

Colorado Science and Engineering Fair
For Colorado Students in Grades 6 - 12
Hosted by the Center for Science, Mathematics & Technology Education

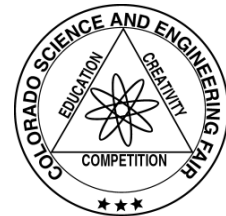


Marlee Canada
Mosca, CO

April 10 - 12, 2008
in the Lory Student Center
at Colorado State University
Fort Collins, Colorado

Colorado State Science Fair, Inc.

2008 ANNUAL REPORT



The highly successful Colorado Science and Engineering Fair was enabled once again by the infrastructure, coordination, and management resources provided by the Center for Science, Mathematics, and Technology Education (CSMATE) of Colorado State University. CSMATE is a center with the mission of improving teaching and enhancing learning for all students, K-16, by developing high quality programs, and dynamic partnerships with K-12 schools, higher education, government, and business. We are most grateful for the roles of CSMATE for making both talented people and logistics available to the Colorado Science and Engineering Fair.

The Board of Directors
Colorado State Science Fair Inc.

August 31, 2008
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Courtney Butler, (970) 491-7716

2008 ANNUAL REPORT



The Colorado State Science Fair, Inc. was established in 1977 as a private, non-profit organization to run the Colorado Science and Engineering Fair (CSEF). The CSEF has actually been held annually since 1955 and is the state-level event in a year-long process of local and regional science fairs. More than two thousand students participate in science fair programs state-wide. The purpose of the CSEF is to stimulate student interest and encourage students in science and engineering through recognition of their research knowledge, ability and achievement.

Each year, a number of experiences are made available to the student finalists who participate in the CSEF. Tours of university and local corporate research facilities provide opportunities for students and their families to see research in action. Additionally, the judges' interviews allow the finalists a chance to interact with professional scientists and engineers. Over the

years, many students have said that having the chance to meet and speak with their peers about their science projects is the most beneficial aspect of the Colorado Science and Engineering Fair.

In addition to getting the opportunity to interact with working scientists, CSEF finalists compete for awards in the categories of Animal Sciences, Behavioral & Social Sciences; Chemistry; Earth and Space Sciences; Energy & Transportation, Engineering; Environmental Sciences; Mathematics and Computer Sciences; Medicine & Health; Microbiology; Physics; and Plant Sciences – either as an individual or as a team project. Recognition for outstanding research in each of these categories as well as an award for technical writing are presented each year at the CSEF Awards Ceremony. The top two Senior Division individual projects and the top Senior Division team project are awarded trips to compete at the Intel International Science and Engineering Fair (Intel ISEF).

From start to finish, and at all levels of participation, the science fair experience is one not only of competition, but also of camaraderie, creativity, cooperation, and education. This is the essence of the logo for the Colorado Science and Engineering Fair.

2008 COLORADO SCIENCE AND ENGINEERING FAIR

The fifty-third Colorado Science and Engineering Fair was held at the Lory Student Center on the Colorado State University campus on April 10 - 12, 2008.

This year, CSEF winners were chosen from among 286 projects represented by 321 finalists from 71 schools and 13 regions within the state. More than 100 professional scientists, engineers and mathematicians interviewed the students and evaluated their projects before selecting the Grand Award winners. In addition, over 60 businesses, professional societies, and government agencies provided more than 150 of their own representatives to judge exhibits based on their own criteria. They judged the student finalists and conferred Special Awards which represented an aspect of the bestowing organization. These included college scholarships, offers of summer employment, field trips, cash, savings bonds, and scientific equipment. Over 1,000 people attended the Awards Ceremony this year.

The 2008 Colorado Science and Engineering Fair had 24 sponsors. Sponsors included 13 Platinum Sponsors (providing over \$2,500 of support each), 5 Gold Sponsors (\$1,000 or more of support each), 1 Silver Sponsor (\$750 or more of support each) and 11 Regular Sponsors (\$500 or more of support each). In addition, there were 15 Financial Contributors (less than \$500 each). Also, several individuals donated through the Denver Combined Federal Campaign.

Scholarships from Adams State College, Colorado School of Mines, and University of Colorado - Boulder were also presented. Adams State College awarded thirteen one-year full scholarships for resident tuition and fees.

The Colorado School of Mines awarded six four-year half resident tuition scholarships.

The University of Colorado at Boulder awarded four partial scholarships. The Intel Foundation also awarded a \$2,000 scholarship to a twelfth grader in the name of Ryan Patterson (Intel ISEF top winner in 2001) for use at the college or university of his/her choice.

This year, the CSEF was honored to have guest speaker William Johns, Chief Engineer of the Orion Crew Exploration.

In this role, Mr. Johns is responsible for all of the technical products and processes for the Orion contractor team. Prior to being selected to lead the technical effort of CEV, he served as Director of Development for the Atlas V/Evolved Expendable Launch Vehicle (EELV). Mr. Johns has worked on the development, integration, and launch of new modified upper stage systems since he started with Martin Marietta in 1980. He has spent much of his career working on the Centaur cryogenic upper stage, beginning with the Shuttle/Centaur development activity, and including the Titan/Centaur and evolved versions of the Atlas/Centaur. He moved to San Diego in 1983 and back to Denver in 1994 when General Dynamics Space Systems joined with Lockheed Martin.

Mr. Johns obtained his Bachelors of Science degree in Chemical Engineering from Stanford University in 1978 and his Masters of Science degree from the University of Pennsylvania in 1979. Mr. Johns is a Colorado native and enjoys mountaineering, skiing and tennis.

(See Appendix 1 – 2008 CSEF Schedule)



2008 COLORADO SCIENCE AND ENGINEERING FAIR TOP AWARDS

The top Senior Division individual project exhibitor of the 53rd Colorado Science and Engineering Fair and winner of an all-expense paid trip to compete in the Intel International Science and Engineering Fair (Intel ISEF) was **Gwyneth Glissmann**, Peak to Peak Charter School, Lafayette, grade 11, for the project *Analyzing Arctic Solar Flux and Ice Extent Loss Projection*. Second place for best individual project, and also a winner of an all-expense paid trip to compete at the Intel ISEF was **Sarah Guthrie**, Boulder High School, Boulder, grade 11, for the project *The Mechanisms And Actions of Parthenolide On Platelet 5-HT*. Awarded third place for best individual project was **Ben Armstrong**, Monte Vista High School, Monte Vista, grade 10, for the project *Enemies Of The Environment: Estrogen Mimics*. The first place Senior Division team project and winners of an all-expense paid trip to compete in the Intel ISEF were **Danielle Pite, Kelly Lane and Anna Hermann** Boulder High School, Boulder, grade 12, for the project *Disyosphenia geminate: The Core Question*.

The winner of the Ralph F. Desch Memorial Technical Writing Award was **Sarah Guthrie** from Boulder High School, Boulder, grade 11, for the project *The Mechanisms And Actions Of Pathenolide On Platelet 5-HT*.

The winner of the Senior Division Student Choice Award was **Chase Carver**, Merino Jr/Sr High School, Merino grade 11, for the project *The Effects Of Bisphenol A From Polycarbonate Plasrics On Lumbriculus variegatus*. The Junior Division Student Choice winner was **Heather Hilson**, Summit Middle School, Boulder, grade 8, for the project *A Century In The Life Of Trees*.

The winner of the Poster Art Contest was **Boya Lui**, Fairview High School, Boulder.

The winner of the Lockheed Martin CSEF Teacher of the Year Award was **Doug Steward** of Monte Vista High School, Monte Vista. Mr. Steward received a \$3,000 grant to use towards scientific research in his classroom and school.

Knowing that science throughout history has progressed in a series of fits and starts, and knowing that the pioneers of science probably did not show genius if their first scientific endeavors, the Board of Directors of the Colorado Science and Engineering Fair has created this series of Pioneers of Science Awards to encourage our youngest scientists to endeavor to achieve greatness:

Brianna Honebein, Ward Middle School, Ordway, grade 7; **Dirk Marshall**, Cherry Creek Challenge, Denver, grade 7; **Lizette van Zyl**, Boltz Junior High School, Fort Collins, grade 8; **Melissa Poet**, Arriba-Flagler Public School, Flagler, grade 7; **Tanner Dunivan**, Walsh Jr/Sr High School, Walsh, grade 7; **Isaac Beverlin**, Delores Middle School, Delores, grade 6; **Antonio Huizar**, Quest Academy, Dacon, grade 7; **Jessika Gill**, Merino Jr/Sr High School, Merino, grade 7; **Kayla Boren**, St. Columba School, Durango, grade 6; **Ken Garcia**, Brush Middle School, Brush, grade 8; **Joshua Steklac**, Mackintosh Academy, Littleton, grade 8; **Chayenne Jackson**, Merino Jr/Sr High School, Merino, grade 7; **Carlos Nunez**, La Veta Elementary School, La Veta, grade 6; **Devon Montague**, Centauri Middle School, La Jara, grade 7; **Kaley Kukus**, Woodlin School, Woodrow, grade 7; **Layne McCaleb**, Arickaree School, Anton, grade 6; **Dayton Fisher**, Yuma Middle School, Yuma, grade 6; and **Rachael Gessert**, West Jefferson Middle School, Conifer, grade 7; **Madison Dewey**, North Middle School, Colorado Springs, grade 6.

2008 COLORADO SCIENCE AND ENGINEERING FAIR

SCHOLARSHIP AWARDS

ADAMS STATE COLLEGE

Brandy Haller, Woodlin School, Woodrow, grade 10, for the project *Comparison Of Mountain Pine Beetle In Colorado And Surrounding States*

Kenzie Witt, Arriba-Flagler Public School, Flagler, grade 10, for the project *Reading: Beyond Black & White*

Shelby Messer, Genoa-Hugo High School, Hugo, grade 10, for the project *Color To Dye For*

Bryant Elrick, Arriba-Flagler Public School, Flagler, grade 11, for the project *Just Passing Through*

Darla Rosenbrock, Brush High School, Brush, grade 10, for the project, *Energy Content In Different Biodiesel*

Cahl Johnson, Kim School, Kim, grade 9, for the project *Rocketry: Does Size Matter*

Ben Armstrong, Monte Vista High School, Monte Vista, grade 10, for the project *Enemies Of The Environment: Estrogen Mimics*

Bethany Dilda, Branson School, Branson, grade 10, for the project *The Golden Ratio In Natural Adaptations*

Jessie Haugen, Sargent Jr/Sr High School, Monte Vista, grade 11, for the project *What's The Pus? Preventing Staphylococcus Epidermidis Growth in Surgical Procedures*

Erika Baker, Merino Jr/Sr High School, Merino, grade 10, for the project *Eye Can't See Clearly Now! A Comparison Study Of Contact Types With E. coli And S. epidermis*

Antonia Lira, Lamar High School, Lamar, grade 10, for the project *Pig-In-A-Blanket*

Royce Hoffner, Home School, Center, grade 10, for the project *Stage Specific Expression Of Peroxidase Enzymes In Wound Healing Potato Tubers*

Tyler Wilson, grade 11, **Nuala Del Piccolo**, grade 12, and **Chiara Del Piccolo**, grade 10, Basalt High School, Basalt, for their project *Mudslide Effect On Macroinvertebrate Diversity*

COLORADO SCHOOL OF MINES

Bryant Elrick, Arriba-Flagler Public School, Flagler, grade 11, for the project *Just Passing Through*

Dong-Kou Kim, Fountain Valley School, Colorado Springs, grade 11, for the project *Piezo Generator*

Michael Crane, Cherry Creek High School, Greenwood Village, grade 11, for the project *A Disease Model Of XDR-TB*

Colin Dutro, Genoa-Hugo School, Hugo, grade 11, for the project *Do You See What I Hear?*

Grant Slinger, Stratton High School, Stratton, grade 11, for the project *Effects Of Soil Type On Groundwater Contamination, Phase II*

David Wu, Cherry Creek High School, Greenwood Village, grade 11, for the project *Charcoal And Methanol Production By The Destructive Distillation Of Cellulosic Waste*

UNIVERSITY OF COLORADO

Nicole Reeves and Ethan Merritt, Wray Jr/Sr High School, Wray, grade 11, for the project *Paycheck Performance*

Marlena Widman, The Classical Academy, Colorado Springs grade 10, for the project *Junkyard Multispectral Imaging*

Max Krakauer, Palmer High School, Colorado Springs, grade 12, for the project *Testing The Effects Of Gasoline, E-85 Gasoline Mix, And 2,5-Dimethylfuran On Saccharomyces cerevisia*

RYAN PATTERSON SCHOLARSHIP

The Ryan Patterson Scholarship is in honor of the Intel ISEF top winner of 2001. The Intel Foundation in Colorado Springs funds this scholarship and the winner can use it at the school of his/her choice. The 2008 winner was **Andrew West**, Conifer High School, Conifer, grade 12, for the project *Regenerative Diesel Fuel Production Utilizing Vegetable Oil And Catalytic Hydrocracking*.

