

# Pikes Peak Regional Science Fair 2011 Final Results

## Grand Awards

### Senior High Grand Award

- Parish, John[11] [SD4], Home School/Maureen Parish: “On the verge of where it wasn’t: A multi-model approach to Kalman filtering using intelligent selection”

### Senior High Grand Award Runner Up

- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”

### Junior High Grand Award

- Carrese, Dominic[8] [8C7], North MS/Greg Busby: “Rocky mountain pure: Fountain creek’s journey through the Pikes Peak region”

### Junior High Grand Award Runner Up

- Frieden, Kendra[7] [7F4], The Classical Academy/Candus Muir: “Pivotal decisions in solar energy”

### Senior Division People’s Choice

- Visel, Daniel[9] [SC4], Hilltop Baptist/Deborah Wilkins: “Solenoid lock”

### Junior Division People’s Choice

- Willis, Joshua[7] [7C9], The Classical Academy/Candus Muir: “Good vibrations?”

### Best Backboard Senior Division

- Lutton, Courtney[10] [SD7], Palmer HS/Sandra Smith: “Wind turbine”

### Best Backboard Junior Division

- Weeks, Chloe[7] [7B14], The Classical Academy/Shawn O’Toole: “OMG texting while driving: It’s G2G”

### Most Unique Senior Division

- Waters, Matthew[10] [SD1], Hilltop Baptist/Deborah Wilkins: “Broadsided: Size vs. aerodynamics”

### Most Unique Junior Division

- Merkert, Molly[8] [8G2], North MS/Greg Busby: “Cadmium: The grim-reaper in your jewelry box”

### Outstanding Home School

- Parish, Maureen[12] [SD99], Parish Home School/Maureen Parish: “Outstanding teacher”

# Senior Awards

## Senior High Biological Science

### First Place – Senior High Biology

- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”

### Second Place – Senior High Biology

- Matteson, Haley[9] [SA2], Palmer HS/Nancy Goodwin: “Troubled tomatoes: The effect of acetaminophen and an acetal/H<sub>2</sub>O<sub>2</sub> mixture on growth and the internal structure”

### Third Place – Senior High Biology

- Jasperse-Sjolander, Liam[11] [SA1], Palmer HS/Nancy Goodwin: “A statistical analysis of allometric size distribution in clonal and non-clonal forests”

### Fourth Place – Senior High Biology

- Garnhart, Gary[10] [SA9], Edison HS/Angela Golding: “CO<sub>2</sub> production”

### Fifth Place – Senior High Biology

- Anderson, Sydney[9] [SA8], Edison HS/Angela Golding: “How clean is your home? Effective bacterial cleaners”

## Senior High Health/Behavioral Science

### First Place – Senior High Health/Behavioral Science

- Schubert, Marika[9] [SB9], Wasson HS/Angela Dunn: “Music and memory”

### Second Place – Senior High Health/Behavioral Science

- Konik, Tessa[9] [SB10], Coronado HS/Lynne Williams: “Testing the accuracy of eyewitness testimony”

### Third Place – Senior High Health/Behavioral Science

- Blayney, Sophia[9] [SB12], Coronado HS/Lynne Williams: “Altruism: It’s just human nature”

### Fourth Place – Senior High Health/Behavioral Science

- Lynch, Mia[10] & Nawrocki, Jessica[10] [SB1], Palmer HS/Sandra Smith: “Effects of external distractions on driving proficiency”

### Fifth Place – Senior High Health/Behavioral Science

- Williams, Deja[10] [SB8], Palmer HS/Martha Alvarez: “Girls vs boys: The deal with raising hands”

## Senior High Physical Science

### First Place – Senior High Physical Science

- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO<sub>2</sub>”

### Second Place – Senior High Physical Science

- Gaddipati, Phanindra[11] [SC10], Discovery Canyon HS/Michael Amundson: “Enhancing aluminum gallium nitride based semiconductors through dislocation analysis and thin film optimization”

### Third Place – Senior High Physical Science

- Huerta, Julia[9] [SC11], Palmer HS/Karen Crosson: “Hockey puck velocity”

### Fourth Place – Senior High Physical Science

- Theobald, Margaret[9] [SC12], Palmer HS/Carolyn Derr: “The sea is not a blender: Oil and water do not mix”

### Fifth Place – Senior High Physical Science

- Visel, Daniel[9] [SC4], Hilltop Baptist/Deborah Wilkins: “Solenoid lock”

## Senior High Engineering/Math/C.S.

### First Place – Senior High Engineering/Mathematics/C.S.

- Parish, John[11] [SD4], Home School/Maureen Parish: “On the verge of where it wasn’t: A multi-model approach to Kalman filtering using intelligent selection”

### Second Place – Senior High Engineering/Mathematics/C.S.

- Cruz, Luis[12] [SD5], Harrison HS/Kelly Gallegos: “Electrooculography: A new approach”

### Third Place – Senior High Engineering/Mathematics/C.S.

- Ryd, Chandler[9] [SD3], The Classical Academy/Candus Muir: “Speed or pressure”

# Junior Awards – Eighth Grade

## 8th Grade Biological Science

### First Place – 8th Grade Biology

- Hartley, Jenna[8] [8A3], North MS/Greg Busby: “Emergence of resistant bacteria”

### Second Place – 8th Grade Biology

- Matteson, Sydd[8] [8A6], North MS/Greg Busby: “A head’s tale: The Effects of Pharmaceutical Pollutants and Remediation on the Regeneration of Planaria.”

