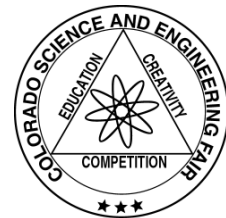


Colorado State Science Fair, Inc.

2010 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, 2010
Colorado State Science Fair, Inc.
P O Box 1465
Fort Collins, CO 80522-1465
Tel (970) 498-4121
Fax (970) 491-2005
e-mail: csef@lamar.colostate.edu
<http://www.csef.colostate.edu>

Registered Office Location:
Center for Science, Mathematics &
Technology Education
Colorado State University
Fort Collins, CO 80523-1802

CSEF Director and Registered Agent:
Courtney Butler, (970) 491-7716

2010 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 profes-

sional 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.

2010 COLORADO SCIENCE AND ENGINEERING FAIR

The fifty-fifth Colorado Science and Engineering Fair was held at the Lory Student Center on the Colorado State University campus on April 8 - 10, 2010.

This year, CSEF winners were chosen from among 277 projects represented by 305 finalists from 102 schools and 13 regions within the state. More than 130 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 160 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 2010 Colorado Science and Engineering Fair had 24 sponsors. Sponsors included 12 Platinum Sponsors (providing over \$2,500 of support each), 3 Gold Sponsors (\$1,000 or more of support each), 1 Silver Sponsor (\$750 or more of support each) and 8 Regular Sponsors (\$500 or more of support each). In addition, there were 14 Financial Contributors (less than \$500 each). Also, several individuals donated through the Denver Combined Federal Campaign. We also had two Grand Awards Judges pass away this year and memorial funds were contributed in their honor – Paul Wojtaszek & John Prentice.

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

The Colorado School of Mines awarded seven \$1,000 renewable scholarships.

This year, the CSEF was honored to have guest speaker Martin Lockley, a Professor of Geology from the University of Colorado – Denver and Director of the Dinosaur Tracks Museum.

Martin Lockley received his BSc in Geology from Queens University in Northern Ireland and his PhD from Birmingham University in England. The museum Dr. Lockley is Director of has a collection which is arguably the world's largest and best documented and consists of more than 2,400 tracks (originals and replicas) of all ages (from Carboniferous to Recent), a large number of which have been illustrated in several hundred scientific publications. The collection includes more than 75 type specimens of ceratopsian and champsosaur tracks (*Ceratopsipes* and *Champsosaurichnus* from Golden, CO), Stegasaur tracks (*Stegopodus* from eastern Utah), the first described Tyrannosaurus track (*Tyannosauripus* from New Mexico), the first large two toed raptor tracks (*Dromaeopodus* from China), a large number of bird and pterosaur tracks new to science and the ancient human track *Hominipes*.

Dr. Martin's talk was entitled "Tracking Dinosaurs Around the World." Dinosaur tracks are the nearest thing we have to movies of dinosaurs – capturing the behavior of the living track maker in its dynamic day to day life. Once considered a specialized science, tracking (known as ichnology) is now a major branch of paleontology that has gained international attention. In the last 25 years, a renaissance in the field has led to numerous discoveries of tracks of all types of dinosaurs in North America, Europe, Asia and other continents. Martin Lockley has been active in finding and researching fossil footprints in Colorado, Utah, Mexico, Nicaragua, Bolivia, Wales, Spain, Portugal, China, Korea and Japan.

(See Appendix 1 – 2009 CSEF Schedule)

2010 CSEF GENDER RATIOS

With this Annual Report, the CSSF, Inc. will begin to report statistics from across the spectrum of participation in the CSEF. Through time, these numbers may show trends and allow for identification of areas in need of improvement. The goal is to ensure that the students who participate are a reflection of the student population from across Colorado. The CSSF, Inc. mission is to make the CSEF accessible to all of Colorado's students regardless of gender and ethnicity.

(Please note that team projects are identified by the gender of the Team Leader.)

Percentage of Projects

Male – 49%
Female – 51%

Percentage of Awards

Male – 47%
Female – 53%

Percentage of Projects by Category

Animal Sciences

Male – 30%
Female – 70%

Behavioral & Social Sciences

Male – 36%
Female – 64%

Chemistry

Male – 50%
Female – 50%

Earth & Space Sciences

Male – 30%
Female – 70%

Energy & Transportation

Male – 64%
Female – 36%

Engineering

Male – 77%
Female – 23%

Environmental Sciences

Male – 54%
Female – 46%

Mathematics & Computer Sciences

Male – 64%
Female – 36%

Medicine & Health

Male – 26%
Female – 74%

Microbiology

Male – 35%
Female – 65%

Physics

Male – 77%
Female – 29%

Plant Sciences

Male – 54%
Female – 46%

Percentage of Awards by Category

Animal Sciences

Male – 30%
Female – 70%

Behavioral & Social Sciences

Male – 50%
Female – 50%

Chemistry

Male – 33%
Female – 67%

Earth & Space Sciences

Male – 22%
Female – 78%

Energy & Transportation

Male – 52%
Female – 48%

Engineering

Male – 67%
Female – 33%

Environmental Sciences

Male – 52%
Female – 48%

Mathematics & Computer Sciences

Male – 47%
Female – 53%

Medicine & Health

Male – 29%
Female – 71%

Microbiology

Male – 22%
Female – 78%

Physics

Male – 46%
Female – 54%

Plant Sciences

Male – 54%
Female – 46%

2010 CSEF ETHNICITY RATIOS

(Please note that team projects are identified by the ethnicity of the Team Leader.)

Percentage of Projects

Caucasian – 75%
Hispanic – 9%
Asian – 5%
African American – 1%
Other/Unknown – 10%

Percentage of Awards

Caucasian – 74%
Hispanic – 7%
Asian – 11%
African American – 0%
Other/Unknown – 8%

2010 CSEF GRADE LEVEL RATIOS

(Please note that team projects are identified by the grade level of the Team Leader.)

Percentage of Students

Junior Division – 61%
6th grade – 12%
7th grade – 21%
8th grade – 28%
Senior Division – 39%
9th grade – 8%
10th grade – 8%
11th grade – 10%
12th grade – 13%

Percentage of Projects

Junior Division – 62%
6th grade – 12%
7th grade – 23%
8th grade – 27%
Senior Division – 38%
9th grade – 8%
10th grade – 8%
11th grade – 10%
12th grade – 12%

Percentage of Grand Awards per Division

Junior Division – 51%
6th grade – 9%
7th grade – 30%
8th grade – 61%
Senior Division – 49%
9th grade – 11%
10th grade – 24%
11th grade – 31%
12th grade – 34%

% of Students Winning Grand Awards

Junior Division – 35%
6th grade – 41%
7th grade – 31%
8th grade – 55%
Senior Division – 56%
9th grade – 35%
10th grade – 64%
11th grade – 68%
12th grade – 54%

Percentage of Special Awards per Division

Junior Division – 44%
6th grade – 8%
7th grade – 12%
8th grade – 24%
Senior Division – 53%
9th grade – 6%
10th grade – 11%
11th grade – 22%
12th grade – 17%

% of Students Winning Special Awards

Junior Division – 44%
6th grade – 41%
7th grade – 31%
8th grade – 55%
Senior Division – 67%
9th grade – 39%
10th grade – 68%
11th grade – 77%
12th grade – 74%

2010 COLORADO SCIENCE AND ENGINEERING FAIR TOP AWARDS

The top Senior Division individual project exhibitor of the 54th 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 **Nikki Buhrdorf**, Hotchkiss High School, Hotchkiss, grade 10, for the project *Aspen in a State of SADness*. Second place for best individual project, and also a winner of an all-expense paid trip to compete at the Intel ISEF was **Ben Armstrong**, Monte Vista High School, Monte Vista, grade 12, for the project *The Uptake of Endocrine Disrupting Chemicals*. Awarded third place for best individual project was **Radhika Rawat**, Fairview High School, Boulder, grade 12, for the project *Pre-Initiation Complexes of SREBP-1a and -2*. The first place Senior Division team project and winners of an all-expense paid trip to compete in the Intel ISEF were **Tonya Pavlenko** and **Laura Gudvangen**, Palmer High School, Colorado Springs, grade 11, for the project *Internal Combat With Melanoma*.

The winner of the Ralph F. Desch Memorial Technical Writing Award was **Harraz MohdReza**, Union Colony Preparatory School, Greeley, grade 11, for the project *Immunocytochemical Characterization of Mouse Brain Explants in an In Vitro Model of Schizophrenia*.

The winner of the Senior Division Student Choice Award was **Erik Schnaderbeck**, Sargent Jr/Sr High School, Monte Vista, grade 11, for the project *Identifying Individual Rainbow Trout Utilizing Distinct Spot Orientation*. The Junior Division Student Choice winner was **Ty Gardner & Blaine Gahill**, West Middle School, Grand Junction, grade 7, for the project *Shaping the Bird Brain*.

The winner of the Poster Art Contest was **Branislava Blagojevic**, Canon City High School, Canon City.

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

The winners of the Pioneers of Science Awards were **Sidney Stegman**, Lincoln Elementary School, Lamar, grade 6; **Anabel Henriquz**, Cesar Chavez Academy, Pueblo, grade 7; **Dakota Harris**, Wiggins Middle School, Wiggins, grade 7; **Ryan Rohn**, Wiggins Middle School, Wiggins, grade 6; **Kayla Snyder**, Falcon Middle School, Falcon, grade 6; **Rene Carter**, North Middle School, Colorado Springs, grade 6; **Anne Mummery**, Miller Middle School, Durango, grade 6; **Rex Stowers**, St. Columba Catholic School, Durango, grade 7; **Chad Haunschild**, Mountain View Core Knowledge School, Canon City, grade 7; **Kaylie Thompson**, Sargent Jr/Sr High School, Monte Vista, grade 7; **Kohler McInnis**, St. Columba Catholic School, Durango, grade 7; **Madison Thompson**, Otis Jr/Sr High School, Otis, grade 6; **Nathan Witt**, Flagler Middle School, Flagler, grade 7; **Bryce Ward**, Miller Middle School, Durango, grade 6; **Schuyler Adkins** and **Gabrielle Potter**, Goodnight Elementary School, Pueblo, grade 8; **Morgan Felix**, Olathe Middle School, Olathe, grade 7.

MOVING SCIENCE FORWARD SCHOLARSHIP

The Moving Science Forward Scholarship is \$2,000 to the top two students in the Senior Division.