(See Appendix 2 – CSEF Press Release)

2008 INTEL INTERNATIONAL SCIENCE AND ENGINEERING FAIR

The Intel International Science and Engineering Fair, the world's largest pre-college science fair, brings together more than 1,500 of the most curious and capable young science pioneers from more than 50 countries to share ideas, showcase cutting-edge science and compete for over \$4 million in awards and scholarships. The Intel ISEF is the world's only international science fair representing all sciences for students in grades 9 through 12. The Intel ISEF has been coordinated for 59 years by Society for Science & the Public (formerly Science Service) one of the most respected non-profit organizations advancing the cause of science.

Colorado students from around the state were among the award winners at the 59th Intel ISEF held in Atlanta, GA, May 11 – 16, 2008.

GRAND AWARDS

Kaitlyn Lingus from Trinchera, CO won \$1,500 (2nd Place) in Plant Sciences.

Lindsey Dennison from Paonia, CO won \$1,000 (3rd Place) in Animal Sciences.

Aarthi Shankar from Colorado Springs, CO won \$500 (4th Place) in Biochemistry.

Gwyneth Glissmann from Boulder, CO won \$500 (4th Place) in Earth & Planetary Sciences.

Andrew West from Conifer, CO won \$500 (4th Place) in Materials Sciences & Bioengineering.

Chace Carver from Merino, CO won \$500 (4th Place) in Medicine & Health.

Anika Petach & Tanya Petach from Boulder, CO won \$500 (4th Place) in the Team Category.

SPECIAL AWARDS

Gwyneth Glissman won \$1,500 (1st Place) from the American Geological Institute. Gwyneth also won \$2,000 (1st Place) from the American Meteorological Society

Sarah Guthrie from Boulder, CO won \$500 (2nd Place) from the Endocrine Society

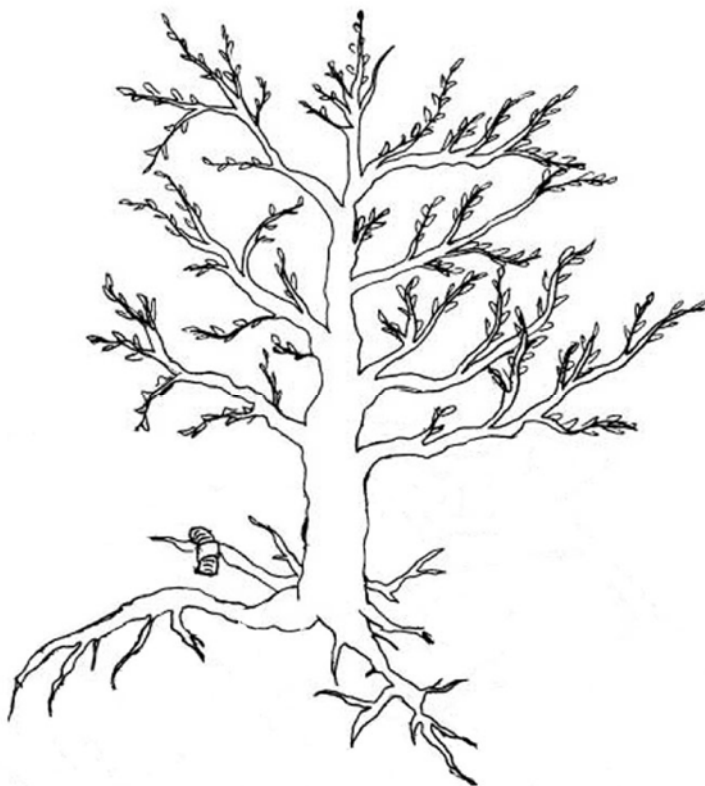
Aarthi Shankar won \$250 (4th Place) from the American Association for Clinical Chemistry

GOVERNMENT AWARDS

Gwyneth Glissman won three \$1,000 US savings bonds from the United States Army. Gwyneth also won an \$8,000 scholarship from the Office of Naval Research on behalf of the U.S. Navy and Marine Corps

Kaitlyn Lingus won \$1,500 (2nd Place) from the United States Air Force.

Andrew West won \$3,000 (1st Place) from the United States Air Force



ORGANIZATION

The success of the yearly Colorado Science and Engineering Fair is directly dependent upon the support of public and private organizations, government agencies, school districts and universities, as well as the efforts of hundreds of committed volunteers. It is no exaggeration to say that CSEF volunteers indeed make the event possible. At the state level, there is the Board of Directors (which is comprised of volunteers from the sponsoring organizations and oversees the operation of the CSEF and the non-profit organization); the Advisory Council (volunteers from around the state who are on the CSEF Working Committees to make sure everything operates smoothly at the event); judges (both for Grand and Special Awards who interview the finalists and choose the winners); and hundreds of on-site volunteers who do the actual work of the CSEF. Prior to the state event, thirteen regional science fairs and a large number of local school science fairs are conducted throughout the state, and each of these is supported and promoted by hardworking and dedicated educators. And before a student's project even makes it to a local science fair, it requires the encouragement and support from individual teachers, adult sponsors, and parents to help students see their projects through from inception to finished exhibit. The Colorado Science and Engineering Fair is a product of all of these people.

MISSION STATEMENT

Colorado State Science Fair, Inc. honors excellence in science, engineering, and technology; providing opportunities for students from all regions of the state to create and present their research in environments that nurture interests in science and technology; promoting professional skills, high ethical standards, diversity and continuing intellectual development.

GOALS AND OBJECTIVES

The Colorado State Science Fair, Inc. is an organization that:

- Organizes the infrastructure of the Colorado Science and Engineering Fair for students from all regions of the state of Colorado to present science projects to judges, representatives of scientific organizations, the public and their peers;
- Honors winners from Colorado regional science fairs at the annual Colorado Science and Engineering Fair;
- Sends finalists from the state of Colorado to the Intel International Science and Engineering Fair (Intel ISEF);
- Provides experiences for Colorado students to interact with their peers, Colorado science teachers and Colorado scientists and engineers in professional and social settings;
- Promotes science, engineering and technology as careers, inspiring excellence, high ethical standards and emphasizing the immense satisfaction that comes from confronting and solving intellectual problems that serve societal needs;
- Reinforces in students the wonder nature instills, wherever and however possible, empowering them to follow their questions and dreams; and
- Encourages a culture that values and nurtures diversity.

We support regional science fairs by:

- Acting as an alternative to the Science Service affiliation as a means of attending the Intel ISEF;
- Providing a forum where regional science fairs can influence policies, rules and by-laws for the state science fair;
- Providing rules and requirements for participation in the Colorado Science and Engineering Fair;
- Facilitating communication, where practical, between regional science fairs and their participants;
- Providing information and resources to the regional fair directors, teachers and students which will promote interest in science, engineering and technology, and excellence in scientific research;
- Increasing public awareness and appreciation of science, engineering and technology in the schools.



CSEF SPONSORS

PLATINUM SPONSORS

(Providing over \$2,500 in support of CSEF)

Agilent Technologies

BP America

Colorado Dental Association

Colorado State University – Office of the
Provost/Senior Vice President

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Natural Sciences

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GOLD SPONSORS

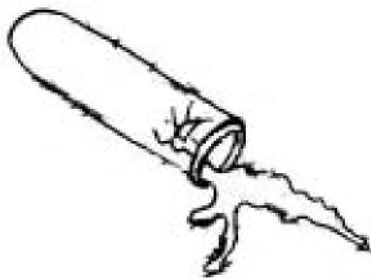
(Providing \$1,000 - \$2,500 in support of CSEF)

Colorado Medical Society Education Founda-
tion

Colorado State University - Center for Sci-
ence, Mathematics & Technology Education

LSI Corporation

University of Colorado - College of Engi-
neering & Applied Sciences



REGULAR SPONSORS

(Providing \$500 - \$750 in support of CSEF)

Anheuser-Busch, Inc.

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Colorado Engineering Council

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Electro-Optics Society

ICAT Managers

Robert Lamperuer

National Renewable Energy Laboratory

John Edward Parker Trust

San Luis Valley Regional Science Fair, Inc.

US Department of Commerce/NOAA

CONTRIBUTORS

(Providing up to \$500 in support of CSEF)

Ed and Lucy Adams

Sam and Eileen Bartlett

Cherry Creek Basin
Water Quality Authority

Colorado Geological Survey

Gina Holland & Isaac Britton

David & Vonda Holm

Kristi Mountain Sports

Marjorie McLellan

Dr. Robert Morrow

Pro Sports

Sundyne Corporation

Villa Pizza & Butler Pizza Company

Wal-Mart

Many federal employees also contributed
through the Combined Federal Campaign

CSEF ADVISORY COUNCIL

The CSEF Advisory Council is comprised of the Board of Directors, the Regional Fair Directors and Assistant Directors, and many at-large members.

CSSF BOARD OF DIRECTORS

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Regular Member since 2002

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San Luis Valley Regional Science Fair
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Southeast Regional Science Fair
Terri Lira and Robin Staker

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Carol Crossley and Glenda Macklin

Western Regional Science Fair
Sandy Cruz and Rob Robison

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	Amber Wolf

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* *Calvin Fisher*
1968 – 1974

* *Sam Shushan*
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1979 – 1981

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1984 – 1985

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1989 – 1990

Lynn Butler
1991 – 1992

Kate Taylor
1992 – 1994
1997 - 1998

Christal McDougall
1995 – 1996

Lucy Adams
1998 – 1999

Courtney Butler
1999 – present

* *Director Emeritus for outstanding contributions to CSEF and more than two years of service as CSEF Director.*

WORKING COMMITTEES

Alumni

The focus of this committee is to create ways in which CSEF Alumni can continue to be active in the fair each year (i.e.: recruiting them as judges, volunteers, and/or sponsors) by keeping in contact with graduated seniors.

Awards Ceremony

The focus of this committee is the smooth running of the Awards Ceremony and winner recognition.

Display & Safety

The focus of this committee is to oversee the volunteers who check Finalists' projects for display and safety rules compliance.

Grand Awards Judging

The focus of this committee is to coordinate the recruitment and category assignments of judges. The committee also oversees the work of the judges during the fair, collects and reports the results to the Awards Ceremony committee.

Photography

The focus of this committee is to coordinate the volunteers who take the official photo of Finalists at their projects and the photo of winners at the Awards Ceremony. This committee is also responsible for sending a copy of the official photo to the Finalist, their Regional Fair Director and the CSEF Director.

Publicity

The focus of this committee is to maintain a current list of media contacts around the state of Colorado and to send out press releases to these contacts as deemed appropriate to gain exposure for CSEF. This committee is also responsible for inviting VIPs and media contacts to CSEF for interaction with the Finalists.

Registration

The focus of this committee is to maintain and prepare Finalist registration materials for SRC review and check-in at CSEF.

Room Set-Up

The focus of this committee is to design the layout of the exhibit hall space, taking into account electrical, floor and table space requirements. This committee is also responsible for coordinating with the Lory Student Center for room and material needs and to coordinate the exhibit space set-up at CSEF.

Scholarships

This committee is comprised of representatives from the colleges, universities and organizations providing scholarship money to Finalists through CSEF. Members are responsible for updating the scholarship descriptions each year and advising their institutions of any changes made by CSEF that might affect the number or type of scholarships given.

Scientific Review

The focus of this committee is to review Finalist paperwork for compliance with the ISEF rules and guidelines for student scientific research. The SRC must be comprised of a biomedical scientist (Ph.D., MD, DVM, DDS or DO), a science teacher, and at least one other person.

Special Awards

The focus of this committee is to solicit organizations to give special awards to Finalists based on criteria that the organization sets. This committee is also responsible for overseeing the special award judging process during the fair and report the results to the Awards Ceremony committee.

Student Activities

The focus of this committee is to arrange for the pizza party on Saturday and the guest speaker on Friday.

Tours

The focus of this committee is to arrange for tours and/or presentations of local/university science labs for the Finalists.

Volunteer Coordination

The focus of this committee is to arrange for volunteers to help with photography, display & safety, registration, room set-up, door monitoring, and the awards ceremony. This committee is also responsible for directing volunteers at CSEF.



