## 2019 SLV Regional Science Fair – Monte Vista High School Results

Wow, what a night!!!! After a LOT of hard work, dedication, and months of effort, we have our results from the 70<sup>th</sup> Annual San Luis Valley Regional Science Fair! We were represented by **FIFTEEN** students this year, and they did a *fantastic* job presenting their research on Friday, March 1<sup>st</sup> at Adams State University.

On behalf of the students and myself, I would like to SINCERELY THANK all the parents, administration, board members, and particularly high school staff members who accommodated, encouraged, and supported these students! We are **extremely** proud of them all!!

Bill Metz Elementary and MV Middle School also received a tremendous list of awards and recognitions, demonstrating once again that Monte Vista is a <u>leader</u> in STEM and academics!!

#### Wonderful job to ALL the students!!

#### Following are the participating HS students, and the titles of their projects:

| •                                                                   |                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Amanda Avila &<br>Trinady Gonzales                                  | Let There Be Light: The Effects of UV Rays on Bacterial Growth in Food.                                                                                                                                                                                                                                                                                             |
| Blaine Gillespie                                                    | Are Your Hands as Clean as You Assume?                                                                                                                                                                                                                                                                                                                              |
| Ethan Hotz                                                          | Plastic Joints: A Study in 3D Printing Orthopedics                                                                                                                                                                                                                                                                                                                  |
| Matyson Jones                                                       | Fire Storm: Examining the Relationship between El Nino/La Nina Weather Cycles and Wildfire in the Western US                                                                                                                                                                                                                                                        |
| Amber Michel                                                        | Rock On: Limestone's Potential to Improve Water Quality in the Alamosa River<br>Drainage                                                                                                                                                                                                                                                                            |
| Molly Nehring                                                       | Galactic Outcasts: A Simulation and Study of the Interaction Between Stars Within Globular Clusters                                                                                                                                                                                                                                                                 |
| Sara Nehring                                                        | Pattern Recognition Using Neural Networks in the MATLAB Programming<br>Environment                                                                                                                                                                                                                                                                                  |
|                                                                     |                                                                                                                                                                                                                                                                                                                                                                     |
| Jameson Oberrick                                                    | My Car Won't Turn Over in this Cold Weather!                                                                                                                                                                                                                                                                                                                        |
| Jameson Oberrick Amada Quintana                                     | My Car Won't Turn Over in this Cold Weather!  The Effects of Stress on Teenage Substance Use                                                                                                                                                                                                                                                                        |
|                                                                     |                                                                                                                                                                                                                                                                                                                                                                     |
| Amada Quintana                                                      | The Effects of Stress on Teenage Substance Use  Tracking Microplastics through a Food Chain to Determine the Effectiveness of                                                                                                                                                                                                                                       |
| Amada Quintana<br>Alyssa Rawinski                                   | The Effects of Stress on Teenage Substance Use  Tracking Microplastics through a Food Chain to Determine the Effectiveness of Plastic Biodegradation in Mealworms  UnBEElievable Pollination - Examining the Effects of Air Pollutants on Bumble Bee                                                                                                                |
| Amada Quintana  Alyssa Rawinski  Camille Rawinski                   | The Effects of Stress on Teenage Substance Use  Tracking Microplastics through a Food Chain to Determine the Effectiveness of Plastic Biodegradation in Mealworms  UnBEElievable Pollination - Examining the Effects of Air Pollutants on Bumble Bee Pollination.  A Study On The Effect High Carbon Dioxide levels Have on Raphanus sativus L.                     |
| Amada Quintana  Alyssa Rawinski  Camille Rawinski  Caleb Riggenbach | The Effects of Stress on Teenage Substance Use  Tracking Microplastics through a Food Chain to Determine the Effectiveness of Plastic Biodegradation in Mealworms  UnBEElievable Pollination - Examining the Effects of Air Pollutants on Bumble Bee Pollination.  A Study On The Effect High Carbon Dioxide levels Have on Raphanus sativus L. and its Environment |

In addition to the honors listed below, **Amanda Avila, Trinady Gonzales, Matyson Jones, Amber Michel, Molly Nehring, Sara Nehring, Amada Quintana, Alyssa Rawinski, Camille Rawinski** and **Andres Villa** will represent MVHS at the <u>64<sup>th</sup> Colorado Science and Engineering Fair (CSEF)</u> on April 10–13, 2019 at Fort Collins, Colorado!!

And finally, **Amber Michel**, **Alyssa Rawinski**, **Molly Nehring (Alternate)**, and **Andres Villa (Student Observer)** have qualified for the <u>International Science and Engineering Fair (ISEF)</u> to be held in Phoenix, Arizona, May 12–17, 2019!!! This is a phenomenal achievement, and is testament to the hard work and dedication of our students, and the amazing support network that surrounds them!!