Nikki Buhrdorf, Hotchkiss High School, Hotchkiss, grade 10, for the project *Aspen in a State of SADness*

Ben Armstrong, Monte Vista High School, Monte Vista, grade 12, for the project *The Uptake of Endocrine Disrupting Chemicals*

2010 COLORADO SCIENCE AND ENGINEERING FAIR

SCHOLARSHIP AWARDS

ADAMS STATE COLLEGE

Nakayla Lestina, Dove Creek High School, Dove Creek, grade 10, for the project *Biological Control of Tamarisk*

Joshua Garcia, Monte Vista High School, Monte Vista, grade 11, for the project *Are You Confined to a Life with Musical Disabilities?*

Katelyn Yowell, Genoa-Hugo High School, Hugo, grade 11, for the project *Chlorophyll in Your Lip Balm?*

Johanna Phillips, Monte Vista High School, Monte Vista, grade 10, for the project *Infested Forests and Evapotranspiration II*

Michael Lingus, Branson Jr/Sr High School, Branson, grade 11, for the project, *Gone With the Wind*

Casey Campbell, La Veta Jr/Sr High School, La Veta, grade 9, for the project *Engineering a Path to Cleaner Water:*

Megan Perez, Del Norte Jr/Sr High School, Del Norte, grade 10, for the project *The Hovercraft Project*

Ashlynn Miller, Lone Star High School, Otis, grade 11, for the project *Determination of Fractal Dimension of Blood Spatter Patterns*

Jessica O'Clair, Brush High School, Brush, grade 11, for the project *The Effect of Ultraviolet Light on Vitamin C Content in Strawberries*

Kelli Lynch, Rocky Mountain High School, Fort Collins, grade 10, for the project *Irradiation Extermination*

Amy Lyne, Brush High School, Brush, grade 11, for the project *Investigation of Wave Phenomenon*

Jordan Lestina, Dove Creek High School, Dove Creek, grade 11, for the project *Biodiesel from Sunflowers*

Fletcher Richman, and **Michael Schwener**, Basalt High School, Basalt, grade 12 for their project *pH Effect on the Enzyme Cellulase in Biofuel Production*

COLORADO SCHOOL OF MINES

Tanya Petach, Fairview High School, Monte Vista, grade 11, for the project *Colorado River Salinity*

Jaehae Park, Fairview High School, Boulder, grade 11, for the project *Using Steel Wool to Remove Arsenic from Drinking Water*

Michael Lingus, Branson Jr/Sr High School, Branson, grade 11, for the project *Gone with the Wind*

Jeffrey Hibbert, Lone Star High School, Otis, grade 11, for the project *The Implication of Using Carbon Nanotubes to Promote Algal Growth*

Ashlynn Miller, Lone Star High School, Otis, grade 11, for the project *Determination of Fractal Dimensions of Blood Spatter*

Connie Liu, Cherry Creek High School, Greenwood Village, grade 11, for the project *Therapeutic Use of microRNA-200c to Treat HEY Ovarian Cancer*

Amy Lyne, Brush High School, Lamar, grade 11, for the project *Investigation of Wave Phenomenon*

RYAN PATTERSON SCHOLARSHIP

The Ryan Patterson Scholarship is in honor of the Intel ISEF top winner of 2001. **Radhika Rawat**, Fairview High School, Boulder, grade 12, for the project *Pre-Initiation Complexes of SREBP-1a and -2.*

MEDICINE & HEALTH SCHOLARSHIP

The Medicine & Health Scholarship is \$3,000 awarded to the most deserving high school student with a project in the field of medicine and health. **Kelli Lynch**, Rocky Mountain High School, Fort Collins, grade 10, for the project *Irradiation Extermination*

PAUL WOJTASZEK MEMORIAL SCHOLARSHIP

The Paul Wojtaszek Memorial Scholarship is a \$500 award given in honor of a recently deceased Grand Awards Judge. **Kelly Christensen** and **Molly McMahan**, Monarch High School, Louisville, grade 12, for the project *Generation of RNA Probe for In Situ Hybridization*

(See Appendix 2 – CSEF Press Release)

2010 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 60 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 over 60 years by Society for Science & the Public 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 61st Intel ISEF held in San Jose, CA, May 9 – 14, 2010.

GRAND AWARDS

Jesse Ellison from Bayfield, CO won \$1,500 (2nd Place) in Electrical & Mechanical Engineering.

Tanya Petach from Boulder, CO won \$1,500 (2nd Place) in Earth & Planetary Sciences.

Ben Armstrong from Monte Vista, CO won \$1,000 (3rd Place) in Environmental Sciences.

Nikki Buhrdorf from Austin, CO won \$1,000 (3rd Place) in the Plant Sciences.

Kelli Lynch from Fort Collins, CO won \$1,000 (3rd Place) in Microbiology.

Emily Schnoor from Alamosa, CO won \$1,000 (3rd Place) in Animal Sciences.

Vikash Hypio from Hotchkiss, CO won \$500 (4th Place) in Behavioral & Social Sciences.

John Parish IV from Colorado Springs, CO won \$500 (4th Place) in Electrical & Mechanical Engineering.

Sara Volz from Colorado Springs, CO won \$500 (4th Place) in Energy & Transportation.

Kelly Christensen & Molly McMahon from Louisville, CO won \$500 (4th Place) in the Team Category.

Tonya Pavlenko & Laura Gudvangen from Colorado Springs, CO won \$500 (4th Place) in the Team Category.

SPECIAL AND Government AWARDS

Ben Armstrong from Monte Vista, CO won \$3,000 in savings bonds from the United States Army.

John Parish from Colorado Springs, CO won \$4,000 and a trip to the London International Youth Forum from the United States Navy and Marine Corps.

Radhika Rawat from Boulder, CO won a paid internship from Agilent Technologies.

Tanya Petach from Boulder, CO won \$250 (3rd Place) from the American Geological Institute and \$1,500 (1st Place) from the Association for Women Geoscientists.

Diane Schulze from Centennial, CO won \$500 (3rd Place) from the American Physiological Society.

Kelli Lynch from Fort Collins, CO won \$500 (4th Place) from the American Society for Microbiology.

Radhika Rawat from Boulder, CO won and Honorable Mention Award from the Endocrine Society.

Jesse Ellison from Bayfield, CO won a trip to tour CERN from the European Organization for Nuclear Research and \$500 (2nd Place) from the Society of Experimental Test Pilots.

Emily Schnoor from Alamosa, CO won \$1,000 (2nd Place) from the States United for Biomedical Research.



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)

BP

Colorado Dental Association

Colorado State University

Office of the Provost

College of Natural Sciences

Center for Science, Mathematics & Technology Education

Dean Tsao Science Initiative

Intel Foundation

Lockheed Martin

Society of Petroleum Engineers,
Denver Section

US Department of Commerce/NOAA

US Department of Commerce/NTIA/ITS

Xcel Energy Foundation

GOLD SPONSORS

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

Ball Corporation

Colorado Medical Society
Education Foundation

Seagate Technology

SILVER SPONSORS

(Providing \$750 - \$1,000 in support of CSEF)

IEEE, Denver Section

REGULAR SPONSORS

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

Anheuser-Busch, Inc.

Cherry Creek Basin Water Quality Authority

Colorado Engineering Council

ICAT Managers

IEEE, High Plains Section

National Renewable Energy Laboratory

Parker Family Trust

San Luis Valley Regional Science Fair, Inc.

COMPANY CONTRIBUTORS

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

Bents Old Fort National Historical Site

Colorado Gators

Colorado Geological Survey

Colorado Science Teachers Association

Comfort Inn of Fort Collins

CSU Bookstore

CSU Research Center

Denver Zoo

Downtown Aquarium

Earth Foundation

Great Sand Dunes National Park

King Soopers

Kristi Mountain Sports

Kroenke Sports Enterprises

Pro-Sports

Rio Grande Scenic Railroad

Sundyne Corporation

Texas Instruments

The Wildlife Experience

US Geological Survey

Villa Pizza & Butler Pizza Company

INDIVIDUAL CONTRIBUTORS

Ed & Lucy Adams

Sam & Eileen Bartlett

Gina Holland & Isaac Britton

David & Vonda Holm

Dr. Robert Morrow

Radford Walker

Many federal employees also contributed through the Combined Federal Campaign

Memorial Contributions for former Grand Awards Judges Paul Wojtaszek and John Prentice.

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

Colorado Engineering Council

Sam Bartlett – President
Regular Member since 2001

Colorado Dental Association

Carol Morrow – Vice President
Regular Member since 2002

National Renewable Energy Laboratory

Doug Hooker - Treasurer
Regular Member since 2007

Lockheed Martin

Ryan Patterson - Secretary
Regular Member since 2004

US Department of Commerce/NOAA

Al Bedard
Regular Member since 1996

AREVA Federal Services

Mike Bemski
Regular Member since 2002

Morgan Washington Bi-County RSF

Elemer Bernath - Historian
Associate Member since 2002

Xcel Energy

Dave Cenedella
Regular Member since 2008

US Department of Commerce/NOAA

Russell Chadwick
Alternate Member since 2009

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Regular Member since 1991

San Luis Valley Regional Science Fair, Inc.

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Regular Member since 1997

Colorado Medical Society

Dean Holzkamp
Regular Member since 2003

Colorado Medical Society

A. Bill Kieger
Regular Member since 2002

US Department of Commerce/NOAA

Dan Kowal
Regular Member since 2007

Lockheed Martin

Bill Meersman
Regular Member since 2007

Colorado Dental Association

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Regular Member since 1995

Colorado State University

Jan Nerger
Regular Member since 2003

San Luis Valley Regional Science Fair, Inc.

Jody Oaks
Alternate Member since 2010

Parker Family Trust

Amanda Parker
Regular Member since 2007

Parker Family Trust

John Parker
Regular Member since 2002

Covidien

Joe Paulus
Regular Member since 2010

San Luis Valley Regional Science Fair, Inc.

Larry Sveum
Regular Member since 2007

ICAT Managers

Jeremy Teiber
Regular Member since 2010

Colorado State University

Stephen Thompson
Regular Member since 2005

US Department of Commerce/NTIA

Amy Weich
Regular Member since 2000

REGIONAL FAIR DIRECTORS

Arkansas Valley Regional Science Fair
Aaron Reyes and Joel Gray

Boulder Valley Regional Science Fair
Jennifer Barr

Denver Metro Regional Science Fair
Jim Stevens and Kristina Wenzel

East Central Regional Science Fair
William Mallory and Marguerite Yowell

Longs Peak Regional Science Fair
Lori Ball and Jerry Overmyer

Morgan/Washington Regional Science Fair
Elemer Bernath and Darline Miner

Northeast Regional Science Fair
Kari Kilmer and Penny Propst

Pikes Peak Regional Science Fair
Georgia Matteson

San Juan Basin Regional Science Fair
Lynne Schneider

San Luis Valley Regional Science Fair
Lucy Adams

Southeast Regional Science Fair
Terri Lira and Robin Staker

Southern Colorado Regional Science Fair
Lori Leyh & Corrine Solano

Western Regional Science Fair
Sandy Cruz

MEMBERS AT LARGE

David Clark	Doug Everett
Nancy Gettman	Jeff Hatfield
Beth Ingram	Steve Iona
Larry Jakel	Ron Kollars
John McConnell	Beverly Meier
Kim Melville-Smith	Candus Muir
David Pfuhl	Judy Prester
Katie Propst	Brian Scriber
Rod Simpson	Jim Sites
Doug Steward	Laura Ussery
Dan Van Gorp	Amber Wolf

PAST CSEF DIRECTORS

* *Charles Bragaw*
1956 – 1967

* *Calvin Fisher*
1968 – 1974

* *Sam Shushan*
1975 – 1977

Gordon Moore
1978 – 1979

* *Russell B. Stoner*
1979 – 1981

Virgil A. Sandborn
1981 – 1983

James R. Sites
1984 – 1985

Lloyd Walker
1986 – 1988

Connie Vader-Lindholm
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
55th Annual Colorado Science and Engineering Fair

Lory Student Center	CSEF Headquarters: Registration Booth, 2 nd Floor	Colorado State University
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Thursday, April 8, 2010

Finalist Schedule

8:30 a.m. – 11:00 a.m.	Tour Ticket Pick-Up/Sales	Room 213/215
8:30 a.m. – 11:30 a.m.	SRC Interviews – <i>Students requiring an interview must comply BEFORE project may be set up.</i>	Room 203/205
9:00 a.m. – 11:00 a.m.	Finalist Check-In <i>Finalists MUST stay with their exhibit until Display & Safety Check has been done and An Official Photo has been taken. Finalists must be out of the exhibit area by noon.</i>	Registration Booth
1:00 p.m. – 1:20 p.m.	Finalist Orientation Meeting – <i>Mandatory for all exhibitors.</i>	CSU Theater
1:30 p.m. – 5:00 p.m.	Judging – <i>Students must be at their exhibits for interviews.</i>	Main Ballroom
7:00 p.m. – 9:00 p.m.	CSEF Finalist Social	Hilton Fort Collins

Adult Schedule

1:30 p.m. – 2:00 p.m.	ISEF Rules Update	Room 213/215
2:00 p.m. – 3:00 p.m.	Science Fair Adult Sponsor Workshop <i>Teachers and parents are invited to attend this informal workshop on ways to improve science fair coordination in the classroom. Presented by Candus Muir, The Classical Academy, Colorado Springs</i>	Room 203/205

Judging Schedule

9:45 a.m. – 10:30 a.m.	Grand Awards Judge Captains' Briefing	Room 230
10:45 a.m. – 11:15 a.m.	Grand Awards Judges' Briefing	Cherokee Park Room
11:15 a.m. – 12:30 p.m.	Grand Awards Judges' Luncheon	North Ballroom
12:15 p.m. – 12:30 p.m.	Special Awards Judges' Briefing	Room 228
12:00 p.m. – 5:00 p.m.	Judging	Main Ballroom
12:00 p.m.	Grand Award Judges may enter the exhibit room. <u>Judges only</u> in the exhibit room.	
12:30 p.m.	Special Awards Judges may enter the exhibit area. <u>Judges only</u> in the exhibit room.	
1:30 – 5:00 p.m.	Students will be at their exhibits for interviews.	
5:30 p.m.	Exhibit area is locked. Final judging continues.	Main Ballroom

Only Judging Captains and Scientific Review Committee Members are permitted in the exhibit area at this time.