Appendix 1
53rd Annual Colorado Science and Engineering Fair

Lory Student Center

Fair Headquarters: 2nd Floor Lobby

Colorado State University

Thursday, April 10, 2008

Finalist Schedule

8:30 AM – 11:00 AM	Tour Ticket Sales	Room 213/215
8:30 AM – 11:30 AM	SRC Interviews – <i>Finalists requiring an interview must comply BE-FORE project may be set up.</i>	Room 203/205
9:00 AM – 11:00 AM	Finalist Check-In	Registration Booth
	<i>Finalists MUST stay with their exhibit until Display & Safety Check has been completed and an Official Photo has been taken. Finalists must be out of the exhibit area by noon.</i>	
1:00 PM – 1:20 PM	Finalist Orientation Meeting – <i>Mandatory for all exhibitors.</i>	CSU Theater
1:30 PM – 5:00 PM	Judging – <i>Finalists must be at their exhibits for interviews.</i>	Main Ballroom

Adult Schedule

2:00 PM – 3:30 PM	Regional Fair Director’s Meeting	Room 213/215
3:30 PM – 4:30 PM	ISEF Rule Updates for 2009	Room 213/215
2:00 PM – 5:00PM	Into to Small-Scale Science in Student Research for Teachers	B322 NESB (CSMATE)

Judging Schedule

10:15 AM – 11:00 AM	Grand Awards Judging Captains’ Briefing	Room 230
10:15 AM -- 10:45 AM	New Grand Awards Judges’ Briefing	Room 224/226
11:00 AM -- 11:30 AM	Grand Awards Judges’ Briefing	Cherokee Park Room
11:30 AM - 12:30 PM	Grand Awards Judges’ Luncheon	North Ballroom
12:15 PM – 12:30 PM	Special Awards Judges’ Briefing	Room 228
12:00 PM – 5:00 PM	Judging	Main Ballroom
12:00 – 12:30 PM	<u>Grand Awards Judges only</u> in the exhibit rooms.	
12:30 – 1:30 PM	Special Award Judges may enter the exhibit areas. <u>Judges only</u> in the exhibit rooms.	
1:30 – 5:00 PM	<i>Students will be at their exhibits for interviews.</i>	
5:30 PM	Exhibit areas are locked. Final Judging continues.	
	<i>No one else is permitted in the exhibit area at this time.</i>	

Friday, April 11, 2008

9:00 AM – 5:00 PM	CSEF Open to the Public	Main Ballroom
9:00 AM – 10:00 AM	Guest Speaker: William Johns Chief Engineer for the NASA Orion Program	CSU Theatre
10:30 AM – 3:00 PM	Tours: Students, sponsors, families, and judges are invited to participate in the tours.	
2:00 PM	Finalist Ballots for Student Choice and Poster Contest are due.	Registration Booth
7:00 PM	Awards Ceremony	Resurrection Fellowship

Saturday, April 12, 2009

9:00 AM – 11:00 AM	CSEF Open to the Public – <i>Finalist must be at their projects for interaction with the public.</i>	Main Ballroom
9:00 AM – 11:00 AM	Advisory Council Meeting – open to all	Room 213/215
11:00 AM – 12:00 PM	Pizza Party: Sponsored by <i>Lockheed Martin</i> and provided by <i>Villa Pizza</i> for Finalists, sponsors, families and judges. Finalists must be present to win door prizes!	Main Ballroom
12:00 PM – 1:00 PM	Exhibit Dismantling Everything must be out by 1:00 PM.	
1:00 PM – 3:00 PM	Board of Director’s Meeting – open to all	Room 213/215

The upcoming Intel International Science and Engineering Fair will be in Atlanta, GA May 11 – 16, 2008.
 Next year’s Colorado Science and Engineering Fair will be April 9 – 11, 2009.

2008 Colorado Science and Engineering Fair Grand Awards Press Release

Junior Division Best Individual Project

First Place

Molly Graber 8th grade
The Effects Of Bovine Colostrum On Breast Cancer
 North Middle School Colorado Springs

Second Place

Zane Willburn 7th grade
Water Purification Off The Grid
 Mancos Middle School Mancos

Third Place

Garret Cerny 6th grade
Is It Easier To Always Be Right?
 Eagle County Carter Academy Wolcott

Senior Division Best Individual Project

First Place

Gwyneth Glissmann 11th grade
Analyzing Arctic Solar Flux and Ice Extent Loss Projections
 Peak to Peak Charter School Lafayette

Second Place

Sarah Guthrie 11th grade
The Mechanisms And Actions Of Parthenolide On Platelet 5-HT Secretion In Vitro
 Boulder High School Boulder

Third Place

Ben Armstrong 10th grade
Enemies Of The Environment : Estrogen Mimics
 Monte Vista High School Monte Vista

Junior Division Best Team Project

First Place

Loren Koszowski & Anna Mellman 7th grade
Who Would You Rather Kiss?
 Stanley British Primary School Denver

Second Place

Claire Derr & Allison Gudvangen 7th grade
Fill Up Not Freeze Up
 North Middle School Colorado Springs

Third Place

Matthew Mandelski & Zofie Madelski 7th grade
The Healthiest Spirogyra
 St. Columba School Durango

Honorable Mention

Kendra Gomez & Alixx Vigil 7th grade
Cash, Credit, Coins
 Pueblo School for Arts and Sciences Pueblo

Senior Division Best Team Project

First Place

Danielle Pite, Kelly Lane & Anna Hermann 12th grade
Didymosphenia geminata: The Core Question
 Boulder High School Boulder

Second Place

Anika Petach 11th grade
 Tanya Petach 9th grade
Pine Beetle Outbreaks: Spatial Analysis And Pheromone Population Control
 Fairview High School Boulder

Third Place

Julia Buzan & Joseph Smith 12th grade
Determining A Non-Contact Method For Testing Skin Elasticity And Density
 Cherry Creek High School Greenwood Village

Honorable Mention

Tonya Pavlekno & Laura Gudvangen 9th grade
The Superbug: How It Spreads
 Palmer High School Colorado Springs

Junior Division Animal Sciences

First Place

Nakayla Lestina 8th grade
Biological Control Of Canada Thistle Phase 2 Analyzing The Spread Of Three Natural Insect Enemies
 Dove Creek Middle School Dove Creek

Second Place

Wyatt Palser 7th grade
Attack Of The Killer Worms!!!
 Otis Jr/Sr High School Otis

Third Place

Sarah Reed 8th grade
Supersize Me! The Effect Of Junk Food On Mice
 Summit Middle School Boulder

Appendix 2

Honorable Mention

Rennie Winkelman 8th grade
What Size Of Sand Does The Aquatic Worm Tubifex Prefer?
 Blevins Junior High School Fort Collins

Honorable Mention

Rebecca Roskowski 8th grade
Are Crawfish That Fish Eat Contributing To High Mercury Levels In Large Fish In The Colorado River Basin?
 East Middle School Grand Junction

Senior Division Animal Sciences

First Place

Lindsey Denison 11th grade
The Onion Thrip Trick
 Paonia Jr/Sr High School Paonia

Second Place

Connie Liu 9th grade
Classification And Evolutionary Biology Of Solifugids By Rostrum
 Cherry Creek High School Greenwood Village

Third Place

Brandy Haller 10th grade
Comparison Of Mountain Pine Beetle In Colorado And Surrounding States
 Woodlin School Woodrow

Junior Division Behavioral & Social Sciences

First Place

Garret Cerny 6th grade
Is It Easier To Always Be Right?
 Eagle County Carter Academy Wolcott

Second Place

Zachary Tanner 8th grade
Rock, Paper, Scissors: A Game Of Chance?
 Summit Middle School Boulder

Third Place

Diane Schulze 8th grade
Monkey See, Monkey Do: Literary Imagery And The Mirror Neuron System
 Cherry Creek Challenge School Denver

Honorable Mention

Dante Carter 6th grade
Does Music Affect Test Scores?
 North Middle School Colorado Springs

Honorable Mention

Dirk Marshall 7th grade
The Eyes Have It: Do Your Eyes Show Your Personality?
 Cherry Creek Challenge School Denver

Honorable Mention

Codi Inloes-Williams 6th grade
Making Cents Of H2O
 Timberview Middle School Colorado Springs

Honorable Mention

Alexandra Kirschbaum 7th grade
Wake Up! A Comparative Study Between Sleep And Mood
 Merino Jr/Sr High School Merino

Senior Division Behavioral & Social Sciences

First Place

Sarah Oden 9th grade
Insight In Sight, This Art Is All Right
 Monte Vista High School Monte Vista

Second Place

Leela Khanna 10th grade
Brainwave Coherence: Developing The Full Potential Of The Brain
 Palmer High School Colorado Springs

Third Place

Allie Martin 9th grade
The Task At Hand: Is Multitasking Affecting Our Health And Productivity?
 Woodlin School Woodrow

Honorable Mention

Rachel Kelley 12th grade
Characteristics Common To Homeless Youth Pursuing The GED Certification
 Cherry Creek High School Greenwood Village

Honorable Mention

Amelia Eads 9th grade
Is It Safe To Dish And Drive? The Effect Of Cell Phone Usage On Reaction Time
 Blevins Junior High School Fort Collins

Honorable Mention

Samuel Galler 12th grade
Hemispheric Lateralization In Auditory Cortex For Words Versus Partial Speech Sounds
 Boulder High School Boulder

Appendix 2

Team Nomination

Kelsey Burns & Rachel Strauch 11th grade
Brainwashed
 Arriba-Flagler Public School Flagler

Junior Division Chemistry

First Place

Kelsey Piper 8th grade
*Going Bananas: Does The Vitamin C Concentration
 Of A Banana Vary With Ripeness?*
 Summit Middle School Boulder

Second Place

Kassidy Knutson 7th grade
Effects Of Acid Rain On Structural Materials
 Wiggins Jr/Sr High School Wiggins

Third Place

Kole Van Treese 7th grade
Difference In Diesel
 Sargent Jr/Sr High School Monte Vista

Honorable Mention

Iris Belensky 8th grade
*New and More Energy Efficient Ways to Cure
 Polymer Clay*
 Summit Middle School Boulder

Honorable Mention

Tess Ringlein 6th grade
Pucker Up To Poison
 Yuma Middle School Yuma

Honorable Mention

Justin Lewton 8th grade
Homegrown Biodiesel The Way To Go?
 Weld Central Junior High School Keenesburg

Team Nomination

Claire Derr & Allison Gudvangen 7th grade
Fill Up Not Freeze Up
 North Middle School Colorado Springs

Senior Division Chemistry

First Place

Sarah Guthrie 11th grade
*The Mechanisms And Actions Of Parthenolide On
 Platelet 5-HT Secretion In Vitro*
 Boulder High School Boulder

Second Place

Bradley Falk 12th grade
*Chemical Comparison Of The Relative Efficiency
 Of The 2-Hydroxymethylphenol Synthesis Of Aspi-
 rin*
 Cherry Creek High School Greenwood Village

Third Place

Travis Zuniga 9th grade
*The Wonder Drug (A Chemical Analysis Of Analge-
 sics To Detect Aspirin)*
 South High School Pueblo

Honorable Mention

Lisa Grossman 12th grade
*Synthetic vs. Natural Vitamin E: Optical Isomerism,
 Synergy And Antioxidant Testing Problems*
 Palmer High School Colorado Springs

Junior Division Earth & Space Sciences

First Place

Sara Cunningham 6th grade
Crystals
 Our Lady of Fatima School Lakewood

Second Place

Carl Scheevel 7th grade
*Effectiveness Of Various Ground Covers On Soil
 Erosion On A 32.5% Grade*
 East Middle School Grand Junction

Third Place

Brisha Wakasugi 7th grade
*Potato Pedology: A Soil Study Of Two Different San
 Luis Valley Growing Horizons*
 Sierra Grande Jr/Sr High School Blanca

Honorable Mention

Isaac Beverlin 6th grade
ARCHES: Solid Rock To Windows In Time
 Dolores Middle School Dolores

Team Nomination

Jennifer Bushnell & Kelsey Rohlfing 7th grade
Do Your Rocks Need Sunscreen?
 Irving Middle School Colorado Springs

Senior Division Earth & Space Sciences

First Place

Gwyneth Glissmann 11th grade
*Analyzing Arctic Solar Flux and Ice Extent Loss
 Projections*
 Peak to Peak Charter School Lafayette

Appendix 2

Second Place

Tawney Bleak 9th grade
S.O.S. 2 - Save Our Soil, Phase Two
 Otis Jr/Sr High School Otis

