2015 Colorado Science and Engineering Fair Award Winners

Fort Collins, CO (April 10, 2015) – This year’s Colorado Science and Engineering Fair (CSEF) was held April 9 – 11, 2015. 340 projects were on display from students in grades 6 through 12, at the Lory Student Center on the Colorado State University Fort Collins campus.

This year’s Grand and Special Awards winners were monumental; in fact, over 400 individual awards were presented at the awards ceremony. Attached is the list of winners.

Four Senior Division CSEF Finalists will be traveling to Pittsburgh, PA to compete in the Intel International Science and Engineering Fair in May. They are:

1st Place: Mary Hood, 11th grade, from Sargent Jr/Sr High School for the project SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly.

2nd Place: Logan Collins, 12th grade, from Fairview High School for the project An RK2 Mediated Bacterial Conjugation Delivery System for Artificial Genes Coding for Antimicrobial Polypeptides: A Novel Synthetic Biology Approach to Antibiotic Resistance.

3rd Place: Elliot Gorokhovsky, 10th grade, from Fairview High School for the project A Novel Algorithm for Model Counting.

4th Place: Sam Scheeres, 12th grade, from Fairview High School for the project Rigorous Constraints on Exchange for the 3-body Problem.

The CSEF also presented the Lockheed Martin Teacher of the Year Award to Diego Martinez from Center High School in Center

Special thanks goes to all of the contributors and sponsors of the 2015 CSEF for their financial and in-kind support of Colorado’s future scientists. This year’s top sponsors ($2,500 or more) included Bayswater Exploration & Production, Colorado State University, Intel Foundation, Black & Veatch – Building a World of

For a complete list of all of the 2015 CSEF participants, sponsors, Colorado’s Intel ISEF delegates and other CSEF details, please visit the CSEF website at www.csef.colostate.edu.

The Colorado Science and Engineering Fair (CSEF) is an independent, nonprofit corporation. Thanks to the support of generous corporations, foundations, government agencies, and donors who believe in the importance of science education, the CSEF has served Colorado and its students for 60 years.
### 2015 Colorado Science and Engineering Fair
Grand Awards Press Release

#### Junior Division

<table>
<thead>
<tr>
<th>Best CSEF Project</th>
<th>First Place</th>
<th>Kathryn Kummel</th>
<th>6th grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><em>The Danger of Drinking Water: How Mountain Lions Affect Elk Behavior and Aspen Regeneration</em></td>
<td>North Middle School Colorado Springs</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Second Place</th>
<th>Avery Lin</th>
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<th>7th grade</th>
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<td><em>Potential Biodegradable Alternatives to Current Petroleum-Based Surfactants for Oil Spill Cleanup</em></td>
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#### Senior Division

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#### Animal Sciences

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<tr>
<th>First Place</th>
<th>Margaret Preigh</th>
<th>12th grade</th>
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<td><em>Pulsing Electromagnetic Radiation at 50/60Hz as a Pest Repellant in Insects</em></td>
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<th>Emily Zislis</th>
<th>11th grade</th>
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<tbody>
<tr>
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<td><em>The Effect of Genetically Modified Soybean Consumption on Mouse Weight</em></td>
<td>Cherry Creek High School Greenwood Village</td>
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<tr>
<th>Third Place</th>
<th>Katie Sanko</th>
<th>11th grade</th>
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<tr>
<td></td>
<td><em>The Effects of Imidacloprid Insecticide on Wolf Spiders (Lycosidae): A Pilot Study</em></td>
<td>Fairview High School Boulder</td>
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<tr>
<th>Fourth Place</th>
<th>Kaitlyn Dumm</th>
<th>10th grade</th>
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<tr>
<td></td>
<td><em>Leftovers to Livestock: Turning Human Food Waste into Livestock Feed with Consistent Nutrient Values</em></td>
<td>Windsor High School Windsor</td>
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<table>
<thead>
<tr>
<th>Honorable Mention</th>
<th>Jeremiah Etter</th>
<th>11th grade</th>
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</table>

#### Behavioral & Social Sciences

<table>
<thead>
<tr>
<th>First Place</th>
<th>Caroline Jennings</th>
<th>8th grade</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><em>Ask Me Twice</em></td>
<td>The Classical Academy Colorado Springs</td>
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<tr>
<th>Second Place</th>
<th>Felix Channigao</th>
<th>8th grade</th>
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<tbody>
<tr>
<td></td>
<td><em>The Effect of Temperature on Hunting Response Time of Female Habronattus Jumping Spiders</em></td>
<td>West Jefferson Middle School Conifer</td>
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</table>
Second Place
Elora Smith 8th grade
The Sweet Smell of You
Sargent Jr/Sr High School Monte Vista

Third Place
Grace Abraham 8th grade
The Bunny Effect
Aspen Middle School Aspen

Fourth Place
Clara Foisie 8th grade
Books or Nooks?
The Classical Academy Colorado Springs

Honorable Mention
Evelyn Bodoni 7th grade
Whatever It Takes
Cherry Creek Challenge School Denver

Honorable Mention
Amelia Greene 8th grade
The Classical Academy Colorado Springs

Honorable Mention
Mia Cravitz 8th grade
Jane Doherty 8th grade
What Engenders A Leader?
Stanley British Primary School Denver

Honorable Mention
Meredith Neid 7th grade
Grace Fuselier 7th grade
Inferiority Inquiry
Stanley British Primary School Denver

Senior Division
Behavioral & Social Sciences

First Place
Serena Rusk 11th grade
An Analysis of Risk Factors for Developing Low Body Satisfaction in Adolescents
Fairview High School Boulder

Second Place
Sarena Wells 12th grade
Frustration Responses: An Analysis of Dispositional Learning
Fort Morgan High School Fort Morgan

Third Place
Carmen Ruggles 11th grade
Can We Recycle That?
Center High School Center

Fourth Place
Alexandria Sinker 11th grade
Alan Pence 11th grade
Are Pueblo Vehicle Repair Shops Sexist?
Dolores Huerta Preparatory High School Pueblo

Honorable Mention
Johanna Mackay 10th grade
Bryanna Davis 10th grade
Shooting Accuracy of an Individual Within Varying Temperatures
Edison High School Yoder

Honorable Mention
Kaleb Mora 11th grade
Angela Nelson 11th grade
Bryan Adams-Colon 11th grade
How Fast Are You?
Central High School Pueblo

Junior Division
Chemistry

First Place
Emhyr Subramanian 7th grade
Potential Biodegradable Alternatives to Current Petroleum-Based Surfactants for Oil Spill Cleanup
Cherry Creek Challenge School Denver

Second Place
Calista Law 7th grade
Eco-Plastics
Boulder Country Day School Boulder

Third Place
Nicole Miller 7th grade
Blue Bottle Blues
Ortega Middle School Alamosa

Fourth Place
Nethaniel Kiraly 7th grade
Fire Reducers
Knowledge Quest Academy Milliken

Honorable Mention
Connor McCauley 7th grade
Vitamin C in Vegetables
Blessed Sacrament Catholic School Denver

Honorable Mention
Dustin Medina 6th grade
Extracting Strawberry DNA
Knowledge Quest Academy Milliken

Senior Division
Chemistry

First Place
Sirisha Gudavalli 10th grade
Chemical and Morphological Dependent Properties of Semiconductor Nanocrystals
Fairview High School Boulder

Second Place
Annie Chen 10th grade
Determining the Stiffness Threshold of a PEG Hydrogel for Motor Neuron Axon Extension
Boulder High School Boulder

Third Place
Sofia Antal 11th grade
Growth and Testing of New Cocrystals, Part 2
Cherry Creek High School Greenwood Village
Fourth Place
Shelly Steinert 11th grade
Determining Flame Retardancy of Maize Stover, Medicago Sativa, and Hordeum Vulgare Ash
Sargent Jr/Sr High School Monte Vista

Honorable Mention
Richard Mallory 11th grade
Hazardous Waste to Renewable Energy
The Classical Academy College Pathways Colorado Springs

Junior Division
Earth & Space Sciences

First Place
Sara Nehring 6th grade
The Moon Is So Bright: Do You Need Sunglasses at Night?
Monte Vista Middle School Monte Vista

Second Place
Max Warnock 7th grade
Testing the Viking Sunstone Legend
Home School Fort Collins

Third Place
Jordyn Hall 8th grade
Temperamental Twisters
Peak to Peak Charter School Lafayette

Fourth Place
Elani Frantz 8th grade
Paige Lessig 8th grade
What's the Weather Forecast in Space?
North Middle School Colorado Springs

Honorable Mention
William Highfill 6th grade
Spoiled Rotten
Corwin International Magnet School Pueblo

Senior Division
Earth & Space Sciences

First Place
Trevor Jordan 11th grade
A Wing of the Future: Part II
Animas High School Durango

Second Place
Kelsey Lindbloom 11th grade
Fueling the Future Phase 4: Constructing an Aqueous Vehicle Powered by a Microbial Fuel Cell
Salida High School Salida

Third Place
Sanjna Bhartiya 12th grade
Apoorva Krishnan 11th grade
Preventing the Degradation of Dye-Sensitized Solar Cells
Cherry Creek High School Greenwood Village

