



Awards Ceremony

A special thanks to all of our sponsors who made this event possible .



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Congratulations to each of today's participants!

Over 500 students at both at middle school and high school competed in seventeen science and engineering categories.

Students were interviewed, and research projects were evaluated and scored by approximately 125 judges.



Animal Sciences

- 1. Weslaco ISD: Weslaco East HS - Anthony Tafolla, Demi Cantu** *"Mosquito Larvae Square Dancing 2"* Sponsor: *Arnulfo Cruz*
- 2. Brownsville ISD: Pace HS - Jorge Lira, Karla Villarreal** *"Turn That Radio Off!"* Sponsor: *Dora Lopez*
- 3. Brownsville ISD: Hanna HS - Alexis Longoria, Susie Ramirez** *"Heart Racer"* Sponsor: *Nelda Rogers*
- 4. Brownsville ISD: Veterans Memorial HS - Marielita Castillo, Alvaro Aguayo** *"Ant Police"* Sponsor: *Sandra Sanchez*
- 5. Brownsville ISD: Veterans Memorial HS - Andrea Avila, Walkiria Galan** *"Vitamins and Peppers"* Sponsor: *Sandra Sanchez*



Behavioral and Social Sciences

1. **Brownsville ISD: Pace HS - Kevin Martinez, Sherry Hurtado** *"Are Girls Better Than Boys?"* Sponsor: *Dora Lopez*
2. **Brownsville ISD: Hanna HS - Hector Menchaca** *"Tempo and Beat leads to Accidents"* Sponsor: *Nelda Rogers*
3. **Brownsville ISD: Hanna HS - Nicholas Hill, Micaela Cendana, Blanca Garza** *"Sixth Sense"* Sponsor: *Nelda Rogers*
4. **Weslaco ISD: Weslaco East HS - Victoria Garcia, Julia Perez** *"Heavy Metal Worms"* Sponsor: *Arnulfo Cruz*
5. **La Joya ISD: Juarez-Lincoln HS - Jorge Rodriguez** *"Photographic Memory: Males vs Females"* Sponsor: *Ruth Colyer*



Biochemistry

- 1. South Texas ISD: Science Academy - Mashad Arora**
"Copper Chelating Compounds As a Possible Atherosclerosis Treatment" Sponsor: Saraswathy Nair
- 2. Brownsville ISD: Veterans Memorial HS - Alfonso A. Gonzalez, Jaime Garza** *"Bitter and Better Effects of Extract on Glucose Intake"* Sponsor: Sandra Sanchez
- 3. Weslaco ISD: Weslaco East HS - Alan Flores** *"A New Inhibitor of Xanthine Oxidase for the Treatment of Gout- A Second Year Study"* Sponsor: Arnulfo Cruz
- 4. Brownsville ISD: Pace HS - Arely Hernandez, Stephanie Hernandez** *"Not Your Ordinary Kind of Weed"* Sponsor: Dora Lopez
- 5. Weslaco ISD: Weslaco East HS - Jessica Del Toro, Kassandra Reyes** *"Action Potentials determining the effectiveness of Herbal Supplements"* Sponsor: Rodger Nelson



Cellular and Molecular Biology

1. **Weslaco ISD: Weslaco East HS - Emmanuel Fiscal, Derick Maldonado** *"The Denaturation of Lumbricus terrestris Myelin by Urea and Guanidine Thiocyanate"* Sponsor: Rodger Nelson
2. **Weslaco ISD: Weslaco East HS - Austin Cantu** *"Neurological Regeneration of Planaria"* Sponsor: Rodger Nelson
3. **Weslaco ISD: Weslaco East HS - Felicia Juarez** *"Transfer of DiI via the membrane of a Lumbricus terrestris nerve cord"* Sponsor: Rodger Nelson
4. **Weslaco ISD: Weslaco East HS - derrick torres, karina garza** *"want speed ?"* Sponsor: Rodger Nelson
5. **<Student5>** *"<Project5>"* Sponsor: <SPONSOR5>