Third Place

Christopher Krause 10th grade
Caution: Urbanization May Be Hot!
 The Classical Academy Colorado Springs

Honorable Mention

Bryant Elrick 11th grade
Just Passing Through
 Arriba-Flagler Public School Flagler

Junior Division Energy & Transportation

First Place

Sara Volz 7th grade
Are Biodiesel Emissions Safer Than Commercial Diesel Emissions?
 Cheyenne Mountain Charter Academy Colorado Springs

Second Place

Katie Weiss 8th grade
The effect of fermentation on fruit
 The Ricks Center for Gifted and Talented Denver

Third Place

Kyle Harlow 7th grade
It's All How You Spin It: Wind Generator Efficiency Based On Propeller Size And Shape
 Mountain View Core Knowledge Canon City

Honorable Mention

Kayla Boren 6th grade
Burn It Up - Measuring Fuel Efficiency In Manure
 St. Columba School Durango

Honorable Mention

Laura Mummary 6th grade
Blowin' In The Wind
 St Columba Catholic School Durango

Senior Division Energy & Transportation

First Place

Andrew West 12th grade
Regenerative Diesel Fuel Production Utilizing Vegetable Oil And Catalytic Hydrocracking
 Conifer High School Conifer

Second Place

Max Krakauer 12th grade
Testing The Effects Of Gasoline, E-85 Gasoline Mix, And 2,5-Dimethylfuran On Saccharomyces cerevisia

Palmer High School Colorado Springs

Third Place

Joline Lobato 12th grade
Solar Powered Sand Beds And Other Heat Transfer Sources

Antonito High School Antonito

Honorable Mention

Christy Farnsworth 10th grade
Hydrogen: It's All Down Hill
 Paonia Jr/Sr High School Paonia

Junior Division Engineering

First Place

Zane Willburn 7th grade
Water Purification Off The Grid
 Mancos Middle School Mancos

Second Place

Garrett Glissmann 8th grade
Determining Position By Interfacing A GPS To The Web
 Peak to Peak Charter School Lafayette

Third Place

Jeffrey King 6th grade
Wing Designs: Who's At The Top?
 Timberview Middle School Colorado Springs

Senior Division Engineering

First Place

Karthik Kumar-Rao 12th grade
Creating A Quantum Optical Source Using Laser Pointers And Parametric Down Conversion
 Fairview High School Boulder

Second Place

Cameron Kruse 12th grade
The Dirt On Baseball: Engineering a Path Toward Standardizing The Baseball Mudding Process
 Home School Colorado Springs

Third Place

Jesse Ellison 10th grade
Plasma Propulsion
 Bayfield High School Bayfield

Appendix 2

Honorable Mention

J. Raleigh Burt 10th grade
Weather Or Knot: The Effects Of Environment And Exposure On High Strength Safety Textile, Phase 2
 Sargent Jr/Sr High School Monte Vista

Honorable Mention

Shannon Tsai 12th grade
Constructing A Nanowire: Metallization Of Silver Onto DNA
 Fairview High School Boulder

Honorable Mention

Nina Popovic-Basta 11th grade
Wireless Powercord
 Fairview High School Boulder

Junior Division Environmental Sciences

First Place

Casey Campbell 7th grade
The Effects Of Coal Bed Methane Produced Water
 La Veta Jr/Sr High School La Veta

Second Place

Rachel Beverlin 8th grade
GEYSER SPRING: A Further Characterization Of Colorado's Only Geyser
 Dolores Middle School Dolores

Third Place

Heather Hilson 8th grade
A Century In The Life Of Trees
 Summit Middle School Boulder

Honorable Mention

Alexa Major 8th grade
Is AgriBlend The Answer?
 Fowler Jr/Sr High School Fowler

Honorable Mention

Emily Walck 7th grade
Washing Water To Ta'nagiz
 Cortez Middle School Cortez

Team Nomination

Matthew Mandelski & Zofie Mandelski 7th grade
The Healthiest Spirogyra
 St. Columba School Durango

Senior Division Environmental Sciences

First Place

Ben Armstrong 10th grade
Enemies Of The Environment : Estrogen Mimics
 Monte Vista High School Monte Vista

Second Place

Caleb Kruse 10th grade
C The Difference II: The Effect Of Ascorbic Acid On Zooxanthellal Density During Coral Bleaching
 Home School Colorado Springs

Third Place

Alex Schnaderbeck 12th grade
The Effects Of Limestone On The Productivity Of Aquatic Invertebrates
 Sargent Jr/Sr High School Monte Vista

Honorable Mention

Grant Slinger 11th grade
Effects Of Soil Type On Groundwater Contamination, Phase II
 Stratton High School Stratton

Team Nomination

Molly Nelson & Jason Carwin 9th grade
The Effects Of Elevated CO2 Levels On Plants In Different Environments
 Fleming High School Fleming

Team Nomination

Danielle Pite, Kelly Lane & Anna Hermann 12th grade
Didymosphenia geminata: The Core Question
 Boulder High School Boulder

Junior Division Mathematics & Computer Sciences

First Place

Matthew Persons 8th grade
Tic Tac Text
 Boltz Junior High School Fort Collins

Second Place

Tucker Leavitt 7th grade
Golden Music: Phi And The Musical Arts
 Miller Middle School Durango

Third Place

Rahul Shankar 8th grade
Co-operating Robots: Behavior-Based Robots Using Subsumption Architecture
 Mountain Ridge Middle School Colorado Springs

Senior Division Mathematics & Computer Sciences

First Place

Chelsea Oden 12th grade
The Probability Of Me
 Monte Vista High School Monte Vista

Appendix 2

Second Place

Michael Crane 11th grade
A Disease Model Of XDR-TB
 Cherry Creek High School Greenwood Village

Third Place

Tim Schneider 12th grade
Will Your Vote Count?
 Durango High School Durango

Honorable Mention

Alex Przedpelski 12th grade
Predicting Rockies Home Attendance
 Monarch High School Louisville

Honorable Mention

Rhiannon Campbell 9th grade
Where'd That Fake Blood Come From?
 Holly Jr/Sr High School Holly

Junior Division Medicine & Health

First Place

Molly Graber 8th grade
The Effects Of Bovine Colostrum On Breast Cancer
 North Middle School Colorado Springs

Second Place

Bruno Mediate 7th grade
Chewing Gum For Brain Activity
 The Classical Academy Colorado Springs

Third Place

Amanda Coopersmith 7th grade
The Effects of Over the Counter Medication on Fruit Flies
 Cherry Creek Challenge School Denver

Honorable Mention

Katie Braun 8th grade
Can You Hear Me, Now?
 Boltz Junior High School Fort Collins

Honorable Mention

Tanner Elliott 8th grade
Got Germs?
 Cortez Middle School Cortez

Honorable Mention

Sydney Hooton 7th grade
A Wormy Situation: The Effect Of Diet Pills On Caenorhabditis elegans
 Merino Jr/Sr High School Merino

Honorable Mention

Adam Warren 8th grade
Music To Your Ears: A Study Of Headphone Types, dB Levels, And The Risk Of Potential Hearing Loss
 The Classical Academy Colorado Springs

Senior Division Medicine & Health

First Place

Rishi Rawat 12th grade
Differential Expression Of BCL-2 proteins In U2OS: A Look At What Really Kills Cancer
 Boulder High School Boulder

Second Place

Kelsey Martin 10th grade
BONE BACK: Statins Inhibit Osteosarcoma Cells' Growth And Metastasis
 Woodlin School Woodrow

Third Place

Katelyn Yowell 9th grade
The Effects Of Anthocyanins On Planaria Regeneration
 Genoa-Hugo School Hugo

Honorable Mention

Chace Carver 11th grade
The Effects Of Bisphenol A From Polycarbonate Plastics On Lumbriculus variegatus
 Merino Jr/Sr High School Merino

Team Nomination

Tonya Pavlekno & Laura Gudvangen 9th grade
The Superbug: How It Spreads
 Palmer High School Colorado Springs

Team Nomination

Julia Buzan & Joseph Smith 12th grade
Determining A Non-Contact Method For Testing Skin Elasticity And Density
 Cherry Creek High School Greenwood Village

Junior Division Microbiology

First Place

Ellery Goeltzenleuchter 8th grade
Caution Spice At Work
 Blevins Junior High School Fort Collins

Second Place

Stephen O'Connor-Seville 8th grade
Microbes Make Electricity
 Dolores Middle School Dolores

Appendix 2

Third Place

Alexis Shinn 7th grade
Bacteria Is It What's For Dinner? Bacterial Growth On Grocery Store Produce
 Merino Jr/Sr High School Merino

Honorable Mention

Austin Titus 8th grade
What Are The Effects of Certain Cleaners On Bacteria?
 Buchanan Middle School Wray

Honorable Mention

Dakota Jackson 7th grade
The Effect Of Temperature On Bacteria Growth
 Russell Middle School Colorado Springs

Honorable Mention

Kelli Lynch 8th grade
What's In Your Wallet?
 Blevins Junior High School Ft. Collins

Honorable Mention

Trent Capraro 8th grade
Does Temperature Effect The Growth Of Mold On Bread?
 Genoa-Hugo School Hugo

Team Nomination

Kendra Gomez & Alixx Vigil 7th grade
Cash, Credit, Coins
 Pueblo School for Arts and Sciences Pueblo

Team Nomination

Loren Koszowski & Anna Mellman 7th grade
Who Would You Rather Kiss?
 Stanley British Primary School Denver

Senior Division Microbiology

First Place

Kelsey Moore 12th grade
HIV-1 And Endothelial Progenitor Cell Dysfunction
 Monarch High School Louisville

Second Place

Adwai Eswaran 10th grade
Elimination Of E. coli Bacteria From The Standard Cotton Dishrag By Exposure To Microwaves
 Cherry Creek High School Greenwood Village

Third Place

Krista Kinkel 10th grade
Ring Ring Bacteria Calling! How Much Bacteria Do You Think Is On Your Phone? Do You Dare Find Out?
 Arriba-Flagler Public School Flagler

Honorable Mention

Erika Baker 10th grade
Eye Can't See Clearly Now! A Comparison Study Of Contact Types With E. coli And S. epidermidis
 Merino Jr/Sr High School Merino

Junior Division Physics

First Place

Lorne Muir II 8th grade
Hail! No!
 The Classical Academy Colorado Springs

Second Place

Layne Barrett 8th grade
Twist But Don't Shout
 The Classical Academy Colorado Springs

Third Place

Aidan Mike 6th grade
Electro-Flow
 North Middle School Colorado Springs

Honorable Mention

Ellie Gossage 7th grade
Can You Hear Me Now? The Effect Of Perimeter Boards On Sound Volume
 East Middle School Grand Junction

Honorable Mention

Clay Mullins 8th grade
Get The Point?
 Sargent Jr/Sr High School Monte Vista

Honorable Mention

Emily Sandner 7th grade
Wingin' It Density Altitude's Effect On Lift
 St. Columba Middle School Durango

Honorable Mention

Erin Biringen 8th grade
The Perfect Turn
 Summit Middle School Boulder

Senior Division Physics

First Place

Marlena Widman 10th grade
Junkyard Multispectral Imaging
 The Classical Academy Colorado Springs

Second Place

Antonia Lira 10th grade
Pig-In-A-Blanket
 Lamar High School Lamar

Appendix 2

Third Place

Collin Dutro 11th grade
Do You See What I Hear?
 Genoa-Hugo School Hugo

Team Nomination

Sarah Rumbley & Devyn Shafer 12th grade
Polarimetry With Laser-Illuminated Digital Holography
 Peak to Peak Charter School Lafayette

Junior Plant Sciences

First Place

Haley Matteson 6th grade
Too Hot Or Not- The Effects Of Global Warming On Germination & Growth Of Flower, Vegetable, Weed Seeds
 North Middle School Colorado Springs

Second Place

K C Zinn 8th grade
To Rot Or Not Potato Susceptibility To Pink Rot, Phytophthora erythroseptica
 Sargent Jr/Sr High School Monte Vista

Third Place

Kent Schaller 7th grade
Got Minerals?
 The Classical Academy Colorado Springs

Honorable Mention

Ryan Ernst 7th grade
Possible Harms Of pH
 Wiggins Jr/Sr High School Wiggins

Honorable Mention

Joel Knepper 7th grade
A Plant's Favorite Color
 Brentwood Middle School Greeley

Honorable Mention

Haley Hervert 6th grade
A Cup Of Tea Please Brewing The Perfect Tea For Your Plant
 Eagle County Charter Academy Edwards