# CONGRATULATIONS TO YOU ALL!!!!!! Please wish these students the BEST OF LUCK at these Fairs!





## **Project Category Awards**

| Behavioral Sciences     | Amada Quintana                     | 1 <sup>st</sup> Place (CSEF Qualifier)               |
|-------------------------|------------------------------------|------------------------------------------------------|
| Biomedical Sciences     | Amanda Avila &<br>Trinady Gonzales | 1 <sup>st</sup> Place (CSEF Qualifier)               |
| Biomedical Sciences     | Blaine Gillespie                   | 3 <sup>rd</sup> Place                                |
| Biomedical Sciences     | Shunna Sauls                       | Honorable Mention                                    |
| Botany                  | Caleb Riggenbach                   | Honorable Mention                                    |
| Chemistry               | Alyssa Rawinski                    | 1 <sup>st</sup> Place (CSEF & ISEF Qualifier)        |
| Chemistry               | Jameson Oberrick                   | Honorable Mention                                    |
| Earth & Space Science   | Amber Michel                       | 1 <sup>st</sup> <b>Place</b> (CSEF & ISEF Qualifier) |
| Earth & Space Science   | Matyson Jones                      | 2 <sup>nd</sup> Place (CSEF Qualifier)               |
| Engineering             | Ethan Hotz                         | Honorable Mention                                    |
| Environmental Sciences  | Andres Villa                       | 1 <sup>st</sup> Place (CSEF & ISEF<br>Observer)      |
| Math & Computer Science | Sara Nehring                       | 1st Place (CSEF Qualifier)                           |
| Physics                 | Molly Nehring                      | 1 <sup>st</sup> Place (CSEF & ISEF<br>Alternate)     |
| Zoology                 | Camille Rawinski                   | 1st Place (CSEF Qualifier)                           |

## **Academic and Presentation Awards**

| Best Display Award      | Camille Rawinski | 1 <sup>st</sup> Place |
|-------------------------|------------------|-----------------------|
| Best Display Award      | Matyson Jones    | Honorable Mention     |
| Best Paper Award        | Alyssa Rawinski  | 1 <sup>st</sup> Place |
| Best Paper Award        | Camille Rawinski | Honorable Mention     |
| Oral Presentation Award | Molly Nehring    | 1 <sup>st</sup> Place |
| Oral Presentation Award | Sara Nehring     | Honorable Mention     |
| Overall "Best of Fair"  | Amber Michel     | 1 <sup>st</sup> Place |
|                         |                  |                       |

## **Scholarships**

Adams State University Scholarship

Amanda Avila &
Trinady Gonzales

\$500 each

Adams State University Scholarship Amber Michel \$1000

Holm Family Scholarship - CSU Alyssa Rawinski \$500

Conejos County Clean Water Scholarship Amber Michel \$1000

Conejos County Clean Water Scholarship Andres Villa Honorable Mention

#### **Special Awards**

Office of Naval Research Award Camille Rawinski

US Air Force Award Molly Nehring

Center Soil & Water Conservation Amber Michel

District Award

Conejos County Soil & Water
Conservation District Award

Andres Villa

Rio Grande County Watershed

Conservation & Education Initiative Award

Amber Michel

Soil & Water Conservation Society of America Amber Michel

Colorado Rio Grande Restoration Award Matyson Jones

SLV Ecosystem Council Award Alyssa Rawinski

Colorado Field Institute Environmental

Stewardship Award Matyson Jones

Wildlife & Natural Resources
Conservation Award

Camille Rawinski

SLV GIS/GPS Authority Award Amber Michel

Coldwater Resources Award Amber Michel Andres Villa

High School Lifestyle Improvement
Award
Amada Quintana

Nutrition Award Shunna Sauls

San Luis Valley Regional Medical
Center Award

Ethan Hotz

Wolly Nehring

High School Computer Award Sara Nehring

Dr. Frank A & Pauline Moore

Memorial Award

Alyssa Rawinski

Jason Romero Memorial Award Shunna Sauls Consumer Award Blaine Gillespie SLV STEAM Shop Makerspace Award Ethan Hotz GeoLogical Solutions Award **Amber Michel** American Meteorological Society Award Matyson Jones American Psychological Association Amada Quintana Award Sara Nehring Mu Alpha Theta Award Intel Excellence in Computer Science Sara Nehring Award Matyson Jones Stockholm Junior Water Prize **Amber Michel** NASA Earth Systems Science Award Molly Nehring Andres Villa US Metric System Award Taking the Pulse of the Matyson Jones Planet Award (NOAA)

Yale Science & Engineering Association

Award

MVHS now has had 158 students earn the honor of competing at CSEF!!!

MVHS now has had 58 students earn the honor of attending/competing at ISEF!!!

MVHS has now earned the Large High School Award for Thirty-Eight Consecutive Years!

Alyssa Rawinski