### Third Place – 8th Grade Biology

- Helfer, Maislinn[8] [8A12], North MS/Greg Busby: “Dirt bag”

### Fourth Place – 8th Grade Biology

- Prewitt, Meagan[8] [8A9], Holmes MS/Marty Wolf: “Going bananas: How packaging affects the ripening of bananas”

### Fifth Place – 8th Grade Biology

- Mareyassich, Polina[8] [8A7], North MS/Greg Busby: “Recommended most by dermatologists”

## 8th Grade Health & Behavioral Science

### First Place – 8th Grade Health & Behavioral Science

- Harris, Lily[8] [8B9], Challenger MS/Scott Grumann: “A risky experiment”

### Second Place – 8th Grade Health & Behavioral Science

- Tindal, Rachael[8] [8B11], Holmes MS/Lori Waddle: “Which type of orange juice has the largest amount of vitamin c?”

### Third Place – 8th Grade Health & Behavioral Science

- Klingman, Devon[8] [8B6], North MS/Greg Busby: “The reward system: What is our mindset?”

### Fourth Place – 8th Grade Health & Behavioral Science

- Stinnett, Michael[8] [8B12], Pikes Peak Chr. S./Phil Euken: “Achy breaky heartburn”

### Fifth Place – 8th Grade Health & Behavioral Science

- Reece, Emma[8] [8B1], North MS/Greg Busby: “Social networking”

## **8th Grade Physical Sci., Eng., Math., & C.S., I**

### **First Place – 8th Grade Physical Sci., Eng., Math., & C.S.**

- Carrese, Dominic[8] [8C7], North MS/Greg Busby: “Rocky mountain pure: Fountain creek’s journey through the Pikes Peak region”

### **Second Place – 8th Grade Physical Sci., Eng., Math., & C.S.**

- Kimball, Sarah[8] [8C8], Challenger MS/Scott Grumann: “Sensors for the blind”

### **Third Place – 8th Grade Physical Sci., Eng., Math., & C.S.**

- Helfer, Maxx[8] [8C2], North MS/Greg Busby: “Hardcore recycling”

## **8th Grade Physical Sci., Eng., Math., & C.S., II**

### **First Place – 8th Grade Physical Sci., Eng., Math., & C.S.**

- Smith, Karin[8] [8G9], The Classical Academy/Candus Muir: “Stealth missiles? Threat eliminated”

### **Second Place – 8th Grade Physical Sci., Eng., Math., & C.S.**

- Frantz, Emma[8] [8G1], North MS/Greg Busby: “Does it stick: Viscosity and liquid mediated adhesion”

### **Third Place – 8th Grade Physical Sci., Eng., Math., & C.S.**

- Kurko, Sara[8] [8G5], Pikes Peak Chr. S./Phil Euken: “Skating on thin ice”

# Junior Awards – Seventh Grade

## 7th Grade Biological Science, I

### First Place – 7th Grade Biology

- Miller, Alex[7] [7A10], The Classical Academy/Candus Muir: “Beat the bacteria”

### Second Place – 7th Grade Biology

- Dewey, Lauren[7] [7A6], North MS/Caitlin Holt: “Are you still thirsty?”

### Third Place – 7th Grade Biology

- Thompson, Anna[7] [7A12], The Classical Academy/Candus Muir: “Stronger teeth....sweet”

### Fourth Place – 7th Grade Biology

- D’Agnese, Ashley[7] [7A13], The Classical Academy/Candus Muir: “Plain, sweet, or no headaches”

### Fifth Place – 7th Grade Biology

- Gergen, Alex[7] [7A11], Evangelical Christian/Karen Leidecker: “What’s that note?”

## 7th Grade Biological Science, II

### First Place – 7th Grade Biology

- Laden, Sarah[7] [7G10], The Classical Academy/Candus Muir: “Cool beans!”

### Second Place – 7th Grade Biology

- Waterbury, Quin[7] [7G7], North MS/Caitlin Holt: “Antibacterial material?”

### Third Place – 7th Grade Biology

- Murphy, Logan[7] [7G8], North MS/Caitlin Holt: “Is it clean ...”

### Fourth Place – 7th Grade Biology

- Bonato, Andrea[7] [7G11], The Classical Academy/Candus Muir: “Toying with bacteria”

### Fifth Place – 7th Grade Biology

- Camacho, Cedric[7] [7G13], Edison MS/Angela Golding: “Snack time”

## **7th Grade Health & Behavioral Science, I**

### **First Place – 7th Grade Health & Behavioral Science**

- Brown, Dylan[7] [7B15], The Classical Academy/Candus Muir: “Learning is its own reward?”