Senior Division Plant Sciences

First Place

Kirk Wilkinson 12th grade
Finding A Biomarker Of Physiological Ageing In Potato Seed Tubers
 Monte Vista High School Monte Vista

Second Place

Kaitlyn Lingus 12th grade
Power Of A Biological Control Agent: Compensation Suppression Of Convolvulus arvensis Implementing Host-Specific Aceria malherbae - Phase IV
 Branson School Branson

Third Place

Jordan Lestina 9th grade
Biodiesel From Sunflower Oil - An Analysis Of Soil Fertility And Sunflower Oil Content
 Dove Creek High School Dove Creek

Honorable Mention

Delani Miller 9th grade
Monarch Mitigation: What Soil Does Milkweed Germinate In The Best?
 Blevins Junior High School Fort Collins

Team Nomination

Anika Petach 11th grade
 Tanya Petach 9th grade
Pine Beetle Outbreaks: Spatial Analysis And Pheromone Population Control
 Fairview High School Boulder

2008 Colorado Science and Engineering Fair Special Awards Press Release

Colorado Science and Engineering Fair			
<i>Pioneers of Science</i>			
Brianna Honebein certificate, \$30 Ward Middle School	7th grade Ordway	Carlos Nunez certificate, \$30 La Veta Elementary School	6th grade La Veta
<i>Ants In Action</i>		<i>The Power Within: Conventional vs Non-Conventional Cancer Treatment</i>	
Dirk Marshall certificate, \$30 Cherry Creek Challenge	7th grade Denver	Devon Montague certificate, \$30 Centauri Middle School	7th grade LaJara
<i>The Eyes Have It: Do Your Eyes Show Your Personality?</i>		<i>Diabetes The Sweet Disease</i>	
Lizette van Zyl certificate, \$30 Boltz Junior High School	8th grade Fort Collins	Kaley Kukus certificate, \$30 Woodlin School	7th grade Woodrow
<i>Reading In Colors</i>		<i>Got Protein?</i>	
Melissa Poet certificate, \$30 Arriba-Flagler Public School	7th grade Flagler	Layne McCaleb certificate, \$30 Arickaree School	6th grade Anton
<i>Got 'Acidity' Milk?</i>		<i>Purell, Does It Really Kill 99.99% Bacteria?</i>	
Tanner Dunivan certificate, \$30 Walsh Jr/Sr High School	7th grade Walsh	Dayton Fisher certificate, \$30 Yuma Middle School	6th grade Yuma
<i>Up In Flames</i>		<i>Vary The Viscosities Of Crude Oil</i>	
Isaac Beverlin certificate, \$30 Dolores Middle School	6th grade Dolores	Andrew Haines certificate, \$30 North Middle School	6th grade Colorado Springs
<i>ARCHES: Solid Rock To Windows In Time</i>		<i>Materials That Can Shield Sound</i>	
Antonio Huizar certificate, \$30 Quest Academy	6th grade Dacon	Rachael Gessert certificate, \$30 West Jefferson Middle School	6th grade Conifer
<i>Craters & Meteors: How A Meteor's Weight Affects The Crater</i>		<i>The Science Behind CSI: Blood Drop Patterns And Angle Of Impact</i>	
Jessika Gill certificate, \$30 Merino Jr/Sr High School	7th grade Merino	Madison Dewey certificate, \$30 North Middle School	6th grade Colorado Springs
<i>Lend Me Your Ears!</i>		<i>Lettuce Taste The Difference</i>	
Kayla Boren certificate, \$30 St. Columba School	6th grade Durango	<i>Poster Art Contest</i>	
<i>Burn It Up - Measuring Fuel Efficiency In Manure</i>		Boya Liu certificate, \$100 Fairview High School	Boulder
Ken Garcia certificate, \$30 Brush Middle School	8th grade Brush	<i>Junior Division Student Choice Award</i>	
<i>Investigating The Magnus Effect Phenomenon</i>		Heather Hilson certificate, \$50 Summit Middle School	8th grade Boulder
Joshua Steklac certificate, \$30 Mackintosh Academy	8th grade Littleton	<i>Senior Division Student Choice Award</i>	
<i>Magnetic Levitation</i>		Chace Carver certificate, \$50 Merino Jr/Sr High School	11th grade Merino
Chayenne Jackson certificate, \$30 Merino Jr/Sr High School	7th grade Merino	<i>The Effects Of Bisphenol A From Polycarbonate Plastics On Lumbriculus variegatus</i>	
<i>Is Your Water Glowing? Water Analysis Of Colorado</i>			

Appendix 2

Ralph Desch Memorial Technical Writing Award

Sarah Guthrie 11th grade
 certificate, \$100
 Boulder High School Boulder
The Mechanisms And Actions Of Parthenolide On Platelet 5-HT Secretion In Vitro

Military

United States Air Force

Sarah Rumbley & Devyn Shafer 12th grade
 certificate, pad folio, WiFi hotspot finder, USB flash drive,
 ballpoint pen, messenger bag
 Peak to Peak Charter School Lafayette
Polarimetry With Laser-Illuminated Digital Holography
 Cahl Johnson 9th grade
 certificate, pad folio, WiFi hotspot finder, USB flash drive,
 ballpoint pen, messenger bag
 Kim School Kim
Rocketry: Does Size Matter?
 Adam Goss 12th grade
 certificate, pad folio, WiFi hotspot finder, USB flash drive,
 ballpoint pen, messenger bag
 Brush High School Brush
Design And Construction Of A Flexible Robotic Device
 Jesse Ellison 10th grade
 certificate, pad folio, WiFi hotspot finder, USB flash drive,
 ballpoint pen, messenger bag
 Bayfield High School Bayfield
Plasma Propulsion

United States Army

Bethany Dilda 10th grade
 certificate, \$50 US savings bond
 Branson School Branson
The Golden Ratio In Natural Adaptations
 Jake McHargue 9th grade
 certificate, \$50 US savings bond
 Lake County High School Leadville
Thermite . . . Might Not
 Grant Slinger 11th grade
 certificate, \$50 US savings bond
 Stratton High School Stratton
Effects Of Soil Type On Groundwater Contamination, Phase II
 Cameron Kruse 12th grade
 certificate, \$50 US savings bond
 Home School Colorado Springs
The Dirt On Baseball: Engineering a Path Toward Standardizing The Baseball Mudding Process
 Antonia Lira 10th grade
 certificate, silver medallion, \$100 US savings bond
 Lamar High School Lamar
Pig-In-A-Blanket

United States Navy & Marine Corps

Erin Biringen 8th grade
 certificate, medallion
 Summit Middle School Boulder
The Perfect Turn
 Shannon Craig 7th grade
 certificate, medallion
 West Jefferson Middle School Conifer
The Statistics On Statistics
 Zane Willburn 7th grade
 certificate, medallion
 Mancos Middle School Mancos
Water Purification Off The Grid
 Elliott Saslow 7th grade
 certificate, medallion
 Colorado Virtual Academy Durango
The Best Way To Grow Tomato And Pepper Plants: Hydroponics With River Water Or Tap Water
 Samuel Galler 12th grade
 certificate, \$75 gift certificate, medallion
 Boulder High School Boulder
Hemispheric Lateralization In Auditory Cortex For Words Versus Partial Speech Sounds
 Chelsea Oden 12th grade
 certificate, \$75 gift certificate, medallion
 Monte Vista High School Monte Vista
The Probability Of Me
 Max Krakauer 12th grade
 certificate, \$75 gift certificate, medallion
 Palmer High School Colorado Springs
Testing The Effects Of Gasoline, E-85 Gasoline Mix, And 2,5-Dimethylfuran On Saccharomyces cerevisia

Organizational

**Air & Waste Management Association
 Rocky Mountain States Section**

Sara Volz 7th grade
 \$20
 Cheyenne Mountain Charter Colorado Springs
Are Biodiesel Emissions Safer Than Commercial Diesel Emissions?
 Jessica Constant 7th grade
 \$50
 Saint Joseph Catholic School Fort Collins
Yours, Mine, And Ours: A Basic Model Of The Spread Of Air Pollutants
 Christopher Krause 10th grade
 \$75
 The Classical Academy Colorado Springs
Caution: Urbanization May Be Hot!
 Olivia Pecukonis & Laura Garcia 12th grade
 \$100 or equivalent subscription to a professional
 Brush High School Brush
The Removal Of Ferric Ions Utilizing Mollusk Shells

Appendix 2

American Association of University Women

Alexandria Farnsworth 8th grade
 \$100
 Paonia Jr/Sr High School Paonia
Energy With A Spin

American Chemical Society Colorado Local Section

Aidan Mike 6th grade
 certificate, \$100
 North Middle School Colorado Springs
Electro-Flow
 Sarah Guthrie 11th grade
 certificate, \$100
 Boulder High School Boulder
The Mechanisms And Actions Of Parthenolide On Platelet 5-HT Secretion In Vitro

American Institute of Chemical Engineers Rocky Mountain Section

Jessika Gill 7th grade
 \$75
 Merino Jr/Sr High School Merino
Lend Me Your Ears!
 Cassidy Knutson 7th grade
 \$100
 Wiggins Jr/Sr High School Wiggins
Effects Of Acid Rain On Structural Materials
 Shannon Tsai 12th grade
 \$75
 Fairview High School Boulder
Constructing A Nanowire: Metallization Of Silver Onto DNA
 Bradley Falk 12th grade
 \$100
 Cherry Creek High School Greenwood Village
Chemical Comparison Of The Relative Efficiency Of The 2-Hydroxymethylphenol Synthesis Of Aspirin

American Statistical Association Colorado/Wyoming Chapter

Zachary Tanner 8th grade
 \$75, acknowledgement at Chapter Spring Meeting
 and on Chapter web site
 Summit Middle School Boulder
Rock, Paper, Scissors: A Game Of Chance?
 Shannon Craig 7th grade
 \$75, engraved Ipod Shuffle, acknowledgement at
 Chapter Spring Meeting and on Chapter web site
 West Jefferson Middle School Conifer
The Statistics On Statistics
 Sarah Oden 9th grade
 \$75, acknowledgement at Chapter Spring Meeting
 and on Chapter web site
 Monte Vista High School Monte Vista
Insight In Sight, This Art Is All Right

Sarah Guthrie 11th grade
 \$75, engraved Ipod Shuffle, acknowledgement at
 Chapter Spring Meeting and on Chapter web site
 Boulder High School Boulder
The Mechanisms And Actions Of Parthenolide On Platelet 5-HT Secretion In Vitro

American Vacuum Society Rocky Mountain Chapter

Sara Volz 7th grade
 \$50, \$50 matching award to sponsor
 Cheyenne Mountain Charter Colorado Springs
Are Biodiesel Emissions Safer Than Commercial Diesel Emissions?
 Jesse Eads 7th grade
 \$100, \$100 matching award to sponsor
 Dolores Middle School Dolores
Photon's Affect On Space Time Curvature
 Shannon Tsai 12th grade
 \$50, \$50 matching award to sponsor
 Fairview High School Boulder
Constructing A Nanowire: Metallization Of Silver Onto DNA
 Jesse Ellison 10th grade
 \$100, \$100 matching award to sponsor
 Bayfield High School Bayfield
Plasma Propulsion

American Water Works Association, Rocky Mountain Section & Rocky Mountain Water Environment Association

Casey Campbell 7th grade
 \$200
 La Veta Jr/Sr High School La Veta
The Effects Of Coal Bed Methane Produced Water
 Zane Willburn 7th grade
 \$400
 Mancos Middle School Mancos
Water Purification Off The Grid
 Alex Schnaderbeck 12th grade
 \$200
 Sargent Jr/Sr High School Monte Vista
The Effects Of Limestone On The Productivity Of Aquatic Invertebrates
 Ben Armstrong 10th grade
 \$400
 Monte Vista High School Monte Vista
Enemies Of The Environment : Estrogen Mimics

Armbruster Associates

Charles Armbruster Memorial Award

Cade Carlson 6th grade
 \$100
 Wiggins Jr/Sr High School Wiggins
The Aerodynamics Of Paper Airplanes

Appendix 2

ASM International

Ashley Motley certificate, \$50
Wiggins Jr/Sr High School
How Heat Transfers 6th grade Wiggins

Kassidy Knutson certificate, \$75
Wiggins Jr/Sr High School
Effects Of Acid Rain On Structural Materials 7th grade Wiggins

**Association for Women Geoscientists
Laramide Chapter**

Emily Walck \$75, achievement medal
Cortez Middle School
Washing Water To Ta'nagiz 7th grade Cortez

