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ABSTRACT

This document was developed with the intention of increasing California public school students' awareness of and participation in science-related enrichment activities. Some of the activities are intended for participation by individuals, while others are meant for teams of students. These annual events are listed in chronological order for a typical school year. They include: (1) the Research Training Program (Southern California Academy of Sciences); (2) the Edison/McGraw Scholarship Program; (3) the Westinghouse Science Talent Search; (4) the "Weekly Reader" National Invention Contest; (5) the International Chemistry Olympiad; (6) the Bausch and Lomb Science Award; (7) the Science Essay Awards; (8) the International Physics Olympiad; (9) the Space Shuttle Program; (10) the Duracell Scholarship Competition; (11) the Junior Science and Humanities Symposium; (12) the Bay Area Chemathon; (13) the Ernest O. Lawrence Nobel Travel Award; (14) the Science Week Award (Lawrence Berkeley Laboratory); (15) Olympics of the Mind; (16) JETS' TEAMS Competition; (17) Physics Students Day at Six Flags/Magic Mountain; (18) Physics Day at Great America; (19) Regional Science and Engineering Fairs; (20) the International Science and Engineering Fair; and (21) the California State Science Fair. (TW)

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# SCIENCE STUDENT ENRICHMENT OPPORTUNITIES

CALIFORNIA STATE DEPARTMENT OF EDUCATION  
Bill Honig - Superintendent of Public Instruction  
Sacramento, 1987

SE 048 633



SCIENCE  
STUDENT  
ENRICHMENT  
OPPORTUNITIES

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1987

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## PREFACE

This booklet, Science Student Enrichment Opportunities, was developed by the staff of the Mathematics/Science Education Unit to increase public school students' awareness of and participation in science-related student activities. This first edition, which the Department hopes to update each year, provides a compendium of enrichment activities. Within the major sections, these annual events are listed in chronological order for the school year. Subsequent editions will expand the number and range of opportunities and will contain new dates as appropriate.

Some of the activities listed herein are designed for participation by individuals, and others are intended for teams of students. The activities are most appropriate for highly motivated students who find that science is not just a topic to be studied in the classroom but also a way of understanding the world around them and of investigating topics that interest them. In reviewing these activities, readers should keep in mind the kinds of students they have in their schools. While many of the activities are competition oriented, students should understand that the important benefit to be derived from participation is not so much the winning as "how the game is played." Regardless of who "wins" and "loses," the students who participate in these activities will learn more science, will develop more positive attitudes toward science, and will feel better about themselves and school in general.

If you have suggestions for improving or expanding this document, contact the members of the Mathematics/Science Education Unit, 721 Capitol Mall, P.O. Box 944272, Sacramento, CA 94744-2720; phone (916) 324-7190.

## I. Opportunities for Individual Students

Entry deadline	October
Title	Research Training Program, Southern California Academy of Sciences
Eligibility	Science students in grades 9-12
Program description	An opportunity for students to do active research on projects of their choice under the individual direction of professional scientists in their own or nearby communities
How to enter	<p>Your application and a letter of recommendation from your science teacher may be mailed together or separately and must be post-marked by the deadline date. Call (213) 744-3384 or 291-7981 for the exact date.</p> <p>Active work for selected students begins in November and must be finished by mid-April. A written report on the research is to be prepared by the end of April, and a poster presentation must be ready prior to May.</p>
Awards	Arrangements will be made for students to work with professional scientists. Grants of up to \$250 will be available to the research directors to defray project costs. Winners will present papers on their work at the American Junior Academy of Sciences/ American Association for the Advancement of Science (AJAS/AAAS) meeting in Los Angeles in May.
Sponsor	<p>Southern California Academy of Sciences</p> <p>American Association for the Advancement of Science (AAAS)</p> <p>Atlantic Richfield Foundation</p>
Contact	<p>Southern California Academy of Sciences</p> <p>900 Exposition Blvd.</p> <p>Los Angeles, CA 90007</p> <p>(213) 744-3384/291-7981</p>

