

60th Annual San Juan Basin Regional Science Fair 2018 Awards

Thursday, March 1, 2018
La Plata County Fairgrounds
Durango, Colorado

For Students
in Grades Six through Twelve
from Archuleta, Dolores,
La Plata, Montezuma,
and San Juan Counties

Artwork by
Nolan Hankins, Dove Creek

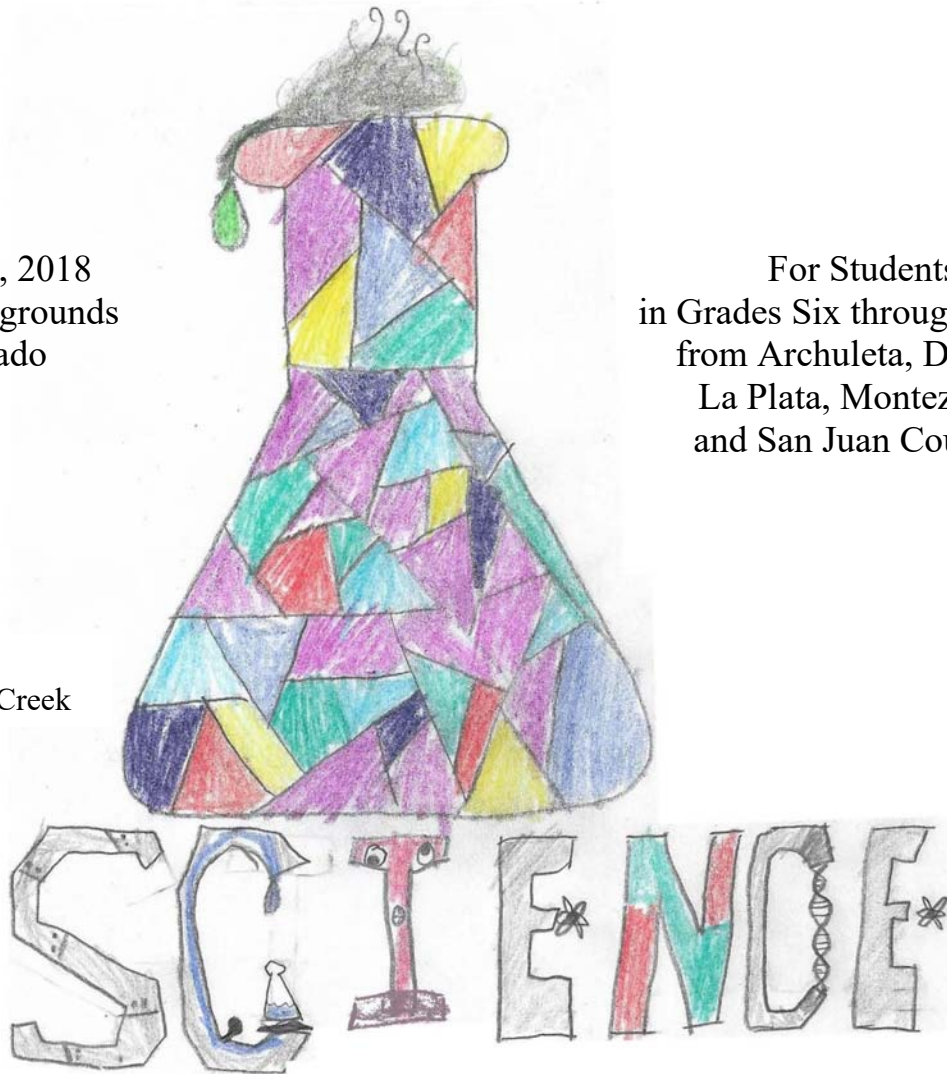


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STONEAGE WATERBLAST TOOLS engineers and manufactures tools and equipment for water blast cleaning, and is proud to support the engineers of tomorrow!



WILLIAMS is committed to partnering with organizations like the Regional Science Fair that work to improve the communities where we operate and our employees live. Williams' approach to community involvement is to serve as an exceptional neighbor, and involvement in the communities where we operate is at the heart of Williams.



At VERIZON, we believe we need more makers, we need more creators, and we need to show all students they are capable of achieving success in STEM fields. By providing opportunities for students to learn and use advanced technology both inside and outside of the classroom, Verizon is helping to give future generations the tools they need to build brighter futures for themselves and empowering students to explore all the possibilities and future careers STEM can hold.

BALLANTINE FAMILY FUND

SERVICE TO OUR COMMUNITY SINCE 1957

THE BALLANTINE FAMILY FUND was established in 1957 by Morley C. Ballantine and Arthur A. Ballantine, Jr. for the purpose of giving financial assistance to non-profit, charitable, educational, literary, scientific or other causes that better the human condition.

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EMPIRE ELECTRIC ASSN. is a rural electric cooperative business owned by the members it serves. A core value of EEA is concern for the community. One way to provide for the future needs of the community is to encourage educational activities like the San Juan Regional Science Fair.



