactions. These projects are definitely Restricted. Form 4B needs to address how the human subjects are being screened.
- Human subjects doing stressful activity may be exposed to risk. Form 4B must address screening of the subjects.
- Alcohol and tobacco are controlled substances (d), so projects involving them cannot be conducted at school and they are Restricted. Completing Forms CC1 and 4B and obtaining approval from a member of the Regional Fair IRB is highly recommended before any experimentation is done.

**(b) Live Animals with Backbones:** We strongly encourage the substitution of invertebrates and avoiding projects using live vertebrates including fish, amphibians, reptiles, birds, mammals, etc.. If a potential for harm exists, the SRC will only approve a project if it is conducted at a research site with an animal care supervisor and under the direct supervision of a qualified research scientist. (Refer to the complete ISEF Rules and Forms if a student should propose such a project.)

- If the student is going to INTERACT with an animal by altering its food or activities or surroundings, the project is Restricted and needs the approval of Lea Mitchem, Herb Piper or the Fair Director before experimentation begins. Asking for approval "after the fact" is unacceptable.
- Family pets are sometimes proposed as subjects of projects. These projects are RARELY good science because the conditions are not controlled, there are too many variables, and too few animals are used to reach any general conclusions. Putting one or two mice through a maze may have the appearance of a science project, but what else are the mice exposed to in the course of being experimental animals? If the student interacts directly with the animals, the project is Restricted and Forms CC1, CC2 and 5 are required to be filled out and approved before experimentation begins.
- If the student is only going to OBSERVE a live animal without interacting with it, the project is NOT Restricted. Form CC1, when submitted as part of the Entry, should begin by stating that the project is observational with no direct interaction between the student and the live animals.

**(c) Pathogenic agents/growing cultures:** Professional research is turning up nasty microbes in many places. Even though culturing bacteria, molds, etc., has a long history in science fairs, there is increasing concern that these projects should be banned. The SRC has three concerns that the explanation of your procedures on your CC1 must address:

- Are the cultures sealed during the experiment?
- Are gloves being used to prevent skin contact when handling the materials?
- Are the cultures being sterilized and/or disposed of as biohazards, e.g., bleach? autoclave? biohazard disposal at a hospital or other medical facility?

**(f) Human and Animal Tissue:** The main concern here would be a project involving blood, body fluids or tissue (including exposure to dead/decaying animals) that would present a risk of exposure to pathogens. Form CC1 explaining appropriate safeguards must be submitted and approved before work begins. Projects involving sterilized, extracted teeth or baby teeth, sterilized and dried bones, and hair samples are not Restricted nor are projects involving meat or meat by-products obtained from food stores, restaurants or packing houses or using established cell and tissue cultures with the culture source and number clearly identified.

## Junior Division (grades 6, 7 & 8) Science Fair Forms in Plain Language

**Student Planning Guide and Safety Checklist** - page 13 - is a checklist of “Restricted” Projects and possible hazards. It also provides a step-by-step guide for completing a project. This form must be included in the student’s Project Notebook on display at the Regional Fair.

**Entry Form** - page 14 - should be photocopied for each student to complete and submit with all information, all signatures and the registration fee at the latest by the deadline, February 23, 2000.

**Form CC1** - page 9 - must be filled out and submitted **for every project entered in the Fair**. Form CC1 accompanies each “Restricted” Project (with Form 4B for human subjects or Form 5 for live, nonhuman vertebrate animals, and Form 1C, if required.) Each student needs to describe how he or she is going to carry out the project - write out the procedures - so the SRC can review the science of the project. Additional pages may be attached, if necessary.

**Form CC2** - page 9 - may be signed by a teacher or qualified professional to give preliminary approval for a student to begin work on a “Restricted” project. The Scientific Review Committee reserves the right to review **all** entries and may reverse preliminary approvals. Form CC2 may also be signed by a member of the IRB or SRC listed in the middle of page 9.

**Form 4B** - page 10 - ONE SAMPLE COPY (not the copies signed by the subjects) and Forms CC1 and CC2 are required for projects involving human subjects if you, the teacher, or your school site IRB feels that the human subjects participating in the project are exposed to some risk. Projects involving psychological or physiological stress, ingesting or tasting foods or liquids, or surveys with possible invasion of privacy need to be considered carefully. The copies signed by subjects remain with the student researcher’s records. Do NOT bring signed copies of Form 4B to the Science Fair.

It should be pointed out that many teachers find that having students use Form 4B helps them to define their procedures more clearly and creates a more serious attitude on the part of both student researcher and his/her human subjects. Filling out a Form 4B, even if the project involves no ‘risk’ and is conducted in an established setting involving normal educational practices, observing legal public behavior, or studying existing publicly available data, is recommended to help your students focus on what they want to accomplish. We encourage the use of Form 4B for all projects involving human subjects whether or not submission as a Restricted Project is required.

**Form 5** - page 11 - along with Forms CC1 and CC2 is required for studies affecting the health and well-being of non-human, live ANIMALS WITH BACKBONES.

Form 5 is **not** required for behavioral studies involving PETS or livestock done at home or behavioral studies involving animals in their natural environment with no interaction between the student and the subject animal(s). However, projects involving family PETS are rarely good science. Laboratory conditions, control of experimental variables, reproducibility of results, and sufficient sample size frequently are lacking in these projects.