Nicole Mayer \$75, achievement medal
Blevins Junior High School
Killed By Campers: The Effect Of Dish Soap On Plants 9th grade Fort Collins

BP

BP Special Award for Energy

Courtlyn Carpenter certificate, computer
East Middle School
Using Evapotranspiration Covers To Reduce Groundwater Pollution 7th grade Grand Junction

Andrew West certificate, computer
Conifer High School
Regenerative Diesel Fuel Production Utilizing Vegetable Oil And Catalytic Hydrocracking 12th grade Conifer

Colorado Association of Meat Processors

Tonya Pavlekno certificate, \$60
Palmer High School
The Superbug: How It Spreads 9th grade Colorado Springs

Colorado Association of Science Teachers

Laura Mummery certificate, \$50
St Columba Catholic School
Blowin' In The Wind 6th grade Durango

Layne Barrett certificate, \$50
The Classical Academy
Twist But Don't Shout 8th grade Colorado Springs

Collin Dutro certificate, \$50
Genoa-Hugo School
Do You See What I Hear? 11th grade Hugo

Sean Buck certificate, \$50
Cherry Creek High School
Bringing The Forest Back Into Balance: The Mountain Pine Beetle Infestation 11th grade Greenwood Village

Gerald Gromko Award

Christy Farnsworth plaque, \$150
Paonia Jr/Sr High School
Hydrogen: It's All Down Hill 10th grade Paonia

Colorado Biology Teachers' Association

Wyatt Palser certificate, \$75
Otis Jr/Sr High School
Attack Of The Killer Worms!!! 7th grade Otis

Nataara Tamada certificate, \$75
Sierra Grande Jr/Sr High School
Healthy Potatoes: Searching For A-Amylase Inhibitor And RS In Cultivars To Lower The Glycemic Index 11th grade Blanca

Colorado Dental Association

Loren Koszowski & Anna Mellman plaque, \$50, invitation to present at the Colorado Dental Association's Annual Meeting and 1 night's lodging at the headquarter hotel/resort during the 122nd CDA's Annual session
Stanley British Primary School
Who Would You Rather Kiss? 7th grade Denver

Amber Wilson plaque, \$50, invitation to present at the Colorado Dental Association's Annual Meeting and 1 night's lodging at the headquarter hotel/resort during the 122nd CDA's Annual session
Lamar Middle School
Are Your Teeth In Danger? 8th grade Lamar

Megan Kavalec & Amy Solis CSU Bookstore gift cards & gift bag
Canon City Middle School
Tooth Trouble 6th grade Canon City

Colorado Environmental Health Association

Alexis Shinn certificate, \$75
Merino Jr/Sr High School
Bacteria Is It What's For Dinner? Bacterial Growth On Grocery Store Produce 7th grade Merino

Chace Carver certificate, \$150, invitation to exhibit at the CEHA Annual Educational Conference
Merino Jr/Sr High School
The Effects Of Bisphenol A From Polycarbonate Plastics On Lumbriculus variegatus 11th grade Merino

Colorado Foundation for Agriculture

Agriculture in the Classroom Award

K C Zinn certificate, \$50
Sargent Jr/Sr High School
To Rot Or Not Potato Susceptibility To Pink Rot, Phytophthora erythroseptica 8th grade Monte Vista

Appendix 2

Brisha Wakasugi certificate, \$50 Sierra Grande Jr/Sr High <i>Potato Pedology: A Soil Study Of Two Different San Luis Valley Growing Horizons</i>	7th grade Blanca	Jeffrey Hibbert \$25, mineral sample, book Lone Star School <i>Qualitative Assay Of Radionuclide Species In Ash From Coal Combustion</i>	9th grade Otis
Kaitlyn Lingus certificate, \$50 Branson School <i>Power Of A Biological Control Agent: Compensation Suppression Of Convolvulus arvensis Implementing Host-Specific Aceria malherbae - Phase IV</i>	12th grade Branson	Grant Slinger \$40, mineral sample, book Stratton High School <i>Effects Of Soil Type On Groundwater Contamination, Phase II</i>	11th grade Stratton
Colorado Geological Survey & Division of Reclamation Mining and Safety			
Isaac Beverlin packet & book Dolores Middle School <i>ARCHES: Solid Rock To Windows In Time</i>	6th grade Dolores	Casey Campbell \$50 La Veta Jr/Sr High School <i>The Effects Of Coal Bed Methane Produced Water</i>	7th grade La Veta
Colorado River Watch			
Carl Scheevel \$150 East Middle School <i>Effectiveness Of Various Ground Covers On Soil Erosion On A 32.5% Grade</i>	7th grade Grand Junction	Casey Campbell \$50 La Veta Jr/Sr High School <i>The Effects Of Coal Bed Methane Produced Water</i>	7th grade La Veta
Alex Schnaderbeck \$150 Sargent Jr/Sr High School <i>The Effects Of Limestone On The Productivity Of Aquatic Invertebrates</i>	12th grade Monte Vista	Isaac Beverlin \$75 Dolores Middle School <i>ARCHES: Solid Rock To Windows In Time</i>	6th grade Dolores
Colorado Medical Society			
Corissa Kiepke \$100, invitation to exhibit at the Colorado Medical Society Annual Meeting and attendance at the Presidential Inagural Dinner with a paid overnight stay North Middle School <i>The Effects Of Exercise On Memory</i>	6th grade Colorado Springs	Jeffrey Hibbert \$75 Lone Star School <i>Qualitative Assay Of Radionuclide Species In Ash From Coal Combustion</i>	9th grade Otis
Colorado Veterinary Medical Association & CVMA Auxiliary & Auxiliary to the AVMA			
Kelsey Martin \$100, invitation to exhibit at the Colorado Medical Society Annual Meeting and attendance at the Presidential Inagural Dinner with a paid overnight stay Woodlin School <i>BONE BACK: Statins Inhibit Osteosarcoma Cells' Growth And Metastasis</i>	10th grade Woodrow	Gwyneth Glissmann \$100 Peak to Peak Charter School <i>Analyzing Arctic Solar Flux and Ice Extent Loss Projections</i>	11th grade Lafayette
Colorado Mineral Society			
Dayton Fisher \$25, mineral sample, book Yuma Middle School <i>Vary The Viscosities Of Crude Oil</i>	6th grade Yuma	Laci Pennington certificate & gold medallion from Auxiliary to the AVMA; \$50 from CVMA; \$50 from CVMA Auxiliary Lamar Middle School <i>Canine Diabetes Mellitus</i>	8th grade Lamar
Carl Scheevel \$40, mineral sample, book East Middle School <i>Effectiveness Of Various Ground Covers On Soil Erosion On A 32.5% Grade</i>	7th grade Grand Junction	Jessie Haugen certificate & gold medallion from Auxiliary to the AVMA; \$50 from CVMA; \$50 from CVMA Auxiliary Sargent Jr/Sr High School <i>What's The Pus? Preventing Staphylococcus Epidermidis Growth In Surgical Procedures</i>	11th grade Monte Vista

Appendix 2

Colorado-Wyoming Society of American Foresters

Heather Hilson 8th grade
 \$100 savings bond
 Summit Middle School Boulder
A Century In The Life Of Trees

Sean Buck 11th grade
 \$100 savings bond
 Cherry Creek High School Greenwood Village
Bringing The Forest Back Into Balance: The Mountain Pine Beetle Infestation

Covidian Energy-Based Devices

Chace Carver 11th grade
 plaque, Dino-Lite Microscope Camera Combo
 Merino Jr/Sr High School Merino
The Effects Of Bisphenol A From Polycarbonate Plastics On Lumbriculus variegatus

Lisa Grossman 12th grade
 plaque, Dino-Lite Microscope Camera Combo
 Palmer High School Colorado Springs
Synthetic vs. Natural Vitamin E: Optical Isomerism, Synergy And Antioxidant Testing Problems

CSU, Department of Biochemistry and Molecular Biology

Sarah Guthrie 11th grade
 certificate, \$100
 Boulder High School Boulder
The Mechanisms And Actions Of Parthenolide On Platelet 5-HT Secretion In Vitro

CSU, Department of Chemistry

Tess Ringlein 6th grade
 certificate, \$100
 Yuma Middle School Yuma
Pucker Up To Poison

Lisa Grossman 12th grade
 certificate, \$100
 Palmer High School Colorado Springs
Synthetic vs. Natural Vitamin E: Optical Isomerism, Synergy And Antioxidant Testing Problems

CSU, Department of Horticulture & Landscape Architecture

K C Zinn 8th grade
 \$150
 Sargent Jr/Sr High School Monte Vista
To Rot Or Not: Potato Susceptibility To Pink Rot, Phytophthora erythroseptica

Theo Kurtzer 7th grade
 \$150
 Merino Jr/Sr High School Merino
Goodness Gracious Great Balls Of Manure

Royce Hoffner 10th grade
 \$150
 Home School Center
Stage Specific Expression Of Peroxidase Enzymes In Wound Healing Potato Tubers

Kaitlyn Lingus 12th grade
 \$150
 Branson School Branson
Power Of A Biological Control Agent: Compensation Suppression Of Convolvulus arvensis Implementing Host-Specific Aceria malherbae – Phase IV

Eastman Kodak Company

K C Zinn 8th grade
 digital camera
 Sargent Jr/Sr High School Monte Vista
To Rot Or Not Potato Susceptibility To Pink Rot, Phytophthora erythroseptica

Christy Farnsworth 10th grade
 digital camera
 Paonia Jr/Sr High School Paonia
Hydrogen: It's All Down Hill

Epller Family

Aidan Mike 6th grade
 microprocessor kit & digital multimeter
 North Middle School Colorado Springs
Electro-Flow

Kayleigh Santala 7th grade
 microprocessor kit & digital multimeter
 Arriba-Flagler Public School Flagler
Electromagnets

Fort Collins Conservation District

Carl Scheevel 7th grade
 plaque, \$50
 East Middle School Grand Junction
Effectiveness Of Various Ground Covers On Soil Erosion On A 32.5% Grade

Tawney Bleak 9th grade
 plaque, \$50
 Otis Jr/Sr High School Otis
S.O.S. 2 - Save Our Soil, Phase Two

Human Factors & Ergonomics Society Rocky Mountain Section

Adam Warren 8th grade
 \$100
 The Classical Academy Colorado Springs
Music To Your Ears: A Study Of Headphone Types, dB Levels, And The Risk Of Potential Hearing Loss

Institute of Electrical and Electronics Engineers

Garrett Glissmann 8th grade
 \$100
 Peak to Peak Charter School Lafayette
Determining Position By Interfacing A GPS To The Web

Jesse Ellison 10th grade
 \$150
 Bayfield High School Bayfield
Plasma Propulsion

Appendix 2

Little Shop of Physics

Matthew McCausland Memorial Award

Jesse Ellison 10th grade
 \$100
 Bayfield High School Bayfield
Plasma Propulsion

Lockheed Martin

Hannah Wardell 7th grade
 \$50 US savings bond
 Irving Middle School Colorado Springs
Defeating Passive Infrared Sensors

Jesse Ellison 10th grade
 \$100 US savings bond, nominal Lockheed Martin logo item
 Bayfield High School Bayfield
Plasma Propulsion

Teacher of the Year Award

Doug Steward
 certificate, \$3,000 grant
 Monte Vista high School Monte Vista

MAST Institute

Alexandria Farnsworth 8th grade
 \$50
 Paonia Jr/Sr High School Paonia
Energy With A Spin

Jordan Lestina 9th grade
 \$50
 Dove Creek High School Dove Creek
*Biodiesel From Sunflower Oil - An Analysis Of Soil Fertility
 And Sunflower Oil Content*

MWH Americas, Inc.

Zane Willburn 7th grade
 plaque, \$100
 Mancos Middle School Mancos
Water Purification Off The Grid

Alexandria Farnsworth 8th grade
 plaque, \$200
 Paonia Jr/Sr High School Paonia
Energy With A Spin

Bradley Falk 12th grade
 plaque, \$100
 Cherry Creek High School Greenwood Village
*Chemical Comparison Of The Relative Efficiency Of The 2-
 Hydroxymethylphenol Synthesis Of Aspirin*

Dong-Kou Kim 11th grade
 plaque, \$200
 Fountain Valley School of Colorado Springs
Piezo Generator

National Geophysical Data Center

Heather Hilson 8th grade
 certificate, \$100 US savings bond
 Summit Middle School Boulder
A Century In The Life Of Trees

National Renewable Energy Laboratory

Andrew West 12th grade
 \$100
 Conifer High School Conifer
*Regenerative Diesel Fuel Production Utilizing Vegetable Oil
 And Catalytic Hydrocracking*

Optical Society of America Rocky Mountain Section

Lizette van Zyl 8th grade
 Framed certificate, 1-year subscription for Discover magazine
 Boltz Junior High School Fort Collins
Reading In Colors

Sarah Rumbley 12th grade
 Devyn Shafer 12th grade
 Framed certificate, 1-year subscription for Discover magazine
 Peak to Peak Charter School Lafayette
Polarimetry With Laser-Illuminated Digital Holography

Rio Tinto Minerals, Inc.