Chemistry

- 1. Brownsville ISD: Hanna HS - Tania Matamoros, Angelica Alston, Pedro Ramos** *"The H-Bomb2" Sponsor: Nelda Rogers*
- 2. Brownsville ISD: Early College HS - Itxel Martinez** *"Chlorination in Brownsville Water" Sponsor: Julio Sada*
- 3. Brownsville ISD: Hanna HS - Miguel Chapa** *"Electrochemical Cell" Sponsor: Nelda Rogers*
- 4. Weslaco ISD: Weslaco HS - Ixchel Betancourt** *"What's That's Smell" Sponsor: Connie Sinoy*
- 5. Brownsville ISD: Veterans Memorial HS - Alondra Infante, Rita Roman** *"Mysterious Inflation" Sponsor: Sandra Sanchez*



Computer Science

- 1. Weslaco ISD: Weslaco East HS - Amanda Zungia, Mario Vilanova** *"Cost Effeicent Deep Well Pump"* Sponsor: Thomas Padilla
- 2. Brownsville ISD: Porter HS - Luis Sanchez, Maria Olvera** *"How Secure is WEP network"* Sponsor: Julio Martinez
- 3. Brownsville ISD: Pace HS - Estival Rivera** *"Vampire Energy Killer"* Sponsor: Dora Lopez
- 4. Brownsville ISD: Porter HS - Julie Balogh, Yessenia Herrera, Sergio Limas** *"Nothing But Net"* Sponsor: ANDY MILLER
- 5. IDEA Public Schools: IDEA - San Benito - John Garcia, Rudy Garza** *"Data Speed"* Sponsor: Adrian Correa



Earth Science

- 1. Donna ISD: Donna HS - Emrin Mendez** *"Explaining the Earth's Polarity using the Effects of Temperature on Magnetic Strength"* Sponsor: Laura Decanini
- 2. Brownsville ISD: Hanna HS - Rene Davila, Joel Rodriguez** *"Making The Difference"* Sponsor: Nelda Rogers
- 3. Brownsville ISD: Porter HS - Matthew Cohen** *"Sun and Earth"* Sponsor: ANDY MILLER
- 4. Weslaco ISD: Weslaco East HS - Adan Dominguez** *"Effects of Light on Plant Growth"* Sponsor: Rodger Nelson
- 5. Weslaco ISD: Weslaco East HS - Gabriela Guzman** *"Growing Sprouts"* Sponsor: Arnulfo Cruz



Energy and Transportation

- 1. Brownsville ISD: Pace HS - Jesus Pena, Edgar Valdez, Carlos Prieto** *"Gone With The Wind."* Sponsor: Dora Lopez
- 2. Weslaco ISD: Weslaco East HS - Victoria Lopez** *"Alkali Metal energy efficiency through Fuel Cells"* Sponsor: Thomas Padilla
- 3. Weslaco ISD: Weslaco East HS - Nicholas Medina** *"The Tesla Dream"* Sponsor: Thomas Padilla
- 4. Brownsville ISD: Porter HS - Dan Luiton, Angel Rodriguez, Jessica L. Martinez** *"Air Resistance"* Sponsor: ANDY MILLER
- 5. Brownsville ISD: Porter HS - Melissa Hernandez, Estephany Villalon** *"The Shinier the Better"* Sponsor: Julio Martinez



Engineering: Electrical/Mechanical

- 1. Brownsville ISD: Pace HS - Daniela Quiroz, Ernest Slatinsky, Estrella Torres** *"Let's Catch Some Rays!"*
Sponsor: Dora Lopez
- 2. Weslaco ISD: Weslaco East HS - George Guajardo, Lucas Cardenas, Issac Rodriguez** *"Drum Tech"* *Sponsor: Thomas Padilla*
- 3. Brownsville ISD: Veterans Memorial HS - Chad Fluth**
"Music Over A Laser Beam" *Sponsor: Sandra Sanchez*
- 4. IDEA Public Schools: IDEA - Mission - Christopher Din, Marcos Lopez, Miriam Nanez** *"Green Hydro Power Electrical Generator"* *Sponsor: Jennifer Hall*
- 5. Weslaco ISD: Weslaco East HS - Ivan Iglesias, Colton Hicks** *"Roach Roaster Mark II"* *Sponsor: Thomas Padilla*



