

2016 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from **Sandia-Lockheed Martin**.

Senior Division

First Place: Rusty Ludwigen

Passive Reduction of Involuntary Arm/Hand Tremors, Phase III

Early College Academy, Albuquerque, NM

Second Place: Samantha Multari

Can Seaweed Save the Coral? Part II

St. Pius X High School, Albuquerque, NM

Third Place: Karishma Patel

Oil and Bacteria: Slip Sliding Away

Grants High School, Grants, NM

Honorable Mention: Edward Parks

Cheap Solution to Removal of Uranium from Contaminated Groundwater by Functionalized Clay Pellets

Las Cruces High School, Las Cruces, NM

Junior Division

First Place: Alex Silverhart

Effect of Natural Antibiotic Resistance of E. Coli: K12

Albuquerque Institute of Mathematics and Science, Albuquerque, NM

Second Place: Amaya Coblentz

Drying not Dying, Photobiology of Lichen

Los Alamos Middle School, Los Alamos, NM

Third Place: Adittyo Paul

Generating Electricity Using Micro-turbines from Forward Moving Automobiles

Albuquerque Institute for Mathematics and Science, Albuquerque, NM

Honorable Mention: Kyla King

Inhibiting the Growth of Prionibacteria

Heights Middle School, Farmington, NM

2016 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|-----------------|-----------------------|------------------|
| First | Karishma Patel | Grants High School | Shelby Alexander |
| Second | Rusty Ludwigsen | Early College Academy | Mark Walker |

Junior Division

| Place | Student | School | Sponsor |
|--------|-----------------|---------------------------------|------------|
| First | Alex Silverhart | ABQ Institute of Math & Science | Linda Fey |
| Second | Amaya Coblentz | Los Alamos Middle School | Eva Abeyta |

2015 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Jovan Zhang

Modeling Gas Flow in Hydraulically Fractured Shale

Los Alamos High School, Los Alamos, NM

Second Place: Vladislav Sevostianov

A Farewell to Thermal Expansion

Las Cruces High School, Las Cruces, NM

Third Place: J. T. Goodart

The Cancer Breathalyzer: Chemical Strips that Detect Chemicals in Lung Cancer "Breath Print"

Grants High School, Grants, NM

Junior Division

First Place: Rusty Ludwigsen

Passive Reduction of Involuntary Arm/Hand Tremors

Desert Willow Family School, Albuquerque, NM

Second Place: Sean Collins

Ant Pheromones: Do You Smell What I'm Telling You?

St. Theresa of Avila, Grants, NM

Third Place: Devin Padilla

Wheat: The Good, The Bad, The Ugly

St. Theresa of Avila, Grants, NM

Honorable Mention: Lillian Petersen

Will it be a Good Ski Season: Correlations between El Nino and Snowfall

Los Alamos Middle School, Los Alamos, NM

2015 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|---------------|------------------------|---------------------|
| First | Abdullah Shah | Salam Academy | Aamna Nayyar |
| Second | Elise Koskelo | Los Alamos High School | Dr. Jeanne Robinson |

Junior Division

| Place | Student | School | Sponsor |
|--------|------------------|--------------------------|----------------|
| First | Lillian Petersen | Los Alamos Middle School | Mark Petersen |
| Second | Rusty Ludwigsen | Stockham Home School | Karen Stockham |

2014 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Jeongmin Lee

Gas Phase Ion Chemistry and Ion Mobility of Pharmaceutical Substances in Counterfeit Formulations

Las Cruces High School, Las Cruces, NM

Second Place: Josh Ludwigsen

Football Facemask with Impact Shock Mitigation

Eldorado High School, Albuquerque, NM

Third Place: Lilly Chiou

Characterization of Carrots in Making Fruit/Vegetable Juices: Will Carrots Destroy Ascorbic Acid?

Carlsbad High School, Carlsbad, NM

Junior Division

First Place: Rusty Ludwigsen

Passive Reduction of Involuntary Arm/Hand Tremors

Desert Willow Family School, Albuquerque, NM

Second Place: Ruby Selvage

All Cracked Up: Lip Balm Addiction

Los Alamos Middle School, Los Alamos, NM

Third Place: Hannah Linder

Yuck! Brown Apples

Roosevelt Middle School, Tijeras, NM

Honorable Mention: Devon Padilla

Wheat, the Good, the Bad and the Ugly

Grants Middle School, Grants, NM

Honorable Mention: Logan Byrom

Hoverbility

Hermosa Middle School, Farmington, NM

2014 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|----------------|-----------------|------------------------|
| First | Jeongmin Lee | Las Cruces High | Eiceman Research Group |
| Second | Josh Ludwigsen | Eldorado High | Jennifer Couglin |