All students interacting with live animals with backbones must use Form 5 to describe animal care and good scientific procedures. Form 5 tells our Scientific Review Committee where the animals are being obtained, how they are being cared for, and what will happen to them after the research project is over. Form 5 is required for any project where the health or growth of an animal could be affected.

Only Forms CC1 and CC2 accompany projects involving potentially pathogenic substances, controlled substances, rDNA and human and animal tissue..

Growing cultures of bacteria, mold, fungi, etc., are causing increasing concern to SRC members due to the unlikely but possible exposure of students (and teachers and family members) to pathogens cultured from environmental surfaces or elsewhere. The experimental procedures written in Form CC1 for these projects should refer to: SEALED containers, use of disposable plastic gloves while handling the cultures, and safe disposal procedures such as sterilization with household bleach or at a lab equipped to deal with biohazardous materials. This may seem like ‘overkill’, but when professional researchers are becoming increasingly concerned, we must respect their advice.

**Form 1C - page 12 - Registered Research Institutional/Industrial Setting** - must accompany “Restricted” Projects by the Restricted Project deadline and all other entries by the entry deadline, if students have done their work at a site where research is on-going. Form 1C is to be completed by BOTH the student AND the scientist or researcher in charge. Form 1C must be posted on the display.

**Senior Division students! Follow the procedures in the ISEF Rulebook. DO NOT USE the Forms below.**

**All students in Grade 6, Grade 7 or Grade 8! READ BELOW VERY CAREFULLY!**

- Forms CC1 and CC2 below are to be used by Junior Division students ONLY.
- Students who checked ANY of the “Restricted” Project boxes on p. 13 **MUST COMPLETE BOTH** Forms CC1 and CC2 (and Form 4B, 5, and 1C if needed) and submit them to the Fair Director by 1/28/00.
- Students who are NOT involved with a “Restricted” Project must complete only Form CC1 and submit it with their entry by February 23, 2000.

<b>Form CC2 APPROVAL FORM - <u>REQUIRED</u> of all Junior Division <u>Restricted</u> Projects by 1/28/00.</b>	
Print Name of Qualified Professional/IRB/SRC Member: _____	
<b>I have carefully studied the Project Plan, Form CC1, below. My signature indicates approval of this Project Plan before the student begins experimentation. (Please write legibly.)</b>	
Date _____	Signature _____ Qualified Professional/IRB/SRC Member
Title _____	

**REGIONAL FAIR HUMAN SUBJECTS INSTITUTIONAL REVIEW BOARD (IRB)**

Dennis Stearns 675-4500x308 Madera Unified School District 1902 Howard Madera, CA 93637	Terry Newell 278-4707 Dept. of Psychology CSU-Fresno Fresno, CA 93740	Sandra Day, RN 265-3026 Fresno County Office of Education 1111 Van Ness Fresno, CA 93721	Susan Schara 265-3001 Fresno County Office of Education 1111 Van Ness Fresno, CA 93721
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**REGIONAL FAIR SCIENTIFIC REVIEW COMMITTEE (SRC)**

Brian Tsukimura 278-4244 Biology Department CSU-Fresno Fresno, CA 93740	David Grubbs 278-2460 Biology Department CSU-Fresno Fresno, CA 93740	Howard Ono 278-2103 Chemistry Department CSU-Fresno Fresno, CA 93740	Lea Mitchem 233-0115 SPCA. 103 S. Hughes Fresno, CA 93706	Herbert Piper, DVM 255-6261 5747 E. Grant Ave. Fresno, CA 93727
---	--	--	---	--

<b>Form CC1 PROJECT PLAN - <u>REQUIRED</u> of <u>ALL</u> Junior Division Projects.</b>	
<b>Must be completed and signed before work begins on any project.</b> (Please type or print except for signature.)	
Student name(s) _____	Grade _____
School _____	
Describe your experimental procedures: (Attach a separate sheet, if necessary.) _____ _____ _____	
Starting date: _____	Where project will be done: _____
Print Adult Sponsor/Teacher's name _____	
I have read the Project Plan and reviewed with the student(s) the Checklist on page 13. I agree to sponsor the student and assume responsibility for compliance with all ISEF Rules as they pertain to the Project Plan.	
Date: _____	Signature: _____ (Adult Sponsor/Teacher)
Position _____	
School and District _____	
Address _____	
Office Phone _____	Home Phone _____

## Informed Consent Form (4B)

Recommended for all projects involving human subjects, required for all involving risk.  
Use a separate form for each test subject.

Student Researcher's Name \_\_\_\_\_ Grade \_\_\_\_\_

School, City & State \_\_\_\_\_

Title of Project \_\_\_\_\_

### To be completed by Student Researcher:

- 1) What are the research procedures in which the subject will be involved?
- 2) What are the possible discomforts or risks that may reasonably be expected by participating in this research?
- 3) What procedures will be used to minimize risks?

**Attention:** This project has been reviewed and approved by an Institutional Review Board. The only acceptable alternatives to this form are those provided by a registered research institution.