KINDER MORGAN is one of the largest pipeline transportation and energy storage companies in North America with more than 37,000 miles of pipelines and 170 terminals. Kinder natural gas, refined petroleum products, crude oil, ethanol, coal and carbon dioxide. These products are essential for natural gas, refined petroleum products, crude oil, ethanol, coal and carbon dioxide. These products are essential for generating electricity, heating homes, powering cars and much more.



DURANGO HIGH NOON

ROTARY is part of the Rotary global network of neighbors, friends, leaders, and problem-solvers who come together to make positive, lasting change. We believe that we have a shared responsibility to take action on our world's most persistent issues and are thrilled to be part of the San Juan Basin Regional Science Fair.



Judges and Volunteers

Our sincere thanks go to all of our science fair volunteers! These individuals are vital to the operation of the science fair, serving to evaluate student projects, coordinate and staff events on fair day, and participating with planning activities throughout the year. Thank you to the Scientific Review Committee and judges who volunteered to judge at the middle school science fairs. (Apologies to anyone we missed).

| | | | |
|------------------------|---------------------|--------------------|--------------------|
| Anthony Anastasi | Alexandra Dobbs | Matt Klausmeier | Paul Romere |
| Rachel Barnes Chandler | Michael Ellis | Luke Kline | Mercedes Romero |
| Keith Baugh | Michael Fitzpatrick | Kristina Kline | Bradley Rowe |
| Rich Bechtolt | Mike Freeburn | Dan Korman | Derek Ryter |
| Victoria Bishop | Sandy Friedley | James Lane | Rick Santopietro |
| Adrea Bogle | Casey Gaines | Margaret Lestina | Chase Schippers |
| Arial Bowsher | Bryan Gernes | Marc Masor | Lynn Schneider |
| Elliot Brechner | Ryan Good | David McKeever | Tim Schneider |
| Nick Brothers | Sidney Gordon | Gus McKinley | Jack Schuenemeyer |
| Cary Brown | Lani Graham | Carol Milliet | Kyser Seaney |
| Gerald Foster Bush III | Karola Hanks | Deborah Moomey | Tucker Smith |
| Patrick Callahan | Jacqueline Hess | Robert Moskaitis | Christopher Snyder |
| Andy Carter | Rylan Hess | Lauren Mulvaugh | Ilana Stern |
| Marnie Clay | Michele Hilberth | Diego Novoa | Lorie Sutter |
| Callie Cole | Jill Hoehlein | Dave Nulton | Bailey Walker |
| Uriah Contreras | Mesa Hollinbeck | Mark Oliver | Travis Ward |
| Leandrew Daily | Jesse Hutt | Brie Olson Stahnke | George Widmeyer |
| Scot Davis | Marvin Johnson | Julie Orluk | Dale Wingeleth |
| Molly Dickinson | Joan Kellogg | Steve Otter | Win Wright |
| Laurie Dickson | Byron Kellogg | Rodney Peart | Kerrienne Zdimal |
| Joe Digiacamo | Robyn Kellogg | Eric Pinkerton | Ze Zhang |
| | Jim Ketter | Kelly Ratliff | |

Sponsoring Employers

Thank you also to the following businesses and organizations for supporting their members and employees who participated in the 2018 San Juan Basin Regional Science Fair

4CORE * Advanced Mobile Propulsion Test * Basin Hydrology * Bechtolt Engineering
Bird Conservancy of the Rockies * BP America * City of Durango * Dove Creek Conservation District
Durango 9R School District Durango Fire Protection District * Ecosphere Environmental Services
Empire Electric Association * Exeter Group * FLC MARC Program * FLC STEM Volunteer Network
Fort Lewis College * Green Lab Solutions * La Plata Electric Association
Ketter Project Management and Consulting, LLC * Pagosa Fire Protection District * San Juan BOCES
Shaw Solar * SME Environmental Consultants * Southwest Hydro-Logic * Southwest Statistical Consulting
StoneAge Waterblast Tools * Southwest Colorado AHEC * United States Geological Survey
USDA – NRCS, Cortez * USDA – NRCS, Durango * Verizon * Williams

DaVinci Awards - Best of Fair 2018

*Engraved Medallion Presented to Overall Division Champions
custom engraved medallions crafted by Ryan's Custom Products of Dolores*

Senior Division

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 1st | Rollin Leavitt <i>An Investigation Of Transcription Factor Preferences Amongst Bacterial Detection Proteins</i> | Animas High School |
| 2nd | Isaac Jordan <i>A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II</i> | Southwest Colorado eSchool |
| 3rd | Marissa Jordan <i>A Helping Hand: A Softer Side Of Robots, Part II</i> | Southwest Colorado eSchool |
| 4th | Daniela Acosta <i>What Is Your Pulse?</i> | Silverton School |
| 5th | Colt Spencer <i>Covering The Cover Crop</i> | Mancos High School |