Michelle Hoffmann 7th grade
 \$100
 Weld Central Junior High Keenesburg
Insulation Situation

Iris Belensky 8th grade
 \$200
 Summit Middle School Boulder
New and More Energy Efficient Ways to Cure Polymer Clay

Shelby Messer 10th grade
 \$100
 Genoa-Hugo School Hugo
Color To Dye For

Alana Wilbee 9th grade
 \$200
 Palmer High School Colorado Springs
A Well Spun Yarn

Rocky Mountain Association of Geologists

Isaac Beverlin 6th grade
 certificate, cash award
 Dolores Middle School Dolores
ARCHES: Solid Rock To Windows In Time

Jessika Gill 7th grade
 certificate, cash award
 Merino Jr/Sr High School Merino
Lend Me Your Ears!

Paxton Becker 7th grade
 certificate, cash award
 Merino Jr/Sr High School Merino
*Sunny Blow! A Comparative Research Between Wind And
 Solar Energies*

Alex Schnaderbeck 12th grade
 certificate, cash award
 Sargent Jr/Sr High School Monte Vista
*The Effects Of Limestone On The Productivity Of Aquatic In-
 vertebrates*

Appendix 2

Rocky Mountain Goats Foundation

Rebecca Roskowski 8th grade
 \$150
 East Middle School Grand Junction
Are Crawfish That Fish Eat Contributing To High Mercury Levels In Large Fish In The Colorado River Basin?
 Brady Buck 11th grade
 \$150
 Wray Jr/Sr High School Wray
Republican River Research Analyzing Aquatic Health

Rocky Mountain Inventors' Association

Zane Willburn 7th grade
 \$50
 Mancos Middle School Mancos
Water Purification Off The Grid
 Tim Schneider 12th grade
 \$100
 Durango High School Durango
Will Your Vote Count?

Society for Advancement of Chicanos and Native Americans in Science

Rachel Gonzales 6th grade
 \$50
 Miller Middle School Durango
Remember This!
 Travis Zuniga 9th grade
 \$50
 South High School Pueblo
The Wonder Drug (A Chemical Analysis Of Analgesics To Detect Aspirin)

Society for Mining, Metallurgy and Exploration Colorado Section

Isaac Beverlin 6th grade
 \$100
 Dolores Middle School Dolores
ARCHES: Solid Rock To Windows In Time
 Carl Scheevel 7th grade
 \$200
 East Middle School Grand Junction
Effectiveness Of Various Ground Covers On Soil Erosion On A 32.5% Grade
 Jeffrey Hibbert 9th grade
 \$100
 Lone Star School Otis
Qualitative Assay Of Radionuclide Species In Ash From Coal Combustion
 Jared Bannon 10th grade
 \$200
 Branson School Branson
Grassland Regeneration After Juniper Tree Removal. Phase II

Society of Manufacturing Engineers Northern Colorado, Chapter 354

Zane Willburn 7th grade
 certificate, \$100 US savings bond
 Mancos Middle School Mancos
Water Purification Off The Grid
 Hannah Wardell 7th grade
 certificate, \$100 US savings bond
 Irving Middle School Colorado Springs
Defeating Passive Infrared Sensors
 Adam Goss 12th grade
 certificate, \$150 US savings bond
 Brush High School Brush
Design And Construction Of A Flexible Robotic
 Cameron Kruse 12th grade
 certificate, \$150 US savings bond
 Home School Colorado Springs
The Dirt On Baseball: Engineering a Path Toward Standardizing The Baseball Mudding Process

Society of Women Engineers Rocky Mountain Section

Alexandria Farnsworth 8th grade
 certificate, \$75
 Paonia Jr/Sr High School Paonia
Energy With A Spin
 Emily Walck 7th grade
 certificate, \$100
 Cortez Middle School Cortez
Washing Water To Ta'nagiz
 Nina Popovic-Basta 11th grade
 certificate, \$75
 Fairview High School Boulder
Wireless Powercord
 Christy Farnsworth 10th grade
 certificate, \$100
 Paonia Jr/Sr High School Paonia
Hydrogen: It's All Down Hill

Soil & Water Conservation Society Colorado Chapter

Courtlyn Carpenter 7th grade
 certificate, ribbon, \$35
 East Middle School Grand Junction
Using Evapotranspiration Covers To Reduce Groundwater Pollution
 Casey Campbell 7th grade
 certificate, ribbon, \$70
 La Veta Jr/Sr High School La Veta
The Effects Of Coal Bed Methane Produced Water
 Grant Slinger 11th grade
 certificate, ribbon, \$35
 Stratton High School Stratton
Effects Of Soil Type On Groundwater Contamination, Phase II

Appendix 2

Tawney Bleak
certificate, ribbon, \$70
Otis Jr/Sr High School
S.O.S. 2 - *Save Our Soil, Phase Two*

9th grade
Otis

Rishi Rawat
\$50
Boulder High School
Differential Expression Of BCL-2 proteins In U2OS: A Look At What Really Kills Cancer

12th grade
Boulder

SPIE - The International Society for Optics and Photonics

Liam Jasperse-Sjolander
\$50
North Middle School
A Light Delusion: The Effects Of Light Pollution On

8th grade
Colorado Springs

Marlena Widman
\$100
The Classical Academy
Junkyard Multispectral Imaging

10th grade
Colorado Springs

Karthik Kumar-Rao
\$150
Fairview High School
Creating A Quantum Optical Source Using Laser Pointers And Parametric Down Conversion

12th grade
Boulder

The Inventors' Roundtable

Rahul Shankar
\$25
Mountain Ridge Middle
Co-operating Robots: Behavior-Based Robots Using Subsumption Architecture

8th grade
Colorado Springs

Tim Schneider
\$25
Durango High School
Will Your Vote Count?

12th grade
Durango

Zane Willburn
\$75
Mancos Middle School
Water Purification Off The Grid

7th grade
Mancos

Cameron Kruse
\$75
Home School
The Dirt On Baseball: Engineering a Path Toward Standardizing The Baseball Mudding Process

12th grade
Colorado Springs

United States Geological Survey

Casey Campbell
reference book and mineral specimen and medal
La Veta Jr/Sr High School
The Effects Of Coal Bed Methane Produced Water

7th grade
La Veta

Caleb Kruse
reference book and mineral specimen and medal
Home School
C The Difference II: The Effect Of Ascorbic Acid On Zooxanthellal Density During Coral Bleaching

10th grade
Colorado Springs

University of Colorado Health Sciences Center Medical Scientist Training Program

Samuel Galler
\$50
Boulder High School
Hemispheric Lateralization In Auditory Cortex For Words Versus Partial Speech Sounds

12th grade
Boulder

US Department of Commerce

Adam Goss
alternate for the opportunity for summer employment with the Department of Commerce, with the possibility for future continuing employment
Brush High School
Design And Construction Of A Flexible Robotic

12th grade

Brush

Tim Schneider
opportunity for summer employment with the Department of Commerce, with the possibility for future continuing employment
Durango High School
Will Your Vote Count?

12th grade

Durango

Xcel Energy

Environmental Stewardship Award

Laura Mummery
\$100
St Columba Catholic School
Blowin' In The Wind

6th grade
Durango

Molly Nelson & Jason Carwin
\$150
Fleming High School
The Effects Of Elevated CO2 Levels On Plants In Different Environments

9th grade
Fleming

Innovation in Energy Award

Alexandria Farnsworth
\$100
Paonia Jr/Sr High School
Energy With A Spin

8th grade
Paonia

Christy Farnsworth
\$150
Paonia Jr/Sr High School
Hydrogen: It's All Down Hill

10th grade
Paonia

Yale University Science & Engineering Association

Nina Popovic-Basta
certificate, pewter medallion
Fairview High School
Wireless Powercord

11th grade
Boulder

Zahourek Systems, Inc.

Corissa Kiepkke
Maniken models, including clay and tool accessories
North Middle School
The Effects Of Exercise On Memory

6th grade
Colorado Springs

Chace Carver
Maniken models, including clay and tool accessories
Merino Jr/Sr High School
The Effects Of Bisphenol A From Polycarbonate Plastics On Lumbriculus variegates

11th grade
Merino

Appendix 2

Zonta Club of Boulder County

Amelia Earhart Award

Emily Sandner 7th grade
 \$100
 St. Columba Middle School Durango
Wingin' It Density Altitude's Effect On Lift

Scholarships

Adams State College Foundation

Brandy Haller 10th grade
 equivalent to one-year resident tuition and fees
 Woodlin School Woodrow
Comparison Of Mountain Pine Beetle In Colorado And Surrounding States

Kenzie Witt 10th grade
 equivalent to one-year resident tuition and fees
 Arriba-Flagler Public School Flagler
Reading: Beyond Black & White

Shelby Messer 10th grade
 equivalent to one-year resident tuition and fees
 Genoa-Hugo School Hugo
Color To Dye For

Bryant Elrick 11th grade
 equivalent to one-year resident tuition and fees
 Arriba-Flagler Public School Flagler
Just Passing Through

Darla Rosenbrock 10th grade
 equivalent to one-year resident tuition and fees
 Brush High School Brush
Energy Content In Different Biodiesel

Cahl Johnson 9th grade
 equivalent to one-year resident tuition and fees
 Kim School Kim
Rocketry: Does Size Matter

Ben Armstrong 10th grade
 equivalent to one-year resident tuition and fees
 Monte Vista High School Monte Vista
Enemies Of The Environment : Estrogen Mimics

Bethany Dilda 10th grade
 equivalent to one-year resident tuition and fees
 Branson School Branson
The Golden Ratio In Natural Adaptations

Jessie Haugen 11th grade
 equivalent to one-year resident tuition and fees
 Sargent Jr/Sr High School Monte Vista
What's The Pus? Preventing Staphylococcus Epidermidis Growth In Surgical Procedures

Erika Baker 10th grade
 equivalent to one-year resident tuition and fees
 Merino Jr/Sr High School Merino
Eye Can't See Clearly Now! A Comparison Study Of Contact Types With E. coli And S. epidermidis

Antonia Lira 10th grade
 equivalent to one-year resident tuition and fees
 Lamar High School Lamar
Pig-In-A-Blanket

Royce Hoffner 10th grade
 equivalent to one-year resident tuition and fees
 Home School Center
Stage Specific Expression Of Peroxidase Enzymes In Wound Healing Potato Tubers

Tyler Wilson 11th grade
 Nuala Del Piccolo 12th grade
 Chiara Del Piccolo 10th grade
 equivalent to one-year resident tuition and fees
 Basalt High School Basalt
Mudslide Effect On Macroinvertebrate Diversity

Colorado School of Mines

Bryant Elrick 11th grade
 four year 50% resident tuition scholarship
 Arriba-Flagler Public School Flagler
Just Passing Through

Dong-Kou Kim 11th grade
 four year 50% resident tuition scholarship
 Fountain Valley School of Colorado Springs
Piezo Generator

Michael Crane 11th grade
 four year 50% resident tuition scholarship
 Cherry Creek High School Greenwood Village
A Disease Model Of XDR-TB

Collin Dutro 11th grade
 four year 50% resident tuition scholarship
 Genoa-Hugo School Hugo
Do You See What I Hear?