Adult Sponsor's Printed Name \_\_\_\_\_ Signature \_\_\_\_\_ Phone \_\_\_\_\_

Qualified Scientist's Printed Name \_\_\_\_\_ Signature \_\_\_\_\_ Date Signed \_\_\_\_\_  
(Required if risk designated by the IRB)

Title \_\_\_\_\_ Institution \_\_\_\_\_ Phone \_\_\_\_\_

### To be completed by human subject prior to experimentation:

- I have read and understand the conditions stated above, and I consent to participate in this research procedure. I realize I am free to withdraw my consent and to withdraw from this activity at any time.
- I consent to use of visual images (e.g., photographs, videographs) involving my participation in this research project (optional)

Participant's Printed Name \_\_\_\_\_ Signature \_\_\_\_\_ Date Signed \_\_\_\_\_

If participant is under 18 years old, a parent/guardian signature may be required. If the subject of this experiment or parent/guardian has any questions about this experiment, the Adult Sponsor should be contacted.

I have received and reviewed a copy of any test, survey or questionnaire used in the research.  Yes  No

Parent's/Guardian's Printed Name \_\_\_\_\_ Signature \_\_\_\_\_ Date Signed \_\_\_\_\_

## Nonhuman Vertebrate Animal Form (5)

**Required for all research involving nonhuman vertebrate animals.  
(SRC approval required before experimentation.)**

**ATTENTION:** *This form is not necessary if student uses only tissue from nonhuman vertebrates in the project.*

Student's Name \_\_\_\_\_

Title of Project \_\_\_\_\_

**To be completed by Student Researcher:**

1. Genus, species, common name of animal(s) used (Use separate animal form for each species used.) \_\_\_\_\_

2. Where will animals be obtained? (See procurement p. 14 of the Rules: Pet store animals are not acceptable except for fish which may be purchased locally.) \_\_\_\_\_

3. How many animals will be used? \_\_\_\_\_ Average weight \_\_\_\_\_

4. Cage size \_\_\_\_\_ Number of animals per cage \_\_\_\_\_

5. Type of food \_\_\_\_\_

6. How often fed and given water? \_\_\_\_\_

7. Type of bedding used (Do not use cedar chips, newspaper, or paper towels.) \_\_\_\_\_

8. Where will animals be housed? \_\_\_\_\_

9. Name the veterinarian who will provide veterinary medical and nursing care in case of illness or emergency (required).

D.V.M. \_\_\_\_\_ Name of Facility \_\_\_\_\_ Phone \_\_\_\_\_

10. Will euthanasia of animals be necessary?  Yes  No

If yes, by what method? \_\_\_\_\_ By whom? \_\_\_\_\_

If no, what will happen to the animals after experimentation? \_\_\_\_\_

**To be completed by Animal Care Supervisor or Qualified Scientist:**

Name \_\_\_\_\_

Position \_\_\_\_\_

Institution \_\_\_\_\_

Address \_\_\_\_\_

Office Phone \_\_\_\_\_

I certify that I have discussed this research with the student prior to its start and will supervise and will accept primary responsibility for the quality of care and handling of the live vertebrate animals used by the above named student. I further certify that I am knowledgeable in the proper care and handling of laboratory animals, and meet prevailing animal care supervisory requirements. When an animal must be euthanized, I certify that I will perform the procedure, using recommended agents.

Animal Care Supervisor's or \_\_\_\_\_ Signature \_\_\_\_\_ Date of Approval \_\_\_\_\_  
Qualified Scientist's Printed Name

Title \_\_\_\_\_ Phone \_\_\_\_\_

Institution and Address \_\_\_\_\_

# Registered Research Institutional/Industrial Setting Form (1C)

This form must be completed by the scientist supervising the student research conducted in a registered research institution (e.g., university lab, medical center, NIH, SSTP, etc.) or industrial setting.

This form **MUST** be displayed with your project.

Student's Name \_\_\_\_\_

Title of Project \_\_\_\_\_

To be completed by the Scientist (NOT the Student or Adult Sponsor) **after** experimentation:

The student conducted research at my institution: (check one)

- a)  only to use the equipment      b)  to perform experiment(s)

If b, the following questions **must** be answered.

1) How did the student get the idea for her/his project?

(e.g. Was the project assigned, picked from a text, an original student idea, etc.)

2) What did the student do that showed creativity and ingenuity?

(Did the student show creativity in experimental design, development of techniques or equipment, arrival at conclusions, etc.)

3) Did the student work on the project as a part of a research group?     yes     no

(If yes, how large was the group and what kind of research group was it (students, group of adult researchers, etc.)

4) What specific procedures did the student actually perform and how independently did the student work?

Please list and describe. (Do not list procedures student **only** observed.)

5) Student research projects dealing with human subjects, nonhuman vertebrate animals, pathogenic agents, controlled substances, rDNA, and human & nonhuman animal tissue require review and approval by institutional regulatory boards. **Appropriate Committee approvals for procedures and project as outlined in the Research Plan (1A) must be attached.**

Scientist's Printed Name \_\_\_\_\_

Signature \_\_\_\_\_

Title \_\_\_\_\_

Institution \_\_\_\_\_

Date Signed \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Grades 6 - 8 (Junior Division) ONLY  
Student Planning Guide and Safety Checklist

**This form MUST be included in your Project Notebook.**

STEP 1 - Copy this page and fill out the PROJECT PLAN (Form CC1) consulting with a Teacher or Adult Sponsor. The term 'Project Plan' refers to your experimental procedures (what you will do to carry out your project.)

STEP 2 - If your idea is a "Restricted" Project involving one of the following areas (a.-f.) listed below, your Project Plan (Form CC1) signed by your Teacher or Adult Sponsor and your Approval Form (Form CC2) signed by a Qualified Professional or IRB/SRC member must be completed before beginning your project. (Check the appropriate box below.)