### **Second Place – 7th Grade Health & Behavioral Science**

- Weeks, Chloe[7] [7B14], The Classical Academy/Shawn O’Toole: “OMG texting while driving: It’s G2G”

### **Third Place – 7th Grade Health & Behavioral Science**

- Guerin, Damaris[7] [7B4], North MS/Caitlin Holt: “Can music help you study”

### **Fourth Place – 7th Grade Health & Behavioral Science**

- Hack, Yasmeen[7] [7B18], Banning Lewis Ranch Acad./Anna Stewart: “The dissolution rate of lactase pills”

### **Fifth Place – 7th Grade Health & Behavioral Science**

- Rex, Kyle[7] [7B17], The Classical Academy/Candus Muir: “Are you flushing money down the toilet?”

### **Sixth Place – 7th Grade Health & Behavioral Science**

- Hudson, Sylvie[7] [7B12], North MS/Caitlin Holt: “Teeth matter”

## **7th Grade Health & Behavioral Science, II**

### **First Place – 7th Grade Health & Behavioral Science**

- Knapp, Joseph[7] [7H15], The Classical Academy/Candus Muir: “Flicker fusion”

### **Second Place – 7th Grade Health & Behavioral Science**

- Brasuel, Leo[7] [7H5], North MS/Caitlin Holt: “Microwaving: The right choice?”

### **Third Place – 7th Grade Health & Behavioral Science**

- Swank, Moriah[7] [7H18], The Classical Academy/Shawn O’Toole: “Celebrity smiles, protect your cheesy grin”

### **Fourth Place – 7th Grade Health & Behavioral Science**

- Higgins, Lauren[7] [7H4], North MS/Caitlin Holt: “Left and right: Brainteasers”

### **Fifth Place – 7th Grade Health & Behavioral Science**

- Foster, Sophie[7] [7H8], North MS/Caitlin Holt: “Got music?”

### **Sixth Place – 7th Grade Health & Behavioral Science**

- Jennings, Graham[7] [7H16], The Classical Academy/Candus Muir: “Sunlight is the best investment”

## 7th Grade Physical Science, I

### First Place – 7th Grade Physical Science

- Arrasmith, Michael[7] [7C7], The Classical Academy/Candus Muir: “Up, up, and away”

### Second Place – 7th Grade Physical Science

- Willis, Joshua[7] [7C9], The Classical Academy/Candus Muir: “Good vibrations?”

### Third Place – 7th Grade Physical Science

- Michael-Trumbull, Rosemary[7] [7C6], The Classical Academy/Candus Muir: “Snow, camera, exposure”

### Fourth Place – 7th Grade Physical Science

- Zawacki, Lauren[7] [7C5], North MS/Caitlin Holt: “Sweet tooth”

### Fifth Place – 7th Grade Physical Science

- Widman, Eric[7] [7C12], The Classical Academy/Shawn O’Toole: “Crude answers”

### Sixth Place – 7th Grade Physical Science

- Eiser, Griffin[7] [7C14], Carson MS/David Shuman: “Chips ahoy or flat-out fail”

## 7th Grade Physical Science, II

### First Place – 7th Grade Physical Science

- Raphael, Sam[7] [7I16], The Classical Academy/Candus Muir: “A light in the dark”

### Second Place – 7th Grade Physical Science

- Mike, Ryan[7] [7I6], North MS/Caitlin Holt: “Slippery surfaces”

### Third Place – 7th Grade Physical Science

- McHugh, David[7] [7I9], Banning Lewis Ranch Acad./Anna Stewart: “Color vs. clear: The battle for clean water”

### Fourth Place – 7th Grade Physical Science

- Turmes, Amanda[7] [7I7], The Classical Academy/Candus Muir: “Countertop cop: Watch out for stains”

### Fifth Place – 7th Grade Physical Science

- Frost, Michael[7] [7I8], The Classical Academy/Shawn O’Toole: “Save money and the planet... one video game at a time”

### Sixth Place – 7th Grade Physical Science

- Abineri, Tess[7] [7I2], North MS/Caitlin Holt: “The colors in between”

## **7th Grade Math, Eng., & Computer Sci.**

### **First Place – 7th Grade Engineering & Computer Science**

- Smith, Noah[7] [7D1], North MS/Caitlin Holt: “Improving maglev safety”

### **Second Place – 7th Grade Engineering & Computer Science**

- Crane, Robbie[7] [7D4], The Classical Academy/Candus Muir: “H2Oil”

### **Third Place – 7th Grade Engineering & Computer Science**

- Khaliqi, Phoebe[7] [7D2], The Classical Academy/Candus Muir: “Robo rescue bots”

### **Fourth Place – 7th Grade Engineering & Computer Science**

- Wright, Ethan[7] [7D9], The Classical Academy/Shawn O’Toole: “Homefield advantage and baseball”

### **Fifth Place – 7th Grade Engineering & Computer Science**

- Mancini, Timothy[7] [7D7], The Classical Academy/Candus Muir: “Wave power”

## **7th Grade Earth Science**

### **First Place – 7th Grade Earth Science**

- Frieden, Kendra[7] [7F4], The Classical Academy/Candus Muir: “Pivotal decisions in solar energy”