Entry deadline	December 1
Title	Edison/McGraw Scholarship Program
Eligibility	Students in grades 9-12
Program description	A program designed to recognize the inventive talents of high school students
How to enter	<p>Submit:</p> <ol style="list-style-type: none"> <li>1. A proposal, which may be an abstract of an already completed experiment or a project idea which deals with a practical application in science and/or engineering. The proposal should be typed, using standard English, on 8 1/2" x 11" paper and should not exceed 1,000 words or five pages.</li> <li>2. A letter of recommendation from the teacher/sponsor which indicates how you exemplify the creativity and ingenuity of Thomas Edison and Max McGraw. The letter should not exceed two typed pages.</li> <li>3. The proposal and recommendation must be postmarked no later than December 1. The entry should be mailed to: Edison/McGraw Scholarship Program, c/o Dr. Robert A. Dean, P.O. Box 80953, San Diego, CA 92138.</li> </ol>
Awards	<p>Awards totaling \$20,000 will be given. Two grand award scholars, selected from the 12 finalists, will each receive a \$5,000 scholarship on graduation from high school and will also be the guests of the General Electric Company at an Edison International Birthday Symposium. These are often held in foreign countries. Their two teachers will each receive trips to the National Science Teachers Association National Convention. The other ten finalists will each receive \$1,000 scholarships.</p>
Sponsor	<p>National Science Supervisors Association<sub>3</sub> (NSSA)  Council of State Science Supervisors (CS<sub>3</sub>)  General Electric Company</p>
Contact	<p>Edison/McGraw Scholarship Program  c/o Dr. Robert A. Dean  P.O. Box 80953  San Diego, CA 92138</p>



Entry deadline	December 15
Title	Westinghouse Science Talent Search
Eligibility	High school seniors whose work meets standard college entrance requirements
Program description	A nationwide competition in which entrants are judged on (1) evaluation of a written report on the development of a science project; (2) high school records; and (3) teacher recommendations. Projects involving experimentation with live vertebrate animals (except behavioral observations in the natural habitat) are not eligible. Special regulations apply to projects involving human subjects.
How to enter	Write, in accepted scientific report form, a description (approximately 1,000 words in length) of your research project. This report, along with your Science Talent Search "Personal Data Blank" (containing sections to be completed by you, your teachers, and your principal), national test scores, high school transcript, and letter of recommendation must reach the offices of Science Service not later than December 15. Teachers should request entry materials for each interested student as soon as possible.
Awards	Three hundred Honorable Mention award winners will be brought to the attention of colleges, universities, and technical schools in the United States. The "top 40" of these will receive expense-paid trips to attend the five-day Science Talent Institute in Washington, D.C. (February-March), where the following awards will be made: one first place--\$20,000 scholarship; two second places--\$15,000 scholarships; three third places--\$10,000 scholarships; four fourth places--\$7,500 scholarships; 30 other finalist awards--\$500.
Sponsor	Science Service Westinghouse Educational Foundation Westinghouse Electric Corporation
Contact	Westinghouse Science Talent Search Science Service 1719 N St., N.W. Washington, DC 20036

Entry deadline	December 31
Title	<u>Weekly Reader</u> National Invention Contest
Eligibility	All elementary and middle/secondary school students
Program description	The student proposes an invention or innovation and describes what it is for, how it works, and how he or she got the idea for it. A drawing(s) or photo(s) is submitted. A model of the invention is not necessary. Entries will be judged on their originality, usefulness in addressing real needs, clarity of presentation, and workability.
How to enter	Submit an application for an entry form with a drawing (no larger than 8" x 11") or a photo attached to the back. Send to: <u>Weekly Reader</u> , National Invention Contest, 245 Long Hill Rd., Middletown, CT 06457.
Awards	One grade-level winner from each of grades K-6, one winner from among <u>Current Science</u> readers, and one winner from among <u>Know Your World Extra</u> readers will each receive a \$250 savings bond, a national winner certificate, and participation in a display at the National Inventors Expo in Washington, D.C. Two grand-prize winners, one elementary and one middle/secondary school student, will receive \$500 savings bonds; an all-expense-paid trip to Washington, D.C., with one adult to receive an award from the U.S. Commissioner of Patents at the National Inventor's Expo banquet; and a citation in <u>The World Almanac Book of Inventions</u> . National winners and their teachers will be personally notified in February.
Sponsor	U.S. Patent and Trademark Office National Council of Patent Law Associations
Contact	<u>Weekly Reader</u> National Invention Contest 245 Long Hill Rd. Middletown, CT 06457