Junior Division

| | | |
|-----|----------------------------------------------------------------------------------|---------------------------------|
| 1st | Nicholas Huber <i>Stirling Engines: Harnessing And Utilizing Heat Energy</i> | St. Columba School |
| 2nd | Tyler Barnes & James Mars <i>Burn, Baby Burn!</i> | Ignacio Middle School |
| 3rd | Levi Tichi <i>Fluorocarbon To Eco-Friendly</i> | St. Columba School |
| 4th | Layne Green <i>Homeopathic: Can They Work Like Antibiotics</i> | St. Columba School |
| 5th | Lena Rohn <i>Beneficial Blues & Roborant Reds: Anthocyanins In Action</i> | Classical Conversations Durango |

Sixth Grade Division

| | | |
|-----|----------------------------------------------------------------------------------------------------------|---------------------------|
| 1st | Gracey Hening <i>Antibiotic Resistance: The World's Most Dangerous Threat To Effective Healthcare</i> | St. Columba School |
| 2nd | Nathaniel Ellis <i>Solar Flares, Radioactive Winds, And The Unexpected End Of Our Digital World!</i> | Escalante Middle School |
| 3rd | Braxton Dennison <i>How Big Is Too Big?</i> | Mancos Middle School |
| 4th | Carlos Rayos <i>Video Game Controller</i> | Silverton School |
| 5th | Analisa Vega <i>Over The Counter Medications Vs. Herbal Remedies, Which Is More Potent?</i> | Dolores Elementary School |



Category Awards

1st Place winners receive a Blue Award Ribbon & \$50 Maria's Bookshop Gift Card
2nd Place winners receive a Red Award Ribbon & \$35 Maria's Bookshop Gift Card
3rd Place winners receive a White Award Ribbon & \$25 Maria's Bookshop Gift Card
Honorable Mention winners receive a Rainbow Award Ribbon

Senior Division Awards

Earth & Space Sciences

| | | | |
|-----|--------------|------------------|--------------------|
| 1st | Raja Braford | Silverton School | Is It Hot In Here? |
|-----|--------------|------------------|--------------------|

Energy & Transportation

| | | | |
|-----|-------------|---------------------|--------------------------------------|
| 1st | Zeb Shields | Home Educated | Photos Of Synthetic Photosynthesis |
| 2nd | Jason Foutz | Ignacio High School | Efficiency Of Hydrogen Gas Dry Cells |

Engineering

| | | | |
|-----|----------------|----------------------------|------------------------------------------------------------------------------------------------------------|
| 2nd | Marissa Jordan | Southwest Colorado eSchool | A Helping Hand: A Softer Side Of Robots, Part II |
| 1st | Isaac Jordan | Southwest Colorado eSchool | A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II |

Medicine & Health

| | | | |
|-----|----------------|------------------|---------------------|
| 1st | Daniela Acosta | Silverton School | What Is Your Pulse? |
|-----|----------------|------------------|---------------------|

Microbiology

| | | | |
|-----|----------------|--------------------|-------------------------------------------------------------------------------------------|
| 1st | Rollin Leavitt | Animas High School | An Investigation Of Transcription Factor Preferences Amongst Bacterial Detection Proteins |
|-----|----------------|--------------------|-------------------------------------------------------------------------------------------|

Plant Sciences

| | | | |
|-----|--------------|--------------------|-------------------------|
| 1st | Colt Spencer | Mancos High School | Covering The Cover Crop |
|-----|--------------|--------------------|-------------------------|

Team Projects

| | | | |
|-----|--------------------------------|--------------------|----------------------------------------------------------------------|
| 1st | Riley Douglas & Amelia O'Toole | Animas High School | How Do Various Types Of Music Affect Sleeping Patterns In Teenagers? |
| 2nd | Mason James & Finn Bridgham | Animas High School | On The Comparison of Drone Propellers |

Junior Division Awards

Animal Sciences

| | | | |
|-----|-------------------|-----------------------|----------------------------------------------------------------|
| 1st | Lilly Figueroa | Mancos Middle School | He? She? Is It A Matter Of Degree? |
| 2nd | Teagan Roukema | Ignacio Middle School | Can You Rope Science? |
| 3rd | Clay Sanderson | Mancos Middle School | Can You Tell If A Horse Is Pregnant Just By Looking At Her? |
| HM | Kourtney Schurman | Ignacio Middle School | Is Your Dog Left Or Right Pawed |

Behavioral & Social Sciences

| | | | |
|-----|-------------------|----------------------|----------------------------------------------------------|
| 1st | Hannah Helms | Miller Middle School | A Ride To Remember |
| 2nd | Josie Gundry | St. Columba School | Back Up Dude |
| 3rd | Sophie Eschallier | Mancos Middle School | Do Different Types Of Exercise Yield A Greater Prize? |
| HM | Paton Edwrad | Silverton School | Mindful Phones |
| HM | Echo Hamilton | Silverton School | Do Dogs Put You In A Better Mood? |
| HM | Molly Stanifer | Miller Middle School | Musical Magic? |