Fourth Place
Max Markuson DiPrince 9th grade
Windmill Efficiency: Using a 3D Printer to Engineer More Efficient Windmill Blades
Central High School Pueblo
### Junior Division

#### Engineering

**First Place**
- Cristian Granados 8th grade
- *Put A Little Spring in Your Step*
- North Middle School Colorado Springs

**Second Place**
- Pranav Subramanian 8th grade
- *Ultrasonic-Based Optics Utilized for the Blind and Visually Impaired*
- Campus Middle School Greenwood Village

**Third Place**
- Ethan Gearhart 8th grade
- *The Great Color Sort: Developing an Arduino Based Laundry Sorter*
- Sargent Jr/Sr High School Monte Vista

**Fourth Place**
- Cole Palmer 7th grade
- *Catch Em’ If You Can*
- The Classical Academy Colorado Springs

**Honorable Mention**
- Finn Stowers 8th grade
- *Frac Fluid Friction: Does Sand Grain Size Affect the Viscosity of Hydraulic Fracturing Fluid?*
- St. Columba Catholic School Durango

**Honorable Mention**
- Devin Conn 6th grade
- *Sound Propagation Sensing in the Stratosphere*
- Corwin International Magnet School Pueblo

**Honorable Mention**
- Scott Prieve 6th grade
- *Let It Flow: What Rate Will Different Volumes of Water Travel Down Different Shaped Channels?*
- North Middle School Colorado Springs

### Junior Division

#### Environmental Sciences

**First Place**
- Avery Lin 7th grade
- *War on Waves: A Study of Different Coastal Defenses and Their Effectiveness Against Tsunamis*
- Stanley British Primary School Denver

**Second Place**
- Advaita Singh 8th grade
- *Effects of Ultraviolet Radiation on Planaria*
- Cherry Creek Challenge School Denver

**Third Place**
- Jonathan Haerr 7th grade
- *Dead in the Water*
- The Classical Academy Colorado Springs

**Fourth Place**
- Vanessa Haggans 8th grade
- *Can I Drink It?: Backcountry Water Quality in Boulder County and Its Safety for Runners*
- Summit Charter Middle School Boulder

**Honorable Mention**
- Jordan Elder 7th grade
- *Got Dirt? Coagulation Experimentation*
- McKenzy Howerton 7th grade
- Dolores Middle School Dolores

**Honorable Mention**
- Dylan Doskocil 8th grade
- *Biochar and Fungus to the Rescue: Acid Mine Soil Reclamation*
- Bayfield Middle School Bayfield

**Honorable Mention**
- Claire McHenry 8th grade
- *Water Stabilization*
- Knowledge Quest Academy Milliken

**Honorable Mention**
- Lacey Niccoli 8th grade
- *Denatured: The Effects of pH on Germination*
- Liberty School Joes

**Honorable Mention**
- Katelynn Salmon 8th grade
- *Effect of Microbeads on Daphnia Heart Rate*
- Monument Academy Monument
## Senior Division
### Environmental Sciences

<table>
<thead>
<tr>
<th>Place</th>
<th>Name</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Hannah Hartung</td>
<td>12th</td>
</tr>
<tr>
<td>Second</td>
<td>Casey Shaw</td>
<td>9th</td>
</tr>
<tr>
<td>Third</td>
<td>Michelle Kummel</td>
<td>9th</td>
</tr>
<tr>
<td>Fourth</td>
<td>Parker Revers</td>
<td>11th</td>
</tr>
<tr>
<td>Honorable Mention</td>
<td>Anne Cox</td>
<td>12th</td>
</tr>
<tr>
<td>Honorable Mention</td>
<td>Hannah Fischer</td>
<td>10th</td>
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<tr>
<td>Honorable Mention</td>
<td>Emma Scholz</td>
<td>12th</td>
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<tr>
<td>Honorable Mention</td>
<td>Colby Self</td>
<td>9th</td>
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### Mathematics & Computer Sciences

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<td>10th</td>
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<td>Second</td>
<td>Avi Swartz</td>
<td>10th</td>
</tr>
<tr>
<td>Third</td>
<td>Eric Sun</td>
<td>11th</td>
</tr>
<tr>
<td>Fourth</td>
<td>Robert Meikle</td>
<td>9th</td>
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<tr>
<td>Honorable Mention</td>
<td>Andrew Barlow</td>
<td>12th</td>
</tr>
<tr>
<td>Honorable Mention</td>
<td>Ryan Bennett</td>
<td>12th</td>
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### Junior Division
### Mathematics & Computer Sciences

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<th>Place</th>
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<tbody>
<tr>
<td>First</td>
<td>Jack Stade</td>
<td>8th</td>
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<tr>
<td>Second</td>
<td>Molly Nehring</td>
<td>8th</td>
</tr>
<tr>
<td>Honorable Mention</td>
<td>Sam Duarte</td>
<td>7th</td>
</tr>
<tr>
<td>Honorable Mention</td>
<td>Edwin Bodoni</td>
<td>8th</td>
</tr>
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</table>
Fourth Place
Laura Clark 7th grade
*Paper Microfluidics: Medical Diagnostics for the Developing World*
St. Columba Catholic School Durango

Honorable Mention
Olivia Jacobsen 7th grade
*Weapons of Mass Percussion*
The Classical Academy Colorado Springs

Honorable Mention
Kyrie Milliron 8th grade
*To Vitamin D or Not To Vitamin D*
The Classical Academy Colorado Springs

Honorable Mention
Isla Anderson 7th grade
*The Affects of Antibiotics and Antiseptics on Skin Staphylococcus Species*
Skinner Middle School Denver

Honorable Mention
Madeline Steinle 8th grade
*The Effects of Aspartame on Cognitive Abilities*
Trinity Lutheran School Pueblo

Honorable Mention
Cody Robinson 8th grade
*The Effects of Laser Therapy on Cell Regeneration*
Liberty School Joes

Honorable Mention
Brooke Younger 7th grade
Amy Weisensee 7th grade
*An Energetic "Eggs"periment*
Limon Schools Limon

Senior Division

Medicine & Health

First Place
Jonathan Snedeker 12th grade
*Combined Inhibition of Wee1 and Parp1/2 as a Novel Therapy for Acute Myeloid Leukemia*
Fairview High School Boulder

Second Place
Sirey Zhang 11th grade
*Multiarray Data Analysis to Map the Cellular Interaction in a Mouse Model of Familial ALS*
Cherry Creek High School Greenwood Village

Third Place
Alison Weinberger 11th grade
*Is Homeopathy More Than A Placebo? Assessing Homeopathic Principles Using A Fruit Fly Model*
Cherry Creek High School Greenwood Village

Fourth Place
Hari Sowrirajan 9th grade
*Nanoparticle-Induced Macrophage Atherogenesis*
Cherry Creek High School Greenwood Village

Honorable Mention
Madeline Goosman 11th grade
*Mandarin Tone Perception in Simulations of Electro-Acoustic and Cochlear-Implant Hearing*
Fairview High School Boulder

Honorable Mention
Jayden Durbin 12th grade
*Vitamin D Stimulates the mRNA Expression of ACPP in LNCaP Cells*
Haxtun High School Haxtun

Junior Division

Microbiology

First Place
Taylor Dower 8th grade
*Playground Bacterial Levels Comparison*
Turner Middle School Berthoud

Second Place
Madison Searles 7th grade
*A Comparison of Antibacterial Hand Cleansing Solutions and Their Effectiveness on Killing Bacteria*
STEM Academy Highlands Ranch

Third Place
Camryn Haines 8th grade
Sophie Supernor 8th grade
*Dirty Dollar*
Knowledge Quest Academy Milliken

Fourth Place
Dominique Bear 8th grade
Lilly Kinsella 8th grade
*School Scare*
Knowledge Quest Academy Milliken

Honorable Mention
Nicholas Entin 8th grade
*Bacterial Growth Inhibition*
Peak to Peak Charter School Lafayette

Senior Division

Microbiology

First Place
Logan Collins 12th grade
*An RK2 Mediated Bacterial Conjugation Delivery System for Artificial Genes Coding for Antimicrobial Polypeptides: A Novel Synthetic Biology Approach to Antibiotic Resistance*
Fairview High School Boulder

Second Place
Rebecca Bloomfield 10th grade
*Competence Dependent Chemotaxis and Genomic Repair in Acinetobacter baylyi*
Palmer High School Colorado Springs

Third Place
Anit Tyagi 9th grade
*Diurnal Variation of E. coli in an Urban Stream*
Cherry Creek High School Greenwood Village
Fourth Place
Jordan Nahabetian 12th grade
Riley Scroeder 12th grade
Abby Timmermeyer 12th grade
Rocky Waters Filtration
Sand Creek High School Colorado Springs

Honorable Mention
Eileen Xia 10th grade
Phosphatidylinositol-3 Kinase p110a Isoform Inhibits Antibody Switch
Cherry Creek High School Greenwood Village

Junior Division
Physics

First Place
Brendan Gould 7th grade
Analyzing the Effects of Various Materials on a Magnetic Field
The Classical Academy Colorado Springs

Second Place
John Quinn 8th grade
Wind, Wings, and Lift
Summit Charter Middle School Boulder

Third Place
Connor Voss 8th grade
Loop the Loop: Rollercoaster Physics
Beulah School of Natural Sciences Beulah