- |  |  |
|--|--|
| <input type="checkbox"/> a. Human Subjects (IRB approval and Form 4B)<br>If beyond "minimal risk."   | <input type="checkbox"/> d. Controlled Substances (SRC)  |
| <input type="checkbox"/> b. Nonhuman Vertebrate Animals (SRC and Form 5)   | <input type="checkbox"/> e. Recombinant DNA (SRC)        |
| <input type="checkbox"/> c. Pathogenic Agents* (SRC)<br>* All bacteria, fungi, etc. isolated from the environment should be considered potentially pathogenic. | <input type="checkbox"/> f. Human or Animal Tissue (SRC) |

STEP 3 - Determine if your project involves hazardous substances or devices. **If it does, proper review and supervision by a qualified adult are required, but SRC approval is not required prior to beginning your project.**

- Chemicals** (*i.e.*, hazardous, flammable, explosive or highly toxic; carcinogens; mutagens, all pesticides). You must review the Material Safety Data Sheet (MSDS) listing for each chemical that will be used and review the proper safety standards for each chemical including toxicity data, proper handling techniques, and disposal methods. For *Safety in Academic Chemistry Laboratories*, write to the American Chemical Society, Career Publications, 1155 16th St., NW, Washington, DC 20036 (202/872-4512), or on the Internet at <<http://www.msds.org>>.
- Equipment** (*i.e.*, welders; lasers; voltage greater than 220 volts). You must review the proper operational procedures and safety precautions for the equipment to be used. For information about laser standards, write to the Food and Drug Administration, Office of Compliance, 2098 Gaither Rd., Rockville, MD 20850 (301/594-4692) or on the Internet at <<http://www.fda.gov>>.
- Firearms**. You must review the proper safety standards for firearms use. A resource is <<http://www.atf.treas.gov>>.
- Radioactive Substances**. You must review the proper safety standards for each radioactive substance that will be used, e.g. at <<http://www.nrc.gov>>.
- Radiation** (*i.e.*, x-ray or nuclear; unshielded ionizing radiation of 100-400 nm wavelength). You must review the proper safety methods concerning the type of radiation that will be used, e.g., at <<http://www.fda.gov>>.

STEP 4 - If you are doing a "Restricted" Project, submit completed and signed Forms CC1, CC2 ( and Form 4B for "at risk" human subjects or Form 5 for live, non-human, vertebrate animals, if needed) to the Fair Director on or before January 28, 2000, for review. You will be notified that your project is acceptable or needs to be modified or is unacceptable.

STEP 5 - Every entry in the Junior Division is due on or before February 23, 2000, and consists of Form CC1, the completed and signed Entry Form (page 14), and \$7 **per student**. Team Projects must include an Entry Form and \$7 for each student.

STEP 6 - Regional Science Fair school site coordinators, teachers, coaches or parents will be notified that their entry or entries have been received. Any "Restricted" Projects that are submitted and that did not meet the January 28, 2000, deadline in STEP 4 will be returned with no refund of the Entry Fee.

STEP 7 - Prepare to display your project. Consult page 16 for size limitations and other rules regarding your display.

STEP 8 - Bring your display to the Fresno Convention Center Exhibit Hall on Tuesday, March 28, 2000. It will be screened for display and safety violations. See the back cover for the judging schedule and page 17 for Judging Criteria, Procedures and Awards.

**ENTRY FORM - All Students - Fill out clearly and completely!**

**If this is a TEAM ENTRY, copy this form before proceeding.**

**Submit one Entry Form and Fee for each student.**

**Entry Deadline  
2/23/00**

**Entry Deadline  
2/23/00**

Mail completed Regional Fair Entries and ALL other Science Fair Forms to:  
**Regional Science Fair, Fresno County Office of Education, 1111 Van Ness, Fresno, CA 93721**

**Junior Division**

Entry Fee \$7 per Student  
Make checks payable to FCOE.  
Grade Level 6, 7, or 8 (**circle one**)  
(Judging is done by grade level.)

**Senior Division**

Entry Fee \$10 per Student  
Make checks payable to FCOE.  
Grade Level 9, 10, 11 or 12 (**circle one**)  
(For Office Use only)

Individual Entry OR  Team Entry    How many students are on this team? \_\_\_\_\_  
(The maximum number of team members in Junior Division is 4.)  
(The maximum number of team members in Senior Division is 3.)

**PLEASE** type or print carefully. Certificates are printed from this document. What **WE** see is what you get!

Student Name \_\_\_\_\_ Social Security Number \_\_\_\_\_  
Required for Special Awards

Home Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone \_\_\_\_\_

Name of School \_\_\_\_\_ District \_\_\_\_\_ County \_\_\_\_\_

School Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

School Phone \_\_\_\_\_

The Teacher/Adult Sponsor who worked directly with this student is: \_\_\_\_\_

Title of Project \_\_\_\_\_

EXHIBIT CATEGORY - CHECK ONE

*See opposite page for category definitions.*

- Behavioral & Social Sciences     Environmental Science
- Biochemistry     Gerontology
- Botany     Mathematics     Team Project (Check Category)
- Chemistry     Medicine & Health
- Computer Science     Microbiology    Exhibit will be on: Table  Floor
- Earth & Space Sciences     Physics    Will electricity be required? No  Yes
- Engineering     Zoology