Chemistry

| | | | |
|-----|-------------------|------------------------------|------------------------------|
| 1st | Levi Tichi | St. Columba School | Fluorocarbon To Eco-Friendly |
| 2nd | Gabriella Piccaro | Miller Middle School | Lashes Vs. Splashes! |
| 3rd | Annie Bronson | Miller Middle School | Hydration Decontamination |
| HM | Jessie Wallace | Mancos Middle School | Floating In The Sea Of Soda |
| HM | Avaleena Nanaeto | Ignacio Middle School | Color Extracting |
| HM | Sorcha Sweeney | Pagosa Springs Middle School | HydroHair |
| HM | Lucy Donnaway | Miller Middle School | Which Will Rise Higher? |

Earth & Space Sciences

| | | | |
|-----|-----------------|------------------------|-------------------------------------------------|
| 1st | Serenity Foutz | Bayfield Middle School | PLANTS vs. WATER: The Battle of Soil Erosion |
| 2nd | Nina Quayle | Miller Middle School | Wacky Weather |
| 3rd | Sierra Marshall | Silverton School | Solar Heat |

Energy & Transportation

| | | | |
|-----|-------------------|------------------------------|----------------------------------|
| 1st | River Johnson | Pagosa Springs Middle School | The Battery of Baghdad |
| 2nd | Trinity Strohl | Ignacio Middle School | Ice Ice Baby |
| 3rd | Ava Wright | Miller Middle School | Electrolysis |
| HM | Meah Mordecai | Silverton School | Which Make The Most Electricity? |
| HM | Jonathan Nasralla | Pagosa Springs Middle School | Solar Turbine |

Junior Division Awards (continued)

Engineering

| | | | |
|-----|------------------------|--------------------------|-----------------------------------------------------------------------------------|
| 1st | Nicholas Huber | St. Columba School | Stirling Engines: Harnessing And Utilizing Heat Energy |
| 2nd | Ellie Clark | St. Columba School | Smart Fabric- Microelectronic Properties Of Textiles Coated With Carbon Nanotubes |
| 3rd | Trevor Paquin | Mancos Middle School | Wood Splitter |
| HM | Patrick McBrayer | Miller Middle School | Break At Stake |
| HM | Kinser Cressler | Dove Creek Middle School | Amp It Up |
| HM | Soren Braford-Lefebvre | Silverton School | Generator |

Environmental Sciences

| | | | |
|-----|----------------|---------------------------------|------------------------------------------------------|
| 1st | Nell Taylor | Pagosa Springs Middle School | No-Show Radio |
| 2nd | Nicholas Best | St. Columba School | Hot Gas-Warm Pass |
| 3rd | Ayden Mathews | Mancos Middle School | Grimy Groundwater To Immaculate Irrigation Water |
| HM | Caleb Burdine | Classical Conversations Durango | Electric Water Softeners: Wasteful Or Tasteful? |
| HM | Selene Rhoades | Silverton School | How Much Metal Is In Cement Creek Compared To Others |

Medicine & Health

| | | | |
|-----|----------------|--------------------------|-------------------------------------------------------------------------------------------|
| 1st | Layne Green | St. Columba School | Homeopathic: Can They Work Like Antibiotics |
| 2nd | Trista Barnett | Dove Creek Middle School | Now You See Me, Now You Don't |
| 3rd | Madison Hening | St. Columba School | The Effects Of Social Media And Smart Phone Use On Physiological And Psychological Health |
| HM | Emelia Hawk | Miller Middle School | Blues Before Snooze |
| HM | Ryan Jarmon | Dove Creek Middle School | Concussions |

Microbiology

| | | | |
|-----|-------------------|----------------------|-------------------------|
| 1st | Ellinor Davenport | Miller Middle School | Persistent Or Resistant |
| 2nd | Alec Sheer | St. Columba School | Dirtiest Mouth? |
| 3rd | Zayda Mestas | Miller Middle School | Shopping For Bacteria |
| HM | Tanner Coddington | Miller Middle School | Five Second Fool? |

Physics

| | | | |
|-----|------------------|-----------------------|--------------------------------------------------------------|
| 1st | Ashley Forrest | Miller Middle School | Lighten The Load |
| 2nd | Eppie Quintana | Ignacio Middle School | Guass Rifle |
| 3rd | Mathew Zimmerman | Silverton School | What Combination Of Household Items Make The Best Bodyarmor? |

Junior Division Awards (continued)