Fourth Place
Dylan Jessen 7th grade
The Effect of Voltage, Vacuum and Anode Material on Electron Acceleration
American Academy Castle Pines

Honorable Mention
Adam Vagle 7th grade
Avoiding Armageddon
Stanley British Primary School Denver

Honorable Mention
Jonathan Ballard 8th grade
Precision of an Ultrasonic Sensor
Eaton Middle School Eaton

Honorable Mention
Asher Hogan 7th grade
Sound Trap
The Classical Academy Colorado Springs

Senior Division
Physics

First Place
Sam Scheeres 12th grade
Rigorous Constraints on Exchange for the 3-body Problem
Fairview High School Boulder

Second Place
Haley Weinstein 11th grade
Analyzing Different Methods of Finding the Force at General Yield in Sub-sized Charpy Testing
Fairview High School Boulder

Third Place
Daniel Sidman 9th grade
Radiant Heat 3 2 1 . . . Ignition
Palmer High School Colorado Springs

Fourth Place
Emma Frantz 12th grade
Harnessing the Marangoni Effect
Palmer High School Colorado Springs

Honorable Mention
Thomas Manuel 9th grade
Slow a Bullet To Save a Life
Walsh Jr/Sr High School Walsh

Honorable Mention
Ben Sheffer 11th grade
The Effects of Electron Beam Dose on the Visible Spectroscopic Signatures of Thin C60 Films
Eaglecrest High School Centennial

Junior Division
Plant Sciences

First Place
Alicia Wu 8th grade
The Acidulous Truth About the Flora of Our Environment
Summit Charter Middle School Boulder

Second Place
Sarah Duzenack 6th grade
A Comparison of Endomycorrhizae and Commercial Fertilizer on Bent and Blue Grass
La Veta Jr/Sr High School La Veta

Third Place
Clay Kimberling 7th grade
Stop the Mold
Sargent Jr/Sr High School Monte Vista

Fourth Place
Riley Ruff 7th grade
Battle of the Elements: Water vs. Earth
North Arvada Middle School Arvada

Honorable Mention
Tyson Lichty 8th grade
All Hail! Hail Resistance?
Liberty School Joes

Honorable Mention
Soneva Scott 7th grade
Aquaponic Growth Speed vs Soil Growth Speed
STEM Academy Highlands Ranch
<table>
<thead>
<tr>
<th>First Place</th>
<th>Jessica Shand</th>
<th>10th grade</th>
</tr>
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<tbody>
<tr>
<td><strong>Analysis of Spermatophyte Divergence to Expedite Identification of Novel Drug Candidates</strong></td>
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<tr>
<td>Discovery Canyon Campus</td>
<td>Colorado Springs</td>
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<tr>
<td>Second Place</td>
<td>Mitchell Fosdick</td>
<td>10th grade</td>
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<td><strong>Phase III: Further Identification of Isolated Green Fuel Compounds.</strong></td>
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<td>Fowler High School</td>
<td>Fowler</td>
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<td>Third Place</td>
<td>Kaixin Cui</td>
<td>11th grade</td>
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<td><strong>Evolutionary Analysis of Cestrum in the Antilles Based on Phylogenetic Relationships and Time Axis</strong></td>
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<td>Fairview High School</td>
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<tr>
<td>Fourth Place</td>
<td>Shlok Rathi</td>
<td>9th grade</td>
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<td><strong>Antioxidant Activities in Colored Potato Tubers</strong></td>
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<td>Alamosa High School</td>
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<tr>
<td>Honorable Mention</td>
<td>Abbey Brower</td>
<td>10th grade</td>
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<td><strong>Utilizing Crop Rotation for Nutrient Replacement</strong></td>
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<td>Sterling High School</td>
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## 2015 Colorado Science and Engineering Fair
### Special Awards Press Release

<table>
<thead>
<tr>
<th>Award</th>
<th>Description</th>
<th>Winner(s)</th>
<th>Grade</th>
<th>School</th>
<th>City</th>
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<tbody>
<tr>
<td><strong>Poster Art Contest Award</strong></td>
<td></td>
<td>Morgan Voss</td>
<td></td>
<td>$100, certificate</td>
<td>Beulah School of Natural Sciences</td>
</tr>
<tr>
<td><strong>Ralph Desch Memorial Technical Writing Award</strong></td>
<td>Pulsing Electromagnetic Radiation at 50/60Hz as a Pest Repellant in Insects</td>
<td>Margaret Preigh</td>
<td>12th grade</td>
<td>Fairview High School</td>
<td>Boulder</td>
</tr>
<tr>
<td><strong>Student Choice Award</strong></td>
<td>Zapped Electro-Culture: The Effect of Electricity on Germination and Growth of Seedlings</td>
<td>Kaytree Keating</td>
<td>8th grade</td>
<td>Weldon Valley School</td>
<td>Weldon</td>
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<tr>
<td><strong>Student Choice Award</strong></td>
<td>Developing a Class Scheduling Program with Minimum Conflicts for Large Schools</td>
<td>Avi Swartz</td>
<td>10th grade</td>
<td>Cherry Creek High School</td>
<td>Greenwood Village</td>
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<tr>
<td><strong>Pioneers of Science - Ada Lovelace</strong></td>
<td></td>
<td>Tyler Giallanza</td>
<td>10th grade</td>
<td>Ian Johnson</td>
<td>12th grade</td>
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<td><strong>Pioneers of Science - Barbara McClintock</strong></td>
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<td>Orian Wagers</td>
<td>7th grade</td>
<td>Greg Watts</td>
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<td><strong>Pioneers of Science - Chien-Shiung Wu</strong></td>
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<td>Jacob Wright</td>
<td>8th grade</td>
<td>Monument Academy</td>
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<td><strong>Pioneers of Science - Elizabeth Blackwell</strong></td>
<td></td>
<td>Paige Newman</td>
<td>7th grade</td>
<td>Monument Academy</td>
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<td><strong>Pioneers of Science - Hedy Lamarr</strong></td>
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<td><strong>Pioneers of Science - Lise Meitner</strong></td>
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<td>Nicole Miller</td>
<td>7th grade</td>
<td>Ortega Middle School</td>
<td>Alamosa</td>
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<td><strong>Pioneers of Science - Margaret Mead</strong></td>
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<td>Margaret Mead</td>
<td>8th grade</td>
<td>Cortez Middle School</td>
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<td><strong>Pioneers of Science - Margaret Rossiter</strong></td>
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<td>Scott Newman</td>
<td>8th grade</td>
<td>Monument Academy</td>
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<td><strong>Pioneers of Science - Maria Goeppert-Mayer</strong></td>
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<td><strong>Pioneers of Science - Nettie Stevens Award</strong></td>
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<td><strong>Pioneers of Science - Rachel Louise Carson</strong></td>
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<td><strong>Pioneers of Science - Rosalie Barrow Edge</strong></td>
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<td><strong>Pioneers of Science - Hedy Lamarr</strong></td>
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</tbody>
</table>
**Pioneers of Science - Rosalind Franklin**
Jessica Fiula 8th grade
St. Columba Catholic School Durango
Disinfecting Power

**Pioneers of Science - Sally Ride**
Alexandra MacAskill 8th grade
Holy Family Catholic School Grand Junction

**United States Air Force**
**US Air Force Award**
Michael Nichols 8th grade
Brush Middle School Brush
Predicting Aircraft Stealth with Light Waves

Devon Conn 6th grade
Corwin International Magnet School Pueblo
Sound Propagation Sensing in the Stratosphere

Sam Cuthbertson 12th grade
John Elliott 12th grade
Centaurus High School Lafayette
Phoenix Drone

Shepherd Kruse 10th grade
Home School Colorado Springs
Designing and Evaluating an Aerospike Rocket Engine for Increased Thrust

**United States Navy & Marine Corps**
**Office of Naval Research Award**
Emhyr Subramanian 7th grade
Cherry Creek Challenge School Denver
Potential Biodegradable Alternatives to Current Petroleum-Based Surfactants for Oil Spill Cleanup

Dovvie Knowlton 7th grade
Fowler Junior High School Fowler
Got Doggy Drool

**Air & Waste Management Association**
**Rocky Mountain States Section**
Dylan Doskocil 8th grade
Bayfield Middle school Bayfield
Biochar and Fungus to the Rescue: Acid Mine Soil Reclamation

Bridget Hebner 7th grade
American Academy Parker
Clear as Mud: BPA Found in Water Bottles at Varying Temperatures

Vanessa Haggans 8th grade
Summit Charter Middle School Boulder
Can I Drink It?: Backcountry Water Quality in Boulder County and Its Safety for Runners
American Association of University Women  
**AAUW Award for Women in STEM**

- **Aubree Rybacki**, 6th grade, $100  
  Alta Vista Charter School, Laramie
  \*Oh! It's OPI*

- **Mary Hood**, 11th grade, $100  
  Sargent Jr/Sr High School, Monte Vista
  \*SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly*

American Chemical Society  
**Colorado Local Section Award**

- **Shelly Steinert**, 11th grade, $25  
  Sargent Jr/Sr High School, Monte Vista
  \*Determining Flame Retardancy of Maize Stover, Medicago Sativa, and Hordeum Vulgare Ash*

