

# Pikes Peak Regional Science Fair 2023 Final Results

## Grand Awards

### Senior Division Grand Award

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

### Senior Division Grand Award Runner Up

- Vanya Lavu[10] [SA1], The Classical Academy/Alex Chang: “Am I Effective?”
- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”

### International Science Fair Invitation

- Vanya Lavu[10] [SA1], The Classical Academy/Alex Chang: “Am I Effective?”
- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”
- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”

### Junior Division Grand Award

- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

### Junior Division Grand Award Runner Up

- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”

### Senior Division People’s Choice

- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”

### Junior Division People’s Choice

- Arianna Montoya[7] & Lucy Waters[7] [JA5], Eagleview Middle School/Elizabeth Busler: “Science you can sink your teeth into”

# Category Awards

## **Sr. Life Science, Earth & Environmental Science**

### **First Place – Sr. Life Science, Earth & Environmental Science**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

### **Second Place – Sr. Life Science, Earth & Environmental Science**

- Vanya Lavu[10] [SA1], The Classical Academy/Alex Chang: “Am I Effective?”

### **Third Place – Sr. Life Science, Earth & Environmental Science**

- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”

## **Sr. Physical Science, Engineering, Math & Computer Science**

### **First Place – Sr. Physical Science, Engineering, Math & Computer Science**

- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”

### **Second Place – Sr. Physical Science, Engineering, Math & Computer Science**

- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”

### **Third Place – Sr. Physical Science, Engineering, Math & Computer Science**

- Natalie Tinoco[10] [SC3], Miami Yoder High School/Angela Grimes: “Cleaning products and their effects on household surfaces”

## **Jr. Life Science**

### **First Place – Jr. Life Science**

- Vivian Wolkow[6] [JA1], North Middle School/Tom Wolkow: “Does the tail remember what the head saw?”

### **Second Place – Jr. Life Science**

- Samantha Goetz[6] [JA7], St. Peter Catholic School/Chelsea Kilday: “How childproof are medicine bottles?”

### **Third Place – Jr. Life Science**

- Cristal Hernandez[8] [JA3], Sabin Middle School/Jeannie Meredith: “Pig skin”

## **Jr. Earth & Environmental Science**

### **First Place – Jr. Earth & Environmental Science**

- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”

### **Second Place – Jr. Earth & Environmental Science**

- Angelina Wan[6] [JB8], Challenger Middle School/Selina Webb: “Predicting Colorado’s future precipitation and its effects on traffic accidents”

### **Third Place – Jr. Earth & Environmental Science**

- Advait Jadhav[6] [JB10], Chinook Trail Middle School/Sujit Jadhav: “Sweat it out, the green way!”

### **Fourth Place – Jr. Earth & Environmental Science**

- Nadia Anderson[6] & Merrak Jagers[6] [JB2], Evangelical Christian Academy/Libby Pinson: “How does exposure to harsh weather in a plant’s early development affect the resistance of a plant to harsh weather later in life?”

### **Fifth Place – Jr. Earth & Environmental Science**

- Tyler Wineland[7] [JB7], Schullandheim/Tami Kruse: “An exploration of the most effective solvents for extraction of raw biofuel from algae”

## **Jr. Physical Science**

### **First Place – Jr. Physical Science**

- Cameron Carlile[6] [JC1], Lewis Palmer Elementary School/Neva Nardone: “Observation of sub-atomic particles and their interactions with a self-manufactured cloud chamber”

### **Second Place – Jr. Physical Science**

- Ian McClure[6] [JC3], Evangelical Christian Academy/Libby Pinson: “How do the size and shape of a rocket’s fins affect the height it flies?”

### **Third Place – Jr. Physical Science**

- Delilah Epps[8] [JC4], Sabin Middle School/Jeannie Meredith: “How can different papers hold up different masses?”