Entry deadline	January																		
Title	International Chemistry Olympiad																		
Eligibility	Students who have taken chemistry																		
Program description	Each local section nominates five students to take the International Chemistry Olympiad (ICO) national exam given in April. The top 20 students in the nation are selected to attend a ten-day study camp in the summer at the Air Force Academy. Students are then selected for the international competition on the basis of their scores on a series of tests on chemical theory and on their laboratory skills.																		
How to enter	Contact your local American Chemical Society (ACS) section. Local sections administer the national exam.																		
Awards	The top four students from the study camp will represent the United States at the International Chemistry Olympiad.																		
Sponsor	American Chemical Society																		
Contact	<table border="0"> <tr> <td>Local ACS sections:</td> <td>Write or call for the local section address:</td> </tr> <tr> <td>ACS, No. Calif.</td> <td></td> </tr> <tr> <td>ACS, Sacramento</td> <td></td> </tr> <tr> <td>ACS, Santa Clara Valley</td> <td>Bernice Hanrahan</td> </tr> <tr> <td>ACS, So. Calif.</td> <td>Education Division</td> </tr> <tr> <td>ACS, Orange County</td> <td>American Chemical Society</td> </tr> <tr> <td>ACS, San Diego</td> <td>1155 16th St., N.W.</td> </tr> <tr> <td>ACS, San Geronio</td> <td>Washington, DC 20036</td> </tr> <tr> <td></td> <td>(202) 872-4382</td> </tr> </table>	Local ACS sections:	Write or call for the local section address:	ACS, No. Calif.		ACS, Sacramento		ACS, Santa Clara Valley	Bernice Hanrahan	ACS, So. Calif.	Education Division	ACS, Orange County	American Chemical Society	ACS, San Diego	1155 16th St., N.W.	ACS, San Geronio	Washington, DC 20036		(202) 872-4382
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	(202) 872-4382																		

Entry deadline	January 15; national competition in April
Title	Bausch and Lomb Science Award
Eligibility	Any high school senior who will graduate with three years of study in high school science
Program description	A program honoring the outstanding senior-year science student in each American high school
How to enter	<p>Selection is based on achievement and is made by each school's science department and principal. The winners' names must be sent to:</p> <p style="text-align: center;">Bausch and Lomb Optical Company 1400 N. Goodman St. Rochester, NY 14609</p>
Awards	Bronze medals will be given to school winners, and three 4-year scholarships (valued at \$4,000--\$8,480) will be awarded to national winners. School winners are automatically considered for admission to the University of Rochester and may be offered scholarships by that institution.
Sponsor	Bausch and Lomb Optical Company
Contact	<p>Bausch and Lomb Optical Co. 1400 N. Goodman St. Rochester, NY 14609</p>

Entry deadline	January 15
Title	Science Essay Awards
Eligibility	Students in grades 7-12
Program description	Students write essays of 600--1,000 words in which they explore and interpret a scientific or technological development, including its impact on and importance to society.
How to enter	Contact: Science Essay Awards Program Ardis Mistak, Coordinator 3500 Western Ave. Highland Park, IL 60035 1-800-323-5471
Awards	A total of \$3,500 is given in awards. Awards are \$250, \$500, and \$1,000 for junior high and high school students. First-place essays will be published in <u>Science Digest</u> magazine.
Sponsor	<u>Biology Bulletin Monthly</u> National Science Teachers Association <u>Science Digest</u>
Contact	Science Essay Awards Program Ardis Mistak, Coordinator 3500 Western Ave. Highland Park, IL 60035 1-800-323-5471

Entry deadline	February 1
Title	International Physics Olympiad
Eligibility	Physics students
Program description	Teachers nominate outstanding physics students to take a two-part qualifying exam. Student background information is part of the application. The top 20 students in the nation are selected to attend a two-week study camp in the summer. Four students and an alternate are then selected to represent the United States in the International Physics Olympiad.
How to enter	Request an application from the national American Association of Physics Teachers (AAPT) office in Maryland. (See address below.)
Awards	Gold, silver, and bronze achievement awards are given at the International Physics Olympiad. Certificates are given at the local and national levels.
Sponsor	American Association of Physics Teachers (AAPT)
Contact	AAPT Executive Office ATTN.: Dr. Jack Wilson International Physics Olympiad 5110 Roanoke Pl., Suite 101 College Park, MD 20740 (301) 345-4200