Friday, April 9, 2010

10:30 a.m. – 5:00 p.m.	CSEF Finalist Exhibits Open to the Public and the Media	Main Ballroom
9:00 a.m. – 10:00 a.m.	Guest Speaker: Colorado State Representative, Randy Fischer	CSU Theater
10:30 a.m. – 3:00 p.m.	Tours – <i>Finalists, Adult Sponsors, family members and judges are invited to participate in the tours and presentation.</i>	
2:00 p.m.	Finalist Ballots for Student Choice and Poster Contest are due.	Registration Booth
7:00 p.m.	Awards Ceremony	Resurrection Fellowship

Saturday, April 10, 2010

9:00 a.m. – 11:00 a.m.	CSEF Finalist Exhibits Open to the Public and the Media <i>Finalists MUST be at their projects for interaction with the public.</i>	Main Ballroom
9:00 a.m. – 11:00 a.m.	Advisory Council & Regional Fair Directors Meeting – <i>open to all</i>	Room 213/215
11:00 a.m. – 12:00 p.m.	Pizza Party - <i>Finalists, Adult Sponsors, family members and judges are invited. Finalists must be present to win door prizes!</i>	Main Ballroom
12:00 p.m. – 1:00 p.m.	Exhibit Dismantling - <i>Everything must be out by 1:00 PM.</i>	Main Ballroom
12:00 p.m. – 2:00 p.m.	Board of Directors Meeting – <i>open to all</i>	Room 213/215

The upcoming Intel International Science and Engineering Fair will be in San Jose, CA, May 9 – 14, 2010.
 Next year's Colorado Science and Engineering Fair will be April 7 – 9, 2011.
 (Dates are subject to change.)

2010 Colorado Science and Engineering Fair Grand Awards Press Release

Junior Division Best Individual Project

First Place

Reid Palsler 7th grade
Submersible Vehicle Design and Modification, Phase One
Otis Jr/Sr High School Otis

Second Place

Kaily Adair 7th grade
The Accuracy Behind the Accusation
Preston Middle School Fort Collins

Third Place

Bria Smith 8th grade
The Effects of Hydroxymethylfurfural on the Reproduction of Fruit Flies
Cherry Creek Challenge School Denver

Senior Division Best Individual Project

First Place

Nikki Buhrdorf 10th grade
Aspen in a State of SADness: A Statistical Analysis of the Decline of Populus tremuloides
Hotchkiss High School Hotchkiss

Second Place

Ben Armstrong 12th grade
The Uptake of Endocrine Disrupting Chemicals
Monte Vista High School Monte Vista

Third Place

Radhika Rawat 12th grade
Pre-Initiation Complexes of SREBP-1a and -2
Boulder High School Boulder

Junior Division Best Team Project

First Place

Jessie McLaughlin & Erin McLaughlin 8th grade
Irrigation Water Salinity and Its Effect on Early Plant Growth
Sacred Heart of Jesus School Boulder

Second Place

Lawrence Zhang & Isabelle Nathanson 8th grade
Thinking In Color: The Effect of Brain Dominance on How We Learn
Summit Middle Charter School Boulder

Third Place

Levi Schofield & Luke Dekker 8th grade
DWD (Driving While Distracted)
Evangelical Christian Academy Colorado Springs

Senior Division Best Team Project

First Place

Tonya Pavlenko & Laura Gudvangen 11th grade
Internal Combat With Melanoma: Triggering an Immune Response Through the Up-Regulation of FAS Using Toll Ligand Combination Treatments
Palmer High School Colorado Springs

Second Place

Lorne Muir II & Nathan Weeks 10th grade
Analyzing the Separate Toxicity of Engineered Nanoparticles on L1210 Cells
The Classical Academy Colorado Springs

Third Place

Alexander Port & Devon Stork 11th grade
The Effect of Intramolecular Bonding on the Structure of Odor Binding Protein-4
George Washington High School Denver

Junior Division Animal Sciences

First Place

Bria Smith 8th grade
The Effects of Hydroxymethylfurfural on the Reproduction of Fruit Flies
Cherry Creek Challenge School Denver

Second Place

Zoe Wohlgenant 8th grade
The Efficacy of Sugar Dusting in Controlling Populations of Honey Bee Mites
Hill Campus of the Arts and Sciences Denver

Third Place

Claire Francis 7th grade
Division and Multiplication: How Planarians Regenerate
Stanley British Primary School Denver

Honorable Mention

Grant Wray 8th grade
Does the Environment in a Refrigerator Affect the Water Content of Free-Ranged and Caged Chicken Eggs?
Blevins Middle School Fort Collins

Senior Division Animal Sciences

First Place

Emily Schnoor 12th grade
The Answer is in the Solution
Sargent Jr/Sr High School Monte Vista

Appendix 2

Second Place

Nathan Frantz 10th grade
Does Size Matter?
 Fleming High School Fleming

Third Place

Erik Schnaderbeck 11th grade
Identifying Individual Rainbow Trout Utilizing Distinct Spot Orientation
 Sargent Jr/Sr High School Monte Vista

Honorable Mention

Ben Smith 10th grade
Biological Control of an Unseen Killer: Dendroctonus rufipennis, the Spruce Beetle
 Hotchkiss High School Hotchkiss

Junior Division Behavioral & Social Sciences

First Place

Kaily Adair 7th grade
The Accuracy Behind the Accusation
 Preston Middle School Fort Collins

Second Place

Aleesa Muir 6th grade
Developing an Awareness of Pet Stewardship
 The Classical Academy Colorado Springs

Third Place

Julia Siegel 8th grade
The Confusion of the Rainbow Part 2
 Herzl Rocky Mountain Hebrew Academy Denver

Honorable Mention

Chad Haunschild 6th grade
Exercises: Can The Eyes Learn?
 Mountain View Core Knowledge Charter School Canon City

Honorable Mention

Marika Schubert 8th grade
The Power of Suggestion
 Russell Middle School Colorado Springs

Honorable Mention

Sophie Foster 6th grade
Color Confusions
 North Middle School Colorado Springs

Category Team Award

Levi Schofield & Luke Dekker 8th grade
DWD (Driving While Distracted)
 Evangelical Christian Academy Colorado Springs

Category Team Award

Lawrence Zhang & Isabelle Nathanson 8th grade
Thinking In Color: The Effect of Brain Dominance on How We Learn
 Summit Middle Charter School Boulder

Senior Division Behavioral & Social Sciences

First Place

Vikash Hypio 10th grade
Voting Systems: An Outcome Analysis, Phase 2
 Hotchkiss High School Hotchkiss

Second Place

Joshua Garcia 11th grade
Are You Confined To A Life With Musical Disabilities?
 Monte Vista High School Monte Vista

Third Place

Diane Schulze 10th grade
Error in MRI: Bias, Random Error, and the Power of Suggestion
 Cherry Creek High School Greenwood Village

Honorable Mention

Sarah Oden 11th grade
Human Perception: A Study on Implicit Prejudice
 Monte Vista High School Monte Vista

Junior Division Chemistry

First Place

C J VanDeMark 7th grade
Medieval Paint Mediums
 Union Colony Middle School Greeley

Second Place

Ross Rierson 8th grade
Green Tea: A Healthy Choice?
 Sargent Jr/Sr High School Monte Vista

Third Place

Teisha Coffield 7th grade
Rethinking De-inking
 Lone Star Middle School Otis

Honorable Mention

Robin Austin 8th grade
Yeast: CO2 Output Using Natural and Artificial Sweeteners
 Columbine Christian School Durango

Honorable Mention

Lauren Wilson 7th grade
Blaze vs. Baking Soda
 The Classical Academy Colorado Springs

Senior Division Chemistry

First Place

Jaehee Park 11th grade
Using Steel Wool to Remove Arsenic from Drinking Water
 Fairview High School Boulder

Second Place

Aidan Seawalt 12th grade
Concentration of Nickel Hydroxide in a NiMH Battery
 Cherry Creek High School Greenwood Village

Third Place

Gerri Roberts 9th grade
Basic Studies of Green Diesel from Biostock
 Poudre High School Fort Collins

Honorable Mention

Travis Zuniga 11th grade
Brand Name v. Generic: A Chemical Analysis of Analgesics by TLC
 South High School Pueblo

Honorable Mention

Katelyn Yowell 11th grade
Chlorophyll in Your Lip Balm?
 Genoa-Hugo High School Hugo

Category Team Award

Alexander Port & Devon Stork 11th grade
The Effect of Intramolecular Bonding on the Structure of Odor Binding Protein-4
 George Washington High School Denver

Junior Division Earth & Space Sciences

First Place

Sophia Schneider 8th grade
Reducing Global Warming? The Effect of Microorganisms on Geologic Sequestration
 North Middle School Colorado Springs

Second Place

David Ritzwoller 8th grade
Do Earthquakes in Colorado Follow the Gutenberg-Richter Law?
 Summit Middle Charter School Boulder

Third Place

Taylor Volesky 8th grade
The Physical Weathering of Rocks: The Freeze Thaw Cycle
 Cherry Creek Challenge School Denver

Honorable Mention

Troy Fantini 8th grade
Boiling in the Stratosphere
 Aspen Middle School Aspen

Senior Division Earth & Space Sciences

First Place

Johanna Phillips 10th grade
Infested Forests and Evapotranspiration II: Developing a Watershed Model, Phase 1
 Monte Vista High School Monte Vista

Second Place

Tara Sowrirajan 10th grade
Hadley Circulation in the Venusian Atmosphere
 Cherry Creek High School Greenwood Village

Third Place

Tanya Petach 11th grade
Colorado River Salinity: Correlation to Geostrata and Mitigation with Carbon-Fiber Capacitors
 Fairview High School Boulder

Honorable Mention

Christopher Krause 12th grade
Microclimates under the Microscope
 The Classical Academy Colorado Springs

Junior Division Energy & Transportation

First Place

Nathanael Ramirez 8th grade
The "Light" of Our Lives
 Sargent Jr/Sr High School Monte Vista

Second Place

Ryan Famiglietti 7th grade
Garbage is Good: Gasification as Green Energy
 Cherry Creek Challenge School Denver

Third Place

Cecelia Brennan 8th grade
Revolutionizing Household Appliances
 Holy Family Catholic School Grand Junction

Honorable Mention

Ryan Mitchell & Drake Hammond 8th grade
How Much Are You Wasting?
 Cherry Creek Challenge School Denver