Plant Sciences

| | | | |
|-----|-----------------|---------------------------------|-------------------------------------------------------------|
| 1st | Lena Rohn | Classical Conversations Durango | Beneficial Blues & Roborant Reds: Anthocyanins In Action |
| 2nd | Natasha Walcott | St. Columba School | Some Like It Warm |
| 3rd | Mason Rowland | Miller Middle School | Brighten Your Day |

Team Projects

| | | | |
|-----|------------------------------------------|-----------------------|-----------------------------------|
| 1st | Tyler Barnes & James Mars | Ignacio Middle School | Burn, Baby Burn! |
| 2nd | Kharis Weller & Madigan Egizio-Hughes | Silverton School | How Does Color Affect Mood? |
| 3rd | Laura Witt & Bodie Hine | Ignacio Middle School | Kinetic Energy Of Bullet Calibers |

Sixth Grade Division Awards

Animal Sciences

| | | | |
|-----|------------------|--------------------------|--------------------------------------------|
| 1st | Sophia Dickey | Mancos Middle School | Goat Saliva - Bacteria Killer Or Just Spit |
| 2nd | Aubrey Mckellips | Dove Creek Middle School | Horse Water Frozen? Oil Don't Think So! |

Behavioral & Social Sciences

| | | | |
|-----|----------------|----------------------|-------------------------------------|
| 1st | Mandi Peacock | Mancos Middle School | Liar, Liar, Heart Rate Higher? |
| 2nd | Taryne Tynes | Silverton School | Are You Calm? |
| 3rd | Elizabeth Lund | Mancos Middle School | Effects Of Illusion: Adults VS Kids |

Chemistry

| | | | |
|-----|------------------|---------------------------|----------------------------------------------------------------------------|
| 1st | Analisa Vega | Dolores Elementary School | Over The Counter Medications Vs. Herbal Remedies, Which Is More Potent? |
| 2nd | Michael Coffey | Dove Creek Middle School | All Dried Up |
| 3rd | Allison Powell | Mancos Middle School | Superb Slime |
| HM | Phillip Quintana | Ignacio Middle School | Coke Zero Under Pressure |

Energy & Transportation

| | | | |
|-----|-----------------|------------------------------|------------------------------------|
| 1st | Evan Morozowich | St. Columba School | Solar Charging At Different Angles |
| 2nd | Devante Montoya | Ignacio Middle School | Potato Clock |
| 3rd | Christiana Ott | Pagosa Springs Middle School | Sun Car |
| HM | Jarret Cressler | Dove Creek Middle School | POWER UP |
| HM | Aiden Martinez | Ignacio Middle School | Potato Clock |

Sixth Grade Division Awards (continued)

Engineering

| | | | |
|-----|-----------------------|---------------------------|---------------------------|
| 1st | Braxton Dennison | Mancos Middle School | How Big Is Too Big? |
| 2nd | Gavin Livick | Dolores Elementary School | Tail Light |
| 3rd | Tristan May-Ostendorp | St. Columba School | Muffling Material Madness |
| HM | Gabe Cox | Ignacio Middle School | Rocket Science |

Environmental Sciences

| | | | |
|-----|---------------|--------------------|-----------------------------------------|
| 1st | Hazel Cleaves | St. Columba School | Putting Mineral Deposits To The Test!!! |
|-----|---------------|--------------------|-----------------------------------------|

Math & Computer Sciences

| | | | |
|-----|-----------------|--------------------|------------------------------|
| 1st | Carlos Rayos | Silverton School | Video Game Controller |
| 2nd | Barrett Aronson | St. Columba School | What Is Wrong With My WiFi?? |

Medicine & Health

| | | | |
|-----|--------------------|---------------------------|------------------------------|
| 1st | Willow Schulz | Ignacio Middle School | The Bug Factor |
| 2nd | Brooklyn Lee | Dolores Elementary School | Nail Polish Brand vs Quality |
| 3rd | Elizabeth Williams | Ignacio Middle School | Heart-b-b-b-eats |

Microbiology

| | | | |
|-----|----------------|--------------------|----------------------------------------------------------------------------------|
| 1st | Gracey Hening | St. Columba School | Antibiotic Resistance: The World's Most Dangerous Threat To Effective Healthcare |
| 2nd | Kiri May | St. Columba School | Clean Water Saves Lives |
| 3rd | Maggie Gardner | St. Columba School | Microwaves And Water |

Physics

| | | | |
|-----|-----------------|---------------------------|-------------------------------------------------------------------------------|
| 1st | Nathaniel Ellis | Escalante Middle School | Solar Flares, Radioactive Winds, And The Unexpected End Of Our Digital World! |
| 2nd | Kayla Tallmadge | Dolores Elementary School | Fluid Dynamics |
| 3rd | Archer Andres | St. Columba School | Puck Velocity |
| HM | Adriano Nunez | Ignacio Middle School | Perfect Planes |

Plant Sciences

| | | | |
|-----|--------------------|---------------------------|-----------------------|
| 1st | Grace McCrady | St. Columba School | Radishes-Which Water? |
| 2nd | Kelter Christenson | Dolores Elementary School | Fire Pop! |
| 3rd | Elle Ranney | Ignacio Middle School | Show Me The Light |

Special Awards Organizations



4 CORE serves southwest Colorado by promoting resource conservation, energy efficiency and renewable energy through education and programs that strengthen the local economy and foster a healthy, sustainable environment. 4 Core's Energy Innovation and Resource Conservation Award is presented to students with the best projects dealing with resource conservation, energy efficiency or renewable energy.