Engineering: Materials/Bioengineering

1. **Weslaco ISD: Weslaco East HS - Marissa Gorena**
"Monitoring Axonal Growth through Lymnaea Stagnalis in the Presence of an Electrostatic Field" Sponsor: Arnulfo Cruz
2. **Weslaco ISD: Weslaco East HS - Jesus Martinez, Kevin Lopez, Cesar Gonzalez** *"Concrete Jungle" Sponsor: Rodger Nelson*
3. **Brownsville ISD: Veterans Memorial HS - Abigail Alford, Cynthia Garcia** *"Hold Up" Sponsor: Sandra Sanchez*
4. **Brownsville ISD: Porter HS - Romeo Flores** *"Quality Control in Magnets" Sponsor: ANDY MILLER*
5. **Weslaco ISD: Weslaco East HS - Emilio Hinojosa** *"The Future of Body Armor" Sponsor: Ana Ybarra*



Environmental Management

- 1. Weslaco ISD: Weslaco East HS - Aaron Duran, Fabian Buenrostro** *"Novel App of $\text{Ca}(\text{NO}_3)_2$ and Potassium Silicate to Combat the Asian Citrus Psyllid"* Sponsor: Connie Sinoy
- 2. Weslaco ISD: Weslaco East HS - Jose Trevino** *"Control agents of Honeybee pest"* Sponsor: Thomas Padilla
- 3. Brownsville ISD: Pace HS - Jake Lipscomb, Caroline Crixell** *"May The Effluence Be With You"* Sponsor: Dora Lopez
- 4. Weslaco ISD: Weslaco East HS - Melissa Faz** *"Polycyclic Aromatic Hydrocarbons"* Sponsor: Arnulfo Cruz
- 5. Brownsville ISD: Veterans Memorial HS - Esteban Paredes** *"Wet vs. Dry Compost"* Sponsor: Lorena Lozano



Environmental Sciences/Analysis

- 1. Brownsville ISD: Pace HS - Alejandra Carrizalez, Mabel De Leon** *"Do You Sea Ghost?"* Sponsor: Dora Lopez
- 2. Brownsville ISD: Pace HS - Daniel Ramirez, Cynthia Porter** *"Flirting With Disaster: The study of ocean's properties' affects on sea urchins"* Sponsor: Dora Lopez
- 3. Brownsville ISD: Hanna HS - Heather Glover, Seth Johnson** *"Tidy Away Oil Today"* Sponsor: Nelda Rogers
- 4. IDEA Public Schools: IDEA - San Benito - Kayla Gutierrez, Sarena Garcia** *"Death In A Can "* Sponsor: Adrian Correa
- 5. Donna ISD: Donna HS - Leslie Banda** *"Absorptive Properties of Musa acuminata leaf sheaths"* Sponsor: Laura Decanini



Mathematical Sciences

1. **Brownsville ISD: Porter HS - Jacqueline Sanchez** *"Fractal by the Limit"* Sponsor: *ANDY MILLER*
2. **Brownsville ISD: Pace HS - Swetha Narasimhan** *"Mathematical Magic: The Birthday Paradox"* Sponsor: *Dora Lopez*
3. **Weslaco ISD: Weslaco East HS - Raul Venegas** *"Accuracy of Calculators"* Sponsor: *Ana Ybarra*
4. **Brownsville ISD: Veterans Memorial HS - Claudia C. Teran, Jessica M. Alcala** *"Show Me The Money"* Sponsor: *Sandra Sanchez*
5. **<Student5>** *"<Project5>"* Sponsor: *<SPONSOR5>*