Entry deadline	February 1		
Title	NSTA-NASA Space Shuttle Program		
Eligibility	Any student in grades 9-12		
Program description	A competition in which students propose research projects that are suitable for flight aboard the space shuttle		
How to enter	<ol style="list-style-type: none"> <li>1. Request entry materials from the National Science Teachers Association/Space Shuttle Student Involvement Project (NSTA/SSSIP) office.</li> <li>2. Prepare a proposal, not to exceed 1,000 words, describing your proposed space experiment in accordance with the Space Shuttle Student Involvement Project rules booklet.</li> <li>3. Send your materials to the Region Director as stated in the entry materials.</li> </ol>		
Awards	Regional winners and their teachers/advisers will participate, with expenses paid, in a regional space shuttle symposium in the spring. Certificates will be awarded to winners, their teachers/advisers, and their schools. National winners and their teachers/advisers will attend, with expenses paid, a National Space Shuttle Symposium in late summer. National winners' projects will be considered by NASA for possible flight on a future space shuttle mission.		
Sponsor	National Science Teachers Association (NSTA) National Aeronautics and Space Administration (NASA)		
Contact	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Dr. Sidney Sitkoff  Science Specialist  Los Angeles Unified  School District  450 N. Grand Ave.  Los Angeles, CA 90012 </td> <td style="width: 50%; vertical-align: top;"> Entry Materials  Space Shuttle Student  Involvement Project  NSTA  1742 Connecticut Ave., N.W.  Washington, DC 20009 </td> </tr> </table>	Dr. Sidney Sitkoff Science Specialist Los Angeles Unified School District 450 N. Grand Ave. Los Angeles, CA 90012	Entry Materials Space Shuttle Student Involvement Project NSTA 1742 Connecticut Ave., N.W. Washington, DC 20009
Dr. Sidney Sitkoff Science Specialist Los Angeles Unified School District 450 N. Grand Ave. Los Angeles, CA 90012	Entry Materials Space Shuttle Student Involvement Project NSTA 1742 Connecticut Ave., N.W. Washington, DC 20009		

Entry deadline	March
Title	Duracell Scholarship Competition
Eligibility	Students in grades 9-12
Program description	A contest in which students create and build working devices powered by one or more Duracell batteries
How to enter	<ol style="list-style-type: none"> <li>1. Create and build a device.</li> <li>2. Photograph the device.</li> <li>3. Write a one-page description of the device.</li> <li>4. Mail the description, photograph(s), and official entry to the address listed below.</li> </ol>
Awards	A total of \$32,500 in scholarships and prizes will be awarded: one \$10,000 scholarship, five \$3,000 scholarships, ten \$500 scholarships, and 25 \$100 prizes. Prizes for the winners' teachers include one Apple IIc computer, five HP-41CV programmable calculators, and ten Sharp EL-5100 calculators. Free "Duracell Designer" T-shirts will be presented to all entrants.
Sponsor	Duracell, Inc.
Contact	<p>Duracell Scholarship Competition  c/o Burson-Marsteller  866 Third Ave.  New York, NY 10022</p>



Entry deadline	March		
Title	Junior Science and Humanities Symposium		
Eligibility	Tenth and eleventh grade students enrolled in California schools		
Program description	A national program designed to encourage and support science-related student research projects. Students write a proposal describing a science research project they would like to pursue under the guidance of a research scientist.		
How to enter	Announcements and entry materials will be available in January, 1987. Request entry information from regional directors. Interviews of 20 semifinalists will be conducted in April. Finalists will be notified shortly thereafter. Students who are selected will begin work on their research projects during the summer.		
Awards	Arrangements will be made for the students to work with industry or university research scientists. Stipends will be provided. Students will present the results of their research at the regional Junior Science and Humanities Symposiums and will receive expense-paid trips to the national Junior Science and Humanities Symposium in the spring.		
Sponsor	United States Army Research Office California Museum of Science and Industry (CSMI) The Muses of the CSMI Lawrence Hall of Science		
Contact	<table border="0"> <tr> <td>Ms. Yoshi Yamasaki, Director Southern California Science and Humanities Symposium California Museum of Science and Industry 700 State Dr. Los Angeles, CA 90037</td> <td>Dr. Robert Rice, Director Northern California Science and Humanities Symposium Lawrence Hall of Science University of California, Berkeley Berkeley, CA 94720</td> </tr> </table>	Ms. Yoshi Yamasaki, Director Southern California Science and Humanities Symposium California Museum of Science and Industry 700 State Dr. Los Angeles, CA 90037	Dr. Robert Rice, Director Northern California Science and Humanities Symposium Lawrence Hall of Science University of California, Berkeley Berkeley, CA 94720
Ms. Yoshi Yamasaki, Director Southern California Science and Humanities Symposium California Museum of Science and Industry 700 State Dr. Los Angeles, CA 90037	Dr. Robert Rice, Director Northern California Science and Humanities Symposium Lawrence Hall of Science University of California, Berkeley Berkeley, CA 94720		