### **Second Place – 7th Grade Earth Science**

- Schneider, Isabella[7] [7F1], North MS/Caitlin Holt: “A cleaner water supply? Removing nitrates and phosphates from contaminated water”

### **Third Place – 7th Grade Earth Science**

- Muir, Aleesa[7] [7F2], The Classical Academy/Candus Muir: “Analyzing the deteriorating effects of acid precipitation on natural landscaping”

### **Fourth Place – 7th Grade Earth Science**

- Paul, Sydney[7] [7F8], Edison MS/Angela Golding: “Anatomy of an oil spill clean up”

# Junior Awards – Sixth Grade

## 6th Grade Biological Science

### First Place – 6th Grade Biology

- Popkin, Max[6] [6A2], North MS/Caitlin Holt: “Yuck! Bacteria on Dishes”

### Second Place – 6th Grade Biology

- Spencer, Gwendolyn[6] [6A7], North MS/Greg Busby: “*E-coli*”

### Third Place – 6th Grade Biology

- Schenk, William[6] [6A4], North MS/Greg Busby: “Which cleaner is the best for your smelly rag?”

### Fourth Place – 6th Grade Biology

- Tirpak, Erin[6] [6A9], Palmer Lake Elem./Michelle Weber: “How do certain liquids affect fingerprints?”

### Fifth Place – 6th Grade Biology

- Ogilvie, Kianna[6] [6A5], North MS/Greg Busby: “Battle of the chemicals acid vs. base”

## 6th Grade Health & Behav. Science

### First Place – 6th Grade Health & Behavioral Science

- Bloomfield, Rebecca[6] [6B7], North MS/Greg Busby: “Into the wild: Water purification”

### Second Place – 6th Grade Health & Behavioral Science

- Bultema, Ellora[6] [6B1], North MS/Caitlin Holt: “Lung capacity”

### Third Place – 6th Grade Health & Behavioral Science

- Gilliam, Maya[6] [6B3], North MS/Caitlin Holt: “Music and reading”

### Fourth Place – 6th Grade Health & Behavioral Science

- Bean, Abigail[6] [6B2], North MS/Caitlin Holt: “Reading comprehension with television”

## 6th Grade Physical Science, I

### First Place – 6th Grade Physical Science

- Bogdovitz, Abigail[6] [6C10], Palmer Lake Elem./Michelle Weber: “Effects of sugar on baking leaveners”

### Second Place – 6th Grade Physical Science

- Stanfill, Trevor[6] [6C13], Legacy Acad./Rhonda Peterson: “What? The hail project”

### Third Place – 6th Grade Physical Science

- McNern, Ronan[6] [6C4], North MS/Greg Busby: “Fuels of the future”

### Fourth Place – 6th Grade Physical Science

- Daniel, William[6] [6C6], North MS/Caitlin Holt: “The heat is on charcoal”

### Fifth Place – 6th Grade Physical Science

- Brewer, Ethan[6] [6C12], West MS/Anne Wolf: “Germination nation”

## 6th Grade Physical Science, II

### First Place – 6th Grade Physical Science

- Artalejo, Taija[6] [6G11], West MS/Anne Wolf: “Maglev transportation discoveries”

### Second Place – 6th Grade Physical Science

- Staton, Elisabeth[6] [6G12], West MS/Anne Wolf: “Non-Newtonian fluids and what they do”

### Third Place – 6th Grade Physical Science

- Wright, Malcolm[6] [6G4], North MS/Greg Busby: “What type of wax?”

### Fourth Place – 6th Grade Physical Science

- Ritch, Kaylee[6] [6G1], West MS/Caitlin Holt: “Warm socks are like spilled hot cocoa”

### Fifth Place – 6th Grade Physical Science

- Kimlicko, Luka[6] [6G3], North MS/Caitlin Holt: “Recharge your wallet”