Junior Division

| Place | Student | School | Sponsor |
|--------|---------------|-----------------------|---------------|
| First | Logan Byrom | Hermosa Middle School | Cindy Colomb |
| Second | Devin Padilla | Grants Middle School | Maria Mirabal |

2013 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Amanda Mercer

Tautochrone Time

Los Alamos High School, Los Alamos, NM

Second Place: Holly Erickson

An Advanced Biomimetic Hand Using Additive Manufacturing

Los Alamos High School, Los Alamos, NM

Third Place: Elias Clark

Modeling the Removal of Hazardous Gases Using Lattice-Boltzmann Methods II

Cibola High School, Albuquerque, NM

Honorable Mention: Vladislav Sevostianov

Self-diagnosing Smart Bolts to Save Your Life

Las Cruces High School, Las Cruces, NM

Junior Division

First Place: Paul Rosenberg

Harvesting Power from Computer Waste Heat

Albuquerque School of Excellence, Albuquerque, NM

Second Place: Rusty Ludwigsen

A Reliable Solar Heated Pet House

Desert Willow Family School, Albuquerque, NM

Third Place: Ruby Selvage

Gallium Reacts to the Fuel Crisis

Los Alamos Middle School, Los Alamos, NM

2013 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|---------------|------------------------|----------------|
| First | Andrew Miller | Miller Home School | Kenneth Miller |
| Second | Amanda Mercer | Los Alamos High School | David Mercer |

Junior Division

| Place | Student | School | Sponsor |
|--------|----------------|--------------------------|--------------|
| First | Carmen Resnick | Taos Charter School | Susan Vernon |
| Second | Ruby Selvage | Los Alamos Middle School | Eva Abeyta |

2012 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Nikita Bogdanov

Characterizing the Effects of Astroid Belt Perturbations on the Orbits of the Inner Planets
Albuquerque Academy, Albuquerque, NM

Second Place: Serina Lee Pack

What Will Grow: Native Grass Research to Assist in Mining Reclamation
Cliff High School, Cliff, NM

Third Place: Elias Clark

Modeling the Removal of Hazardous Gases From Buildings Using Lattice-Boltzmann Methods
Cibola High School, Albuquerque, NM

Junior Division

First Place: Lydia Raymond

How Vocal Fold Properties Influence Voice Pitch
Raymond Home School, Edgewood, NM

Second Place: Megan Risner

Can Human Interaction Affect the Performance of Shelter Dogs on Mental and Behavioral Tests
Heights Middle School, Farmington, NM

Honorable Mention: Edward Park

Solar Energy Conversion
Sierra Middle School, Las Cruces, NM

Honorable Mention: EliseAnne Koskelo

Does Architecture Tamper with Temperature?
Los Alamos Middle School, Los Alamos, NM

Honorable Mention: Ruby Selvage

Rosemary Recall
Pinon Middle School, Los Alamos, NM

2012 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|-----------------|---------------------|-------------|
| First | Nikita Bogdanov | Albuquerque Academy | Jim Mims |
| Second | Serina Lee Pack | Cliff High School | Mrs. Skaggs |

Junior Division

| Place | Student | School | Sponsor |
|--------|------------------|-------------------------|--------------------|
| First | Megan Risner | Heights Middle School | Kellee Brandenburg |
| Second | Ruby Ann Selvage | Pinon Elementary School | Ryan Ross |

2011 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Fiona McCrossin

Innovation and Imitation: learning processes used by a juvenile siamang
Las Cruces High School, Las Cruces, NM

Second Place: Jordan Grainger

Fighting Bac!! Phase IV
Rio Rancho High School, Rio Rancho, NM

Third Place: Elias Clark

The Effect of Elemental Abundances on Stellar Evolution
Cibola High School, Albuquerque, NM

Honorable Mention: Laura Lane

Monitoring the Disturbance of Soil Microsystems in Dormant Topsoil
Aztec High School, Aztec, NM

Junior Division

First Place: Jessie Linder

Are You Stronger than an Icosahedron
Roosevelt Middle School School, Tijeras, NM

Second Place: Vlad Sevostianov

Changes in Bone Strength Due to Decalcination
Sierra Middle School, Las Cruces, NM

Third Place: Megan Risner

Can You Teach an Old Dog New Tricks?
Heights Middle School, Farmington, NM

Honorable Mention: Chloe Keilers

Factors Affecting Aerodynamic Drag on a Sphere
Los Alamos Middle School, Los Alamos, NM