COLORADO CHAPTER OF THE SOIL AND WATER CONSERVATION SOCIETY presents two Senior Division and two Junior Division cash awards for projects that exemplify the basic goal of the society, "to promote renewable natural resources conservation".



COLORADO/WYOMING CHAPTER OF THE AMERICAN STATISTICAL ASSOCIATION is sponsoring an award for the best use of statistics, wishing to engage students into improving the statistics used in their project. The purpose of the ASA to foster in the broadest manner statistics and its applications.



THE DOVE CREEK CONSERVATION DISTRICT promotes the stewardship of natural resources that will assure their sustained viability and thereby support a strong economic environment for present and future generations. DCCD awards a \$50 cash award to an outstanding Natural Resource project.



DURANGO FIRE PROTECTION DISTRICT provides fire, emergency medical services, rescue, prevention, public education and public service in the Durango region. Durango Fire awards two students with projects focusing on improving peoples' lives or the quality of their life, with an emphasis on safety. Awards include a certificate, \$250 cash, plus an invitation to present project to the DFPD Board of Directors.



KIWANIS is a global organization of volunteers dedicated to changing the world, one child and one community at a time. Kiwanis of Durango presents \$25 gift certificates from Maria's Bookshop to the students with the best projects in the 6th Grade Division Behavioral & Social Sciences and 6th Grade Division Team Projects categories. These projects should demonstrate spirit, enthusiasm and community improvement.



MARIA'S BOOKSHOP is a general interest, independently owned and operated bookstore committed to serving our community since 1984. Maria's generously provides gift cards to present to the winners of the Art, Math and Writing contests.



SOUTHWESTERN COLORADO AREA HEALTH EDUCATION CENTER strives to improve access to quality healthcare in the region by expanding and strengthening the healthcare workforce. One way we do this is by hosting the annual Health Careers Camp for high school students at Fort Lewis College. Two scholarships are presented to students with the best health related projects for the 2018 Summer Health Careers Camp being held June 10-16.



WILLIAMS is a premier energy infrastructure company that provides clean-burning natural gas to heat homes and generate electricity. One of our Core Values & Beliefs is to support the communities where our employees live and work. That is why it is with great pleasure we present the Williams Prize to students with outstanding projects in the fields of Energy & Transportation from each division.

Special Awards

4 Core Energy Innovation and Resource Conversation Energy Efficiency Kit

Nicholas Huber St. Columba School
Stirling Engines: Harnessing And Utilizing Heat Energy

4 Core Energy Innovation and Resource Conversation Certificate

Ayden Mathews Mancos Middle School
Grimy Groundwater To Immaculate Irrigation Water

American Meteorological Society Certificate

Raja Braford Silverton School
Is It Hot In Here?

American Psychological Association Certificate

Belen Roof Silverton School
Global Warming And Peoples Moods

Association for Women Geoscientists Certificate

Raja Braford Silverton School
Is It Hot In Here?

CO Chapter of the Soil & Water Conservation Society

Junior/6th - 1st Place Certificate & \$30
Helen Rodstrom Bayfield Middle School
Beetle Kill or Beetle Cleanse

Junior/6th - 2nd Place Certificate & \$20
Serenity Foutz Bayfield Middle School
PLANTS vs. WATER: The Battle of Soil Erosion

Senior - 1st Place Certificate & \$30
Zeb Shields Home Educated
Photos Of Synthetic Photosynthesis

Senior - 2nd Place Certificate & \$20
Raja Braford Silverton School
Is It Hot In Here?

Colorado/Wyoming Chapter of the American Statistical Association

Junior Certificate & Book "Cartoon Guide to Statistics"
Katharine Sproston St. Columba School
Does Music Improve Concentration?

Senior Certificate & Book "Cartoon Guide to
Isaac Jordan Southwest Colorado eSchool
*A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder
Composites Part II*



Special Awards (continued)

Dove Creek Conservation District - Outstanding Natural Resource Project \$50 Cash
Colt Spencer Mancos High School
Covering The Cover Crop

Durango Fire Protection District Award Certificate & \$250 & Invitation to Present to Board
Emelia Hawk Miller Middle School
Blues Before Snooze
Ryan Jarmon Dove Creek Middle School
Concussions

Intel Excellence in Computer Science Certificate & \$200
Marissa Jordan Southwest Colorado eSchool
A Helping Hand: A Softer Side Of Robots, Part II

Kiwanas

6th Grade Behavioral \$25 Gift Cards to Maria's
Taryne Tynes Silverton School
Are You Calm?