## **Jr. Engineering, Math & Computer Science**

### **First Place – Jr. Engineering, Math & Computer Science**

- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

### **Second Place – Jr. Engineering, Math & Computer Science**

- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”

### **Third Place – Jr. Engineering, Math & Computer Science**

- Lucca Tumbush[8] & Seth Wilson[8] [JD4], Eagleview Middle School/Elizabeth Busler: “Friend/foe light”

# State Fair

## State Fair Invitations

### State Fair Invitation

- Cameron Carlile[6] [JC1], Lewis Palmer Elementary School/Neva Nardone: “Observation of sub-atomic particles and their interactions with a self-manufactured cloud chamber”
- Samantha Goetz[6] [JA7], St. Peter Catholic School/Chelsea Kilday: “How childproof are medicine bottles?”
- Advait Jadhav[6] [JB10], Chinook Trail Middle School/Sujit Jadhav: “Sweat it out, the green way!”
- David Kent[8] [JD1], Eagleview Middle School/David “Chip” Kent: “Super speaker: Using digital signal processing to improve low-quality speakers”
- Naomi Kruse[9] [SA6], Schullandheim/Tami Kruse: “Finding ferns: Defining the microclimate that enables gametophyte growth in the Santa Monica mountains”
- Vanya Lavu[10] [SA1], The Classical Academy/Alex Chang: “Am I Effective?”
- Ian McClure[6] [JC3], Evangelical Christian Academy/Libby Pinson: “How do the size and shape of a rocket’s fins affect the height it flies?”
- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”
- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converts capture of ocean wave energy”
- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”
- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”
- Natalie Tinoco[10] [SC3], Miami Yoder High School/Angela Grimes: “Cleaning products and their effects on household surfaces”
- Lucca Tumbush[8] & Seth Wilson[8] [JD4], Eagleview Middle School/Elizabeth Busler: “Friend/foe light”
- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”
- Angelina Wan[6] [JB8], Challenger Middle School/Selina Webb: “Predicting Colorado’s future precipitation and its effects on traffic accidents”
- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”
- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”
- Vivian Wolkow[6] [JA1], North Middle School/Tom Wolkow: “Does the tail remember what the head saw?”

# Special Awards

## **AFCEA Junior 1st**

- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

## **AFCEA Senior 1st**

- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”

## **AFCEA Teacher**

- Angela Grimes, Miami Yoder High School

## **American Association of University Women, Junior**

- Annika Hunyadi[6] [JD8], Eagleview Middle School/Jenine Winslow: “Hydro powered facility”

## **American Association of University Women, Senior**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

## **American Institute of Aeronautics and Astronautics – Rocky Mountain Section**

- Zachary Canady[7] [JC2], Eagleview Middle School/Debbie Saccoliti: “Reducing drag: Which wing design is best?”
- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

## **American Psychological Association**

- Vivian Wolkow[6] [JA1], North Middle School/Tom Wolkow: “Does the tail remember what the head saw?”

## **American Statistical Association, Colorado-Wyoming Chapter Jr.**

- Angelina Wan[6] [JB8], Challenger Middle School/Selina Webb: “Predicting Colorado’s future precipitation and its effects on traffic accidents”

## **American Statistical Association, Colorado-Wyoming Chapter Sr.**

- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”

## **Ascension Engineering Group Junior First**

- David Kent[8] [JD1], Eagleview Middle School/David “Chip” Kent: “Super speaker: Using digital signal processing to improve low-quality speakers”

## **Ascension Engineering Group Junior Second**

- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

## **Ascension Engineering Group Senior First**

- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”

## **Ascension Engineering Group Senior Second**

- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”

## **Association for Women Geoscientists**

- Naomi Kruse[9] [SA6], Schullandheim/Tami Kruse: “Finding ferns: Defining the microclimate that enables gametophyte growth in the Santa Monica mountains”

## **BSCS Senior Award**

- Vanya Lavu[10] [SA1], The Classical Academy/Alex Chang: “Am I Effective?”

## **Broadcom Award: Coding with Commitment**

- David Kent[8] [JD1], Eagleview Middle School/David “Chip” Kent: “Super speaker: Using digital signal processing to improve low-quality speakers”

## **COOL Science Junior Winner**

- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”

## **COOL Science Senior Winner**

- Addyson Wright[10] [SC4], Miami Yoder High School/Angela Grimes: “Stubborn stains – Go away!”

## **Citizens Project**

- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”

## **Colorado Associates in Medical Physics**

- Cameron Carlile[6] [JC1], Lewis Palmer Elementary School/Neva Nardone: “Observation of sub-atomic particles and their interactions with a self-manufactured cloud chamber”
- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

## **Colorado Association of Science Teachers**

- Elizabeth Busler, Eagleview Middle School
- Alex Chang, The Classical Academy
- Christopher Everhart, Edison Secondary School
- Angela Grimes, Miami Yoder High School
- Morgan Keith, Mountain Ridge Middle School
- Chelsea Kilday, St. Peter Catholic School
- Tami Kruse, Schullandheim