- **Connor McCauley**, 7th grade, $25  
  Blessed Sacrament Catholic School, Denver
  \*Vitamin C in Vegetables*

- **Rachelle Pierce**, 7th grade, $25  
  Knowledge Quest Academy, Milliken
  \*Salt and Ice*

- **Madison Luczak**, 7th grade, $25  
  Windsor Charter Academy, Windsor
  \*Do You Have To See It To Believe?*

- **Calista Law**, 7th grade, $100  
  Boulder Country Day School, Boulder
  \*Eco-Plastics*

- **Sofia Antal**, 11th grade, $100  
  Cherry Creek High School, Greenwood Village
  \*Growth and Testing of New Cocrystals, Part 2*

American Industrial Hygiene Association  
**Rocky Mountain Section**

- **Sam Duarte**, 7th grade, certificate  
  Quest Academy, Dacono
  \*Bagpipes and Earplugs: Should Great Highland Bagpipe Players Use Earplugs When Practicing?*

- **Hari Sowrirajan**, 9th grade, $100  
  Cherry Creek High School, Greenwood Village
  \*Nanoparticle-Induced Macrophage Atherogenesis*

American Institute of Aeronautics and Astronautics, Rocky Mountain Section  
**AIAA Rocky Mountain Section Award**

- **John Quinn**, 8th grade  
  Summit Charter Middle School, Boulder
  \*Wind, Wings, and Lift*

- **Devin Conn**, 6th grade  
  Corwin International Magnet, Pueblo
  \*Sound Propagation Sensing in the Stratosphere*

- **Shepherd Kruse**, 10th grade  
  Home School, Colorado Springs
  \*Designing and Evaluating an Aerospike Rocket Engine for Increased Thrust*

- **Derrick Zanoni**, 10th grade  
  Silverton Schools, Silverton
  \*Multi-Purpose Robo Glove*

American Institute of Chemical Engineers  
**Rocky Mountain Section**

- **Finn Stowers**, 8th grade, $75  
  St. Columba Catholic School, Durango
  \*Frac Fluid Friction: Does Sand Grain Size Affect the Viscosity of Hydraulic Fracturing Fluid?*

- **Jocelyn Sanchez**, 6th grade, $100  
  Corwin International Magnet, Pueblo
  \*Candy Chromatography*

- **Liam Foster**, 9th grade, $75  
  Animas High School, Durango
  \*Testing the Water: A Review of Various Acid Mine Drainage Remediation Options*

- **Sofia Antal**, 11th grade, $100  
  Cherry Creek High School, Greenwood Village
  \*Growth and Testing of New Cocrystals, Part 2*
**American Institute of Professional Geologists**  
**Colorado Section**  
**AIPG Certificate of Excellence in the Geosciences**  
Joshua Miller  
Skinner Middle School  
Denver  
$100  
*What Type of Soil Best Supports a House During a Liquefaction Event?*

Dylan Doskocil  
Bayfield Middle School  
Bayfield  
$200  
*Biochar and Fungus to the Rescue: Acid Mine Soil Reclamation*

Ivo Erben  
Boulder High School  
Boulder  
$100  
*The Effect of Climate on a Glacier's ELA and Ablation Gradient*

Hannah deKay  
Raelen Barr  
Silverton Schools  
Silverton  
$200  
*Investigating Innovative Tools and Techniques for Heavy Metal Mapping in Historic Mining District*

**American Meteorological Society**  
**Outstanding Achievement in Atmospheric Sciences**  
Elani Frantz  
Paige Lessig  
North Middle School  
Colorado Springs  
$50  
*What's the Weather Forecast in Space?*

Casey Zhang  
Fairview High School  
Boulder  
$100  
*The QBO and Solar Cycle Modulation in the Lower Atmosphere*

Jesse Zhang  
Fairview High School  
Boulder  
$100  
*Effect of the Atlantic Ocean on Sudden Stratospheric Warming*

**American Public Power Association**  
**DEED Energy & Efficiency Innovation Award**  
Alia Kraxberger  
Genoa-Hugo School  
Hugo  
$50  
*Number of Blades vs. Efficiency*

Taylor Coons  
Dante Pasioneck  
Nederland Middle/Senior High  
Nederland  
$75  
*The Ideal Energy Efficient Home: An Arduino Based Project*

**DEED Environmental Innovation Award**  
Luke Rohlwing  
The Classical Academy  
Colorado Springs  
$50  
*Solar Cell Jenga: Increasing Energy Capacity with Stacked Photovoltaic Solar Panels*

Richard Mallory  
The Classical Academy  
Colorado Springs  
$75  
*Hazardous Waste to Renewable Energy*

**American Statistical Association, Colorado/Wyoming Chapter**  
**David Young Memorial Award**  
Amelia Greene  
The Classical Academy  
Colorado Springs  
$200, student membership in the American Statistical Association, acknowledgement at chapter spring meeting and on chapter web site  

Michelle Kummel  
Palmer High School  
Colorado Springs  
$200, student membership in the American Statistical Association, acknowledgement at chapter spring meeting and on chapter web site  
*A Spoonful of Sugar Helps the Nitrate Go Down: Denitrification in Wetland Soil*

**American Vacuum Society**  
**Rocky Mountain Chapter**  
Dylan Jessen  
The Classical Academy  
Castl Pines  
$50, $50 to teacher/sponsor  
*The Effect of Voltage, Vacuum and Anode Material on Electron Acceleration*

Jordyn Hall  
Peak to Peak Charter School  
Lafayette  
$100, $100 to teacher/sponsor  
*Temperamental Twisters*

Emma Frantz  
Palmer High School  
Colorado Springs  
$50, $50 to teacher/sponsor  
*Harnessing the Marangoni Effect*

Sirisha Gudavalli  
Fairview High School  
Boulder  
$100, $100 to teacher/sponsor  
*Chemical and Morphological Dependent Properties of Semiconductor Nanocrystals*

**American Water Works Association**  
**Rocky Mountain Section & Rocky Mountain Water Environment Association**  
Katelynn Salmon  
Monument Academy  
Monument  
$80  
*Effect of Microbeads on Daphnia Heart Rate*
Emhyr Subramanian 7th grade
Certificate, $400
Cherry Creek Challenge School Denver
*Potential Biodegradable Alternatives to Current Petroleum-Based Surfactants for Oil Spill Cleanup*

Hannah Fischer 10th grade
Certificate, $200
Sierra Grande Jr/Sr High School Blanca
*Pharmacovienviromentology: Developing a Baseline for PPCP Contaminant Levels at the MVNWR*

Liam Foster 9th grade
Certificate, $400
Animas High School Durango
*Testing the Water: A Review of Various Acid Mine Drainage Remediation Options*

**ASM International**
**ASM Materials Education Foundation Award**
Haley Weinstein 11th grade
$100
Fairview High School Boulder
*Analyzing Different Methods of Finding the Force at General Yield in Sub-sized Charpy Testing*

Sirisha Gudavalli 10th grade
$150
Fairview High School Boulder
*Chemical and Morphological Dependent Properties of Semiconductor Nanocrystals*

**Colorado Association of Meat Processors**
**Meat Science/Food Safety Award**
Kaitlyn Dumm 10th grade
Certificate, $70
Windsor High School Windsor
*Leftovers to Livestock: Turning Human Food Waste into Livestock Feed with Consistent Nutrient Values*

**Colorado Association of Science Teachers**
Grace Gulig 7th grade
$75
Monument Academy Monument
*Keeping Soil in Its Place*

Madeline Steinle 8th grade
$75
Trinity Lutheran School Pueblo
*The Effects of Aspartame on Cognitive Abilities*

Emma Scholz 12th grade
$75
Sterling High School Sterling
*Geographical Correlation Maps of Malaria Hemoglobin SS Disease Allele Frequency and Eco. of Ethiopia*

Syree Gunnels 10th grade
$75
Sargent Jr/Sr High School Monte Vista
*Extraction of Health Benefiting Compounds in Colored Potato Tubers*

**Colorado Biology Teachers’ Association**
**CBTA Best Biology Project Award**
Kathryn Kummel 6th grade
Certificate, $75
North Middle School Colorado Springs
*The Danger of Drinking Water: How Mountain Lions Affect Elk Behavior and Aspen Regeneration*

Logan Collins 12th grade
Certificate, $75
Fairview High School Boulder
*An RK2 Mediated Bacterial Conjugation Delivery System for Artificial Genes Coding for Antimicrobial Polypeptides: A Novel Synthetic Biology Approach to Antibiotic Resistance*

**Colorado BioScience Institute**
**BioGENEius Challenge**
Jonathan Snedeker 12th grade
All-expense paid trip to compete at the US National competition held in Philadelphia, PA, June 2015
Fairview High School Boulder
*Combined Inhibition of Wee1 and Parp1/2 as a Novel Therapy for Acute Myeloid Leukemia*

**Colorado Chemistry Teachers Association**
**CCTA Chemistry Award**
Richard Mallory 11th grade
$100
The Classical Academy College Colorado Springs
*Hazardous Waste to Renewable Energy*

Connor McCauley 7th grade
$100
Blessed Sacrament Catholic Denver
*Vitamin C in Vegetables*