Honorable Mention: Jon Goodart

Which Sunscreen Has Supier UV Protection?
Los Alamos Middle School, Grants, NM

2011 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|-----------------|------------------------|-------------------|
| First | Hellen Chiou | Carlsbad High School | Deborah Haggerton |
| Second | Jordan Grainger | Rio Rancho High School | Bob Keeney |

Junior Division

| Place | Student | School | Sponsor |
|--------|----------------|----------------------------|----------------|
| First | Jon T. Goodart | Los Alamitos Middle School | Dan Cunningham |
| Second | Jessie Linder | Roosevelt Middle School | Janine Sears |

2010 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Laura Lane

Formulating Trends of Nematode Distribution

Aztec High School, Aztec, NM

Second Place: Paulina Majewska

Wetting of Materials Surface

Los Alamos High School, Los Alamos, NM

Third Place: Hellen Chiou

The Effect of Sunlight on Preservation of Vitamin B₂

Carlsbad High School, Carlsbad, NM

Honorable Mention: Natasha Hite

Bioremediation off Landfill Leachate Water Using Populars and Cattails in Wetlands

Grants High School, Grants, NM

Junior Division

First Place: Jeongmin Lee

Rotation of Light

Sierra Middle School, Las Cruces, NM

Second Place: Daniel Ahrens

Does a Change in Light Cycle Bug Insects?

Los Alamos Middle School, Los Alamos, NM

Third Place: Ryan Howard

Water Rockets

St. Mary's Middle School, Albuquerque, NM

Honorable Mention: Vladislav Sevostianov

The Electrical Conductivity of Bones

Sierra Middle School

Las Cruces, NM

2010 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|---------------|--------------------|------------------|
| First | Laura B. Lane | Aztec High School | Michael Lane |
| Second | Natasha Hite | Grants High School | Shelby Alexander |

Junior Division

| Place | Student | School | Sponsor |
|--------|--------------|--------------------------|----------------|
| First | Ryan Howard | St. Mary's Middle School | Carol Johansen |
| Second | Jeongmin Lee | Sierra Middle School | Melly Locke |

2009 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Ryan Erickson

Shake, Rattle and Roll: A Three Axis Sensor Based on Diamagnetics

Los Alamos High School, Los Alamos, NM

Second Place: Adam Akkad

Display of Specific and Random Peptides on virus-like Particles of MS2 Bacteriophage for Material Science and Biomedical Applications

Albuquerque Academy, Albuquerque, NM

Third Place: James Clark

Utilizing Small Diameter Wells with Pump Technology

Mayfield High School, Los Cruces, NM

Junior Division

First Place: Holly Erickson

Case in Pointe

Los Alamos Middle School, Los Alamos, NM

Second Place: Christian Fitzgerald

Just Wing It

Fitzgerald Homeschool, Albuquerque, NM

Third Place: Taylor Roach

Multitasking Madness: The effect of multitasking on productivity and performance

Annunciation Middle School, Albuquerque, NM

Honorable Mention: Philip Lane

Weather or Not: Myth Busting

Koogler Middle School, Aztec, NM

2009 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|-------------|----------------------|--------------|
| First | Adam Akkad | Albuquerque Academy | Kevin Fowler |
| Second | James Clark | Mayfield High School | John Clark |

Junior Division

| Place | Student | School | Sponsor |
|--------|--------------|----------------------------|--------------|
| First | Taylor Roach | Annunciation Middle School | Mrs. Ruiz |
| Second | Philip Lane | Koogler Middle School | Michael Lane |

2008 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Megan D. Johnson

How We Think, Who We Are: How We Learn

Rio Rancho High School, Rio Rancho, NM

Second Place: Rebecca Alexander

The Journey to Identify Antibiotic Compounds in New Mexico Lichens

Grants High School, Grants, NM

Third Place: Terryl Bell

Sulfur Spring: An Analysis of Microbial Life and the Effects of Water Chemistry and Microenvironment in a Karst Spring

Carlsbad High School, Carlsbad, NM

Junior Division

First Place: Phillip Lane

Ants Harvest Crackers

Kroogler Middle School, Aztec, NM

Second Place: Christian Fitzgerald

Diamagnetism in Fruits

Fitzgerald Homeschool, Albuquerque, NM

Honorable Mention: Daniel Ahrens

Space Weathering to Blame for Earth Weathering

Aspen Elementary School, Los Alamos, NM

Honorable Mention

Fiona McCrossin

Reactions in Guinea Pigs Correlating to Sounds

Sierra Middle School, Las Cruces, NM

2008 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|-------------------|------------------------|----------------|
| First | Megan Johnson | Rio Rancho High School | Rob Leeney |
| Second | Rebecca Alexander | Grants High School | Mary Savacheck |