Medicine and Health Sciences

- 1. Weslaco ISD: Weslaco East HS - Rolando Arjona** *"Effects of Undifferentiated Cells on Axonal Growth of Lymnaea Stagnalis"* Sponsor: Rodger Nelson
- 2. Donna ISD: Donna HS - Cristobal Rodriguez** *"Acanthosis nigracans Pigmentation as an Indicator of High Blood Sugar Levels"* Sponsor: Laura Decanini
- 3. Brownsville ISD: Veterans Memorial HS - Luis Mireles, Lee Sanchez, Joseph Carrasco** *"P90X2"* Sponsor: Sandra Sanchez
- 4. La Joya ISD: Juarez-Lincoln HS - Marija Djurkovic** *"Blood Donation: Males and Females vs Nausea"* Sponsor: Ruth Colyer
- 5. Brownsville ISD: Veterans Memorial HS - Veronica Guevara, Rogelio Mata** *"Do different types of music affect your body physiologically?"* Sponsor: Sandra Sanchez



Microbiology

- 1. Donna ISD: Donna HS - Ashley Brundige** *"Testing the Efficiency of Aloe Vera and Sangre de Drago as an antibacterial usding E. coli"* Sponsor: Laura Decanini
- 2. Brownsville ISD: Hanna HS - Kyle Valdez, Daniel Duazo** *"A/C Making Me Crazy"* Sponsor: Nelda Rogers
- 3. Brownsville ISD: Hanna HS - Andrea Virgen, Leonardo Rodriguez , Abigail Chavez** *"Don't Get Caught Dirty Handed"* Sponsor: Nelda Rogers
- 4. Weslaco ISD: Weslaco HS - Airik Sanchez** *"Home of the Tardigrade"* Sponsor: Erica Sanchez
- 5. IDEA Public Schools: IDEA - San Benito - Paulina Gomez, Jaileene Garza** *"So you're telling me... There's bacteria in my drink?"* Sponsor: Adrian Correa



Physics and Astronomy

- 1. Weslaco ISD: Weslaco HS - Sam Maldonado, Reid Vaughn**
"Does It Resonate with you" Sponsor: craig weart
- 2. IDEA Public Schools: IDEA - Quest - Juan Huerta, Gonzalo Ortega, Oscar Frausto**
"Different Forms of Energy on Space and Time" Sponsor: karina pena
- 3. Brownsville ISD: Porter HS - Silvia Chapa, Brittney Valerio**
"RFI in Pulsar Data" Sponsor: ANDY MILLER
- 4. Brownsville ISD: Veterans Memorial HS - Kimberly Harbourne, Carmen Cabrales**
"Bach to a Classic" Sponsor: Sandra Sanchez
- 5. Brownsville ISD: Porter HS - Oscar Osornio**
"Lenz's Law In Action!" Sponsor: ANDY MILLER



Plant Sciences

- 1. Weslaco ISD: Weslaco HS - Elizabeth Sigala** *"Physiological Parameters of Drought, Sodium Chloride & Calcium Nitrate Treated Citrus Trees"* Sponsor: Juan Melgar
- 2. Weslaco ISD: Weslaco East HS - Jessica Hernandez, Exzita Munoz** *"CAM vs. PN"* Sponsor: Arnulfo Cruz
- 3. Brownsville ISD: Porter HS - Lilly Joy Mares, Cassandra Garcia** *"Creepy Eaters"* Sponsor: Julio Martinez
- 4. Brownsville ISD: Porter HS - Luis Garza, Claudia De la Fuente** *"How Sound Affects Plant Growth"* Sponsor: Julio Martinez
- 5. Weslaco ISD: Weslaco East HS - Claudia Buenrostro** *"Homemade vs. Commercial Fertilizer"* Sponsor: Daniel Hinojosa





Special Awards

2nd Runner Up

Weslaco ISD: Weslaco East HS - Marissa Gorena

*"Monitoring Axonal Growth through
Lymnaea Stagnalis in the
Presence of an Electrostatic Field"*
Sponsor: Arnulfo Cruz



1st Runner Up

**Weslaco ISD: Weslaco East HS -
Amanda Zungia, Mario
Vilanova**

*"Cost Efficient Deep Well Pump"
Sponsor: Thomas Padilla*



Grand Champion

**Science Academy--Mashad
Arora**

*"Copper Chelating Compounds As a
Possible Atherosclerosis
Treatment"*

Sponsor: Saraswathy Nair