Senior Division Energy & Transportation

First Place

Sara Volz 9th grade
*Enhancing Algae Biofuels: The Effects of Nitrogen Limitation and CO2 Infusion on the Oil Yields of *Nannochloropsis oculata**
 Cheyenne Mountain High School Colorado Springs

Second Place

Christy Farnsworth 12th grade
A New Look of Alternative Energy
 Paonia High School Paonia

Third Place

Raleigh Burt 12th grade
Optimizing Energy Extraction and Water Conservation of Geothermal Heating Systems, Part II
 Sargent Jr/Sr High School Monte Vista

Honorable Mention

Scott Martin 12th grade
Storing and Harnessing Energy Through Pumped Micro-Hydroelectric Systems
 Cherry Creek High School Greenwood Village

Junior Division Engineering**First Place**

Reid Palser 7th grade
Submersible Vehicle Design and Modification, Phase One
 Otis Jr/Sr High School Otis

Second Place

Dylan Schlager 8th grade
Internet Through a Can???
 Summit Middle Charter School Boulder

Third Place

Jennifer Jones 7th grade
Catching the Musca domestica: A Study of the Common House Fly and Trapping it With a Biodegradable, Eco-Friendly, and Non-Hazardous Fly Trap
 Weld Central Junior High School Keenesburg

Senior Division Engineering**First Place**

Henry Shennan 12th grade
A 2.3m Dual Band Radio Telescope for Power Mapping and Line Spectra Observations
 Fairview High School Boulder

Second Place

Jesse Ellison 12th grade
Next Generation Propulsion: The ALFA Mark VI
 Bayfield High School Bayfield

Third Place

Megan Perez 10th grade
The Hovercraft Project
 Del Norte Jr/Sr High School Del Norte

Honorable Mention

Roberto Fortes & Taylor Labato 12th grade
Trash Landing: Building a Plane From Recycled Materials
 Center High School Center

Junior Division Environmental Sciences**First Place**

Rachel Rossi 8th grade
Catch That Copper: The Effects of Fungi Cultivation on Copper Levels in Fresh Water
 Miller Middle School Durango

Second Place

Devon Enke 8th grade
Mycorrhizal Symbiosos: Unlocking the Potential of Soil
 La Veta Jr/Sr High School La Veta

Third Place

Grant Yowell 8th grade
Go Green with BioPlastics
 Genoa-Hugo Middle School Hugo

Honorable Mention

Torin McDonald 8th grade
The Impact of a Coal Mine on Water Quality
 Summit Middle Charter School Boulder

Honorable Mention

Brett Ferraro 8th grade
Troubled Waters?
 Vail Mountain School Vail

Honorable Mention

Dante Carter 8th grade
Do Natural Remedies Work For Stream Pollution?
 North Middle School Colorado Springs

Category Team Award

Jessie McLaughlin & Erin McLaughlin 8th grade
Irrigation Water Salinity and Its Effect on Early Plant Growth
 Sacred Heart of Jesus School Boulder

Senior Division Environmental Sciences**First Place**

Ben Armstrong 12th grade
The Uptake of Endocrine Disrupting Chemicals
 Monte Vista High School Monte Vista

Second Place

Shannon McAvoy 12th grade
Water, Water Everywhere
 Windsor High School Windsor

Third Place

Mark Seres 12th grade
Optimization of the Amount of Iron for the Enhancement of Phytoplankton Blooms
 Cherry Creek High School Greenwood Village

Appendix 2

Honorable Mention

Brisha Wakasugi 9th grade
Kerber Creek Restoration: Using Phytoremediation to Rebuild a Watershed
 Sierra Grande Jr/Sr High School Blanca

Honorable Mention

Jeffrey Hibbert 11th grade
The Implications of Using Carbon Nanotubes to Promote Algal Growth
 Lone Star High School Otis

Junior Division Math & Computer Sciences

First Place

Brandon Jacobs 8th grade
Hard Drive Sector Size . . . Does it Impact Performance?
 Summit Middle Charter School Boulder

Second Place

Kyle Kihn 8th grade
Stopping the Spread of H1N1: A Computer Simulation
 Nevin Platt Middle School Boulder

Third Place

Dakota Harris 7th grade
Magical Mathematical Juice
 Wiggins Middle School Wiggins

Senior Division Math & Computer Sciences

First Place

John Parish IV 11th grade
Closer to Where It Wasn't: Estimation and Tracking Using Adaptive Filtering
 Home School Colorado Springs

Second Place

Robin Betz 12th grade
Automated Image Reassembly With A Hybrid Genetic Algorithm
 Fairview High School Boulder

Third Place

Garrett Glissmann 10th grade
Leveraging the Twitter Platform for Mass Communication and Collection of Opinions
 Boulder High School Boulder

Honorable Mention

Jessica Constant 9th grade
Computer Modeling III: An Eulerian Simulation Model of Particulate Dispersion in the Atmosphere
 Poudre High School Fort Collins

Honorable Mention

Ashlynn Miller 11th grade
Determination of Fractal Dimension of Blood Spatter Patterns
 Lone Star High School Otis

Junior Division Medicine & Health

First Place

Abigail Negley 8th grade
The Effect of Pain Killers on the Healing Process of Planaria
 North Middle School Colorado Springs

Second Place

Sydney Matteson 7th grade
Planaria Grow: Fast or Slow? The Effects of Healing Remedies on the Regeneration of Planaria
 North Middle School Colorado Springs

Third Place

Kaitlyn Nagel 8th grade
Running On Fumes
 Blevins Middle School Ft. Collins

Honorable Mention

Megan Percy 7th grade
The Best Thing Since Fresh Fruit
 The Classical Academy Colorado Springs

Honorable Mention

Phoebe Stoye 8th grade
The Effect of Therabands on Ankle Strength
 East Middle School Grand Junction

Senior Division Medicine & Health

First Place

Radhika Rawat 12th grade
Pre-Initiation Complexes of SREBP-1a and -2
 Boulder High School Boulder

Second Place

Connie Liu 11th grade
Therapeutic Use of microRNA-200c to Treat HEY Ovarian Cancer
 Cherry Creek High School Greenwood Village

Third Place

Rahul Shankar 10th grade
Proteomic Method Development for the Analysis of Tissue Transglutaminases Role in Cancer Progression
 Rampart High School Colorado Springs

Honorable Mention

Nikki Schmidt 11th grade
Mixing Prescriptions? The Inactivation of Tamoxifen by SSRIs on Lumbriculus variegatus
 Merino Jr/Sr High School Merino

Appendix 2

Category Team Award

Tonya Pavlenko & Laura Gudvangen 11th grade
Internal Combat With Melanoma: Triggering an Immune Response Through the Up-Regulation of FAS Using Toll Ligand Combination Treatments
 Palmer High School Colorado Springs

Category Team Award

Lorne Muir II & Nathan Weeks 10th grade
Analyzing the Separate Toxicity of Engineered Nanoparticles on L1210 Cells
 The Classical Academy Colorado Springs

Junior Division Microbiology

First Place

Chelsea Smith 7th grade
Ewww! What's on My Shoe?
 The Classical Academy Colorado Springs

Second Place

Marcus Witzel 7th grade
Monumental Mold
 The Classical Academy Colorado Springs

Third Place

Anne Mummery 6th grade
Don't Eat the Yellow Snow
 Miller Middle School Durango

Honorable Mention

Connor Fiscus 7th grade
MMMM . . . I'm Lovin' It! Unless It's on the Floor
 Merino Jr/Sr High School Merino

Honorable Mention

Alicia Gerken 7th grade
Why then, can one desire too much of a good thing? Shakespeare's As You Know It, 1600
 Weld Central Junior High School Keenesburg

Senior Division Microbiology

First Place

Kelli Lynch 10th grade
Irradiation Extermination: A Portable System to Eliminate Water-Borne Microorganism
 Rocky Mountain High School Fort Collins

Second Place

Katherine Schilling 12th grade
Strain Engineering Furfural Resistance in E. coli for Biofuels Applications
 Fairview High School Boulder

Third Place

Wyatt Palser 9th grade
An Examination of Silver Nanoparticles: Antimicrobial Effects and Mitigation
 Otis Jr/Sr High School Otis

Honorable Mention

Elaine Wolfe 12th grade
The Effects of Common Oral Hygiene Routines on the Oral Microbiota
 Fairview High School Boulder

Junior Division Physics

First Place

Jessica O'Brien 8th grade
Picture Perfect
 Peak to Peak Charter School Lafayette

Second Place

Emma Frantz 7th grade
The Effects of Magnetic Levitation on Friction Force
 North Middle School Colorado Springs

Third Place

Aidan Mike 8th grade
What's the Point? A Ballistic Analysis of Arrowheads
 North Middle School Colorado Springs

Honorable Mention

Nick Wilbur 6th grade
Making Waves: The Effect of Bow Size on Violin Sound Waves
 Miller Middle School Durango

Honorable Mention

Alina Lugo 8th grade
Planaria Regeneration and Electromagnetism
 North Middle School Colorado Springs

Senior Division Physics

First Place

Ethan Hahn 12th grade
Nuclear Fusion By Inertial Electrostatic Confinement: Increasing Efficiency With Thermionic Emission
 The Classical Academy Colorado Springs

Second Place

Amy Lyne 11th grade
Investigation of Wave Phenomenon
 Brush High School Brush

Third Place

Nathaniel Thompson 12th grade
The Dynamics of Induced Hovering Flight in an Oscillating Airflow at Various Frequencies
 Brush High School Brush

Honorable Mention

Tanner Dunivan 9th grade
Stronger Than a Speeding Bullet
 Walsh High School Walsh

Appendix 2

Honorable Mention

Samantha Ensz 11th grade
Photon Emission Based on Color
 Hi-Plains Jr/Sr High School Seibert

Honorable Mention

Tucker Leavitt & Samuel Kater 9th grade
Electrostatic Power Amplification
 Animas High School Durango

Junior Division Plant Sciences

First Place

Haley Matteson 8th grade
Sick Plants, Well Plants: Using Plants as Biological Indicators of Pharmaceutical Pollution
 North Middle School Colorado Springs

Second Place

Johanne Albrigtsen 8th grade
Allelopathic Effects of Picea pungens
 Summit Middle Charter School Boulder

Third Place

Zachary Nastri 7th grade
What Colors of Light Make a Plant Grow?
 Most Precious Blood Catholic School Denver

Honorable Mention

Tucker Teague 6th grade
Effects of Lagoon Water on Bean Plants
 Wiggins Middle School Wiggins

Honorable Mention

Elizabeth Hoffner 8th grade
Healthy and Nutritious Spud
 Home School Center

Senior Division Plant Sciences

First Place

Nikki Buhrdorf 10th grade
Aspen in a State of SADness: A Statistical Analysis of the Decline of Populus tremuloides
 Hotchkiss High School Hotchkiss

Second Place

Wylie Keller 10th grade
Wool as a Potting Media
 Monte Vista High School Monte Vista

Third Place

Jordan Lestina 11th grade
Biodiesel from Sunflowers: An Analysis of Planting Dates, Soil Temperature, and Oil Content
 Dove Creek High School Dove Creek

Honorable Mention

Deshae Gehr & Lauren Bacon 12th grade
The Effects of Estrogen on RNAi Expression of Arabidopsis Wild-Type and Mutant Strains
 Monarch High School Louisville