**Colorado Dental Association**
Grace Varga 7th grade
$50 gift card
American Academy Parker
*Brush It or Buzz It: The Comparison of Rotating and Vibrating Toothbrushes*

Edwin Bodoni 8th grade
$100 gift card
Cherry Creek Challenge School Denver
*Dental Implants: The Healthier Alternative*

Dakota Cook 8th grade
$50 gift card
Walsh Jr/Sr High School Walsh
*Dental Disintegration*

Jenner Dunn 9th grade
Julia Mathews 9th grade
2 $50 gift cards
Brush High School Brush
*The Effects of Citric and Phosphoric Acid on Tooth Enamel*
Colorado Division of Reclamation, Mining & Safety
Outstanding Earth Science Award
Dylan Doskocil 8th grade
$75
Bayfield Middle school Bayfield
Biochar and Fungus to the Rescue: Acid Mine Soil Reclamation
Liam Foster 9th grade
$75
Animas High School Durango
Testing the Water: A Review of Various Acid Mine Drainage Remediation Options

Colorado Environmental Health Association
Emmyr Subramanian 7th grade
$75, framed certificate
Cherry Creek Challenge School Denver
Potential Biodegradable Alternatives to Current Petroleum-Based Surfactants for Oil Spill Cleanup
Hannah Fischer 10th grade
$150, framed certificate, invitation to exhibit at the CEHA Annual Educational Conference
Sierra Grande Jr/Sr High School Blanca
Pharmacoenviromentology: Developing a Baseline for PPCP Contaminant Levels at the MVNWR

Colorado Foundation for Agriculture
Agriculture in the Classroom Award
Dylan Doskocil 8th grade
$50, certificate
Bayfield Middle school Bayfield
Biochar and Fungus to the Rescue: Acid Mine Soil Reclamation
Lacey Niccoli 8th grade
$50, certificate
Liberty School Joes
Denatured: The Effects of pH on Germination
Syree Gunnels 10th grade
$50, certificate
Sargent Jr/Sr High School Monte Vista
Extraction of Health Benefiting Compounds in Colored Potato Tubers
Margaret Preigh 12th grade
$50, certificate
Fairview High School Boulder
Pulsing Electromagnetic Radiation at 50/60Hz as a Pest Repellant in Insects

Colorado Geographic Alliance
CGA Application of Geography Award
Kelsey Brethauer 7th grade
$100
Windsor Charter Academy Windsor
Bad Beads
Emma Scholz 12th grade
$100
Sterling High School Sterling
Geographical Correlation Maps of Malaria Hemoglobin SS Disease Allele Frequency and Eco. of Ethiopia

Colorado Medical Society
CMS Education Foundation Award
Jayden Durbin 12th grade
$100, invitation to the winners and their parents to exhibit at the Colorado Medical Society Annual Meeting and attendance at the Presidential Inaugural Dinner with a paid overnight stay
Haxtun High School Haxtun
Vitamin D Stimulates the mRNA Expression of ACPP in LNCaP Cells
Laura Clark 7th grade
$100, invitation to the winners and their parents to exhibit at the Colorado Medical Society Annual Meeting and attendance at the Presidential Inaugural Dinner with a paid overnight stay
St. Columba Catholic School Durango
Paper Microfluidics: Medical Diagnostics for the Developing World

Colorado Mineral Society
Best Earth Science Award
Max Warnock 7th grade
$35, mineral specimen, book, certificate
Home School Fort Collins
Vitamin D Stimulates the mRNA Expression of ACPP in LNCaP Cells
Laura Clark 7th grade
$100, invitation to the winners and their parents to exhibit at the Colorado Medical Society Annual Meeting and attendance at the Presidential Inaugural Dinner with a paid overnight stay
St. Columba Catholic School Durango
Paper Microfluidics: Medical Diagnostics for the Developing World

Colorado Scientific Society
Dylan Doskocil 8th grade
$50
Bayfield Middle school Bayfield
Biochar and Fungus to the Rescue: Acid Mine Soil Reclamation
Antonio Campos 8th grade
$75
Cherry Creek Challenge School Denver
Why Is Venice Sinking?
Liam Foster 9th grade
$75
Animas High School Durango
Testing the Water: A Review of Various Acid Mine Drainage Remediation Options

Hannah deKay 10th grade
Raelen Barr 10th grade
$100
Silverton Schools Silverton
Investigating Innovative Tools and Techniques for Heavy Metal Mapping in Historic Mining District

Colorado State University
College of Agricultural Sciences
Innovations in the Science of Agriculture Award
Calista Law 7th grade
$500
Boulder Country Day School Boulder
Eco-Plastics

Mitchell Fosdick 10th grade
$500
Fowler High School Fowler

Colorado State University
Dept. of Biochemistry & Molecular Biology
Jonathan Snedeker 12th grade
certificate, $100
Fairview High School Boulder
Combined Inhibition of Wee1 and Parp1/2 as a Novel Therapy for Acute Myeloid Leukemia

Colorado State University
Dept. of Chemistry
Nicole Miller 7th grade
certificate, $100
Ortega Middle School Alamosa
Blue Bottle Blues

Richard Mallory 11th grade
certificate, $100
The Classical Academy College Colorado Springs
Hazardous Waste to Renewable Energy

Colorado State University
Dept. of Horticulture & Landscape Architecture
Sarah Duzenack 6th grade
$100
La Veta Jr/Sr High School La Veta
A Comparison of Endomycorrhizae and Commercial Fertilizer on Bent and Blue Grass

Alicia Wu 8th grade
$100
Summit Charter Middle School Boulder
The Acidulous Truth About the Flora of Our Environment

Kaixin Cui 11th grade
$100
Fairview High School Boulder
Evolutionary Analysis of Cestrum in the Antilles Based on Phylogenetic Relationships and Time Axis

Syree Gunnels 10th grade
$100
Sargent Jr/Sr High School Monte Vista
Extraction of Health Benefiting Compounds in Colored Potato Tubers

Colorado State University
Energy Institute
Energy Achievement Award
Kelsey Lindbloom 11th grade
certificate, $500, invitation to present at the Spark! Experience Energy: Colorado on the Cutting Edge of Energy Innovation event on April 15, 2015
Salida High School Salida
Fueling the Future Phase 4: Constructing an Aqueous Vehicle Powered by a Microbial Fuel Cell

Colorado State University
School of Biomedical Engineering
Excellence in Biomedical Engineering Award
Jonathan Snedeker 12th grade
certificate, gift bag
Fairview High School Boulder
Combined Inhibition of Wee1 and Parp1/2 as a Novel Therapy for Acute Myeloid Leukemia

Jayden Durbin 12th grade
certificate, gift bag
Haxtun High School Haxtun
Vitamin D Stimulates the mRNA Expression of ACPP in LNCaP Cells

Logan Collins 12th grade
certificate, gift bag, $50 gift bag
Fairview High School Boulder
An RK2 Mediated Bacterial Conjugation Delivery System for Artificial Genes Coding for Antimicrobial Polypeptides: A Novel Synthetic Biology Approach to Antibiotic Resistance

Colorado Veterinary Medical Association
Veterinary Science Award
Jacob Wright 8th grade
$50 from CVMA, $50 from CVMA Auxiliary, certificate
Walsh Jr/Sr High School Walsh
Wind in My Mane

Haleigh Prosser 9th grade
$50 from CVMA, $50 from CVMA Auxiliary, certificate
Wiley School Wiley
Cowcium: Effects of Calcium Citrate in Cattle Fed Wet Distillers’ Grains Rations
Colorado's Touchstone Energy Cooperatives  
*The Colorado EnergyWise Award*

Noah Rainer 8th grade  
Megan Harmon 8th grade  
$250  
Cortez Middle School Cortez  
*Harvesting the Sun*

Taylor Coons 12th grade  
Dante Pasinonek 12th grade  
$250  
Nederland Middle/Senior High Nederland  
*The Ideal Energy Efficient Home: An Arduino Based Project*

Colorado-Wyoming Society of American Foresters  
*Society of American Foresters Excellence in Forestry Research Award*

Lexy Riggo-Guadagnoli 7th grade  
$100  
La Veta Jr/Sr High School La Veta  
*Investigating and Antimicrobial Properties of Abies concolor on Staphylococcus aureus and Streptococcus*

Isaac Jordan 9th grade  
$100  
Animas High School Durango  
*Save the World, Bomb the Forest*

Comstock Family  
*Heather Comstock Memorial Award*

Logan Collins 12th grade  
$300  
Fairview High School Boulder  
*An RK2 Mediated Bacterial Conjugation Delivery System for Artificial Genes Coding for Antimicrobial Polypeptides: A Novel Synthetic Biology Approach to Antibiotic Resistance*

Constant Family  
*Constant Family Award for Excellence in Computer Science*

Molly Nehring 8th grade  
$100, certificate, 8 Gb flash drive  
Monte Vista Middle School Monte Vista  
*Genetic Algorithms: Solving Math Problems Using Ideas from Nature*

Avi Swartz 10th grade  
Tyler Giallanza 10th grade  
Ian Johnson 12th grade  
$150, certificate, 16 Gb flash drive  
Cherry Creek High School Greenwood Village  
*Developing a Class Scheduling Program with Minimum Conflicts for Large Schools*