Is this a Restricted Project? (See page 3 for a Summary of ISEF Restricted Projects.)    No  \*Yes

**\*If yes, the Project Plan and Approval(s) must have been completed before the project was begun and mailed to the Fair Director at the Fresno County Office of Education on or before January 28, 2000. If the appropriate forms were not submitted by the deadline, this entry will be rejected and returned without a refund.**

**I understand the risks and possible dangers of the proposed Project Plan. All research will be conducted following ISEF Rules. Enclosed is the entry fee appropriate to my Division (per student, \$7 for Junior Division; \$10 for Senior Division) payable to the Fresno County Office of Education (FCOE).**

Student Signature \_\_\_\_\_ Parent/Guardian Signature \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

**This Entry Form MUST BE RECEIVED by the Fair Director ON OR BEFORE 2/23/00.**  
Make checks payable to the Fresno County Office of Education (FCOE).

## ISEF Category Descriptions

**Behavioral and Social Sciences** Human and animal behavior, social and community relationships - psychology, sociology, anthropology, archaeology, ethology, ethnology, linguistics, learning, perception, urban problems, reading problems, public opinion surveys, educational testing, etc.

**Biochemistry** Chemistry of life processes - molecular biology, molecular genetics, enzymes, photosynthesis, blood chemistry, protein chemistry, food chemistry, hormones, etc.

**Botany** Study of plant life - agriculture, agronomy, horticulture, forestry, plant taxonomy, plant physiology, plant pathology, plant genetics, hydroponics, algae, etc.

**Chemistry** Study of nature and composition of matter and laws governing it - physical chemistry, organic chemistry (other than biochemistry), inorganic chemistry, materials, plastics, fuels, pesticides, metallurgy, soil chemistry, etc.

**Computer Science** Study and development of computer hardware, software engineering, Internet networking and communications, graphics (including human interface), simulations/virtual reality or computational science (including data structures, encryption, coding and information theory.)

**Earth and Space Sciences** Geology, mineralogy, physiography, oceanography, meteorology, climatology, astronomy, speleology, seismology, geography, etc.

**Engineering** (Judging for Engineering projects is slightly different from other Categories. See Judging Criteria, page 9.)

Technology; projects that directly apply scientific principles to manufacturing and practical uses - civil, mechanical, aeronautical, chemical, electrical, photographic, sound, automotive, marine, heating/refrigerating, transportation, environmental engineering, etc.

**Environmental Science** Study of pollution (air, water and land) sources and their control; ecology.

**Gerontology** Study of the aging process in living organisms.

**Mathematics** Development of formal logical systems or various numerical and algebraic computations, and the application of these principles - calculus, geometry, abstract algebra, number theory, statistics, complex analysis, probability.

**Medicine and Health** Study of diseases and health of humans and animals - dentistry, pharmacology, pathology, ophthalmology, nutrition, sanitation, pediatrics, dermatology, allergies, speech and hearing, etc.

**Microbiology** Biology of microorganisms - bacteriology, virology, protozoology, fungi, bacterial genetics, yeast, etc.

**Physics** Theories, principles, and laws governing energy and the effect of energy on matter - solid state, optics, acoustics, particle, nuclear, atomic, plasma, superconductivity, fluid/gas dynamics, thermodynamics, semiconductors, magnetism, quantum mechanics, biophysics, etc.

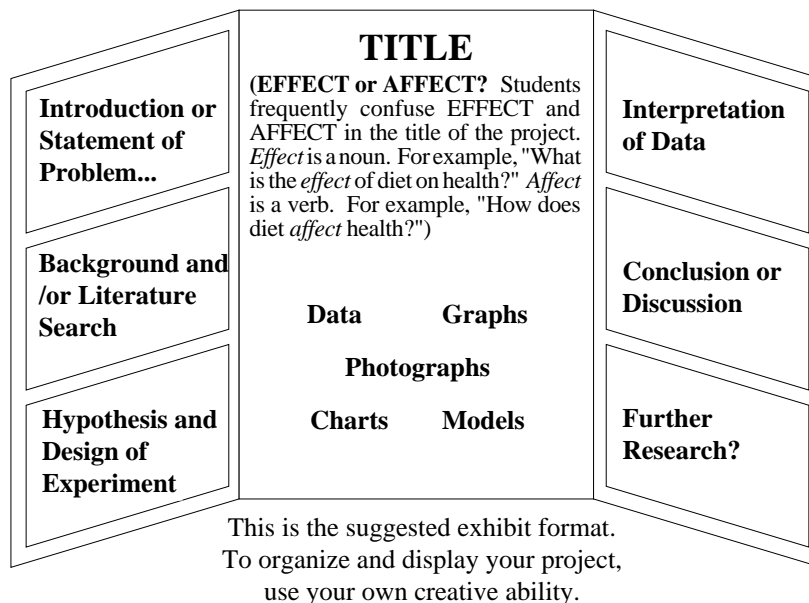
**Zoology** Study of animals - animal genetics, ornithology, ichthyology, herpetology, entomology, animal ecology, paleontology, cellular physiology, circadian rhythms, animal husbandry, cytology, histology, animal physiology, invertebrate neurophysiology, studies of invertebrates, etc.