# State Fair Invitations

## State Fair Invitations

### State Fair Invitation

- Popkin, Max[6] [6A2], North MS/Caitlin Holt: “Yuck! Bacteria on Dishes”
- Spencer, Gwendolyn[6] [6A7], North MS/Greg Busby: “*E-coli*”
- Bloomfield, Rebecca[6] [6B7], North MS/Greg Busby: “Into the wild: Water purification”
- Bogdovitz, Abigail[6] [6C10], Palmer Lake Elem./Michelle Weber: “Effects of sugar on baking leaveners”
- Stanfill, Trevor[6] [6C13], Legacy Acad./Rhonda Peterson: “What? The hail project”
- Artalejo, Taija[6] [6G11], West MS/Anne Wolf: “Maglev transportation discoveries”
- Dewey, Lauren[7] [7A6], North MS/Caitlin Holt: “Are you still thirsty?”
- Miller, Alex[7] [7A10], The Classical Academy/Candus Muir: “Beat the bacteria”
- Weeks, Chloe[7] [7B14], The Classical Academy/Shawn O’Toole: “OMG texting while driving: It’s G2G”
- Brown, Dylan[7] [7B15], The Classical Academy/Candus Muir: “Learning is its own reward?”
- Arrasmith, Michael[7] [7C7], The Classical Academy/Candus Muir: “Up, up, and away”
- Willis, Joshua[7] [7C9], The Classical Academy/Candus Muir: “Good vibrations?”
- Smith, Noah[7] [7D1], North MS/Caitlin Holt: “Improving maglev safety”
- Crane, Robbie[7] [7D4], The Classical Academy/Candus Muir: “H2Oil”
- Schneider, Isabella[7] [7F1], North MS/Caitlin Holt: “A cleaner water supply? Removing nitrates and phosphates from contaminated water”
- Muir, Aleesa[7] [7F2], The Classical Academy/Candus Muir: “Analyzing the deteriorating effects of acid precipitation on natural landscaping”
- Frieden, Kendra[7] [7F4], The Classical Academy/Candus Muir: “Pivotal decisions in solar energy”
- Waterbury, Quin[7] [7G7], North MS/Caitlin Holt: “Antibacterial material?”
- Laden, Sarah[7] [7G10], The Classical Academy/Candus Muir: “Cool beans!”
- Brasuel, Leo[7] [7H5], North MS/Caitlin Holt: “Microwaving: The right choice?”
- Knapp, Joseph[7] [7H15], The Classical Academy/Candus Muir: “Flicker fusion”
- Mike, Ryan[7] [7I6], North MS/Caitlin Holt: “Slippery surfaces”
- McHugh, David[7] [7I9], Banning Lewis Ranch Acad./Anna Stewart: “Color vs. clear: The battle for clean water”
- Raphael, Sam[7] [7I16], The Classical Academy/Candus Muir: “A light in the dark”
- Hartley, Jenna[8] [8A3], North MS/Greg Busby: “Emergence of resistant bacteria”
- Matteson, Sydd[8] [8A6], North MS/Greg Busby: “A head’s tale: The Effects of Pharmaceutical Pollutants and Remediation on the Regeneration of Planaria.”
- Helfer, Maislinn[8] [8A12], North MS/Greg Busby: “Dirt bag”
- Harris, Lily[8] [8B9], Challenger MS/Scott Grumann: “A risky experiment”
- Carrese, Dominic[8] [8C7], North MS/Greg Busby: “Rocky mountain pure: Fountain creek’s journey through the Pikes Peak region”
- Kimball, Sarah[8] [8C8], Challenger MS/Scott Grumann: “Sensors for the blind”
- Frantz, Emma[8] [8G1], North MS/Greg Busby: “Does it stick: Viscosity and liquid mediated adhesion”
- Smith, Karin[8] [8G9], The Classical Academy/Candus Muir: “Stealth missiles? Threat eliminated”
- Jasperse-Sjolander, Liam[11] [SA1], Palmer HS/Nancy Goodwin: “A statistical analysis of allometric size distribution in clonal and non-clonal forests”
- Matteson, Haley[9] [SA2], Palmer HS/Nancy Goodwin: “Troubled tomatoes: The effect of acetaminophen and an acetal/H2O2 mixture on growth and the internal structure”
- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”
- Schubert, Marika[9] [SB9], Wasson HS/Angela Dunn: “Music and memory”
- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO2”

- Gaddipati, Phanindra[11] [SC10], Discovery Canyon HS/Michael Amundson: “Enhancing aluminum gallium nitride based semiconductors through dislocation analysis and thin film optimization”
- Ryd, Chandler[9] [SD3], The Classical Academy/Candus Muir: “Speed or pressure”
- Parish, John[11] [SD4], Home School/Maureen Parish: “On the verge of where it wasn’t: A multi-model approach to Kalman filtering using intelligent selection”
- Cruz, Luis[12] [SD5], Harrison HS/Kelly Gallegos: “Electrooculography: A new approach”

# Special Awards

## After School University

- Raphael, Sam[7] [7I16], The Classical Academy/Candus Muir: “A light in the dark”
- Engberg, Ethan[8] [8C3], Peyton MS/Jenni Esser: “Electricity output of photovoltaic cell in ambient temperatures relevant to space on Mars ...”
- Frantz, Emma[8] [8G1], North MS/Greg Busby: “Does it stick: Viscosity and liquid mediated adhesion”
- Blayney, Sophia[9] [SB12], Coronado HS/Lynne Williams: “Altruism: It’s just human nature”
- Bangs, Heather[10] [SC1], Hilltop Baptist/Deborah Wilkins: “Unleashing the power of conductivity”
- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO<sub>2</sub>”

## Animal Clinic of Woodland Park

- Burkle, Henry[6] [6A12], West MS/Anne Wolf: “Super worms: Do mealworms make chicken eggs have more mass?”

## Center for STEM Education at UCCS

- Spafford, Benjamin[7] [7F9], The Classical Academy/Candus Muir: “Paint with protection potential: Chemistry vs. earth science”
- Lutton, Courtney[10] [SD7], Palmer HS/Sandra Smith: “Wind turbine”

## Chemistry and Biochemistry Department at UCCS

- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO<sub>2</sub>”

## AFCEA Junior 1st

- Smith, Karin[8] [8G9], The Classical Academy/Candus Muir: “Stealth missiles? Threat eliminated”

## AFCEA Junior 2nd

- Artalejo, Taija[6] [6G11], West MS/Anne Wolf: “Maglev transportation discoveries”

## AFCEA Junior 3rd

- Engberg, Ethan[8] [8C3], Peyton MS/Jenni Esser: “Electricity output of photovoltaic cell in ambient temperatures relevant to space on Mars ...”