Entry deadline	April
Title	Bay Area Chemathon
Eligibility	Chemistry students--high school and honors levels
Program description	A ten-hour marathon of nonstop problem solving in chemistry. The Chemathon is not a competition. The program is designed to promote greater interest in chemistry, encourage participants of all ability levels, improve problem-solving abilities, provide chemistry teachers with the opportunity for collaboration, and raise money for each participating school's chemistry labs through pledges. Students secure pledges in their communities for each hour of participation. All money raised by students is kept by their individual schools.
How to enter	Information will be sent to Bay Area high school chemistry teachers in March. There is a registration fee. Teachers enroll their students through the contact listed below.
Awards	Certificates will be awarded to all participants. Trophies and ribbons will be awarded to students on the basis of scores. Students who do not pass an examination may enter the tutoring center for assistance and then retake the exam to qualify for an award.
Sponsor	Scientific companies in the Bay Area and community agencies
Contact	Margaret (Peggy) Carlock Albany High School 603 Key Route Blvd. Albany, CA 94706

Entry deadline	May
Title	Ernest O. Lawrence Nobel Travel Award
Eligibility	<p>California winners:</p> <ul style="list-style-type: none"> <li>o Science Fair senior division sweepstakes winners</li> <li>o Junior Science and Humanities Symposium first-place winners</li> <li>o Westinghouse Science Talent Search finalists</li> <li>o International Chemistry Olympiad winners</li> </ul>
Program description	Finalists will be invited to the Lawrence Hall of Science for interviews.
How to enter	Contact the Lawrence Berkeley Laboratory.
Awards	An all-expense-paid trip for a student to attend the Nobel awards ceremonies in December in Stockholm, Sweden
Sponsor	Lawrence Hall of Science
Contact	Ernest O. Lawrence Nobel Travel Award Lawrence Berkeley Laboratory University of California, Berkeley Berkeley, CA 94720

Entry deadline	May
Title	Science Week Award, Lawrence Berkeley Laboratory
Eligibility	<p>California winners:</p> <ul style="list-style-type: none"> <li>o Science Fair senior division grand prize winners</li> <li>o Junior Science and Humanities Symposium first-place winners</li> <li>o Westinghouse Science Talent Search finalists</li> <li>o International Chemistry Olympiad winners</li> </ul>
Program description	Students and their advisers will spend a week at the Lawrence Berkeley Laboratory. Activities will include meeting scientists, attending lectures and seminars, and participating in hands-on experiments in the research laboratories.
How to enter	Contact Dr. Roland Otto for entry materials. (See below for address.)
Awards	A one-week all-expense-paid visit to the Lawrence Berkeley Laboratory for 20 students and their advisers during the summer
Sponsor	Lawrence Berkeley Laboratory
Contact	<p>Dr. Roland Otto  Lawrence Berkeley Laboratory  Bldg. 70, Rm. 110-A  University of California, Berkeley  Berkeley, CA 94720</p>

## II. Opportunities for Student Teams

Entry deadline	December
Title	Olympics of the Mind
Eligibility	Students in grades K-5, 6-8, and 9-12 compete with students of their own level. The problem for K-2 students is not for competition, but serves as a training and demonstration activity.
Program description	Chartered associations of Olympics of the Mind (OM) sponsor competitions within their regions. All competitive activities are performed by teams of five students. Divergent thinking is rewarded. The OM competition stimulates brainstorming and problem solving. There are long-term and spontaneous problems. Points are given for creative problem solving and style and for elaboration in solving the original problem.
How to enter	Contact national office or:  Brad Huff Fresno Unified School District Tulare and M Sts. Fresno, CA 93721
Awards	First place regional teams are eligible to compete in the World Finals.
Sponsor	OM Association
Contact	National Office:  OM Association P.O. Box 27 Glassboro, NJ 08028