2010 Colorado Science and Engineering Fair Special Awards Press Release

Colorado Science and Engineering Fair			
<i>Poster Art Contest</i>			
Branislava Blagojevic certificate, \$100 Canon City High School	Canon City	Anne Mummery certificate, \$30 Miller Middle School <i>Don't Eat the Yellow Snow</i>	6th grade Durango
<i>Ralph Desch Memorial Technical Writing Award</i> Harraz MohdReza certificate, \$100 Union Colony Preparatory School	11th grade Greeley	Rex Stowers certificate, \$30 St. Columba Catholic School <i>Phytoremediation: Can Plants Clean Soil?</i>	7th grade Durango
<i>Immunocytochemical Characterization of Mouse Brain Explants in an In Vitro Model of Schizophrenia</i>		Chad Haunschild certificate, \$30 Mountain View Core Knowledge <i>Exercises: Can The Eyes Learn?</i>	6th grade Canon City
<i>Student Choice Award</i>			
Ty Gardner & Blaine Cahill certificate, trophy, \$100 West Middle School	7th grade Grand Junction	Kaylie Thompson certificate, \$30 Sargent Jr/Sr High School <i>What's in Your Water?</i>	7th grade Monte Vista
Erik Schnaderbeck certificate, trophy, \$100 Sargent Jr/Sr High School	11th grade Monte Vista	Kohler McInnis certificate, \$30 St. Columba Catholic School <i>Maglev Trains: Are they Cool or Are They Hot? A Study of the Effect of Temperature on Maglev Trains</i>	7th grade Durango
<i>Identifying Individual Rainbow Trout Utilizing Distinct Spot Orientation</i>		Madison Thompson certificate, \$30 Otis Jr/Sr High School <i>Can You STAND This???</i>	6th grade Otis
<i>Pioneers of Science</i>			
Sidney Stegman certificate, \$30 Lincoln Elementary School	6th grade Lamar	Nathan Witt certificate, \$30 Flagler Middle School <i>Riprap Gives Erosion A Nap</i>	7th grade Flagler
Anabel Henriquez certificate, \$30 Cesar Chavez Academy	7th grade Pueblo	Bryce Ward certificate, \$30 Miller Middle School <i>O Pollution, Pollution! Wherefore Art Thou Pollution?</i>	6th grade Durango
<i>At What Temperature Do Dogs Prefer Their Food?</i>		Schuyler Adkins & Gabrielle Potter certificate, \$30 Goodnight Elementary School <i>T.G.I.F.</i>	8th grade Pueblo
Dakota Harris certificate, \$30 Wiggins Middle School	7th grade Wiggins	Morgan Felix certificate, \$30 Olathe Middle School <i>Magnobile</i>	7th grade Olathe
<i>Magical Mathematical Juice</i>			
Ryan Rohn certificate, \$30 Wiggins Middle School	6th grade Wiggins		
<i>Get Wet and Wrinkly</i>			
Kayla Snyder certificate, \$30 Falcon Middle School	6th grade Falcon		
<i>Ice is Nice</i>			
Rene Carter certificate, \$30 North Middle School	6th grade Colorado Springs		
<i>Dandelion Root and Peppermint Leaf vs. Penicillin</i>			

Appendix 2

Military

United States Air Force

Forrest Pieper & Robert Decker 12th grade
certificate, connections computer accessories kit, slazenger sport deluxe sling, magnetic floating pen/holder
Nederland Middle/Senior High Nederland
Internal Stretcher Storage of Medical Oxygen for On-Site Emergency Treatment

Jesse Ellison 12th grade
certificate, connections computer accessories kit, slazenger sport deluxe sling, magnetic floating pen/holder
Bayfield High School Bayfield
Next Generation Propulsion: The ALFA Mark VI

Christy Farnsworth 12th grade
certificate, connections computer accessories kit, slazenger sport deluxe sling, magnetic floating pen/holder
Paonia High School Paonia
A New Look of Alternative Energy

Robin Betz 12th grade
certificate, connections computer accessories kit, slazenger sport deluxe sling, magnetic floating pen/holder
Fairview High School Boulder
Automated Image Reassembly With A Hybrid Genetic Algorithm

United States Army

Connie Liu 11th grade
certificate, \$50 (to be mailed)
Cherry Creek High School Greenwood Village
Therapeutic Use of microRNA-200c to Treat HEY Ovarian Cancer

Tonya Pavlenko & Laura Gudvangen 11th grade
certificate, \$50 (to be mailed)
Palmer High School Colorado Springs
Internal Combat With Melanoma: Triggering an Immune Response Through the Up-Regulation of FAS Using Toll Ligand Combination Treatments

Henry Shennan 12th grade
certificate, \$50 (to be mailed)
Fairview High School Boulder
A 2.3m Dual Band Radio Telescope for Power Mapping and Line Spectra Observations

Jeffrey Hibbert 11th grade
certificate, \$50 (to be mailed)
Lone Star High School Otis
The Implications of Using Carbon Nanotubes to Promote Algal Growth

Sara Volz 9th grade
certificate, silver medallion, \$100 (to be mailed)
Cheyenne Mountain High School Colorado Springs
Enhancing Algae Biofuels: The Effects of Nitrogen Limitation and CO2 Infusion on the Oil Yields of Nannochloropsis oculata

United States Navy and Marine Corps

Chad Haunschild 6th grade
certificate, medallion
Mountain View Core Knowledge Canon City
Exercises: Can The Eyes Learn?

Dylan Schlager 8th grade
certificate, medallion
Summit Middle Charter School Boulder
Internet Through a Can???

Nick Wilbur 6th grade
certificate, medallion
Miller Middle School Durango
Making Waves: The Effect of Bow Size on Violin Sound Waves

Hannah McIntyre 8th grade
certificate, medallion
North Middle School Colorado Springs
Natural vs. Antibiotics: Which Is More Effective on the Killing of E. coli?

Connie Liu 11th grade
certificate, medallion, \$75 gift certificate (to be mailed)
Cherry Creek High School Greenwood Village
Therapeutic Use of microRNA-200c to Treat HEY Ovarian Cancer

Emily Schnoor 12th grade
certificate, medallion, \$75 gift certificate (to be mailed)
Sargent Jr/Sr High School Monte Vista
The Answer is in the Solution

Christy Farnsworth 12th grade
certificate, medallion, \$75 gift certificate (to be mailed)
Paonia High School Paonia
A New Look of Alternative Energy

Organizational

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

Brisha Wakasugi 9th grade
\$50 (to be mailed)
Sierra Grande Jr/Sr High School Blanca
Kerber Creek Restoration: Using Phytoremediation to Rebuild a Watershed

Shannon McAvoy 12th grade
\$50 (to be mailed)
Windsor High School Windsor
Water, Water Everywhere

Appendix 2

Rachel Rossi 8th grade
 \$50 (to be mailed)
 Miller Middle School Durango
Catch That Copper: The Effects of Fungi Cultivation on Copper Levels in Fresh Water

Ryan Parrish 7th grade
 \$50 (to be mailed)
 North Middle School 2009/2010
Does Size Matter: The Effect of Building Size on the Wind's Ability to Remove Pollution

Bryce Ward 6th grade
 \$50 (to be mailed)
 Miller Middle School Durango
O Pollution, Pollution! Wherefore Art Thou Pollution?

American Academy of Environmental Engineers
 Brisha Wakasugi 9th grade
 certificate, membership in AAEE
 Sierra Grande Jr/Sr High School Blanca
Kerber Creek Restoration: Using Phytoremediation to Rebuild a Watershed

American Association of University Women
 Haley Matteson 8th grade
 \$100 (to be mailed)
 North Middle School Colorado Springs
Sick Plants, Well Plants: Using Plants as Biological Indicators of Pharmaceutical Pollution

**American Chemical Society
 Colorado Local Section**
 Leonard Brasuel 6th grade
 certificate, \$100 (to be mailed)
 North Middle School Colorado Springs
What's the Spiciest Part of a Chile?

Jaehee Park 11th grade
 certificate, \$100 (to be mailed)
 Fairview High School Boulder
Using Steel Wool to Remove Arsenic from Drinking Water

**American Institute of Chemical Engineers
 Rocky Mountain Section**
 Leonard Brasuel 6th grade
 \$75
 North Middle School Colorado Springs
What's the Spiciest Part of a Chile?
 Tyler Morley 8th grade
 \$100
 Summit Middle Charter School Boulder
Frozen Resistance

David Wise 11th grade
 \$75
 The Classical Academy Colorado Springs
Mathematical Analysis of Chemical Equilibria

Jaehee Park 11th grade
 \$100
 Fairview High School Boulder
Using Steel Wool to Remove Arsenic from Drinking Water

American Meteorological Society, Denver/Boulder Chapter

Ryan Parrish 7th grade
 certificate, \$50
 North Middle School 2009/2010
Does Size Matter: The Effect of Building Size on the Wind's Ability to Remove Pollution

Johanna Phillips 10th grade
 certificate, \$50
 Monte Vista High School Monte Vista
Infested Forests and Evapotranspiration II: Developing a Watershed Model, Phase 1

American Statistical Association Colorado/Wyoming Chapter

David Young Award for the Best Use of Statistics in a Science Project

Schuyler Adkins 8th grade
 Gabrielle Potter 8th grade
 \$150, student membership in the American Statistical Association, acknowledgment at chapter spring meeting and on chapter website
 Goodnight Elementary School Pueblo
T.G.I.F.

Christopher Krause 12th grade
 \$150, student membership in the American Statistical Association, acknowledgment at chapter spring meeting and on chapter website
 The Classical Academy Colorado Springs
Microclimates under the Microscope

American Vacuum Society Rocky Mountain Chapter

Rachel Rossi 8th grade
 \$50, \$50 to teacher/sponsor
 Miller Middle School Durango
Catch That Copper: The Effects of Fungi Cultivation on Copper Levels in Fresh Water

Emma Frantz 7th grade
 \$100, \$100 to teacher/sponsor
 North Middle School Colorado Springs
The Effects of Magnetic Levitation on Friction Force

Appendix 2

Ethan Hahn 12th grade
 \$50, \$50 to teacher/sponsor
 The Classical Academy Colorado Springs
*Nuclear Fusion By Inertial Electrostatic Confinement:
 Increasing Efficiency With Thermionic Emission*

Jesse Ellison 12th grade
 \$100, \$100 to teacher/sponsor
 Bayfield High School Bayfield
Next Generation Propulsion: The ALFA Mark VI

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

Rachel Rossi 8th grade
 \$200 (to be mailed)
 Miller Middle School Durango
*Catch That Copper: The Effects of Fungi Cultivation on
 Copper Levels in Fresh Water*

Jessie McLaughlin & Erin McLaughlin 8th grade
 \$400 (to be mailed)
 Sacred Heart of Jesus School Boulder
*Irrigation Water Salinity and Its Effect on Early Plant
 Growth*

Kelli Lynch 10th grade
 \$200 (to be mailed)
 Rocky Mountain High School Fort Collins
*Irradiation Extermination: A Portable System to Eliminate
 Water-Borne Microorganism*

Ben Armstrong 12th grade
 \$400 (to be mailed)
 Monte Vista High School Monte Vista
The Uptake of Endocrine Disrupting Chemicals

Armbruster Associates

Charlie Armbruster Memorial Award

Ian Morrison & Michael Caro 8th grade
 \$100
 Brentwood Middle School Greeley
It's Electric

ASM International

Tyler Lopez & Elizabeth Fink 8th grade
 \$100
 Goodnight Elementary School Pueblo
Help! Save My Car!