## AFCEA Senior 1st

- Cruz, Luis[12] [SD5], Harrison HS/Kelly Gallegos: “Electrooculography: A new approach”

## AFCEA Senior 2nd

- Gaddipati, Ravi[11] [SD2], Discovery Canyon HS/Michael Amundson: “Visual simultaneous localization and mapping”

## AFCEA Senior 3rd

- Parish, John[11] [SD4], Home School/Maureen Parish: “On the verge of where it wasn’t: A multi-model approach to Kalman filtering using intelligent selection”

## American Association of University Women

- Frantz, Emma[8] [8G1], North MS/Greg Busby: “Does it stick: Viscosity and liquid mediated adhesion”
- Matteson, Haley[9] [SA2], Palmer HS/Nancy Goodwin: “Troubled tomatoes: The effect of acetaminophen and an acetal/H<sub>2</sub>O<sub>2</sub> mixture on growth and the internal structure”

## American Meteorological Society

- Summers, Kayla[7] [7F3], The Classical Academy/Candus Muir: “Acidification: Toxic to our oceans?”
- Theobald, Margaret[9] [SC12], Palmer HS/Carolyn Derr: “The sea is not a blender: Oil and water do not mix”

## **American Psychological Association**

- Kalina, Megan[10] [SB3], Hilltop Baptist/Deborah Wilkins: “Focus drinks: Real or placebo?”

## **American Society for Materials, International**

- Gaddipati, Phanindra[11] [SC10], Discovery Canyon HS/Michael Amundson: “Enhancing aluminum gallium nitride based semiconductors through dislocation analysis and thin film optimization”

## **Association for Women Geoscientists**

- Muir, Aleesa[7] [7F2], The Classical Academy/Candus Muir: “Analyzing the deteriorating effects of acid precipitation on natural landscaping”

## **BSCS Senior - First Prize**

- Matteson, Haley[9] [SA2], Palmer HS/Nancy Goodwin: “Troubled tomatoes: The effect of acetaminophen and an acetal/H<sub>2</sub>O<sub>2</sub> mixture on growth and the internal structure”

## **BSCS Senior - Second Prize**

- Matteson, Sydd[8] [8A6], North MS/Greg Busby: “A head’s tale: The Effects of Pharmaceutical Pollutants and Remediation on the Regeneration of Planaria.”

## **Broadcom**

- Ogilvie, Kianna[6] [6A5], North MS/Greg Busby: “Battle of the chemicals acid vs. base”
- Bloomfield, Rebecca[6] [6B7], North MS/Greg Busby: “Into the wild: Water purification”
- Snow, Grace[6] [6C1], North MS/Caitlin Holt: “Warm to freezing crystals”
- McNern, Ronan[6] [6C4], North MS/Greg Busby: “Fuels of the future”
- Smith, Shanna[6] [6C7], Palmer Lake Elem./Michelle Weber: “The burning of fabric”
- Britton, Sam[6] [6G9], Falcon MS/Lisa DeHoyos: “Wind vs. solar power”
- Howard, Emma[7] & Mendoza, Kesiah[7] [7A7], North MS/Caitlin Holt: “What’s on my water bottle?”
- Smith, Noah[7] [7D1], North MS/Caitlin Holt: “Improving maglev safety”
- Schneider, Isabella[7] [7F1], North MS/Caitlin Holt: “A cleaner water supply? Removing nitrates and phosphates from contaminated water”
- Paul, Sydney[7] [7F8], Edison MS/Angela Golding: “Anatomy of an oil spill clean up”
- Camacho, Cedric[7] [7G13], Edison MS/Angela Golding: “Snack time”
- Debano, Austin[7] [7I15], Evangelical Christian/Karen Leidecker: “Food vs. Gatorade”
- Turner, Mack[8] [8C5], North MS/Greg Busby: “Repairing acid rain”
- Carrese, Dominic[8] [8C7], North MS/Greg Busby: “Rocky mountain pure: Fountain creek’s journey through the Pikes Peak region”
- Kimball, Sarah[8] [8C8], Challenger MS/Scott Grumann: “Sensors for the blind”
- Merkert, Molly[8] [8G2], North MS/Greg Busby: “Cadmium: The grim-reaper in your jewelry box”
- Jones, Patrick[8] [8G4], North MS/Greg Busby: “Salty: Not any more”
- Smith, Karin[8] [8G9], The Classical Academy/Candus Muir: “Stealth missiles? Threat eliminated”

## **COOL Science Junior Winner**

- Kurko, Sara[8] [8G5], Pikes Peak Chr. S./Phil Euken: “Skating on thin ice”

## **COOL Science Senior Winner**

- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”

## **Citizen’s Project**

- Britton, Sam[6] [6G9], Falcon MS/Lisa DeHoyos: “Wind vs. solar power”
- Harris, Lily[8] [8B9], Challenger MS/Scott Grumann: “A risky experiment”