**Team Projects** Team projects may be done in any of the above categories. Please note the following for Team Projects:

- Team Projects in the Senior Division involve two or three students and are judged as one Category. Junior Division Team Projects may involve two to four students and are judged in Team/Life Science Related or Team/Physical Science Related.
- Each member of the team must complete his/her own Entry Form, naming the other team members.
- All the paper work for a team entry should be submitted stapled together.

## Your Regional Fair Exhibit

- A. Size:** Exhibit size cannot exceed 2 1/2 feet front to back, 4 feet side to side, or 9 feet floor to top. Tables are 2 1/2 feet high so table displays must be no more than 6 1/2 feet tall. Most students choose to display their projects on a table, but floor exhibits are allowed. **Nothing may extend outside the rectangular box defined by these dimensions.**
- B. Objectivity:** The judges should not be able to identify you or your school. If your photograph, name or school are visible on your display or Project Notebook, they will have to be covered.
- C. Exhibit Elements:** Suggested elements are in the drawing below. Be sure your name and school do not appear.



- D. Hazards: No hazardous materials may be exhibited.** Use photographs.
- This includes, but is not limited to: batteries with open top cells, caustics, acids, dangerous chemicals, syringes, used or dirty petri dishes, pipettes and labware, unsecured glassware, mercury (including glass thermometers), cultures of live or dead bacteria, molds or fungi, including unknown specimens, carcinogenic or radioactive materials, substances restricted by the U.S. Government below college level, flames, combustibles or flammable materials, tanks which once held combustible gases (butane, propane, etc.), an operating Class II, III or IV laser, and unsealed foodstuffs which may attract pests.
  - The display of live or preserved animals is prohibited. Projects may not display photographs of procedures detrimental to the health and well being of vertebrate animals. Photographs of surgical procedures may not be exhibited.
- E. Safety:** Fair officials are concerned with students' safety during their investigations and about the safety of visitors to the Exhibit Hall.
1. Safety precautions for substances may be found in a book, *Safety in Academic Chemistry Laboratories*, from the American Chemical Society, 1155 16th St., NW, Washington DC 20036.
  2. Exhibits which produce temperatures capable of producing physical burns must be adequately insulated.
  3. High-voltage equipment, large vacuum tubes and dangerous ray-generating devices must be properly shielded.
  4. Equipment using voltages over 12V must be shielded and grounded; wiring, switches and metal parts must be designed with an adequate safety factor and out of reach of observers.
- F. Power:** Access to 110V AC electrical outlets is limited at the Fresno Convention Center Exhibit Hall. If access to electricity is essential to your exhibit, check the proper box on your Entry Form.
1. **Exhibitors must provide their own extension cords.**
  2. Electrical connections in 110V AC circuits must be soldered or fixed under approved connectors.
  3. All wiring must be properly insulated. Do not fasten wiring with nails, tacks, or uninsulated staples.
  4. Use standard enclosed switches. Bare wiring and exposed knife switches may be used only on circuits of 12 volts or less.
- G. Security:** Entrants are responsible for valuables included in their exhibits. Photos should be substituted for valuables. If it is necessary that expensive equipment be displayed during judging, it must be removed immediately afterwards. Sponsors are not responsible for loss or damage.

## JUDGING PROCEDURES AND AWARDS

- Every student who qualifies for the Central California Regional Fair will receive a Certificate of Participation.
- Judging is by category. In grades 6, 7, and 8 judging is done at each grade level. All high school students compete in the Senior Division.
- In each category first, second, third, and honorable mention may be awarded. In large categories there may also be Awards of Merit. A winner and runner up will be identified for grade 6, grade 7, grade 8, and the Senior Division.
- All Senior Division students are interviewed Tuesday evening. Some Junior Division students may be interviewed by telephone Tuesday evening. Top Junior Division students in contention to advance to the State Science Fair will be contacted at school Wednesday to be interviewed Wednesday evening between 6 PM and 8 PM. (See page 19.)

## JUDGING CRITERIA

Exhibits should show evidence of an original, scientific investigation of a problem with a conclusion supported by data.

### **Creativeness – 30 points**

Judges will consider originality of the problem and uniqueness of the approach. The handling and interpretation of data should be commensurate with the grade level of the student. Ingenious use of equipment and materials is considered regardless of the expense of the items involved.

### **Scientific Thought – 30 points OR Engineering Goals – 30 points**

• **Scientific Thought:** The project shows an effort in employing scientific procedures to solve a clearly defined problem, including keeping a Project Notebook, background research, organized procedures, appropriate sampling, orderly recording and analysis of data, and the formation of logical conclusions based on the evidence. OR • **Engineering Goals:** The project has a clear objective relevant to the needs of the potential user. The product or process has been tested, is working, and is feasible economically and ecologically. A Project Notebook provides a record of progress.

### **Thoroughness – 15 points**

Resources beyond encyclopedias and textbooks are used, experimental trials are repeated, sampling errors are noted, data analysis uses appropriate statistics, and careful records have been kept in the Project Notebook.

### **Skill – 15 points**

Credit is given for evidence the student learned special skills to design and build equipment, to use technical instruments, and for noteworthy mathematical, computational, or observational skills.

### **Clarity – 10 points**

The purpose, procedures and conclusions are clearly explained through the display. The Project Notebook is present and readable. Help with the project is clearly acknowledged. Working models should include operating instructions for the judges.

