



**RIVERSIDE COUNTY  
OFFICE OF EDUCATION**  
EDWIN GOMEZ, Ed.D. | County Superintendent of Schools

# 2026 RIVERSIDE COUNTY SCIENCE AND ENGINEERING FAIR



## *Awards Ceremony*

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**February 28, 2026  
12:00 p.m.**

ISEF Affiliate



**SOCIETY FOR  
SCIENCE & THE PUBLIC**  
Inform. Educate. Inspire.

# 2026 Riverside County Science and Engineering Fair

## *Awards Ceremony*

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### **Welcome**

Dominique Samario, Chief Strategic Partnerships and Communications Officer  
Office of the Riverside County Superintendent of Schools

### **Remarks**

Stephan McPeace, Assistant Superintendent  
Division of Leadership, Wellness, and Student Services

### **Awards Presentation**

Edwin Gomez, Ed.D.  
Riverside County Superintendent of Schools

### **ISEF Regional Awards**

American Psychological Association  
Association for Women Geoscientists  
Citadel Securities Innovation Prize  
Lemelson Early Inventor Prize  
NASA Earth System Science Award  
Naval Science Awards Program  
National Oceanic and Atmospheric Administration  
Regeneron Biomedical Science Award  
Ricoh USA, Inc.  
Society for In Vitro Biology  
Society for Science  
U.S. Metric Association  
United States Air Force  
Water Environment Federation/Stockholm Junior Water Prize  
Yale Science and Engineering Association

# 2026 Community Awards

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## **Inland Empire Professional Engineers in California (PECG) Awards**

PECG represents over 13,000 engineers, architects, land surveyors and many other professional classes across a large number of state agencies. These state agencies include Caltrans, Water Resources, Regional Water Boards, Air Resources, Public Utilities Commission, Department of Toxic Substances Control, the State Architect, etc. These state-employed engineers and related professionals are responsible for designing and inspecting California's highways and bridges. Moreover, these state engineers and professionals are committed to ensuring that schools and hospitals are safe during earthquakes, while protecting our air, water, and beaches from polluters.

To encourage students to pursue a higher education, PECG will present three awards to students including one \$250.00 award in the Elementary Division (grades 4-5), one \$750.00 award in the Junior Division (grades 6-8), and one \$1,000.00 award in the Senior Division (grades 9-12).

## **Inland Regional Energy Network (I-REN) Innovation in Energy Award**

I-REN is a partnership based on their shared belief in saving energy and increasing equity for residents, businesses, and local governments throughout San Bernardino and Riverside Counties. I-REN will present one \$1,000.00 award to a Senior Division (grades 9-12) project, one \$500.00 award to a Junior Division (grades 6-8) project, and one \$100.00 award to an Elementary Division (grades 4-5) project.

## **Science and Technology Education Partnership (STEP) Science Fair Awards**

STEP Inspires students to pursue Science, Technology, Engineering, Mathematics (STEM) careers and education. An annual STEP conference has been provided for students since 2000. The inaugural attendance of 900 conference participants has significantly grown over the years to most recently 14,000 conference attendees. STEP will present one \$400.00 award to a Senior Division (grades 9-12) project, one \$150.00 award to a Junior Division (grades 6-8) project, and one \$100.00 award to an Elementary Division (grades 4-5) project.

# ACKNOWLEDGEMENTS

## Riverside County Superintendent of Schools

Edwin Gomez, Ed.D.

## Riverside County Board of Education

Kim Joseph Cousins, President

Ben Johnson II, Vice President

Jamie Azpeitia-Sachs, Member

Bruce N. Dennis, Member

Ray "Coach" Curtis, Member

Elizabeth F. Romero, Member

Jennifer Mejares Pham, Member

## Riverside County Office of Education

Dominique Samario, Chief Strategic Partnerships and Communications Officer

Neftali Galarza, Director

Yadira Chavelas, Administrator

Alyssa Juarez, Events Technician

Madelynn Knust, Events Technician

A special thank you to the following who have donated countless hours and been valuable sources of support for the Riverside County Science and Engineering Fair.

## Science Review Committee Members:

Kelley Ambriz

Kianny Dominguez-Ponce

Cheryl Frye

Dr. Subhas Gupta

Erica Heinrich

Dr. Manjunath Keremane

Sara Lapan

Dr. Lorelee Larios

Dr. Richard Lee

Karon Myles

James Palcik

Nick Perez

Manoj Shah

Henri Shimojyo

Yamileth Shimojyo

Harry Tom

Sarah Yeakel

## Volunteer Judges

Welcome to the Riverside County Science and Engineering Fair, an annual competition of science and engineering projects designed, developed, and displayed by elementary and secondary students from public, private, charter, and parochial schools in Riverside County.