Brenna Ray 8th grade
 Carlos Nunez 7th grade
 \$150
 La Veta Jr/Sr High School La Veta
*NaCl and MgCl₂: A Study on the Role of Deicers in the
 Deterioration of Various Materials*

Association for Women Geoscientists Larimide Chapter

Shania Gonzales 7th grade
 \$75, achievement medal
 Cesar Chavez Academy Pueblo
Radiation Fog

Teisha Coffield 7th grade
 \$75, achievement medal
 Lone Star Middle School Otis
Rethinking De-inking

Colorado Association of Meat Processors

Kelly Christensen & Molly McMahon 12th grade
 certificate, \$60 (to be mailed)
 Monarch High School Louisville
Generation of a RNA Probe for In Situ Hybridization

Colorado Association of Science Teachers

Robin Austin 8th grade
 \$75
 Columbine Christian School Durango
Yeast: CO₂ Output Using Natural and Artificial Sweeteners

Grant Yowell 8th grade
 \$75
 Genoa-Hugo Middle School Hugo
Go Green with BioPlastics

Sarah Kerbs 11th grade
 \$75
 Wray High School Wray
*Bugs Be Gone! Evaluation the Effectiveness of Pyrethrum &
 Synthetic Based Equine Insect Repellent*

Jaehee Park 11th grade
 \$75
 Fairview High School Boulder
Using Steel Wool to Remove Arsenic from Drinking Water

Gerald Gromko Award

Samantha Ensz 11th grade
 \$175, plaque
 Hi-Plains Jr/Sr High School Seibert
Photon Emission Based on Color

Colorado Biology Teachers' Association

Reece Kothe 8th grade
 certificate, \$75
 Eaton Middle School Eaton
*Common Lambsquarters Weed: Glyphosate Tolerant? Is
 it too late?*

Emily Schnoor 12th grade
 certificate, \$75
 Sargent Jr/Sr High School Monte Vista
The Answer is in the Solution

Appendix 2

Colorado Dental Association

Michaela Keeler 8th grade
\$50
Hi-Plains Jr/Sr High School Siebert
Prevention of Bacteria From Ahhh to Z

Tyler Chin 7th grade
\$50
Orchard Mesa Middle School Grand Junction
Dirty Mouth Dogs vs. Clean Mouth Cats (Who has the most bacteria in their saliva?)

Lauren Dewey & Ellie Sullivan 6th grade
\$100
North Middle School Colorado Springs
Don't Kiss Your . . .

Elaine Wolfe 12th grade
\$100
Fairview High School Boulder
The Effects of Common Oral Hygiene Routines on the Oral Microbiota

Colorado Division of Wildlife

Zoe Wohlgenant 8th grade
\$50, packet of Colorado Division of Wildlife products
Hill Campus of the Arts and Denver
The Efficacy of Sugar Dusting in Controlling Populations of Honey Bee Mites

Erik Schnaderbeck 11th grade
\$50, packet of Colorado Division of Wildlife products
Sargent Jr/Sr High School Monte Vista
Identifying Individual Rainbow Trout Utilizing Distinct Spot Orientation

Colorado Environmental Health Association

Jennifer Jones 7th grade
\$75, framed certificate
Weld Central Junior High School Keenesburg
Catching the Musca domestica: A Study of the Common House Fly and Trapping it With a Biodegradable, Eco-Friendly, and Non-Hazardous Fly Trap

Kelli Lynch 10th grade
\$150, framed certificate, invitation to exhibit at the CEHA Annual Educational Conference (\$400 value)
Rocky Mountain High School Fort Collins
Irradiation Extermination: A Portable System to Eliminate Water-Borne Microorganism

Colorado Foundation for Agriculture

Agriculture in the Classroom Award

Reece Kothe 8th grade
certificate, \$50
Eaton Middle School Eaton
Common Lambsquarters Weed: Glyphosate Tolerant? Is it too late?

Johanne Albrigtsen 8th grade
certificate, \$50
Summit Middle Charter School Boulder
Allelopathic Effects of Picea pungens

Savannah Schilling 12th grade
certificate, \$50
Broomfield High School Broomfield
There's Not Room in this Knapweed for the Both of Us

Wylie Keller 10th grade
certificate, \$50
Monte Vista High School Monte Vista
Wool as a Potting Media

Colorado Geographic Alliance

Adam Hofinga 8th grade
\$100
Otis Jr/Sr High School Otis
Gone with the Wind

Tanya Petach 11th grade
\$100
Fairview High School Boulder
Colorado River Salinity: Correlation to Geostrata and Mitigation with Carbon-Fiber Capacitors

Colorado Medical Society

Ethan Pence 6th grade
\$100; invitation to exhibit at the Colorado medical Society Annual Meeting and attendance at the Presidential Inaugural Dinner with a paid overnight stay
Eagle County Charter Academy Edwards
If You Can't See, You Can't Hear

Harraz MohdReza 11th grade
\$100; invitation to exhibit at the Colorado medical Society Annual Meeting and attendance at the Presidential Inaugural Dinner with a paid overnight stay
Union Colony Preparatory School Greeley
Immunocytochemical Characterization of Mouse Brain Explants in an In Vitro Model of Schizophrenia

Colorado Mineral Society

Taylor Volesky 8th grade
\$25, 2 mineral specimens, book
Cherry Creek Challenge School Denver
The Physical Weathering of Rocks: The Freeze Thaw Cycle

Sophia Schneider 8th grade
\$40, 2 mineral specimens, book
North Middle School Colorado Springs
Reducing Global Warming? The Effect of Microorganisms on Geologic Sequestration

Appendix 2

Jaehee Park \$25, 2 mineral specimens, book Fairview High School <i>Using Steel Wool to Remove Arsenic from Drinking Water</i>	11th grade Boulder	Jaehee Park certificate, \$100 (to be mailed) Fairview High School <i>Using Steel Wool to Remove Arsenic from Drinking Water</i>	11th grade Boulder
Tanya Petach \$40, 2 mineral specimens, book Fairview High School <i>Colorado River Salinity: Correlation to Geostrata and Mitigation with Carbon-Fiber Capacitors</i>	11th grade Boulder	<i>Department of Horticulture & Landscape Architecture Award</i>	
Colorado River Watch		Elizabeth Hoffner \$100 (to be mailed) Home School <i>Healthy and Nutritious Spud</i>	8th grade Center
Torin McDonald \$50 Summit Middle Charter School <i>The Impact of a Coal Mine on Water Quality</i>	8th grade Boulder	Kyle Harlow \$100 (to be mailed) Canon City High School <i>Dandelions Dare to Differ: Measuring the Phenotypical Variations of Taraxacum officinale</i>	9th grade Canon City
Colorado Scientific Society		Haley Matteson \$100 (to be mailed) North Middle School <i>Sick Plants, Well Plants: Using Plants as Biological Indicators of Pharmaceutical Pollution</i>	8th grade Colorado Springs
Taylor Volesky \$50 Cherry Creek Challenge School <i>The Physical Weathering of Rocks: The Freeze Thaw Cycle</i>	8th grade Denver	Wylie Keller \$100 (to be mailed) Monte Vista High School <i>Wool as a Potting Media</i>	10th grade Monte Vista
David Ritzwoller \$75 Summit Middle Charter School <i>Do Earthquakes in Colorado Follow the Gutenberg-Richter Law?</i>	8th grade Boulder	Colorado Trout Unlimited	
Johanna Phillips \$75 Monte Vista High School <i>Infested Forests and Evapotranspiration II: Developing a Watershed Model, Phase 1</i>	10th grade Monte Vista	Brisha Wakasugi \$100 savings bond, copy of "Trout and Salmon of North American by Dr. Robert Behnke Sierra Grande Jr/Sr High School <i>Kerber Creek Restoration: Using Phytoremediation to Rebuild a Watershed</i>	9th grade Blanca
Tanya Petach \$100 Fairview High School <i>Colorado River Salinity: Correlation to Geostrata and Mitigation with Carbon-Fiber Capacitors</i>	11th grade Boulder	Colorado Veterinary Medical Association & CVMA Auxiliary & Auxiliary to the AVMA	
Colorado State University		Aleesa Muir certificate, gold medallion from the Auxiliary to the AVMA, \$50 from CVMA, \$50 from CVMA Auxiliary The Classical Academy <i>Developing an Awareness of Pet Stewardship</i>	6th grade Colorado Springs
<i>Department of Biochemistry & Molecular Biology</i> Rahul Shankar certificate, \$100 (to be mailed) Rampart High School <i>Proteomic Method Development for the Analysis of Tissue Transglutaminases Role in Cancer Progression</i>	10th grade Colorado Springs	Alexa Major certificate, gold medallion from the Auxiliary to the AVMA, \$50 from CVMA, \$50 from CVMA Auxiliary Fowler High School <i>Got A1 or A2 Milk?</i>	10th grade Fowler
<i>Department of Chemistry Award</i>		Colorado-Wyoming Society of American Foresters	
Leonard Brasuel certificate, \$100 (to be mailed) North Middle School <i>What's the Spiciest Part of a Chile?</i>	6th grade Colorado Springs	Melinda Vickers \$100 savings bond Eagle County Charter Academy <i>A Burning Question</i>	8th grade Edwards

Appendix 2

Nakayla Lestina 10th grade
 \$100 savings bond
 Dove Creek High School Dove Creek
Biological Control of Tamarisk-Analyzing the Tamarisk Leaf Beetle

Nikki Buhrdorf 10th grade
 \$100 savings bond
 Hotchkiss High School Hotchkiss
Aspen in a State of SADness: A Statistical Analysis of the Decline of Populus tremuloides

Division of Reclamation Mining and Safety

Nathan Witt 7th grade
 \$75 (to be mailed)
 Flagler Middle School Flagler
Riprap Gives Erosion A Nap

Tanya Petach 11th grade
 \$75 (to be mailed)
 Fairview High School Boulder
Colorado River Salinity: Correlation to Geostrata and Mitigation with Carbon-Fiber Capacitors

Fort Collins Conservation District

Devon Enke 8th grade
 \$50, plaque
 La Veta Jr/Sr High School La Veta
Mycorrhizal Symbiosos: Unlocking the Potential of Soil

Nakayla Lestina 10th grade
 \$50, plaque
 Dove Creek High School Dove Creek
Biological Control of Tamarisk-Analyzing the Tamarisk Leaf Beetle

Hands and Minds, Inc. & The Anatomy in Clay

Evan Hummel 8th grade
 Student 1/2 Maniken Human Skeletal Model Kit (includes tools, clay and learning activities valued at \$200)
 Blevins Middle School Fort Collins
Can You Feel the Beat?

**Human Factors and Ergonomics Society
 Rocky Mountain Chapter**

Reid Palser 7th grade
 \$100
 Otis Jr/Sr High School Otis
Submersible Vehicle Design and Modification, Phase One

Garrett Glissmann 10th grade
 \$100
 Boulder High School Boulder
Leveraging the Twitter Platform for Mass Communication and Collection of Opinions

**Institute of Electrical & Electronic Engineers
 Centennial Subsection**

Dylan Schlager 8th grade
 \$100
 Summit Middle Charter School Boulder
Internet Through a Can???