## SPECIAL AWARDS

Over 100 special awards are presented at the Central California Regional Science, Mathematics & Engineering Fair in Fresno each year. Projects are judged and awards are presented independent from judging for overall awards. Last year, special prizes were awarded by the following:

American Association of University Women  
American Chemical Society, Fresno Sub-Section  
American Society of Civil Engineers  
American Society for Microbiology  
California Association of Professional Scientists  
California Table Grape Commission  
Central California Arachnid Society  
Central Valley Astronomers  
Central Valley Water Awareness Committee  
Chaffee Zoo  
CSUF Department of Psychology  
CSUF Geomatics Engineering Program  
CSUF School of Agricultural Sciences and Technology  
CSUF School of Education and Human Development  
CSUF School of Engineering  
CSUF School of Natural Sciences  
Curriculum Services Associates/  
Fresno Pacific University School of Professional Studies  
Eastman Kodak

Fresno Audubon Society  
Fresno-Madera Dental Society  
Fresno-Madera Medical Society  
Fresno Rotary Environmental Committee  
INTEL Corporation  
IOTA SIGMA PI  
National Council of Teachers of Mathematics  
NACE Corrosion Awareness  
San Joaquin River Parkway and Conservation Trust  
Society for *in vitro* Biology  
The Fresno Bee Employees Association  
Tree Fresno  
U.S. Public Health Service  
U.S. Metric Association  
U.S. Air Force ROTC  
U.S. Army  
U.S. Navy and Marine Corps  
Westlands Water District  
Yale Science & Engineering Association

## Which Projects Do Well at the Regional Fair?

“Students are expected to ask a testable question not to demonstrate known laws or principles. Students who do well are curious, observant, resourceful, and persistent. They consult references and human resources to learn what is already known. They identify variables and measure how changing one variable affects the other(s). They make careful measurements and keep good records in a Project Notebook. They repeat their trials and use statistics to develop confidence in their results. Their results may or may not support their initial hypothesis. Their display clearly communicates that they made the decisions, what they did, how they did it, what new questions remain unanswered and who helped.”

Dr. Brad Huff, Regional Fair Director



Carly Wilson, 6th Grade  
Forkner Elementary School  
Behavioral & Social Sciences  
Fresno Unified School District



Derek Zanutto, Top Award Winner  
ISEF - Philadelphia  
Clovis West High School  
Clovis Unified School District



Billy Choate, 6th Grade  
Team Project with Ian Campbell  
Valley Oak Elementary School  
Clovis Unified School District

## Advancing to the California State Science Fair - Grades 6-12

The California State Science Fair (CSSF) is held annually in the Los Angeles Sports Arena and is tentatively scheduled for May 22 & 23, 2000. It is operated under the auspices of the California ScienCenter and is organized by the Advisory Board of the California Museum Foundation. It is not affiliated with the International Science and Engineering Fair. More information on CSSF is available on the Internet at <http://www.usc.edu/CMSI/CalifSF/> or by searching on “California State Science Fair.”

All students in a CSSF Division compete without regard to grade level: grades 6, 7 and 8 compete in the Junior Division; grades 9-12 compete in the Senior Division.

CSSF assigns a quota of projects to each Regional Fair based on the current population of the area served and a five year average of the number of projects entered and the percentage of projects receiving awards. In 1998 our quota was 67, in 1999 it was 73, and in 2000 it is expected to be 71.

After interviewing the Senior Division students Tuesday evening and the top Junior Division students Wednesday evening, the judges at our Fair, in consultation with the Grade Level Directors, will select the projects to advance to CSSF. The CSSF selection process does not affect the awarding of prizes for our Regional Fair as described at the top of page 17.

Entrants are responsible for their own transportation, accommodations and meals. The Central California Regional Science, Mathematics & Engineering Fair accepts no responsibility for those who advance to the California State Science Fair.

.....

## International Science and Engineering Fair - Senior Division

In the Senior Division the sweepstakes winner and runner up advance to the International Science and Engineering Fair held May 6-13, 2000, in Detroit MI. The California Table Grape Commission underwrites the travel expenses for the students and an adult chaperone.

# Criteria and Procedures for Advancing to the California State Science Fair

## Brief History

In 1998 the State Science Fair began imposing a quota system that granted 67 slots to our Regional Fair. This quota is based on three numbers: (1) the general population of the counties served by our fair, (2) the number of projects entered in the State Science Fair by our fair averaged over the last five years, and (3) the percentage of our entries receiving recognition (placing first through fourth) in the State Science Fair averaged over the last five years. (The number was increased to 70 slots upon appeal.) To meet this quota in 1998 the Directors of our Regional Fair decided that projects placing first and second in the 13 compressed State Science Fair categories in 7th and 8th grade and only the first place winners in the Senior Division (grades 9 - 12) would advance to the State Science Fair. This totaled 65 slots. Three "wild card" slots were made available to three strong Senior Division projects and two additional Junior Division projects were selected to bring the total to 70.

## In 1999

In 1999 the State Science Fair announced that our allotment was increased to 73 slots. (We did well in 1998 with fewer students participating.) Also, for 1999, we were told that for the first time sixth grade students are eligible to advance to the state level. However, our allotment was NOT increased to accommodate the addition of the sixth grade students. Since the Junior Division students do not compete by grade level as is done at our Regional Fair, sixth grade students competed with seventh and eighth grade students in Los Angeles.