Eppler Family  
*Eppler Family Award*

Victoria Dunivan 8th grade  
microprocessor kit & digital multimeter (value $100)  
Walsh Jr/Sr High School Walsh  
*Dealing with Diabetes*

Cristian Granados 8th grade  
North Middle School Colorado Springs  
*Put A Little Spring in Your Step*

Fort Collins Conservation District  
*Armbruster Memorial Award*

Steven Smith 7th grade  
plaque, $50  
The Classical Academy Colorado Springs  
*Best Mulch for the Money*

Isaac Jordan 9th grade  
plaque, $50  
Animas High School Durango  
*Save the World, Bomb the Forest*

Frank Armbruster Foundation  
*Armbruster Memorial Award*

Jamison White 8th grade  
$100  
Blevins Middle School Fort Collins  
*Flight Made Simple*

Geological Society of America  
*GSA Awards in Environmental Geology*

Jordyn Hall 8th grade  
plaque, GSA membership, 2015 GSA calendar, GSA photo scale  
Peak to Peak Charter School Lafayette  
*Temperamental Twisters*

Isaac Jordan 9th grade  
plaque, GSA membership, 2015 GSA calendar, GSA photo scale, Rite in the Rain spiral notebook, Rite in the Rain all weather pen  
Animas High School Durango  
*Save the World, Bomb the Forest*

GSA Awards in Environmental Geology

Ivo Erben 11th grade  
plaque, GSA membership, 2015 GASA calendar, GSA photo scale, The Geoscientists Handbook, Rite in the Rain spiral notebook, Rite in the Rain all weather pen  
Boulder High School Boulder  
*The Effect of Climate on a Glacier's ELA and Ablation Gradient*

Gromko Family  
*Gerald Gromko Memorial Award*

Shepherd Kruse 10th grade  
$150  
Home School Colorado Springs  
*Designing and Evaluating an Aerospike Rocket Engine for Increased Thrust*

Human Factors and Ergonomics Society Rocky Mountain Chapter  
*SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly*

Mary Hood 11th grade  
$100  
Sargent Jr/Sr High School Monte Vista  
SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly
Institute of Electrical & Electronics Engineers
High Plains Section

Cristian Granados 8th grade
SparkFun Inventor's Kit, invitation to an IEEE meeting
North Middle School Colorado Springs
Put A Little Spring in Your Step

Mary Hood 11th grade
SparkFun Inventor's Kit, Raspberry Pi 2 Computer, invitation to an IEEE meeting
Sargent Jr/Sr High School Monte Vista
SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly

Little Shop of Physics
Matthew McCausland Memorial Award
Jordyn Hall 8th grade
science "stuff" (value $100)
Peak to Peak Charter School Lafayette
Temperamental Twisters
Nate Stryker 8th grade
science "stuff" (value $100)
Columbine Middle School Montrose
Household Hydraulics

Lockheed Martin
Noah Rainer 8th grade
Megan Harmon 8th grade
$50
Cortez Middle School Cortez
Harvesting the Sun
Ben Sheffer 11th grade
$100
Eaglecrest High School Centennial
The Effects of Electron Beam Dose on the Visible Spectroscopic Signatures of Thin C60 Films

National Centers for Environmental Information
NCEI Award of Scientific Achievement
Avery Lin 7th grade
$50 money order, certificate
Stanley British Primary School Denver
War on Waves: A Study of Different Coastal Defenses and Their Effectiveness Against Tsunamis

Rocky Mountain Association of Geologists
Antonio Campos 8th grade
cash award
Cherry Creek Challenge School Denver
Why Is Venice Sinking?
Max Warnock 7th grade
cash award
Home School Fort Collins
Testing the Viking Sunstone Legend
Ivo Erben 11th grade
cash award
Boulder High School Boulder
The Effect of Climate on a Glacier's ELA and Ablation Gradient

SACNAS, Colorado State University Chapter
SACNAS CSU - Rising Young Scientist Award
Anu Khanna 11th grade
$50
Cherry Creek High School Greenwood Village
The Effects of an Ecological Stress on Generations of Plants
Maia Drugmand 8th grade
$50
Peak to Peak Charter School Lafayette
Dirty Energy
Amy Hong 9th grade
$50
Sand Creek High School Colorado Springs
The Effects of Ultraviolet Radiation on Planaria

Science Toy Magic, LLC
Science Toy Magic Classroom Demonstration Award
John Quinn 8th grade
$100
Summit Charter Middle School Boulder
Wind, Wings, and Lift

Award
Mark Lenczycki 8th grade
$50
Blevins Middle School Fort Collins
My Prosthetic Arm Extension

Society for Mining, Metallurgy, and Exploration
Colorado Section
Steven Smith 7th grade
plaque, $100
The Classical Academy Colorado Springs
Best Mulch for the Money
Dylan Doskocil 8th grade
plaque, $200
Bayfield Middle school Bayfield
Biochar and Fungus to the Rescue: Acid Mine Soil Reclamation
Cassidy Plane 10th grade
plaque, $200
Sargent Jr/Sr High School Monte Vista
More or Less
Hannah deKay 10th grade
Raelen Barr 10th grade
plaque, $400
Silverton Schools Silverton
Investigating Innovative Tools and Techniques for Heavy Metal Mapping in Historic Mining District
Society of Manufacturing Engineers  
Colorado Chapter 354  
*Andy Keller Memorial Award*

Ryan Tseng  
10th grade  
Fairview High School  
Boulder  
*The Pursuit of Sharpness: A Study on Composition and Geometry of Cutting Instruments*

Ian Wilkins  
12th grade  
Fairview High School  
Boulder  
*Optimizing 3D CAD Scanning Algorithms Through Multi-Sensor Data Input*

Trevor Jordan  
11th grade  
Animas High School  
Durango  
*A Wing of the Future: Part II*

---

Society of Women Engineers  
Rocky Mountain Section

Isabel Kahler  
8th grade  
Corwin International Magnet  
Pueblo  
*Defying Gravity*

Robin Bahrami  
8th grade  
Summit Charter Middle School  
Boulder  
*The Soundasaurus: Digital Sound Analysis Using Signal Processing Algorithms*

Haley Weinstein  
11th grade  
Fairview High School  
Boulder  
*Analyzing Different Methods of Finding the Force at General Yield in Sub-sized Charpy Testing*

Mary Hood  
11th grade  
Sargent Jr/Sr High School  
Monte Vista  
*SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly*

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Soil & Water Conservation Society  
Colorado Chapter  
*Katie McCall  
8th grade  
Walsh Jr/Sr High School  
Walsh  
*Natural Fertilizing: Observing Wheat Growth with Different Manure*

Cassidy Plane  
10th grade  
Sargent Jr/Sr High School  
Monte Vista  
*More or Less*

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SPIE: The International Society for Optics and Photonics  
*SPIE Optics and Photonics Science Fair Award*

Luke Rohlwing  
8th grade  
$50  
American Academy  
Castle Pines  
*Solar Cell Jenga: Increasing Energy Capacity with Stacked Photovoltaic Solar Panels*

Max Warnock  
7th grade  
$100  
Home School  
Fort Collins  
*Testing the Viking Sunstone Legend*

Sara Nehring  
6th grade  
$150  
Monte Vista Middle School  
Monte Vista  
*The Moon Is So Bright: Do You Need Sunglasses at Night?*

Sirisha Gudavalli  
10th grade  
$100  
Fairview High School  
Boulder  
*Chemical and Morphological Dependent Properties of Semiconductor Nanocrystals*

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The Aquaponic Source  
The Aquaponic Source's Innovation in Aquaponics Award

Makayla Windholz  
8th grade  
$150  
Imagine Charter School  
Firestone  
*Growing with Aquaponics vs. Hydroponics*

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The Inventor's Roundtable  
Inventors' Roundtable Award

Mary Hood  
11th grade  
$100, free patent search (value $499)  
Sargent Jr/Sr High School  
Monte Vista  
*SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly*

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Trout Unlimited  
Trout Unlimited Conservation Award

Tara Suppes  
12th grade  
$75  
Delta High School  
Delta  
*Analysis on Stream Temperature Variation*

Katelynn Salmon  
8th grade  
$125  
Monument Academy  
Monument  
*Effect of Microbeads on Daphnia Heart Rate*
Hannah Fischer 10th grade $200
Sierra Grande Jr/Sr High School Blanca
Pharmacoenvironemtry: Developing a Baseline for PPCP Contaminant Levels at the MVNWR

United States Department of Commerce
Department of Commerce Award for Excellence in Science and Engineering
Stephen Parish 12th grade alternate for the opportunity for summer employment with the Department of Commerce
Home School Colorado Springs
Ian Wilkins 12th grade the opportunity for summer employment with the Department of Commerce with the possibility for future continuing employment
Fairview High School Boulder
Optimizing 3D CAD Scanning Algorithms Through Multi-Sensor Data Input

United States Geological Survey
USGS Excellence in Geological or Water Research Award
Joshua Miller 6th grade reference book, mineral specimen
Skinner Middle School Denver
What Type of Soil Best Supports a House During a Liquefaction Event?
Michelle Kummel 9th grade reference book, mineral specimen
Palmer High School Colorado Springs
A Spoonful of Sugar Helps the Nitrate Go Down: Denitrification in Wetland Soil