6th Grade Team \$25 Gift Cards to Maria's
Tyler Barnes & James Mars Ignacio Middle School
Burn, Baby Burn!

Maria's - Art Contest \$25 Gift Card to Marias
Raja Braford Silverton School

Maria's - Creative Writing Contest \$25 Gift Card to Marias
Mandi Peacock Mancos Middle School

Maria's - Math Contest \$25 Gift Card
Raja Braford Silverton School
Nell Taylor Pagosa Springs Middle School
Kaili Tucker St. Columba School
Andrew Bowles Pagosa Springs Middle School
Kameron Winkler Pagosa Springs Middle School

Maria's Technical Writing Award
Junior \$25 Gift Card to Marias
Ashley Forrest Miller Middle School
Lighten The Load
Senior \$25 Gift Card to Marias
Rollin Leavitt Animas High School
An Investigation Of Transcription Factor Preferences Amongst Bacterial Detection Proteins

Special Awards (continued)

MU Alpha Theta - Mathematics Certificate

Isaac Jordan Southwest Colorado eSchool
A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II

NASA Earth System Science Award Certificate

Isaac Jordan Southwest Colorado eSchool
A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II

NOAA “Taking the Pulse of the Planet” Award Certificate & Medallion

Raja Braford Silverton School
Is It Hot In Here?

Ricoh Americas Corporation Certificate

Levi Tichi St. Columba School
Fluorocarbon To Eco-Friendly

Southwestern CO Area Health Education Center Scholarship to Health Careers Camp +

Madison Hening St. Columba School
The Effects Of Social Media And Smart Phone Use On Physiological And Psychological Health

Belen Roof Silverton School
Global Warming And Peoples Moods

United States Air Force

Junior Certificate & Swag Bag

Noah Slingerland Pagosa Springs Middle School
When Paper Flies

Senior Certificate & Swag Bag

Isaac Jordan Southwest Colorado eSchool
A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II

Mason James & Finn Bridgham Animas High School
On The Comparison of Drone Propellers

United States Navy and Marine Corps Office of Naval Research

Junior Certificate & Medallion

Nicholas Huber St. Columba School
Stirling Engines: Harnessing And Utilizing Heat Energy

Gabe Cox Ignacio Middle School
Rocket Science

Devante Montoya Ignacio Middle School

Special Awards (continued)

United States Navy and Marine Corps Office of Naval Research (continued)

Junior Certificate & Medallion

Landen Johnston Mancos Middle School

Pounds Of Speed

John Riepel Ignacio Middle School

Loaded For Accuracy

Senior Certificate, Medallion, \$50 Gift Card

Zeb Shields Home Educated

Photos Of Synthetic Photosynthesis

Jason Foutz Ignacio High School

Efficiency Of Hydrogen Gas Dry Cells

Williams Prize

Energy & Trans - Senior \$250

Zeb Shields Home Educated

Photos Of Synthetic Photosynthesis

Energy & Trans - Junior \$125

Erland Rayos Silverton School

The Car

Energy & Trans - Sixth Grade \$125

Gavin Livick Dolores Elementary School

Tail Light

Yale Science and Engineering Association Certificate & Medallion

Isaac Jordan Southwest Colorado eSchool

A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II

ISEF Nominees

Student Finalist and Student Observer are selected to represent the region at the Intel International Science and Engineering Fair, May 12-19 in Pittsburgh, PA. All expenses are paid by San Juan BOCES, with the generous support of our sponsors.

Student Finalist: Rollin Leavitt Grade 12 - Animas High School

An Investigation Of Transcription Factor Preferences Amongst Bacterial Detection Proteins

Student Observer: Marissa Jordan Grade 9 - Southwest Colorado eSchool

A Helping Hand: A Softer Side Of Robots, Part II

Designated Alternate: Isaac Jordan Grade 12 - Southwest Colorado eSchool

A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II

CSEF Nominees

Students from the region nominated to attend the Colorado Science and Engineering Fair, April 5-7, 2018 in Fort Collins