Henry Shennan 12th grade
 \$150
 Fairview High School Boulder
A 2.3m Dual Band Radio Telescope for Power Mapping and Line Spectra Observations

Little Shop of Physics

Matthew McCausland Memorial Award

Emma Frantz 7th grade
 \$100
 North Middle School Colorado Springs
The Effects of Magnetic Levitation on Friction Force

Tucker Leavitt 9th grade
 Samuel Kater 9th grade
 \$100
 Animas High School Durango
Electrostatic Power Amplification

Lockheed Martin

Emma Frantz 7th grade
 \$50 savings bond
 North Middle School Colorado Springs
The Effects of Magnetic Levitation on Friction Force

Jesse Ellison 12th grade
 \$100 savings bond
 Bayfield High School Bayfield
Next Generation Propulsion: The ALFA Mark VI

Teacher of the Year Award

James Depue
 certificate, \$3,000 grant
 Wray High School Wray

Morris Animal Foundation

Randi Timmons 9th grade
 \$100 (to be mailed)
 Walsh High School Walsh
Upset Equine: Saving With Science

Emily Schnoor 12th grade
 \$150 (to be mailed)
 Sargent Jr/Sr High School Monte Vista
The Answer is in the Solution

Erik Schnaderbeck 11th grade
 \$250 (to be mailed)
 Sargent Jr/Sr High School Monte Vista
Identifying Individual Rainbow Trout Utilizing Distinct Spot Orientation

Appendix 2

MWH Americas, Inc.	
<i>Sustainable Future Award</i>	
Ryan Mitchell	8th grade
Drake Hammond plaque, \$100	8th grade
Cherry Creek Challenge School <i>How Much Are You Wasting?</i>	Denver
Grant Yowell plaques, \$200	8th grade
Genoa-Hugo Middle School <i>Go Green with BioPlastics</i>	Hugo
Michael Lingus plaque, \$100	11th grade
Branson Jr/Sr High School <i>Going With the Wind: A Step Toward Alternative Energy</i>	Branson
Christy Farnsworth plaque, \$200	12th grade
Paonia High School <i>A New Look of Alternative Energy</i>	Paonia

National Geophysical Data Center

David Ritzwoller certificate, \$100 savings bond	8th grade
Summit Middle Charter School <i>Do Earthquakes in Colorado Follow the Gutenberg-Richter Law?</i>	Boulder

**Optical Society of America
Rocky Mountain Section**

Jessica O'Brien certificate, token issue plus a 2-year subscription to Discover magazine	8th grade
Peak to Peak Charter School <i>Picture Perfect</i>	Lafayette
Katelyn Yowell certificate, token issue plus a 2-year subscription to Discover magazine	11th grade
Genoa-Hugo High School <i>Chlorophyll in Your Lip Balm?</i>	Hugo

Rio Tinto Minerals, Inc.

Jared Webster \$75 (to be mailed)	6th grade
Miller Middle School <i>Effects of Road Salt on Plant Growth</i>	Durango
Teisha Coffield \$125 (to be mailed)	7th grade
Lone Star Middle School <i>Rethinking De-inking</i>	Otis

Drew Auburger \$75 (to be mailed)	9th grade
Springfield High School <i>KOH vs. NaHCO₃: The Effects of Potassium Hydroxide vs. Baking Soda as Catalysts in a Hydrogen Electrolyzer</i>	Springfield
Miranda Parmer \$125 (to be mailed)	12th grade
Genoa-Hugo High School <i>Fire Retardants: Worth While for the Home?</i>	Hugo

Seagate Technology & Science Buddies

Sophia Conrad Seagate's Maxtor Black Armor 320 GB Storage Device; opportunity to publish the project idea on Science Buddies website	7th grade
Buchanan Middle School <i>How to Make a Bouncing Polymer Ball</i>	Wray
Ryan Famiglietti Seagate's Maxtor Black Armor 320 GB Storage Device; opportunity to publish the project idea on Science Buddies website	7th grade
Cherry Creek Challenge School <i>Garbage is Good: Gasification as Green Energy</i>	Denver

Society for Advancement of Chicanos and Native Americans in Science

Jennifer Jones \$50	7th grade
Weld Central Junior High School <i>Catching the Musca domestica: A Study of the Common House Fly and Trapping it With a Biodegradable, Eco-Friendly, and Non-Hazardous Fly Trap</i>	Keenesburg
Xavier Eddy \$50	7th grade
Cortez Middle School <i>Liquid Synthetic Pollutants and Plant Life</i>	Cortez
Megan Perez \$50	10th grade
Del Norte Jr/Sr High School <i>The Hovercraft Project</i>	Del Norte

Jaehae Park \$50	11th grade
Fairview High School <i>Using Steel Wool to Remove Arsenic from Drinking Water</i>	Boulder

**Society for Mining, Metallurgy & Exploration
Colorado Section**

Torin McDonald plaque, \$100	8th grade
Summit Middle Charter School <i>The Impact of a Coal Mine on Water Quality</i>	Boulder

Appendix 2

Taylor Volesky 8th grade
 plaque, \$200
 Cherry Creek Challenge School Denver
The Physical Weathering of Rocks: The Freeze Thaw Cycle

Tanya Petach 11th grade
 plaque, \$100
 Fairview High School Boulder
Colorado River Salinity: Correlation to Geostrata and Mitigation with Carbon-Fiber Capacitors

Raleigh Burt 12th grade
 plaque, \$200
 Sargent Jr/Sr High School Monte Vista
Optimizing Energy Extraction and Water Conservation of Geothermal Heating Systems, Part II

**Society of Manufacturing Engineers
 Colorado Chapter 354**

Aidan Mike 8th grade
 scholarship awards valued as much as \$600 (to be mailed), recognition by local chapter
 North Middle School Colorado Springs
What's the Point? A Ballistic Analysis of Arrowheads

Forrest Pieper & Robert Decker 12th grade
 scholarship awards valued as much as \$600 (to be mailed), recognition by local chapter
 Nederland Middle/Senior High Nederland
Internal Stretcher Storage of Medical Oxygen for On-Site Emergency Treatment

**Society of Women Engineers
 Rocky Mountain Section**

Emma Frantz 7th grade
 certificate, \$75
 North Middle School Colorado Springs
The Effects of Magnetic Levitation on Friction Force

Cecelia Brennan 8th grade
 certificate, \$100
 Holy Family Catholic School Grand Junction
Revolutionizing Household Appliances

Christy Farnsworth 12th grade
 certificate, \$75
 Paonia High School Paonia
A New Look of Alternative Energy

Kelli Lynch 10th grade
 certificate, \$100
 Rocky Mountain High School Fort Collins
Irradiation Extermination: A Portable System to Eliminate Water-Borne Microorganism

**Soil & Water Conservation Society
 Colorado Chapter**

Jessie McLaughlin & Erin McLaughlin 8th grade
 certificate, ribbon, \$25
 Sacred Heart of Jesus School Boulder
Irrigation Water Salinity and Its Effect on Early Plant Growth

Devon Enke 8th grade
 certificate, ribbon, \$50
 La Veta Jr/Sr High School La Veta
Mycorrhizal Symbioses: Unlocking the Potential of Soil

Nakayla Lestina 10th grade
 certificate, ribbon, \$25
 Dove Creek High School Dove Creek
Biological Control of Tamarisk-Analyzing the Tamarisk Leaf Beetle

Brisha Wakasugi 9th grade
 certificate, ribbon, \$50
 Sierra Grande Jr/Sr High School Blanca
Kerber Creek Restoration: Using Phytoremediation to Rebuild a Watershed

**SPIE - The International Society for Optics and
 Photonics**

Courtney Ensz 8th grade
 \$100 (to be mailed)
 Hi-Plains Jr/Sr High School Seibert
Solar Heat

Jonah Archuleta 8th grade
 \$150 (to be mailed)
 Goodnight Elementary School Pueblo
Refraction Confection

Nathanael Ramirez 8th grade
 \$250 (to be mailed)
 Sargent Jr/Sr High School Monte Vista
The "Light" of Our Lives

Lucia Guatney 11th grade
 \$100 (to be mailed)
 Cherry Creek High School Greenwood Village
The Feasibility of Solar Light Pressure as a Means of Interstellar Propulsion

Garrett Crownover 11th grade
 \$150 (to be mailed)
 Plainview Jr/Sr High School Sheridan Lake
Laptop Screens: Entertainment or Energy?

Kelli Lynch 10th grade
 \$250 (to be mailed)
 Rocky Mountain High School Fort Collins
Irradiation Extermination: A Portable System to Eliminate Water-Borne Microorganism

Appendix 2

The Inventor's Roundtable

Forrest Pieper & Robert Decker 12th grade
 \$100; patent search valued at \$499
 Nederland Middle/Senior High Nederland
Internal Stretcher Storage of Medical Oxygen for On-Site Emergency Treatment

United States Department of Commerce

Robin Betz 12th grade
 alternate for summer employment with Department of Commerce
 Fairview High School Boulder
Automated Image Reassembly With A Hybrid Genetic Algorithm

Henry Shennan 12th grade
 opportunity for summer employment with Department of Commerce with the possibility of future continuing employment
 Fairview High School Boulder
A 2.3m Dual Band Radio Telescope for Power Mapping and Line Spectra Observations

United States Geological Survey

Taylor Volesky 8th grade
 reference book, mineral specimen
 Cherry Creek Challenge School Denver
The Physical Weathering of Rocks: The Freeze Thaw Cycle

Casey Campbell 9th grade
 reference book, mineral specimen
 La Veta Jr/Sr High School La Veta
Engineering a Path to Cleaner Water: Implementing the Phytoremediation of Coal Bed Methane

University of Colorado Health Sciences Center

Medical Scientist Training Program Award

Radhika Rawat 12th grade
 \$50
 Boulder High School Boulder
Pre-Initiation Complexes of SREBP-1a and -2

Connie Liu 11th grade
 \$50
 Cherry Creek High School Greenwood Village
Therapeutic Use of microRNA-200c to Treat HEY Ovarian Cancer

University of Northern Colorado

MAST Institute Award

Kyle Kihn 8th grade
 \$50
 Nevin Platt Middle School Boulder
Stopping the Spread of H1N1: A Computer Simulation

Joshua Garcia 11th grade
 \$50
 Monte Vista High School Monte Vista
Are You Confined To A Life With Musical Disabilities?

Xcel Energy

Environmental Stewardship Award

Grant Yowell 8th grade
 \$50
 Genoa-Hugo Middle School Hugo
Go Green with BioPlastics

Raleigh Burt 12th grade
 \$100
 Sargent Jr/Sr High School Monte Vista
Optimizing Energy Extraction and Water Conservation of Geothermal Heating Systems, Part II

Innovation in Energy Award

Morgan Felix 7th grade
 \$50
 Olathe Middle School Olathe
Magnobile

Scott Martin 12th grade
 \$100
 Cherry Creek High School Greenwood Village
Storing and Harnessing Energy Through Pumped Micro-Hydroelectric Systems

Yale Science and Engineering Association

John Parish IV 11th grade
 certificate, pewter medallion (to be mailed)
 Home School Colorado Springs
Closer to Where It Wasn't: Estimation and Tracking Using Adaptive Filtering

Zonta Club of Boulder County

Ameilia Earhart Award

Julianna Manfredo 8th grade
 \$100
 Harrison School Canon City
Spot on Powder Power

Scholarships

Adams State College Foundation

ASC Scholarship

Nakayla Lestina 10th grade
 the equivalent to one-year resident tuition and fees (~\$2,000)
 Dove Creek High School Dove Creek
Biological Control of Tamarisk-Analyzing the Tamarisk Leaf Beetle