University of Colorado, Denver
Medical Scientist Training Program Award
Laura Clark 7th grade $50
St. Columba Catholic School Durango
Paper Microfluidics: Medical Diagnostics for the Developing World
Casey Shaw 9th grade $50
Liberty School Joes
Arrested Development: Glyphosate-Based Herbicides on the Embryonic Development of Zebra Danios

University of Northern Colorado
MAST Institute Award
Jack Stade 8th grade $50
Nevin Platt Middle School Boulder
Modeling Parasitic Relations Using Computer Models
Kevyn Kelso 10th grade $50
The Classical Academy Colorado Springs
Automatic Trombone Tuner

Vaughan Web Works, LLC
Glissmann Family Award for Best Use of Computer Program Development
Molly Nehring 8th grade $50
Monte Vista Middle School Monte Vista
Genetic Algorithms: Solving Math Problems Using Ideas from Nature
Stephen Parish 12th grade $100
Home School Colorado Springs

Wojtaszek Family
Paul Wojtaszek Memorial Award
Jayden Durbin 12th grade $300
Haxtun High School Haxtun
Vitamin D Stimulates the mRNA Expression of ACPP in LNCaP Cells

Women in Physics
Colorado State University Chapter Promising Young Woman in Science Award
Isabel Kahler 8th grade $50
Corwin International Magnet Pueblo
Defying Gravity

Zonta Club of Boulder County
Amelia Earhart Award
Elani Frantz 8th grade $100
Paige Lessig 8th grade
North Middle School Colorado Springs
What's the Weather Forecast in Space?

Scholarships
Adams State University
Adams State University Scholarships
Merritt Singley 11th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Brush High School Brush
The Influence of Omega-3 Fatty Acids on Lipid Microdomains Obtained from Bovine Luteal Cells
Sarena Wells 12th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Fort Morgan High School Fort Morgan
Frustration Responses: An Analysis of Dispositional Learning
Shelly Steinert 11th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Sargent Jr/Sr High School Monte Vista
Determining Flame Retardancy of Maize Stover, Medicago Sativa, and Hordeum Vulgare Ash
Wyatt Wiening 9th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Trinidad High School Trinidad

Expanding Clays

Kelsey Lindbloom 11th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Salida High School Salida

Fueling the Future Phase 4: Constructing an Aqueous Vehicle Powered by a Microbial Fuel Cell

Brandon Navratil 11th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Animas High School Durango

Portable Conductivity Probe

Jessalyn Bay-Voit 10th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Durango High School Durango

Fire Ready OR Not?

Derrick Zanoni 10th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Silverton Schools Silverton

Multi-Purpose Robo Glove

Collin Leonard 10th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Springfield Jr/Sr High School Springfield

Gatorade’s Effect on Heart Rate

Rebecca Bloomfield 10th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Palmer High School Colorado Springs

Competence Dependent Chemotaxis and Genomic Repair in Acinetobacter baylyi

Gabriella Tolan 11th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Brush High School Brush

Vertical Motion to Rotational Movement of a Rectangular Wing

Joel Wagner 10th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Arickaree School Anton

Effects of Water Contaminants on Plants

Aubrey Wells 10th grade
Kaitlin Wells 9th grade
ASU scholarship valued as the equivalent to one-year resident tuition and fees (~$8,500)
Fort Morgan High School Fort Morgan

Electromagnetic Spectrum: Absorption Measurements and Their Applications to Energy Analysis

Colorado School of Mines

Mines CSEF Scholarship

Trevor Jordan 11th grade
$1,000 CMS scholarship, renewable for up to 3 additional years for use toward an undergraduate degree)
Animas High School Durango

A Wing of the Future: Part II

Madeline Goosman 11th grade
$1,000 CMS scholarship, renewable for up to 3 additional years for use toward an undergraduate degree)
Fairview High School Boulder

Mandarin Tone Perception in Simulations of Electro-Acoustic and Cochlear-Implant Hearing

Haley Weinstein 11th grade
$1,000 CMS scholarship, renewable for up to 3 additional years for use toward an undergraduate degree)
Fairview High School Boulder

Analyzing Different Methods of Finding the Force at General Yield in Sub-sized Charpy Testing

Mary Hood 11th grade
$1,000 CMS scholarship, renewable for up to 3 additional years for use toward an undergraduate degree)
Sargent Jr/Sr High School Monte Vista

SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly

Brandon Navratil 11th grade
$1,000 CMS scholarship, renewable for up to 3 additional years for use toward an undergraduate degree)
Animas High School Durango

Portable Conductivity Probe

Hannah Langford 11th grade
Molly Dickinson 11th grade
$1,000 CMS scholarship, renewable for up to 3 additional years for use toward an undergraduate degree)
Animas High School Durango

The Effects of Technology on Teenagers’ Sleep Patterns

Emily Zislis 11th grade
$1,000 CMS scholarship, renewable for up to 3 additional years for use toward an undergraduate degree)
Cherry Creek High School Greenwood Village

The Effect of Genetically Modified Soybean Consumption on Mouse Weight

Colorado State University

College of Natural Sciences Scholarship

Mary Hood 11th grade
$1,000 renewable scholarship to attend CSU
Sargent Jr/Sr High School Monte Vista

SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly

Logan Collins 12th grade
$1,000 renewable scholarship to attend CSU
Fairview High School Boulder

An RK2 Mediated Bacterial Conjugation Delivery System for Artificial Genes Coding for Antimicrobial Polypeptides: A Novel Synthetic Biology Approach to Antibiotic Resistance
Jessica Shand 10th grade
$1,000 renewable scholarship to attend CSU
Discovery Canyon Campus Colorado Springs
Analysis of Spermatophyte Divergence to Expedite Identification of Novel Drug Candidates

Colorado State University, Pueblo
Colorado State University, Pueblo Scholarship
Kelsey Lindbloom 11th grade
$1,000 scholarship to attend CSU, Pueblo
Salida High School Salida
Fueling the Future Phase 4: Constructing an Aqueous VehiclePowered by a Microbial Fuel Cell

University of Colorado, Boulder
College of Engineering and Applied Sciences Scholarships
Molly Nehring 8th grade
4-year $500 scholarship
Monte Vista Middle School Monte Vista
Genetic Algorithms: Solving Math Problems Using Ideas from Nature

Michelle Kummel 9th grade
4-year $500 scholarship
Palmer High School Colorado Springs
A Spoonful of Sugar Helps the Nitrates Go Down: Denitrification in Wetland Soil

Sirisha Gudavalli 10th grade
4-year $500 scholarship
Fairview High School Boulder
Chemical and Morphological Dependent Properties of Semiconductor Nanocrystals

Mary Hood 11th grade
4-year $500 scholarship
Sargent Jr/Sr High School Monte Vista
SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly

Haley Weinstein 11th grade
4-year $500 scholarship
Fairview High School Boulder
Analyzing Different Methods of Finding the Force at General Yield in Sub-sized Charpy Testing

Madeline Goosman 11th grade
4-year $500 scholarship
Fairview High School Boulder
Mandarin Tone Perception in Simulations of Electro-Acoustic and Cochlear-Implant Hearing

Shelly Steinert 11th grade
4-year $500 scholarship
Sargent Jr/Sr High School Monte Vista
Determining Flame Retardancy of Maize Stover, Medicago Sativa, and Hordeum Vulgare Ash

Areefa Rahman 11th grade
4-year $500 scholarship
Cherry Creek High School Greenwood Village
Saving the World with One Feather at a Time: The Amalgamation of Polymers using Chicken Feathers
American Psychological Association

*Achievement in Research in Psychological Science*

Caroline Jennings 8th grade certificate
The Classical Academy Colorado Springs
*Ask Me Twice*

Serena Rusk 11th grade certificate
Fairview High School Boulder
*An Analysis of Risk Factors for Developing Low Body Satisfaction in Adolescents*

Arizona State University

*Walton Sustainability Solutions Initiatives*

*ASU Walton Sustainability Solutions Award*

Liam Foster 9th grade certificate, entry for Grand Prize of a trip to Arizona for the 2016 Sustainability Solutions Festival (entries must be mailed by May 1, 2015 to be eligible)
Animas High School Durango
*Testing the Water: A Review of Various Acid Mine Drainage Remediation Options*

Hannah Fischer 10th grade certificate, entry for Grand Prize of a trip to Arizona for the 2016 Sustainability Solutions Festival (entries must be mailed by May 1, 2015 to be eligible)
Sierra Grande Jr/Sr High School Blanca
*Pharmacoenviromentology: Developing a Baseline for PPCP Contaminant Levels at the MVNWR*

Casey Shaw 9th grade certificate, entry for Grand Prize of a trip to Arizona for the 2016 Sustainability Solutions Festival (entries must be mailed by May 1, 2015 to be eligible)
Liberty School Joes
*Arrested Development: Glyphosate-Based Herbicides on the Embryonic Development of Zebra Danios*

Hannah deKay 10th grade certificate, entry for Grand Prize of a trip to Arizona for the 2016 Sustainability Solutions Festival (entries must be mailed by May 1, 2015 to be eligible)
Silverton Schools Silverton
*Investigating Innovative Tools and Techniques for Heavy Metal Mapping in Historic Mining District*