Grant Slinger 11th grade
 four year 50% resident tuition scholarship
 Stratton High School Stratton
Effects Of Soil Type On Groundwater Contamination, Phase II

David Wu 11th grade
 four year 50% resident tuition scholarship
 Cherry Creek High School Greenwood Village
Charcoal And Methanol Production By The Destructive Distillation Of Cellulosic Waste

University of Colorado - Boulder

College of Engineering & Applied Science

Scholarships

Nicole Reeves & Ethan Merritt 11th grade
 \$1,500 one year scholarship
 Wray Jr/Sr High School Wray
Paycheck Performance

Marlena Widman 10th grade
 \$2,500 one year scholarship
 The Classical Academy Colorado Springs
Junkyard Multispectral Imaging

Max Krakauer 12th grade
 \$3,000 one year scholarship
 Palmer High School Colorado Springs
Testing The Effects Of Gasoline, E-85 Gasoline Mix, And 2,5-Dimethylfuran On Saccharomyces cerevisia

Ryan Patterson Scholarship

Andrew West 12th grade
 \$2,000 non-renewable scholarship to college of choice
 Conifer High School Conifer
*Regenerative Diesel Fuel Production Utilizing Vegetable Oil
 And Catalytic Hydrocracking*

Society for Science & the Public**American Meteorological Society**

Gwyneth Glissmann 11th grade
 certificate
 Peak to Peak Charter School Lafayette
Analyzing Arctic Solar Flux And Ice Extent Loss Projections
 Brady Buck 11th grade
 certificate
 Wray High School Wray
Republican River Research Analyzing Aquatic Health

American Psychological Association

Allie Martin 9th grade
 certificate
 Woodlin School Woodrow
*The Task At Hand: Is Multitasking Affecting Our Health And
 Productivity?*

Herbert Hoover Presidential Library Association*Herbert Hoover Young Engineer Award*

Karthik Kumar-Rao 12th grade
 certificate, medallion
 Fairview High School Boulder
*Creating A Quantum Optical Source Using Laser Pointers
 And Parametric Down Conversion*

Intel Corporation*Intel Excellence in Computer Science Award*

Chelsea Oden 12th grade
 certificate, \$200 (to be mailed)
 Monte Vista High School Monte Vista
The Probability Of Me

Mu Alpha Theta

Chelsea Oden 12th grade
 certificate
 Monte Vista High School Monte Vista
The Probability Of Me

National Society of Professional Engineers*Innovative Engineering Award*

Cameron Kruse 12th grade
 certificate, lapel pin
 Home School Colorado Springs
*The Dirt On Baseball: Engineering a Path Toward Standard-
 izing The Baseball Mudding Process*

Ricoh

Joline Lobato 12th grade
 certificate
 Antonito High School Antonito
Solar Powered Sand Beds And Other Heat Transfer Sources

Scientific American*Scientific American Award for Outstanding
 Achievement*

Gwyneth Glissmann 11th grade
 certificate, 1-year subscription to Scientific American
 Peak to Peak Charter School Lafayette
Analyzing Arctic Solar Flux and Ice Extent Loss Projections
 Sarah Guthrie 11th grade
 certificate, 1-year subscription to Scientific American
 Boulder High School Boulder
*The Mechanisms And Actions Of Parthenolide On Platelet 5-
 HT Secretion In Vitro*
 Ben Armstrong 10th grade
 certificate, 1-year subscription to Scientific American
 Monte Vista High School Monte Vista
Enemies Of The Environment : Estrogen Mimics
 Danielle Pite, Kelly Lane & Anna Hermann 12th grade
 certificate, 1-year subscription to Scientific American
 Boulder High School Boulder
Didymosphenia geminata: The Core Question

Society for In Vitro Biology

Sarah Guthrie 11th grade
 Certificate
 Boulder High School Boulder
*The Mechanisms And Actions Of Parthenolide On Platelet 5-
 HT Secretion In Vitro*

Society for Science & the Public*SSP Middle School Competition*

Nakayla Lestina 8th grade
 nomination to enter the SSP national competition
 Dove Creek Middle School Dove Creek
*Biological Control Of Canada Thistle Phase 2 Analyzing The
 Spread Of Three Natural Insect Enemies*
 Garret Cerny 6th grade
 nomination to enter the SSP national competition
 Eagle County Carter Academy Wolcott
Is It Easier To Always Be Right?
 Kelsey Piper 8th grade
 nomination to enter the SSP national competition
 Summit Middle School Boulder
*Going Bananas: Does The Vitamin C Concentration Of A Ba-
 nana Vary With Ripeness?*
 Sara Cunningham 6th grade
 nomination to enter the SSP national competition
 Our Lady of Fatima School Lakewood
Crystals
 Sara Volz 7th grade
 nomination to enter the SSP national competition
 Cheyenne Mountain Charter Colorado Springs
*Are Biodiesel Emissions Safer Than Commercial Diesel Emis-
 sions?*
 Zane Willburn 7th grade
 nomination to enter the SSP national competition
 Mancos Middle School Mancos
Water Purification Off The Grid

Appendix 2

Casey Campbell nomination to enter the SSP national competition La Veta Jr/Sr High School <i>The Effects Of Coal Bed Methane Produced Water</i>	7th grade La Veta	Garrett Glissmann nomination to enter the SSP national competition Peak to Peak Charter School <i>Determining Position By Interfacing A GPS To The</i>	8th grade Lafayette
Matthew Persons nomination to enter the SSP national competition Boltz Junior High School <i>Tic Tac Text</i>	8th grade Fort Collins	Rachel Beverlin nomination to enter the SSP national competition Dolores Middle School <i>GEYSER SPRING: A Further Characterization Of Colorado's Only Geyser</i>	8th grade Dolores
Molly Graber nomination to enter the SSP national competition North Middle School <i>The Effects Of Bovine Colostrum On Breast Cancer</i>	8th grade Colorado Springs	Tucker Leavitt nomination to enter the SSP national competition Miller Middle School <i>Golden Music: Phi And The Musical Arts</i>	7th grade Durango
Ellery Goeltzenleuchter nomination to enter the SSP national competition Blevins Junior High School <i>Caution Spice At Work</i>	8th grade Fort Collins	Bruno Mediate nomination to enter the SSP national competition The Classical Academy <i>Chewing Gum For Brain Activity</i>	7th grade Colorado Springs
Lorne Muir II nomination to enter the SSP national competition The Classical Academy <i>Hail! No!</i>	8th grade Colorado Springs	Stephen O'Connor-Seville nomination to enter the SSP national competition Dolores Middle School <i>Microbes Make Electricity</i>	8th grade Dolores
Haley Matteson nomination to enter the SSP national competition North Middle School <i>Too Hot Or Not- The Effects Of Global Warming On Germination & Growth Of Flower, Vegetable, Weed Seeds</i>	6th grade Colorado Springs	Layne Barrett nomination to enter the SSP national competition The Classical Academy <i>Twist But Don't Shout</i>	8th grade Colorado Springs
Wyatt Palser nomination to enter the SSP national competition Otis Jr/Sr High School <i>Attack Of The Killer Worms!!!</i>	7th grade Otis	K C Zinn nomination to enter the SSP national competition Sargent Jr/Sr High School <i>To Rot Or Not Potato Susceptibility To Pink Rot, Phytophthora erythroseptica</i>	8th grade Monte Vista
Zachary Tanner nomination to enter the SSP national competition Summit Middle School <i>Rock, Paper, Scissors: A Game Of Chance?</i>	8th grade Boulder	United States Metric Association	
Kassidy Knutson nomination to enter the SSP national competition Wiggins Jr/Sr High School <i>Effects Of Acid Rain On Structural Materials</i>	7th grade Wiggins	Danielle Pite, Kelly Lane & Anna Hermann certificate Boulder High School <i>Didymosphenia geminata: The Core Question</i>	12th grade Boulder
Carl Scheevel nomination to enter the SSP national competition East Middle School <i>Effectiveness Of Various Ground Covers On Soil Erosion On A 32.5% Grade</i>	7th grade Grand Junction	United States Public Health Service	
Katie Weiss nomination to enter the SSP national competition The Ricks Center for Gifted <i>The effect of fermentation on fruit</i>	8th grade Denver	Meg Rudy & Kylee Firlit certificate Palmer High School <i>Running Against The Temperature</i>	10th grade Colorado Springs

Appendix 3
2007/2008 Expense Report
September 1, 2007-August 31, 2008

Category Descriptions	Budget	Actual	Difference
INCOME			
Sponsorships	\$31,600.00	\$34,890.00	\$3,290.00
Contributions	\$1,425.00	\$1,848.02	\$423.02
In-Kind	\$8150.00	\$1,619.38	(\$6,530.62)
Registrations	\$11,340.00	\$11,235.00	(\$105.00)
Grants	\$3,500.00	\$11,500.00	\$8,000.00
General Income			
<i>Interest</i>	\$500.00	\$548.27	\$48.27
<i>Sales</i>	\$1,000.00	\$1,150.00	\$150.00
<i>RSF Outreach Funds</i>	\$0.00	\$10,000.00	\$10,000.00
<i>Special Awards</i>	\$0.00	\$5,700.00	\$5,700.00
<i>Pioneers of Science Awards</i>	\$600.00	\$600.00	\$0.00
<i>Teacher of the Year Award</i>	<u>\$3,000.00</u>	<u>\$3,000.00</u>	<u>\$0.00</u>
TOTAL General Income	\$5,100.00	\$20,998.27	\$15,898.27
TOTAL INCOME	\$61,115.00	\$82,090.67	\$20,975.67
EXPENSES			
Awards Ceremony			
Cash Awards	\$11,370.00	\$11,010.00	\$360.00
Other Awards	\$950.00	\$6,530.89	(\$5,580.89)
Photos	\$250.00	\$172.19	\$77.81
Press Release	\$480.00	\$459.00	\$21.00
Program	\$375.00	\$370.28	\$4.72
Room Rental	<u>\$600.00</u>	<u>\$1,323.00</u>	(\$723.00)
TOTAL Awards Ceremony	\$14,025.00	\$19,865.36	(\$5,840.36)
CSSF, Inc. Board			
Communications	\$430.00	\$485.57	(\$55.57)
Equipment	\$0.00	\$0.00	\$0.00
Meetings	\$900.00	\$2,028.15	(\$1,128.15)
Operations	\$7,685.00	\$6,863.17	\$821.83
Services	\$200.00	\$0.00	\$200.00
Supplies	<u>\$250.00</u>	<u>\$68.03</u>	\$181.97
TOTAL CSSF, Inc. Board	\$9465.00	\$9,444.92	\$20.08
Finalists			
Activities	\$2,600.00	\$2,188.58	\$411.42
Publications	\$2,050.00	\$1,466.78	\$583.22
Registration	\$4,900.00	\$3,022.54	\$1,877.46
Room Rental	\$750.00	\$1,074.00	(\$324.00)
Transportation	<u>\$1,100.00</u>	<u>\$1,072.00</u>	\$28.00
TOTAL Finalists	\$11,400.00	\$8,823.90	\$2,576.10

Appendix 3

Category Description	Budget	Actual	Difference
ISEF			
Affiliation	\$500.00	\$500.00	\$0.00
Travel	<u>\$8,000.00</u>	<u>\$9,014.46</u>	<u>(\$1,014.46)</u>
TOTAL ISEF	\$8,500.00	\$9,514.46	(\$1,014.46)
Judging			
Communications	\$1,000.00	\$885.51	\$114.49
Room Rental	\$95.00	\$340.00	(\$245.00)
Supplies	\$500.00	\$625.43	(\$125.43)
Thank Yous	\$3,250.00	\$3,552.65	(\$302.65)
Travel	<u>\$250.00</u>	<u>\$0.00</u>	<u>\$250.00</u>
TOTAL Judging	\$5,095.00	\$5,403.59	(\$308.59)
Outreach	\$1,000.00	\$1,419.34	(\$419.34)
RSF Outreach	\$0.00	\$8,000.00	(\$8,000.00)
CSEF Expenses			
Adult Sponsors	\$500.00	\$322.61	\$177.39
Advisory Council	\$50.00	\$62.70	(\$12.70)
Fund Raising	\$150.00	\$97.75	\$52.25
Personnel	\$8,020.00	\$8,275.77	(\$255.77)
Publicity	\$200.00	\$2,517.63	(\$2,317.63)
Regional Fair Directors	\$200.00	\$3,137.61	(\$2,937.61)
Supplies	\$300.00	\$1,713.74	(\$1,413.74)
Volunteers	<u>\$1,500.00</u>	<u>\$1,458.34</u>	<u>\$41.66</u>
TOTAL CSEF Expenses	\$10,920.00	\$17,586.15	(\$6,666.15)
SRC/Display and Safety			
Communications	\$70.00	\$108.66	(\$38.66)
Meetings	\$750.00	\$586.66	\$163.34
Supplies	<u>\$50.00</u>	<u>\$185.12</u>	<u>(\$135.12)</u>
TOTAL SRC/Display and Safety	\$870.00	\$880.44	(\$10.44)
TOTAL EXPENSES	\$61,275.00	\$80,938.16	(\$19,663.16)
OVERALL TOTAL	(\$160.00)	\$1,152.51	