Appendix 2

Joshua Garcia the equivalent to one-year resident tuition and fees (~\$2,000) Monte Vista High School <i>Are You Confined To A Life With Musical Disabilities?</i>	11th grade Monte Vista	Amy Lyne the equivalent to one-year resident tuition and fees (~\$2,000) Brush High School <i>Investigation of Wave Phenomenon</i>	11th grade Brush
Katelyn Yowell the equivalent to one-year resident tuition and fees (~\$2,000) Genoa-Hugo High School <i>Chlorophyll in Your Lip Balm?</i>	11th grade Hugo	Jordan Lestina the equivalent to one-year resident tuition and fees (~\$2,000) Dove Creek High School <i>Biodiesel from Sunflowers: An Analysis of Planting Dates, Soil Temperature, and Oil Content</i>	11th grade Dove Creek
Johanna Phillips the equivalent to one-year resident tuition and fees (~\$2,000) Monte Vista High School <i>Infested Forests and Evapotranspiration II: Developing a Watershed Model, Phase 1</i>	10th grade Monte Vista	Fletcher Richman Michael Schwener the equivalent to one-year resident tuition and fees (~\$2,000) Basalt High School <i>pH Effect on the Enzyme Cellulase in Biofuel Production</i>	12th grade 12th grade
Michael Lingus the equivalent to one-year resident tuition and fees (~\$2,000) Branson Jr/Sr High School <i>Going With the Wind: A Step Toward Alternative Energy</i>	11th grade Branson	Colorado School of Mines <i>Colorado School of Mines Scholarship</i>	
Casey Campbell the equivalent to one-year resident tuition and fees (~\$2,000) La Veta Jr/Sr High School <i>Engineering a Path to Cleaner Water: Implementing the Phytoremediation of Coal Bed Methane</i>	9th grade La Veta	Jaehee Park \$1,000 CSM scholarship, renewable for up to 3 additional years for use toward undergraduate degree Fairview High School <i>Using Steel Wool to Remove Arsenic from Drinking Water</i>	11th grade Boulder
Megan Perez the equivalent to one-year resident tuition and fees (~\$2,000) Del Norte Jr/Sr High School <i>The Hovercraft Project</i>	10th grade Del Norte	Tanya Petach \$1,000 CSM scholarship, renewable for up to 3 additional years for use toward undergraduate degree Fairview High School <i>Colorado River Salinity: Correlation to Geostrata and Mitigation with Carbon-Fiber Capacitors</i>	11th grade Boulder
Ashlynn Miller the equivalent to one-year resident tuition and fees (~\$2,000) Lone Star High School <i>Determination of Fractal Dimension of Blood Spatter Patterns</i>	11th grade Otis	Michael Lingus \$1,000 CSM scholarship, renewable for up to 3 additional years for use toward undergraduate degree Branson Jr/Sr High School <i>Going with the Wind: A Step Toward Alternative Energy</i>	11th grade Branson
Jessica O'Clair the equivalent to one-year resident tuition and fees (~\$2,000) Brush High School <i>The Effect of Ultraviolet Light on Vitamin C Content in Strawberries</i>	11th grade Brush	Jeffrey Hibbert \$1,000 CSM scholarship, renewable for up to 3 additional years for use toward undergraduate degree Lone Star High School <i>The Implications of Using Carbon Nanotubes to Promote Algal Growth</i>	11th grade Otis
Kelli Lynch the equivalent to one-year resident tuition and fees (~\$2,000) Rocky Mountain High School <i>Irradiation Extermination: A Portable System to Eliminate Water-Borne Microorganism</i>	10th grade Fort Collins	Ashlynn Miller \$1,000 CSM scholarship, renewable for up to 3 additional years for use toward undergraduate degree Lone Star High School <i>Determination of Fractal Dimension of Blood Spatter Patterns</i>	11th grade Otis

Appendix 2

Connie Liu 11th grade
 \$1,000 CSM scholarship, renewable for up to 3 additional years for use toward undergraduate degree
 Cherry Creek High School Greenwood Village
Therapeutic Use of microRNA-200c to Treat HEY Ovarian Cancer

Amy Lyne 11th grade
 \$1,000 CSM scholarship, renewable for up to 3 additional years for use toward undergraduate degree
 Brush High School Brush
Investigation of Wave Phenomenon

Intel Corporation

Ryan Patterson Scholarship

Radhika Rawat 12th grade
 \$2,000 non-renewable scholarship to a school of the student's choosing
 Boulder High School Boulder
Pre-Initiation Complexes of SREBP-1a and -2

Mary & Paula Wojtaszek

Paul Wojtaszek Memorial Scholarship

Kelly Christensen & Molly McMahan 12th grade
 \$250 per team member non-renewable scholarship to a school of the student's choosing
 Monarch High School Louisville
Generation of a RNA Probe for In Situ Hybridization

Penny Propst

Propst Medicine & Health Scholarship

Kelli Lynch 10th grade
 \$3,000 non-renewable scholarship to a school of the student's choosing
 Rocky Mountain High School Fort Collins
Irradiation Extermination: A Portable System to Eliminate Water-Borne Microorganism

Propst Moving Science Forward Scholarship

Nikki Buhrdorf 10th grade
 \$2,000 non-renewable scholarship to a school of the student's choosing
 Hotchkiss High School Hotchkiss
Aspen in a State of SADness: A Statistical Analysis of the Decline of Populus tremuloides

Ben Armstrong 12th grade
 \$3,000 non-renewable scholarship to a school of the student's choosing
 Monte Vista High School Monte Vista
The Uptake of Endocrine Disrupting Chemicals

Professional Association of Colorado Educators

Karl Donnelson
 scholarship to attend a Space Foundation professional development workshop of their choice during summer 2010
 Otis Jr/Sr High School Otis

Mary Klass
 scholarship to attend a Space Foundation professional development workshop of their choice during summer 2010
 Preston Middle School Fort Collins

John Wiley
 scholarship to attend a Space Foundation professional development workshop of their choice during summer 2010
 Cherry Creek Challenge School Denver

Don Anderson
 scholarship to attend a Space Foundation professional development workshop of their choice during summer 2010
 Sacred Heart of Jesus School Boulder

Doug Horton
 scholarship to attend a Space Foundation professional development workshop of their choice during summer 2010
 Hotchkiss High School Hotchkiss

Gary Wilkinson
 scholarship to attend a Space Foundation professional development workshop of their choice during summer 2010
 Monte Vista High School Monte Vista

Greg Busby
 scholarship to attend a Space Foundation professional development workshop of their choice during summer 2010
 North Middle School Colorado Springs

SSP

American Psychological Association

Sarah Oden 11th grade
 certificate
 Monte Vista High School Monte Vista
Human Perception: A Study on Implicit Prejudice

Intel Corporation

Excellence in Computer Science Award

John Parish IV 11th grade
 certificate, \$200 (to be mailed)
 Home School Colorado Springs
Closer to Where It Wasn't: Estimation and Tracking Using Adaptive Filtering

Appendix 2

Mu Alpha Theta

John Parish IV 11th grade
certificate
Home School Colorado Springs
Closer to Where It Wasn't: Estimation and Tracking Using Adaptive Filtering

National Oceanic and Atmospheric Administration

Taking the Pulse of the Planet Award

Jessica Constant 9th grade
certificate, medallion
Poudre High School Fort Collins
Computer Modeling III: An Eulerian Simulation Model of Particulate Dispersion in the Atmosphere

National Society of Professional Engineers

Innovative Engineering Award

Christy Farnsworth 12th grade
certificate, lapel pin
Paonia High School Paonia
A New Look of Alternative Energy

Ricoh Americas Corporation

Ricoh Sustainability Development Award

Melinda Vickers 8th grade
certificate
Eagle County Charter Academy Edwards
A Burning Question

Society for In Vitro Biology

Harraz MohdReza 11th grade
certificate
Union Colony Preparatory School Greeley
Immunocytochemical Characterization of Mouse Brain Explants in an In Vitro Model of Schizophrenia

United States Metric Association

Brisha Wakasugi 9th grade
certificate
Sierra Grande Jr/Sr High School Blanca
Kerber Creek Restoration: Using Phytoremediation to Rebuild a Watershed

United States Public Health Service

The Surgeon General's Challenge

Megan Percy 7th grade
certificate
The Classical Academy Colorado Springs
The Best Thing Since Fresh Fruit

Appendix 3
2009/2010 Expense Report
September 1, 2009-August 31, 2010

Category Descriptions	Budget	Actual	Difference
INCOME			
Sponsorships	\$35,400.00	\$34,250.00	(\$1,150.00)
Contributions	\$2,725.00	\$4,208.68	\$1,483.68
In-Kind	\$12,400.00	\$10,768.07	(\$1,631.93)
Registrations	\$11,025.00	\$10,962.00	(\$63.00)
Grants	\$9,500.00	\$12,500.00	\$3,000.00
General Income			
<i>Interest</i>	\$550.00	\$129.98	(\$420.02)
<i>Sales</i>	\$2,500.00	\$1,072.00	(\$1,428.00)
<i>Goodsearch</i>	\$25.00	\$9.77	(\$15.23)
<i>RSF Outreach Funds</i>	\$10,000.00	\$10,000.00	\$0.00
<i>Scholarships/Special Awards</i>	\$3,620.00	\$3,660.00	\$40.00
<i>Teacher of the Year Award</i>	<u>\$3,000.00</u>	<u>\$3,000.00</u>	<u>\$0.00</u>
TOTAL General Income	\$19,695.00	\$17,871.75	(\$1,823.25)
TOTAL INCOME	\$90,745.00	\$90,560.50	(\$184.50)
EXPENSES			
Awards Ceremony			
Cash Awards	\$11,990.00	\$10,810.00	\$1,180.00
Other Awards	\$4,160.00	\$5,118.40	(\$958.40)
Photos	\$250.00	\$151.45	\$98.55
Press Release	\$300.00	\$431.00	(\$131.00)
Program	\$375.00	\$374.80	\$0.20
Room Rental	<u>\$500.00</u>	<u>\$469.00</u>	<u>\$31.00</u>
TOTAL Awards Ceremony	\$17,575.00	\$17,354.65	\$220.35
CSSF, Inc. Board			
Communications	\$425.00	\$359.89	\$65.11
Equipment	\$0.00	\$0.00	\$0.00
Meetings	\$1,500.00	\$1,276.60	\$223.40
Operations	\$8,030.00	\$7,607.98	\$422.02
Services	\$100.00	\$10.00	\$90.00
Supplies	\$200.00	\$0.00	\$200.00
Thank Yous	<u>\$0.00</u>	<u>\$364.09</u>	<u>(\$364.09)</u>
TOTAL CSSF, Inc. Board	\$10,255.00	\$9,618.56	\$636.44
Finalists			
Activities	\$2,750.00	\$3,564.29	(\$817.29)
Publications	\$1,400.00	\$1,106.51	\$293.49
Registration	\$15,225.00	\$10,824.90	\$4,400.10
Room Rental	\$1,225.00	\$1,300.00	(\$75.00)
Transportation	<u>\$1,065.00</u>	<u>\$1,054.50</u>	<u>\$10.50</u>
TOTAL Finalists	\$21,665.00	\$17,853.20	\$3,811.80

Appendix 3

Category Description	Budget	Actual	Difference
ISEF			
Affiliation	\$500.00	\$500.00	\$0.00
Travel	<u>\$10,525.00</u>	<u>\$5,967.33</u>	<u>\$4,557.67</u>
TOTAL ISEF	\$11,025.00	\$6,467.33	\$4,557.67
Judging			
Communications	\$750.00	\$492.43	\$257.57
Room Rental	\$340.00	\$275.00	\$65.00
Supplies	\$350.00	\$435.24	(\$85.24)
Thank Yous	<u>\$3,175.00</u>	<u>\$3,339.05</u>	<u>(\$164.05)</u>
TOTAL Judging	\$4,615.00	\$4,541.72	\$73.28
Outreach	\$1,000.00	\$961.02	\$39.98
RSF Outreach	\$10,000.00	\$10,000.00	\$0.00
CSEF Expenses			
Adult Sponsors	\$150.00	\$303.85	(\$153.85)
Advisory Council	\$100.00	\$110.29	(\$10.29)
Fund Raising	\$100.00	\$90.66	\$9.34
Personnel	\$8,300.00	\$7,806.05	\$493.95
Publicity	\$300.00	\$0.00	\$300.00
Regional Fair Directors	\$100.00	\$91.08	\$8.92
Supplies	\$500.00	\$732.59	(\$232.59)
Volunteers	<u>\$2,000.00</u>	<u>\$1,514.35</u>	<u>\$485.65</u>
TOTAL CSEF Expenses	\$11,500.00	\$10,648.87	\$901.13
SRC/Display and Safety			
Communications	\$150.00	\$114.79	\$35.21
Meetings	\$400.00	\$516.04	(\$116.04)
Supplies	<u>\$200.00</u>	<u>\$80.54</u>	<u>\$119.46</u>
TOTAL SRC/Display and Safety	\$750.00	\$711.37	\$38.63
TOTAL EXPENSES	\$88,435.00	\$78,156.72	\$10,278.28
OVERALL TOTAL	\$2,310.00	\$12,403.78	