## **Colorado Associates in Medical Physics**

- Cruz, Luis[12] [SD5], Harrison HS/Kelly Gallegos: “Electrooculography: A new approach”

## **Colorado College Psychology**

- Schubert, Marika[9] [SB9], Wasson HS/Angela Dunn: “Music and memory”

## **Colorado Consortium for Earth & Space Science Educatoin, USAFA**

- Spafford, Benjamin[7] [7F9], The Classical Academy/Candus Muir: “Paint with protection potential: Chemistry vs. earth science”
- Stanton, Dylan[7] [7H1], North MS/Caitlin Holt: “Give me oxygen”

## **Colorado Geological Survey**

- Smentowski, Zach[7] [7C4], North MS/Caitlin Holt: “Hard as a rock”
- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO2”

## **Colorado Springs Mineralogical Society, First**

- Beechwood-Lefae, Robin[8] [8C9], West MS/Anne Wolf: “Crystallized”

## **Colorado Springs Mineralogical Society, Second**

- Lessig, Jackson[6] [6G6], North MS/Greg Busby: “The acidity of lichen”

## **Colorado Springs Mineralogical Society, Third**

- Houston, Tyler[7] [7F7], West MS/Anne Wolf: “Historical preservation”

## **Colorado Springs Science Center Junior Runner Up**

- Crane, Robbie[7] [7D4], The Classical Academy/Candus Muir: “H2Oil”

## **Colorado Springs Science Center Junior Winner**

- Hartley, Jenna[8] [8A3], North MS/Greg Busby: “Emergence of resistant bacteria”

## **Colorado Springs Science Center Senior Runner Up**

- Blayney, Sophia[9] [SB12], Coronado HS/Lynne Williams: “Altruism: It’s just human nature”

## **Colorado Springs Science Center Senior Winner**

- Schubert, Marika[9] [SB9], Wasson HS/Angela Dunn: “Music and memory”

## **Comfort Zone Jr. High**

- Britton, Sam[6] [6G9], Falcon MS/Lisa DeHoyos: “Wind vs. solar power”

## **Comfort Zone Sr. High**

- Lutton, Courtney[10] [SD7], Palmer HS/Sandra Smith: “Wind turbine”

## **Estes Industries**

- Arrasmith, Michael[7] [7C7], The Classical Academy/Candus Muir: “Up, up, and away”
- Khaliqi, Phoebe[7] [7D2], The Classical Academy/Candus Muir: “Robo rescue bots”
- Engberg, Ethan[8] [8C3], Peyton MS/Jenni Esser: “Electricity output of photovoltaic cell in ambient temperatures relevant to space on Mars ...”
- Schultz, Tyler[8] [8C10], Legacy Acad./Rhonda Peterson: “Tennis ball launcher”
- Smith, Karin[8] [8G9], The Classical Academy/Candus Muir: “Stealth missiles? Threat eliminated”

## **Fargo Pizza**

- Eiser, Griffin[7] [7C14], Carson MS/David Shuman: “Chips ahoy or flat-out fail”
- Miller, Katie[8] [8A2], North MS/Greg Busby: “Organic vs. non-organic”

## **Genius Olympiad**

- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”
- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO<sub>2</sub>”
- Ryd, Chandler[9] [SD3], The Classical Academy/Candus Muir: “Speed or pressure”

## **I-SWEEP Outstanding**

- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”

## **I-SWEEP Recognition**

- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO<sub>2</sub>”

## **Intel Corp. Excellence in Computer Science**

- Gaddipati, Phanindra[11] [SC10], Discovery Canyon HS/Michael Amundson: “Enhancing aluminum gallium nitride based semiconductors through dislocation analysis and thin film optimization”

## **Mu Alpha Theta**

- Jasperse-Sjolander, Liam[11] [SA1], Palmer HS/Nancy Goodwin: “A statistical analysis of allometric size distribution in clonal and non-clonal forests”

## **National Oceanic and Atmospheric Administration**

- Muir, Aleesa[7] [7F2], The Classical Academy/Candus Muir: “Analyzing the deteriorating effects of acid precipitation on natural landscaping”

## **National Society of Professional Engineers**

- Crane, Robbie[7] [7D4], The Classical Academy/Candus Muir: “H<sub>2</sub>Oil”

## **OfficeScapes School Furniture**

- Cruz, Luis[12] [SD5], Harrison HS/Kelly Gallegos: “Electrooculography: A new approach”

## **Old Town Bike Shop**

- McNern, Ronan[6] [6C4], North MS/Greg Busby: “Fuels of the future”
- Lutton, Courtney[10] [SD7], Palmer HS/Sandra Smith: “Wind turbine”

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

- Zimmermann, Andre[8] [8B7], North MS/Greg Busby: “The effects of violence in videogames on the violent thoughts in a person”
- Konik, Tessa[9] [SB10], Coronado HS/Lynne Williams: “Testing the accuracy of eyewitness testimony”