Junior Division

| Place | Student | School | Sponsor |
|--------|----------------------|-----------------------|-------------------|
| First | Gabriel Joachim | Taylor Middle School | Dr. Lorna Joachim |
| Second | Christian Fitzgerald | Fitzgerald Homeschool | Alisha Fitzgerald |

2007 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Shandiin Copeland

Stream Channel Dynamics in Largo Canyon, 1882-2005, Northwest New Mexico
Kirkland Central High School, Kirkland, NM

Second Place: Keely Goodgame

An Economical, Portable, Pocket-Sized Arsenic Filtering device
San Jon High School, San Jon, NM

Third Place: Susannah L. Clary

The Determination of Gender in Pacific and Atlantic Salmon for Improved Management of Threatened and Endangered Stocks
Los Lunas High School, Los Lunas, NM

Junior Division

First Place: Devin Roach

Damage Control-Use of Computer Imaging to Improve Health Monitoring
Our Lady of the Annunciation School, Albuquerque, NM

Second Place: Joeshibin Victor Joseph

Various Fire Retardants vs Fabric Material
St Bonaventure Middle School, Thoreau, NM

Third Place: Gabriel Joachim

A Comparison of Two Different Dendrobates Species in La Suerte, Costa Rica
Taylor Middle School, Corrales, NM

2007 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|-------------------|------------------------------|---------------------|
| First | Shandiin Copeland | Kirkland Central High School | Cassandra Siegersma |
| Second | Kateri Bowe | San Jon High School | Steve Goodgame |

Junior Division

| Place | Student | School | Sponsor |
|--------|--------------|-------------------------------------|--------------------|
| First | Devin Roach | Our Lady of the Annunciation School | Debra Allen |
| Second | Ashlyn Myers | San Jon Middle School | Creighton Edington |

2006 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Sandia-Lockheed Martin.

Senior Division

First Place: Anna Trugman

Environmental Engineering of Pogonomyrex Harvester Ant Mounds

Los Alamos High School, Los Alamos, NM

Second Place: Samantha Stutz

Post-Fire Hydrology

Los Alamos High School, Los Alamos, NM

Third Place: Bennet Grill

Limitations of Cottrell's Equation: Plotting Electrochemical Coefficients of Potassium Ferricyanide and Potassium Ferrocyanide as Functions of Temperature and Concentration

Rio Rancho High School, Rio Rancho, NM

Junior Division

First Place: Emily TenCate

Achoo! Modeling the Spread of the Flu

Los Alamos Middle School, Los Alamos, NM

Second Place: Ryan Erickson

Voracious Vortices

Los Alamos Middle School, Los Alamos, NM

Third Place: Laura Lane

Grey Water Backwash: Filtering Household Waste Water for Everyday Use

Koogler Middle School, Aztec, NM

2006 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|---------------|------------------------|------------------|
| First | Kendra Valdez | Grants High School | Shelby Alexander |
| Second | Isaac Ketcham | Farmington High School | Donna Schmidt |

Junior Division

| Place | Student | School | Sponsor |
|--------|---------------|--------------------------|-------------------|
| First | Ryan Erickson | Los Alamos Middle School | Barbara Jo Mullis |
| Second | Alex Caldwell | Our Lady of Fatima | Kathy Arnold |

2005 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Intel Foundation.

Senior Division

First Place: Keely Goodgame

The Effect of 670 nm LED Photobiomodulation on the Growth of Mitochondrial Mutant Saccharomyces Cerevisiae

San Jon High School, San Jon, NM

Second Place: Robert Cordwell

Some Results of Inclusive and Exclusive Partitions of Complete Graphs

Manzano High School, Albuquerque, NM

Third Place: Kevin Claytor

Acoustic and Ultrasonic Resonances Induced by Laser Irradiation

Los Alamos School, Los Alamos, NM

Honorable Mention: Ahmad Manshad

Braille Accessible Learning System

Las Cruces High School, Las Cruces, NM

Junior Division

First Place: Emily TenCate

SIM Desert-Coyotes and Rabbits: The Predator Prey Problem

Pinon Elementary School, Los Alamos, NM

Second Place: Marietta Young

Mother Earth's Brew: Ethanol as an Alternate Fuel

Hermosa Middle School, Farmington, NM

Third Place: Ashley Phillips

Itsy Bitsy Spider

Hermosa Middle School, Farmington, NM

Honorable Mention: Nathaniel Pfeifer

Simple Solar Spectrometer

Pfeifer Home School, Los Lunas, NM

2005 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|---------------|------------------------|-----------------|
| First | Ahmad Manshad | Las Cruces High School | Muhanad Manshad |
| Second | Kevin Claytor | Los Alamos High School | Thomas Claytor |