Discussions with teachers involved with the Regional Science Fair and the Science Fair Advisory Committee resulted in the following policy for students advancing to the State Science Fair in 1999:

## 1999 Senior Division (grades 9-12)

On Tuesday night, March 23, 1999, the Senior Division judges interviewed the high school students and determined the first place winners\* in each of the 13 State Science Fair categories (Math and Computer Science are treated as one category and Gerontology is combined with Medicine and Health.) In addition to these 13 first place winners, Senior Division judges had 9 "wild card" slots to award to the strongest projects in any of the categories. The total number of Senior Division projects that would be certified to advance to the State Science Fair were, at most, 22. If, however, the judges found fewer than 9 strong "wild card" projects, the unused slots would be available to Junior Division projects.

\* In the unlikely event that a judging team found that no project in a category qualified for "first place", the highest award in that category would be a "second place" and that project would not advance to the State Science Fair.

## 1999 Junior Division (grades 6-8)

On Tuesday night, March 23, 1999, the Junior Division judges scored the projects by grade level. As in the past, schools were notified by fax Tuesday evening or during the early hours of Wednesday of their students who had won "an" award. If the school had students in contention for first, second or third place in one of the 13 compressed State Science Fair categories, the student's name and an INTERVIEW TIME were noted in the fax. (Math and Computer Science are treated as one category, Gerontology is combined with Medicine and Health, and the two Team categories are combined in making State Science Fair selections.) **It was the responsibility of the school and/or the parents to see that the student was in front of his or her display in the Exhibit Hall on Wednesday evening at the appointed time to be interviewed.**

The interviewing period began at 6:00 PM for sixth grade students and concluded by 8:00 PM with the last of the eighth grade students. The interviews lasted approximately 10 minutes each. Parents waited in a special area and were not to be in evidence during the interviews.

Following the interviews the judges conferred to decide the final placement of the students within their categories and grade levels. This included first place\* for each of the 13 compressed categories. These students automatically advanced to the State Science Fair in grades 6, 7 & 8. Then the judges allocated "wild card" slots as follows: 6th grade 2 slots, 7th grade 4 slots and 8th grade, 6 slots. Thus the Junior Division had a total of 39 first place slots and 12 "wild card" slots for a total of 51 students who were certified to advance to the State Science Fair. This (with the possible addition of unused Senior Division slots) accounted for the 73 slots granted the Central California Regional Science, Mathematics & Engineering Fair in 1999.

## In 2000

The Central California Regional Science, Mathematics & Engineering Fair will be granted 71 slots for the year 2000 California State Science Fair, a reduction of two slots. The State Science Fair imposed an overall 5% reduction in the number of entries for the year 2000, so our Fair came out better than most.

The Regional Science Fair Advisory Committee determined that this reduction should be shared by the Senior and Junior Divisions. The Senior Division wild card slots will be reduced by one, to 8. In the Junior Division the sixth grade will receive one wild card slot, not two.

In all other aspects, the procedures for 2000 will be the same as those instituted for 1999.

## Important 2000 Dates and Deadlines

Date	Activity	Time
January 28 Friday	Last day for <i>Restricted Project Forms</i> <b>TO BE RECEIVED</b> in office of Fair Director (See pages 5-7 and 13.)	5 PM
February 23 Wednesday	Last day for Individual and Team Entries <b>TO BE RECEIVED</b> in office of Fair Director	5 PM
March 28 Tuesday	<b>Exhibit Set-Up</b>	9 AM - 3 PM
	<p>All projects must be delivered and set-up at the Convention Center Exhibit Hall (between Selland Arena and the Saroyan Theater). Fair staff and Exhibit Hall security are under no obligation to admit early or late arrivals. Projects may be delivered and set-up by a parent, teacher, or other designated person if the entrant is unable to do so personally.</p>	
	<b>Judging</b>	4 PM - 10 PM
	<b>Interviews for Senior Division</b>	5 PM - 7 PM
March 29 Wednesday	<b>Public Viewing of Projects</b>	9 AM - 9 PM
	<b>Interviews for Junior Division</b> (by invitation, see page 17)	6 PM - 8 PM
March 29 & 30	<b>Removal of Projects</b> Wednesday, 5 PM to 9 PM and Thursday, 9 AM - noon	
	<p>Projects not winning an award must be removed Wednesday 5 PM to 9 PM (but not to conflict with Junior Division Interviews) or Thursday 9 AM to noon. Award winning projects will be moved to the rear of the Exhibit Hall to allow chairs to be set up for the Awards Ceremony. All projects are to be removed by 10 PM on Thursday. Fair sponsors are not responsible for projects remaining after 10 PM.</p>	
March 30 Thursday	<b>Awards Ceremony - Exhibit Hall</b>	7 PM - 9 PM

### Plan Ahead for 2001!

**Tuesday, March 27 - Thursday, March 29, 2001**

Restricted Project Forms Deadline is on or before Friday, January 26, 2001

Entry Deadline is on or before Wednesday, February 21, 2001

The Regional Fair wishes to thank our Sponsors for their generous support  
and all of the organizations providing Special Awards.

#### Contacting the Fair Director

The Director of the Regional Fair is Dr. Brad Huff, Fresno County Office of Education  
1111 Van Ness, Fresno, CA 93721.

He may be reached by telephone (559) 265-3057, by FAX (559) 265-3056  
or email <bhuff@fcoe.k12.ca.us>.