ASM Materials Education Foundation

*Most Outstanding Exhibit in Materials Science*

Emhyr Subramanian 7th grade certificate, medallion (to be mailed)
Cherry Creek Challenge School Denver
*Potential Biodegradable Alternatives to Current Petroleum-Based Surfactants for Oil Spill Cleanup*

Sirisha Gudavalli 10th grade certificate, medallion (to be mailed)
Fairview High School Boulder
*Chemical and Morphological Dependent Properties of Semiconductor Nanocrystals*

Association for Women Geoscientists

*Student Awards for Geoscience Excellence*

Jordyn Hall 8th grade certificate
Peak to Peak Charter School Lafayette
*Temperamental Twisters*

MaKayla Hofner 9th grade certificate
Woodlin School Woodrow
*A Gas More Toxic: A Study of Radon in Households*

Broadcom MASTERS

*National Middle School Science & Engineering Fair Competition Nomination*

Kathryn Kummel 6th grade certificate, nomination to the 2015 Broadcom MASTERS competition
North Middle School Colorado Springs
*The Danger of Drinking Water: How Mountain Lions Affect Elk Behavior and Aspen Regeneration*

Felix Channiago 8th grade certificate, nomination to the 2015 Broadcom MASTERS competition
West Jefferson Middle School Conifer
*The Effect of Temperature on Hunting Response Time of Female Habronattus Jumping Spiders*

Calista Law 7th grade certificate, nomination to the 2015 Broadcom MASTERS competition
Boulder Country Day School Boulder
*Eco-Plastics*

Max Warnock 7th grade certificate, nomination to the 2015 Broadcom MASTERS competition
Home School Fort Collins
*Testing the Viking Sunstone Legend*
<table>
<thead>
<tr>
<th>Name</th>
<th>Grade</th>
<th>School</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Bloomfield</td>
<td>7th</td>
<td>Holmes Middle School, Colorado Springs</td>
<td>certificate, nomination to the 2015 Broadcom MASTERS competition</td>
</tr>
<tr>
<td>Maia Drugmand</td>
<td>8th</td>
<td>Peak to Peak Charter School, Lafayette</td>
<td>Blow Out: Scaling Down Compressed Air Energy Storage for Household Use</td>
</tr>
<tr>
<td>Cristian Granados</td>
<td>8th</td>
<td>North Middle School, Colorado Springs</td>
<td>certificate, nomination to the 2015 Broadcom MASTERS competition</td>
</tr>
<tr>
<td>Pranav Subramanian</td>
<td>8th</td>
<td>Campus Middle School, Greenwood Village</td>
<td>Dirty Energy</td>
</tr>
<tr>
<td>Avery Lin</td>
<td>7th</td>
<td>Cherry Creek Challenge School, Denver</td>
<td>certificate, nomination to the 2015 Broadcom MASTERS competition</td>
</tr>
<tr>
<td>Jack Stade</td>
<td>8th</td>
<td>Stanley British Primary School, Denver</td>
<td>War on Waves: A Study of Different Coastal Defenses and Their Effectiveness Against Tsunamis</td>
</tr>
<tr>
<td>Advaita Singh</td>
<td>8th</td>
<td>Cherry Creek Challenge School, Denver</td>
<td>certificate, nomination to the 2015 Broadcom MASTERS competition</td>
</tr>
<tr>
<td>Molly Nehring</td>
<td>8th</td>
<td>Monte Vista Middle School, Monte Vista</td>
<td>Modeling Parasitic Relations Using Computer Models</td>
</tr>
<tr>
<td>Sam Duarte</td>
<td>7th</td>
<td>Quest Academy, Dacono</td>
<td>Dental Implants: The Healthier Alternative</td>
</tr>
<tr>
<td>Taylor Dower</td>
<td>8th</td>
<td>Turner Middle School, Berthoud</td>
<td>certificate, nomination to the 2015 Broadcom MASTERS competition</td>
</tr>
<tr>
<td>Madison Sears</td>
<td>7th</td>
<td>STEM Academy, Highlands Ranch</td>
<td>A Comparison of Antibacterial Hand Cleansing Solutions and Their Effectiveness Against Killing Bacteria</td>
</tr>
<tr>
<td>Brendan Gould</td>
<td>7th</td>
<td>The Classical Academy, Colorado Springs</td>
<td>certificate, nomination to the 2015 Broadcom MASTERS competition</td>
</tr>
<tr>
<td>John Quinn</td>
<td>8th</td>
<td>Summit Charter Middle School, Boulder</td>
<td>Wind, Wings, and Lift</td>
</tr>
<tr>
<td>Alicia Wu</td>
<td>8th</td>
<td>Summit Charter Middle School, Boulder</td>
<td>The Acidulous Truth About the Flora of Our Environment</td>
</tr>
<tr>
<td>Sarah Duzenack</td>
<td>6th</td>
<td>La Veta Jr/Sr High School, La Veta</td>
<td>A Comparison of Endomycorrhizae and Commercial Fertilizer on Bent and Blue Grass</td>
</tr>
<tr>
<td>Robert Meikle</td>
<td>9th</td>
<td>Sand Creek High School, Colorado Springs</td>
<td>certificate, $200 (to be mailed)</td>
</tr>
<tr>
<td>Stephen Parish</td>
<td>12th</td>
<td>Home School, Colorado Springs</td>
<td>Graphing Calculator Application</td>
</tr>
<tr>
<td>Jennifer Jones</td>
<td>12th</td>
<td>Frontier Academy, Greeley</td>
<td>Creating Permutations for Actions on Young Tableaux, Year 2</td>
</tr>
<tr>
<td>Elliot Gorokhovsky</td>
<td>10th</td>
<td>Fairview High School, Boulder</td>
<td>A Novel Algorithm for Model Counting</td>
</tr>
</tbody>
</table>
National Oceanic and Atmospheric Administration
Taking the Pulse of the Planet Award
Emhyr Subramanian 7th grade
certificate, medallion
Cherry Creek Challenge School Denver
Potential Biodegradable Alternatives to Current Petroleum-Based Surfactants for Oil Spill Cleanup
Jesse Zhang 12th grade
certificate, medallion
Fairview High School Boulder
Effect of the Atlantic Ocean on Sudden Stratospheric Warming

Ricoh Americas Corporation
Ricoh Sustainability Development Award
Juan Sanchez 8th grade
certificate
Pueblo School for Arts and Sciences Pueblo
What the Frack!

Society for In Vitro Biology
Outstanding Achievement for Ability and Creativity in In Vitro Biology Award
Merritt Singley 11th grade
certificate
Brush High School Brush
The Influence of Omega-3 Fatty Acids on Lipid Microdomains Obtained from Bovine Luteal Cells
Eileen Xia 10th grade
certificate
Cherry Creek High School Greenwood Village
Phosphatidylinositol-3 Kinase p110a Isoform Inhibits Antibody Switch

United States Metric Association
US Metric Association Award
Connor Voss 8th grade
certificate
Beulah School of Natural Sciences Beulah
Loop the Loop: Rollercoaster Physics
Jonathan Snedeker 12th grade
certificate
Fairview High School Boulder
Combined Inhibition of Wee1 and Parp1/2 as a Novel Therapy for Acute Myeloid Leukemia

United States Public Health Service
Surgeon General's Special Science Award
Madeline Steinle 8th grade
certificate
Trinity Lutheran School Pueblo
The Effects of Aspartane on Cognitive Abilities

Charles Rey 11th grade
certificate
Fairview High School Boulder
The Effects of Exercise on Short Term and Long Term Memory

Water Environment Association
Stockholm Junior Water Prize Award
Hannah Fischer 10th grade
certificate, nomination to the SJWP state competition
Sierra Grande Jr/Sr High School Blanca
Pharmacoenvironmentology: Developing a Baseline for PPCP Contaminant Levels at the MVNWR
Liam Foster 9th grade
certificate, nomination to the SJWP state competition
Animas High School Durango
Testing the Water: A Review of Various Acid Mine Drainage Remediation Options

Yale Science & Engineering Association
Yale Science & Engineering Association Award
Haley Weinstein 11th grade
certificate, pewter medallion (to be mailed)
Fairview High School Boulder
Analyzing Different Methods of Finding the Force at General Yield in Sub-sized Charpy Testing
Mary Hood 11th grade
certificate, pewter medallion (to be mailed)
Sargent Jr/Sr High School Monte Vista
SMART Cane: A Technology Integrated Device to Reduce the Fall Susceptibility of the Elderly

Lockheed Martin
CSEF Teacher of the Year Award
Diego Martinez $3,000 grant, plaque
Center High School Center

SparkFun Electronics
SparkFun's Thank You to Educators Award
Pat Keeling SparkFun Inventor's Kit ($99 value)
La Veta Jr/Sr High School La Veta
Linda Niccoli SparkFun Inventor's Kit ($99 value)
Liberty School Joes
Dr. Paul Strode SparkFun Inventor's Kit ($99 value)
Fairview High School Boulder
John Wiley SparkFun Inventor's Kit ($99 value)
Cherry Creek Challenge School Denver
Diego Martinez SparkFun Inventor's Kit ($99 value)
Center High School Center