Junior Division

| Place | Student | School | Sponsor |
|--------|-------------------|-------------------------|---------------|
| First | Emily TenCate | Pinon Elementary School | Deborah Summa |
| Second | Nathaniel Pfeifer | Pfeifer Home School | Kent Pfeifer |

Senior Division Competitors

Junior Division Competitors

Photos by Jerry Nelson, AVS Science & Technology Society

2004 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Intel Foundation.

Senior Division

First Place: Mahlet Woldemariam

Utilizing Bacterial Carpets for Bionanotechnology Applications

Deming High School, Deming, NM

Second Place: Brian Geistwhite

Turning the Red Planet into the Green Planet: Modeling the Martian Greenhouse Effect

Farmington High School, Farmington, NM

Third Place: Keely Goodgame

*The Enhanced Regeneration of *Dugesia Tigrina* Utilizing 670 nm LED Photobiomodulation*

Deming High School, Deming, NM

Honorable Mention: Daniel C. Appel

Electroenzymatic Biofuel Cells II

Eldorado High School, Albuquerque, NM

Honorable Mention: Anna Trugman

A Nonlinear Bug's Life

Los Alamos High School, Los Alamos, NM

Junior Division

First Place: Vivienne Clark

Determining the Effect of a Trumpet's Curvature on its Timbre

Clark Homeschool, Albuquerque, NM

Second Place: Shandiin Copeland

Cool Clear Water

Kirkland Middle School, Kirkland, NM

Third Place: Kevin Lane

Biogas Production from Bovine Excrement

Koogler Middle School, Flora Vista, NM

2004 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|----------------|----------------------|------------------|
| First | Daniel Appel | Eldorado High School | Plamen Atannasov |
| Second | Keely Goodgame | Deming High School | Steve Goodgame |

Junior Division

| Place | Student | School | Sponsor |
|--------|---------------|-------------------------|------------------------|
| First | Vivenne Clark | Clark Homeschool | Shang-Ying Clark |
| Second | Morris Huang | Sarracino Middle School | Ms. Gerry Klinglesmith |

Senior Division Competitors

Junior Division Competitors

Photos by Jerry Nelson, AVS Science & Technology Society

2003 State NMJAS Paper Competition Winners

Cash awards were provided by a grant from Intel Foundation.

Senior Division

First Place: Nigel Reuel

A Study on Practical Production of Hydrogen Through Efficient Electrolysis
Rio Rancho High School, Rio Rancho, NM

Second Place: Daniel Appel

Biocatalytic Composite Electrodes for Biofuel Cell Application
Eldorado High School, Albuquerque, NM

Third Place: Ethan Kottke

Bio-Power!!! Can Biological Nerve Action Potentials Stimulate Artificial Muscle, Platinum IPMCS?

Farmington High School, Farmington, NM

Honorable Mention: Brianne Douthit

The Determination of the Orbit of Asteroid 15 Eunomia Using the La Placian Method
Farmington High School, Farmington, NM

Junior Division

First Place: Amberle Durano

Sit Still and Listen: A Study in Right-Brain Stimulation for Elementary-Aged Children
Durano Homeschool, Albuquerque, NM

Second Place: Christopher DeBlassie

Superabsorber To The Rescue
St Mary's Mid School, Albuquerque, NM

Third Place: David Green

Some Like It Hot
Hermosa Middle School, Farmington, NM

2003 Rio Grande Chapter AVS Science & Technology Society Winners

The AVS Science & Technology Society, formerly the New Mexico Chapter of the American Vacuum Society, sends judges and selects its own winners in the paper competition and awards prizes to these winners as well as to their teachers/sponsors. The New Mexico Academy of Science is very grateful for their support.

Senior Division

| Place | Student | School | Sponsor |
|--------|------------------|----------------------|------------------|
| First | Travis Diaz | Grants High School | Shelby Alexander |
| Second | Tristan Williams | Mayfield High School | Jean M. Williams |

Junior Division

| Place | Student | School | Sponsor |
|--------|----------------|--------------------------|----------------|
| First | Keely Goodgame | Hofacket Mid High School | Steve Goodgame |
| Second | David Green | Hermosa Middle School | Cindy Colomb |

Junior Division Competitors

Photo by Jerry Nelson, AVS Science & Technology Society