## **Psychological Society of the Pikes Peak Region**

- O’Hara, Mary[6] [6B6], North MS/Caitlin Holt: “Should I exercise?”
- Rojewski, Bailey[7] [7B8], North MS/Caitlin Holt: “Pain and distractions”
- Reece, Emma[8] [8B1], North MS/Greg Busby: “Social networking”
- Blayney, Sophia[9] [SB12], Coronado HS/Lynne Williams: “Altruism: It’s just human nature”

## **Ricoh**

- Turner, Mack[8] [8C5], North MS/Greg Busby: “Repairing acid rain”

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

- Matteson, Haley[9] [SA2], Palmer HS/Nancy Goodwin: “Troubled tomatoes: The effect of acetaminophen and an acetal/H<sub>2</sub>O<sub>2</sub> mixture on growth and the internal structure”

## **Society of Women Engineers**

- Kimball, Sarah[8] [8C8], Challenger MS/Scott Grumann: “Sensors for the blind”
- Lutton, Courtney[10] [SD7], Palmer HS/Sandra Smith: “Wind turbine”

## **Sociology Department at UCCS**

- Reece, Emma[8] [8B1], North MS/Greg Busby: “Social networking”
- Williams, Deja[10] [SB8], Palmer HS/Martha Alvarez: “Girls vs boys: The deal with raising hands”

## **Soil and Water Conservation Society**

- Frieden, Kendra[7] [7F4], The Classical Academy/Candus Muir: “Pivotal decisions in solar energy”
- Carrese, Dominic[8] [8C7], North MS/Greg Busby: “Rocky mountain pure: Fountain creek’s journey through the Pikes Peak region”
- Jasperse-Sjolander, Liam[11] [SA1], Palmer HS/Nancy Goodwin: “A statistical analysis of allometric size distribution in clonal and non-clonal forests”
- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”

## **Stockholm Junior Water Prize**

- Theobald, Margaret[9] [SC12], Palmer HS/Carolyn Derr: “The sea is not a blender: Oil and water do not mix”
- Ryd, Chandler[9] [SD3], The Classical Academy/Candus Muir: “Speed or pressure”

## **Ted’s Bike Shop**

- Rummel, Ethan[7] [7F10], Galileo MS/Lauren Hughes: “The generator of tomorrow”

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

- Gaddipati, Ravi[11] [SD2], Discovery Canyon HS/Michael Amundson: “Visual simultaneous localization and mapping”
- Ryd, Chandler[9] [SD3], The Classical Academy/Candus Muir: “Speed or pressure”
- Parish, John[11] [SD4], Home School/Maureen Parish: “On the verge of where it wasn’t: A multi-model approach to Kalman filtering using intelligent selection”
- Cruz, Luis[12] [SD5], Harrison HS/Kelly Gallegos: “Electrooculography: A new approach”

## **U. S. Army Award Bronze Medallion**

- Crane, Robbie[7] [7D4], The Classical Academy/Candus Muir: “H2Oil”

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

- Volz, Sara[10] [SA12], Cheyenne Mountain HS/David Volz: “Enhancing Algae Biofuels, Phase II: Stress Analysis of ACCase, an Enzymatic Factor of Lipid Production”

## **U. S. Navy & Marines**

- Arrasmith, Michael[7] [7C7], The Classical Academy/Candus Muir: “Up, up, and away”
- Smith, Noah[7] [7D1], North MS/Caitlin Holt: “Improving maglev safety”
- Smith, Karin[8] [8G9], The Classical Academy/Candus Muir: “Stealth missiles? Threat eliminated”
- Levad, Nathan T[12] [SC8], Hilltop Baptist/Deborah Wilkins: “Practical polarity”
- Gaddipati, Phanindra[11] [SC10], Discovery Canyon HS/Michael Amundson: “Enhancing aluminum gallium nitride based semiconductors through dislocation analysis and thin film optimization”
- Gaddipati, Ravi[11] [SD2], Discovery Canyon HS/Michael Amundson: “Visual simultaneous localization and mapping”

## **U.S. Army Junior**

- Bloomfield, Rebecca[6] [6B7], North MS/Greg Busby: “Into the wild: Water purification”
- Schultz, Tyler[8] [8C10], Legacy Acad./Rhonda Peterson: “Tennis ball launcher”

## **U.S. Army Senior**

- Gaddipati, Ravi[11] [SD2], Discovery Canyon HS/Michael Amundson: “Visual simultaneous localization and mapping”
- Parish, John[11] [SD4], Home School/Maureen Parish: “On the verge of where it wasn’t: A multi-model approach to Kalman filtering using intelligent selection”
- Cruz, Luis[12] [SD5], Harrison HS/Kelly Gallegos: “Electrooculography: A new approach”

## **Western Museum of Mining and Industry**

- Garnhart, Daniel[8] [8G3], Peyton MS/Jenni Esser: “The spongiest, hairiest, hayiest oil absorbing experiment”
- Schneider, Sophia[9] [SC2], Palmer HS/Nancy Goodwin: “Can geosequestration and geothermal energy work together? Enhanced geothermal systems using CO<sub>2</sub>”

## **Yale Science & Engineering Association**

- Parish, John[11] [SD4], Home School/Maureen Parish: “On the verge of where it wasn’t: A multi-model approach to Kalman filtering using intelligent selection”