Entry deadline	Early Januar,
Title	JETS' TEAMS Competition
Eligibility	JETS members in grades 9-12 (JETS' annual membership fee is \$3 and entitles students to the newsletter, <u>JETS REPORT.</u> )
Program description	The program is designed to encourage interest in engineering, technology, and science through competitions. Academic tests are given to teams of students representing their schools or clubs. Areas tested are biology, math, engineering graphics, chemistry, physics, English, and computer fundamentals. A TEAMS competition may cover a local, regional, or state area. Any nonprofit institution, organization, or school may sponsor a JETS' TEAMS competition. There are two team categories, based on school enrollment: large school division, 700 students or more; and small school division, less than 700 students. There is no limit to team size. A student may have only two test scores count per team score. Winners may have their team scores sent to JETS for consideration for the JETS' National Invitational TEAMS competition. Scores must be sent for review by early April.
How to enter	Contact:  State JETS' Coordinator or                      Roy B. Cowin, Exec. Director The National Office                              JETS, Inc. State Coordinator                                 345 E. 47th St. Brad Huff     New York, NY 10017 Fresno Unified School District                 (212) 705-7690 Tulare and M Sts. Fresno, CA 93721
Awards	Recognition is given to students in individual subject areas and to the school teams with the highest aggregate scores. Trophies, plaques, medallions, and certificates may be ordered from the JETS' national office. For applicants to be eligible for national awards, application by the local, regional, or state sponsor must be made by early January.
Sponsor	JETS, Inc.
Contact	Roy B. Cowin, Executive Director JETS, Inc. 345 E. 47th St. New York, NY 10017 (212) 705-7690

Entry deadline	Mid-February
Title	Physics Students' Day at 6 Flags/Magic Mountain
Eligibility	High school physics students and perspective physics students
Program description	Students make observations and take measurements on the rides and use these data to solve problems. Students may also participate in four Physics Olympics events.
How to enter	In early January, information will be sent to all public and private high schools in southern California (from Fresno south). Physics Students' Day is held on a Sunday in March.
Awards	Individual and team awards will be given to winners of the Physics Olympics events.
Sponsor	6 Flags/Magic Mountain, Valencia, Calif.
Contact	John McGehee Rolling Hills High School 27118 Silver Spur Rd. Rolling Hills Estates, CA 90274 (213) 377-0158 (2--4 p.m., school days)

Entry deadline	April
Title	Physics Day at Great America
Eligibility	High school physics students
Program description	A guest speaker makes a presentation (perhaps an engineer who designed one of the rides). Students make observations and take measurements on the rides and use these data to solve problems. From the teacher's packet, the teacher determines which problems his or her class(es) will solve and what follow-up activities will be done or what class credit will be given. (The teacher's packet may need modification for use with physical science students.)
How to enter	Information is sent to schools in northern California (from Fresno north). Physics Day is held on a weekday in late May or early June. Schools send their registration to Great America. Attendance at the guest speaker's presentation is limited.
Sponsor	Great America, Santa Clara
Contact	<p>For registration and materials:</p> <p>Group Sales Office Great America, Physics Day P.O. Box 1776 Santa Clara, CA 95052 (408) 988-2464</p> <p>For information about activities:</p> <p>Don Rathjen Foothill High School 4375 Foothill Rd. Pleasanton, CA 94566 (415) 462-1615, ext. 17 (415) 846-4005 (home)</p>