- Nathaniel Lohmann, Palmer High School
- Annie Lynn, Challenger Middle School
- Jeannie Meredith, Sabin Middle School
- Neva Nardone, Lewis Palmer Elementary School
- Libby Pinson, Evangelical Christian Academy
- Debbie Saccoliti, Eagleview Middle School
- Jennifer Smith, The Classical Academy
- Selina Webb, Challenger Middle School
- Jenine Winslow, Eagleview Middle School
- Tom Wolkow, Palmer HS/North MS

### **Colorado Chapter of the Soil and Water Conservation Society, Junior 1st**

- Angelina Wan[6] [JB8], Challenger Middle School/Selina Webb: “Predicting Colorado’s future precipitation and its effects on traffic accidents”

### **Colorado Chapter of the Soil and Water Conservation Society, Junior 2nd**

- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”

### **Colorado Chapter of the Soil and Water Conservation Society, Senior 1st**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

### **Colorado Chapter of the Soil and Water Conservation Society, Senior 2nd**

- Trinity-rose Rivera[10] [SA3], Miami Yoder High School/Angela Grimes: “Effects of grazing on prairie biomass”

### **Colorado College Excellence in Community and Social Justice First**

- Samantha Goetz[6] [JA7], St. Peter Catholic School/Chelsea Kilday: “How childproof are medicine bottles?”

### **Colorado College Excellence in Community and Social Justice Second**

- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”

### **Colorado College Excellence in Field-Based Research First**

- Trinity-rose Rivera[10] [SA3], Miami Yoder High School/Angela Grimes: “Effects of grazing on prairie biomass”



### **Colorado College Excellence in Field-Based Research Second**

- Audrey Olson[6] [JB1], Eagleview Middle School/Jenine Winslow: “How wolves benefited Yellowstone and how they could benefit Colorado and how it would change populations”

### **Colorado College Excellence in Rocky Mountain Regional Research First**

- Trinity-rose Rivera[10] [SA3], Miami Yoder High School/Angela Grimes: “Effects of grazing on prairie biomass”

### **Colorado College Excellence in Rocky Mountain Regional Research Second**

- Audrey Olson[6] [JB1], Eagleview Middle School/Jenine Winslow: “How wolves benefited Yellowstone and how they could benefit Colorado and how it would change populations”

### **Colorado College Excellence in Sustainability and Conservation First**

- Vanya Lavu[10] [SA1], The Classical Academy/Alex Chang: “Am I Effective?”

### **Colorado College Excellence in Sustainability and Conservation Second**

- Angelina Wan[6] [JB8], Challenger Middle School/Selina Webb: “Predicting Colorado’s future precipitation and its effects on traffic accidents”

### **Crosson Family Award Junior 1st Place**

- Alaena Shipp[6] [JC6], Eagleview Middle School/Jenine Winslow: “The science behind burning steel wool”

### **Crosson Family Award Junior 2nd Place**

- Kimzie Emerling[6] [JA6], Edison Secondary School/Christopher Everhart: “What kills algae”

### **Crosson Family Award Senior 1st Place**

- Caleb Bernhart[10] [SC2], Miami Yoder High School/Angela Grimes: “Wind energy adapted for boat propulsion”

### **Crosson Family Award Senior 2nd Place**

- Natalie Tinoco[10] [SC3], Miami Yoder High School/Angela Grimes: “Cleaning products and their effects on household surfaces”

### **Department of Defense STEM Leadership Prize**

- Annika Hunyadi[6] [JD8], Eagleview Middle School/Jenine Winslow: “Hydro powered facility”

### **EPA**

- Brynn Allen[6] [JB4], Eagleview Middle School/Jenine Winslow: “A salty experiment”
- Nadia Anderson[6] & Merrak Jagers[6] [JB2], Evangelical Christian Academy/Libby Pinson: “How does exposure to harsh weather in a plant’s early development affect the resistance of a plant to harsh weather later in life?”