| | | | |
|-------------------|------------------------------------------------------------------------------------------------------------|---------|---------------------------------|
| Amelia O'Toole | How Do Various Types Of Music Affect Sleeping Patterns In Teenagers? | Grade 9 | Animas High School |
| Analisa Vega | Over The Counter Medications Vs. Herbal Remedies, Which Is More Potent? | Grade 6 | Dolores Elementary School |
| Barrett Aronson | What Is Wrong With My WiFi?? | Grade 6 | St. Columba School |
| Braxton Dennison | How Big Is Too Big? | Grade 6 | Mancos Middle School |
| Carlos Rayos | Video Game Controller | Grade 6 | Silverton School |
| Colt Spencer | Covering The Cover Crop | Grade # | Mancos High School |
| Daniela Acosta | What Is Your Pulse? | Grade 9 | Silverton School |
| Ellie Clark | Smart Fabric- Microelectronic Properties Of Textiles Coated With Carbon Nanotubes | Grade 8 | St. Columba School |
| Ellinor Davenport | Persistent Or Resistant | Grade 7 | Miller Middle School |
| Evan Morozowich | Solar Charging At Different Angles | Grade 6 | St. Columba School |
| Finn Bridgham | On The Comparison of Drone Propellers | Grade 9 | Animas High School |
| Gavin Livick | Tail Light | Grade 6 | Dolores Elementary School |
| Gracey Hening | Antibiotic Resistance: The World's Most Dangerous Threat To Effective Healthcare | Grade 6 | St. Columba School |
| Hannah Helms | A Ride To Remember | Grade 7 | Miller Middle School |
| Isaac Jordan | A Novel Approach For Sensing Seismic Events: Applications Of Graphene Nano Flake Powder Composites Part II | Grade # | Southwest Colorado eSchool |
| James Mars | Burn, Baby Burn! | Grade 8 | Ignacio Middle School |
| Jason Foutz | Efficiency Of Hydrogen Gas Dry Cells | Grade # | Ignacio High School |
| Josie Gundrey | Back Up Dude | Grade 8 | St. Columba School |
| Layne Green | Homeopathic: Can They Work Like Antibiotics | Grade 7 | St. Columba School |
| Lena Rohn | Beneficial Blues & Roborant Reds: Anthocyanins In Action | Grade 8 | Classical Conversations Durango |
| Levi Tichi | Fluorocarbon To Eco-Friendly | Grade 8 | St. Columba School |
| Lilly Figueroa | He? She? Is It A Matter Of Degree? | Grade 7 | Mancos Middle School |
| Maddison Hening | The Effects Of Social Media And Smart Phone Use On Physiological And Psychological Health | Grade 8 | St. Columba School |
| Marissa Jordan | A Helping Hand: A Softer Side Of Robots, Part II | Grade 9 | Southwest Colorado eSchool |
| Mason James | On The Comparison of Drone Propellers | Grade 9 | Animas High School |
| Molly Stanifer | Musical Magic? | Grade 7 | Miller Middle School |
| Natasha Walcott | Some Like It Warm | Grade 7 | St. Columba School |
| Nathaniel Ellis | Solar Flares, Radioactive Winds, And The Unexpected End Of Our Digital World! | Grade 6 | Escalante Middle School |



CSEF Nominees (continued)

Students from the region nominated to attend the Colorado Science and Engineering Fair, April 5-7 in Fort Collins

| | | | |
|-------------------|-------------------------------------------------------------------------------------------|---------|------------------------------|
| Nicholas Huber | Stirling Engines: Harnessing And Utilizing Heat Energy | Grade 8 | St. Columba School |
| Raja Braford | Is It Hot In Here? | Grade 9 | Silverton School |
| Riley Douglas | How Do Various Types Of Music Affect Sleeping Patterns In Teenagers? | Grade 9 | Animas High School |
| River Johnson | The Battery of Baghdad | Grade 7 | Pagosa Springs Middle School |
| Rollin Leavitt | An Investigation Of Transcription Factor Preferences Amongst Bacterial Detection Proteins | Grade # | Animas High School |
| Serenity Foutz | PLANTS vs. WATER: The Battle of Soil Erosion | Grade 7 | Bayfield Middle School |
| Sophie Eschallier | Do Different Types Of Exercise Yield A Greater Prize? | Grade 7 | Mancos Middle School |
| Trevor Paquin | Wood Splitter | Grade 8 | Mancos Middle School |
| Trista Barnett | Now You See Me, Now You Don't | Grade 7 | Dove Creek Middle School |
| Tyler Barnes | Burn, Baby Burn! | Grade 8 | Ignacio Middle School |
| Zeb Shields | Photos Of Synthetic Photosynthesis | Grade 9 | Home Educated |
| Ashley Forrest * | Lighten The Load | Grade 7 | Miller Middle School |
| Ava Wright * | Electrolysis | Grade 7 | Miller Middle School |
| Trinity Strohl * | Ice Ice Baby | Grade 7 | Ignacio Middle School |

* Designated Alternate

Thank You!

Joe DiGiacomo, Master of Ceremonies

Matt Klausmeier, Special Awards Coordinator and Score Master

Lynn Schneider, Judging Coordinator

Jane Zimmerman and all the crew at the La Plata County Fairgrounds

Anja Davis, Katie Salka and Tanner Wilson from the Powerhouse Science Center

AND A VERY SPECIAL THANKS to all of the teachers, sponsors, parents and mentors who generously give their time, knowledge and encouragement helping our students grow and learn.

Save the Date - March 7, 2019

61st Annual San Juan Basin Regional Science Fair!!