### III. Science and Engineering Fairs

Entry deadline	January--March
Title	Regional Science and Engineering Fairs
Program description	For specific information, contact the coordinator of the Regional Science and Engineering Fair closest to you.
Contact	<p><u>Alhambra</u> (Call for date.)--Alhambra Science and Engineering Expo, Duane Nichols, Alhambra High School, 101 S. 2nd St., Alhambra, CA 91801; (818) 308-2342.</p> <p><u>Chico</u> (4/20-24)--California Central Valleys Science and Engineering Fair--Chico, Sharon Blickle, <u>Sacramento Bee</u> Public Relations, P.O. Box 15779, Sacramento, CA 95852; (916) 321-1786. Coop: <u>The Sacramento Bee</u>.</p> <p><u>Fresno</u> (3/29--4/1)--California Central Valleys Science and Engineering Fair--Fresno, Garland Johnson, Fresno Unified School District, Tulare and M Sts., Fresno, CA 93721; (209) 441-3641. Coop: <u>The Fresno Bee</u>.</p> <p><u>Modesto</u> (Call for date.)--California Central Valleys Science and Engineering Fair--Modesto, Sam Gonzalez, <u>The Modesto Bee</u>, P.O. Box 3928, Modesto, CA 95352; (209) 578-2073.</p> <p><u>Monterey</u> (3/27-30)--Monterey County Science and Engineering Fair, Laurie Benjamin, Box 2049, Carmel, CA 93921; (408) 624-8936. Coop: Junior League of Monterey County.</p> <p><u>Sacramento</u> (3/23-27)--California Central Valleys Science and Engineering Fair--Sacramento, Sharon Blickle, Public Relations, <u>Sacramento Bee</u>, P.O. Box 15779, Sacramento, CA 95852; (916) 321-1786. Coop: <u>The Sacramento Bee</u>.</p> <p><u>San Diego</u> (4/22-25)--Greater San Diego Science and Engineering Fair, Inc., King Durkee, Educational Services Division, Copley Newspapers, P.O. Box 1530, La Jolla, CA 92038; (619) 454-0411.</p> <p><u>San Francisco</u> (3/28--4/1)--San Francisco Bay Area Science Fair, Theodore W. Beck, Lawrence Hall of Science, University of California, Berkeley, CA 94720; (415) 642-4156. Coop: San Francisco Bay Area Science Fair Association, Inc.</p> <p><u>San Jose</u> (4/7-11)--Santa Clara Valley Science and Engineering Fair, Garth Hull, NASA/Ames Research Center, Mail Stop 204/7, Moffett Field, CA 94035; (415) 694-5543.</p>

Entry deadline	Registrations for Regional Science and Engineering Fairs are due in January. The International Science and Engineering Fair takes place in early May.
Title	International Science and Engineering Fair
Eligibility	Sweepstakes winners from Regional Science and Engineering Fairs affiliated with the International Science and Engineering Fair, grades 7-12
Program description	A science and engineering fair for sweepstakes award winners from regional fairs throughout the United States and many foreign countries
How to enter	Enter a Regional Science and Engineering Fair affiliated with the International Science and Engineering Fair.
Awards	Awards will include international recognition, certificates, medals, ribbons, monetary awards, and science equipment. International trips, equipment, and monetary awards will also be presented by such organizations as NASA; the U.S. Navy, Air Force, and Army; American Medical Association; and American Dental Society. College scholarships and summer jobs frequently result from participation in this fair. The opportunity to meet famous scientists and become acquainted with science students from other states and countries is one of the most meaningful experiences enjoyed by participants.
Sponsor	Science Service, Inc.
Contact	Science Service, Inc. 1719 N St., N.W. Washington, DC 20036

Entry deadline	Early May
Title	California State Science Fair
Eligibility	Junior or senior high school students who are first, second, or third place winners in Regional Science and Engineering Fairs are eligible.
Program description	A science fair in which California Regional Science and Engineering Fair winners compete. Projects are divided into 13 categories: biology, microbiology, botany, zoology, medical services, human psychology/social sciences, animal behavior, chemistry/biochemistry, earth/space science, physics, engineering/electronics, math, and computers.
How to enter	Contact the Fair Coordinator at the California Museum of Science and Industry.
Awards	Medals and cash prizes will be awarded in the 13 categories. Twelfth grade students whose marine science investigations qualify them for the California Science Fair will compete for the \$10,000 John D. Isaacs Memorial Scholarships awarded annually by the California Sea Grant Colleges Program.
Sponsor	California Museum of Science and Industry
Contact	Sol Rubenstein, California State Science Fair California Museum of Science and Industry 700 State St., Exposition Park Los Angeles, CA 90037 (213) 398-2226/(213) 744-7437

## Publications Available from the Department of Education

This publication is one of over 600 that are available from the California State Department of Education. Some of the more recent publications or those most widely used are the following.

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Administration of Maintenance and Operations in California School Districts (1986) .....	6 75
Bilingual-Crosscultural Teacher Aides: A Resource Guide (1984) .....	3 50
Boating the Right Way (1985) .....	4 00
California Dropouts: A Status Report (1986) .....	2 50
California Private School Directory .....	9.00
California Public School Directory .....	14.00
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A complete list of publications available from the Department, including apprenticeship instructional materials, may be obtained by writing to the address listed above.

\*The following editions are also available, at the same price: Armenian/English, Cambodian/English, Hmong/English, Korean/English, Laotian/English, Spanish/English, and Vietnamese/English