- Cooper Ballard[6] & Gabe Ross[8] [JD9], Edison Secondary School/Christopher Everhart: “Science bites”
- Caleb Bernhart[10] [SC2], Miami Yoder High School/Angela Grimes: “Wind energy adapted for boat propulsion”
- Kimzie Emerling[6] [JA6], Edison Secondary School/Christopher Everhart: “What kills algae”
- Cristal Hernandez[8] [JA3], Sabin Middle School/Jeanne Meredith: “Pig skin”
- Annika Hunyadi[6] [JD8], Eagleview Middle School/Jenine Winslow: “Hydro powered facility”
- Advait Jadhav[6] [JB10], Chinook Trail Middle School/Sujit Jadhav: “Sweat it out, the green way!”
- Naomi Kruse[9] [SA6], Schullandheim/Tami Kruse: “Finding ferns: Defining the microclimate that enables gametophyte growth in the Santa Monica mountains”
- Laney LeBLanc[6] [JC5], Eagleview Middle School/Jenine Winslow: “Why do we use concrete and asphalt pavement?”
- Kylie McKnight[10] [SA2], Miami Yoder High School/Angela Grimes: “Effects of agriculture and farming on rural air quality”
- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”
- Audrey Olson[6] [JB1], Eagleview Middle School/Jenine Winslow: “How wolves benefited Yellowstone and how they could benefit Colorado and how it would change populations”
- Alan Perez[8] [JB3], Sabin Middle School/Jeanne Meredith: “Marine microorganisms and the effect of plastics”
- Trinity-rose Rivera[10] [SA3], Miami Yoder High School/Angela Grimes: “Effects of grazing on prairie biomass”
- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”
- Sunia Scheper[6] [JB9], Eagleview Middle School/Steve Scheper: “The dirt about the Earth”
- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”
- Angelina Wan[6] [JB8], Challenger Middle School/Selina Webb: “Predicting Colorado’s future precipitation and its effects on traffic accidents”
- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”
- Tyler Wineland[7] [JB7], Schullandheim/Tami Kruse: “An exploration of the most effective solvents for extraction of raw biofuel from algae”
- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”
- Vivian Wolkow[6] [JA1], North Middle School/Tom Wolkow: “Does the tail remember what the head saw?”

## **El Paso County Conservation District, Junior**

- Nadia Anderson[6] & Merrak Jagers[6] [JB2], Evangelical Christian Academy/Libby Pinson: “How does exposure to harsh weather in a plant’s early development affect the resistance of a plant to harsh weather later in life?”
- Audrey Olson[6] [JB1], Eagleview Middle School/Jenine Winslow: “How wolves benefited Yellowstone and how they could benefit Colorado and how it would change populations”

## **El Paso County Conservation District, Senior**

- Kylie McKnight[10] [SA2], Miami Yoder High School/Angela Grimes: “Effects of agriculture and farming on rural air quality”
- Trinity-rose Rivera[10] [SA3], Miami Yoder High School/Angela Grimes: “Effects of grazing on prairie biomass”

## **Flagline.com Young Scientist, Junior 1st Place**

- Samantha Goetz[6] [JA7], St. Peter Catholic School/Chelsea Kilday: “How childproof are medicine bottles?”

## **Flagline.com Young Scientist, Junior 2nd Place**

- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”

## **Flagline.com Young Scientist, Senior 1st Place**

- Naomi Kruse[9] [SA6], Schullandheim/Tami Kruse: “Finding ferns: Defining the microclimate that enables gametophyte growth in the Santa Monica mountains”

## **Flagline.com Young Scientist, Senior 2nd Place**

- Vanya Lavu[10] [SA1], The Classical Academy/Alex Chang: “Am I Effective?”

## **Lemelson Early Inventor Prize**

- Lucca Tumbush[8] & Seth Wilson[8] [JD4], Eagleview Middle School/Elizabeth Busler: “Friend/foe light”

## **Georgia & Charlie Matteson Award, Junior**

- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”

## **Georgia & Charlie Matteson Award, Senior**

- Kylie McKnight[10] [SA2], Miami Yoder High School/Angela Grimes: “Effects of agriculture and farming on rural air quality”

## **NASA EARTH System Science Award**

- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”

## **National Defense Industrial Association, 6th Exceptional**

- Cameron Carlile[6] [JC1], Lewis Palmer Elementary School/Neva Nardone: “Observation of sub-atomic particles and their interactions with a self-manufactured cloud chamber”

- Ian McClure[6] [JC3], Evangelical Christian Academy/Libby Pinson: “How do the size and shape of a rocket’s fins affect the height it flies?”

### **National Defense Industrial Association, 6th Outstanding**

- Advait Jadhav[6] [JB10], Chinook Trail Middle School/Sujit Jadhav: “Sweat it out, the green way!”

### **National Defense Industrial Association, 7th Exceptional**

- Zachary Canady[7] [JC2], Eagleview Middle School/Debbie Saccoliti: “Reducing drag: Which wing design is best?”

### **National Defense Industrial Association, 7th Outstanding**

- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

### **National Defense Industrial Association, 8th Outstanding**

- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”

### **National Geographic Award**

- Trinity-rose Rivera[10] [SA3], Miami Yoder High School/Angela Grimes: “Effects of grazing on prairie biomass”

### **National Oceanic and Atmospheric Administration**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

### **Northrop Grumman Excellence in Computer Science (Sr. Div.)**

- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”

### **Northrop Grumman Excellence in Science & Engineering (6th Grade)**

- Advait Jadhav[6] [JB10], Chinook Trail Middle School/Sujit Jadhav: “Sweat it out, the green way!”

### **Northrop Grumman Excellence in Science & Engineering (7th Grade)**

- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

### **Northrop Grumman Excellence in Science & Engineering (8th Grade)**

- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”

### **Northrop Grumman Excellence in Science & Engineering (Sr. Div.)**

- Cesar Beltran[11] [SC7], Miami Yoder Secondary School/Angela Grimes: “Effect of temperature on viscosity of motor oil”

## **Northrop Grumman Excellence in Science & Engineering (Sr. Div.)**

- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”

## **Old Town Bike Shop**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”
- Trinity-rose Rivera[10] [SA3], Miami Yoder High School/Angela Grimes: “Effects of grazing on prairie biomass”
- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”

## **Pikes Peak Justice and Peace Commission**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

## **Planet Walk Colorado Springs**

- Annika Hunyadi[6] [JD8], Eagleview Middle School/Jenine Winslow: “Hydro powered facility”

## **Regeneron Biomedical Science Award**

- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”

## **Ricoh Americas**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

## **Society for In-Vitro Biology**

- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”

## **Society of Women Engineers Jr. Division**

- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”

## **Society of Women Engineers Sr. Division**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

## **Space Foundation**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

## **Thermo Fisher Jr. Innovator**

- Aidan McGuire[7] [JD2], St. Peter Catholic School/Chelsea Kilday: “How does background clutter affect image recognition”

- Ayush Vispute[8] [JB5], Mountain Ridge Middle School/Morgan Keith: “Investigating alternate treatments of acid rain”
- Helen Wan[8] [JD3], Challenger Middle School/Annie Lynn: “Measuring the particulate matter in air pollution with Raspberry Pi”

## **U. S. Agency for International Development**

- Nadia Anderson[6] & Merrak Jagers[6] [JB2], Evangelical Christian Academy/Libby Pinson: “How does exposure to harsh weather in a plant’s early development affect the resistance of a plant to harsh weather later in life?”

## **U. S. Air Force**

- Zachary Canady[7] [JC2], Eagleview Middle School/Debbie Saccoliti: “Reducing drag: Which wing design is best?”
- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”
- Shrey Rohilla[10] [SC8], The Classical Academy/Jennifer Smith: “Electrify your step – The next stride: Converting foot traffic into renewable energy using piezoelectric transducers”
- Cameron Wolkow[9] [SA4], Palmer High School/Tom Wolkow: “Isolation of fungi capable of antibiotic bioremediation”

## **U. S. Metric Association Certificate of Achievement**

- Vionica Lin[8] [JA2], Sabin Middle School/Jeannie Meredith: “Orchestra vs. band – Who rocks the most?”

## **U. S. Navy Science Award, Jr.**

- Cameron Carlile[6] [JC1], Lewis Palmer Elementary School/Neva Nardone: “Observation of sub-atomic particles and their interactions with a self-manufactured cloud chamber”
- Ian McClure[6] [JC3], Evangelical Christian Academy/Libby Pinson: “How do the size and shape of a rocket’s fins affect the height it flies?”

## **U. S. Navy Science Award, Sr.**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”
- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”

## **U. S. Stockholm Water Prize**

- Natalie Muro[9] [SA7], Palmer High School/Nathaniel Lohmann: “Buoy wave energy converters capture of ocean wave energy”

## **UCCS Dept. of Chemistry & Biochemistry**

- Cameron Carlile[6] [JC1], Lewis Palmer Elementary School/Neva Nardone: “Observation of sub-atomic particles and their interactions with a self-manufactured cloud chamber”

## **Yale Science & Engineering Association**

- Geo Raguraman[11] [SC1], Discovery Canyon High School/Beulah Aloysius: “Regeneratus: An adaptive, regenerative protection suit for all law enforcement and armed forces personnel”