Participants share their creative abilities, knowledge, and interests with other students and adult judges who critique the projects for qualities including scientific thought, design and methodology, clarity of presentation, creativity, data collection, analysis, interpretation, construction, and testing.

## PARTICIPATING AFFILIATE FAIRS

Alvord USD  
Banning USD  
Beaumont USD  
Chámmakilawish Pechanga School  
Coachella Valley USD  
Corona-Norco USD  
Desert Center USD  
Desert Sands USD  
Hemet USD  
Jurupa USD  
Lake Elsinore USD  
Linfield Christian School  
Mission Vista Academy  
Moreno Valley USD  
Palm Springs USD

Palo Verde USD  
Perris Elementary SD  
REACH Leadership STEAM Academy  
River Springs Charter Schools  
Riverside USD  
Romoland SD  
Sacred Heart School  
San Jacinto USD  
St. Catherine of Alexandria School  
St. Edward Catholic School  
Sycamore Academy Charter School  
Temecula Valley Unified School District  
The Learning Center  
Val Verde USD  
Xavier College Preparatory High School

## PROJECT CATEGORIES

- |  |  |
|--|--|
| 01 - ANIMAL SCIENCES                             | 12 - ENGINEERING TECHNOLOGY:<br>STATICS AND DYNAMICS |
| 02 - BEHAVIORAL & SOCIAL SCIENCES                | 13 - ENVIRONMENTAL ENGINEERING                       |
| 03 - BIOCHEMISTRY                                | 14 - MATERIALS SCIENCE                               |
| 04 - BIOMEDICAL AND HEALTH SCIENCES              | 15 - MATHEMATICS                                     |
| 05 - BIOMEDICAL ENGINEERING                      | 16 - MICROBIOLOGY                                    |
| 06 - CELLULAR AND MOLECULAR<br>BIOLOGY           | 17 - PHYSICS AND ASTRONOMY                           |
| 07 - CHEMISTRY                                   | 18 - PLANT SCIENCES                                  |
| 08 - COMPUTATIONAL BIOLOGY AND<br>BIOINFORMATICS | 19 - ROBOTICS AND INTELLIGENT<br>MACHINES            |
| 09 - EARTH AND ENVIRONMENTAL<br>SCIENCES         | 20 - SYSTEMS SOFTWARE                                |
| 10 - EMBEDDED SYSTEMS                            | 21 - TECHNOLOGY ENHANCES THE ARTS                    |
| 11 - ENERGY: SUSTAINABLE MATERIALS<br>AND DESIGN | 22 - TRANSLATIONAL MEDICAL SCIENCE                   |

# GRADE 4 PROJECTS

*In N Out Vs McDonald's* ..... 4-BCHM-168

**Natalia Cardenas**

Dr. Carreon Academy, Desert Sands Unified School District

*Gummy Bear Osmosis* ..... 4-CELL-238

**Josiah Salas**

Avalon Elementary School, Val Verde Unified School District

*What Liquid Makes The Biggest Orbeez?* ..... 4-CHEM-021

**Ahnytha Taylor**

Chammakilawish Pechanga School

*A Battery That Makes Cents* ..... 4-CHEM-025

**Luke Estel**

Tournament Hills Elementary School, Beaumont Unified School District

*Browning Apples* ..... 4-CHEM-029

**Tiegan Trujillo**

Chammakilawish Pechanga School

*What Type Of Fat Makes The Biggest Chocolate Chip Cookies?* ..... 4-CHEM-079

**Emma Vazquez**

North Ridge Elementary School, Moreno Valley Unified School District

*Which Solution Cleans The Penny Best?* ..... 4-CHEM-122

**Lena Krisell**

Ruth Brown Elementary School, Palo Verde Unified School District

*How Do You Make Sugar Crystals And What Will Make A Crystal Grow Bigger?* ..... 4-CHEM-255

**Mia Diep**

Franklin Elementary School, Riverside Unified School District

*Crystallization* ..... 4-CHEM-299

**Catalina Garcia**

Cathedral City Elementary School, Palm Springs Unified School District

# GRADE 4 PROJECTS

*Watch It Explode!* ..... 4-EAEV-171

**Makayla Rascon**

Dr. Carreon Academy, Desert Sands Unified School District

*Which Liquids Make Plants Grow Faster?* ..... 4-EAEV-395

**Leilah Martinez**

Myra Linn Elementary School, Alvord Unified School District

*Carnival Swing Ride.* ..... 4-ETSD-060

**Romina Sanchez**

Cloverdale Elementary School, Moreno Valley Unified School District

*You're Going To Need A Different Boat: How Sail And Boat Shape Affect Boat Speed* ..... 4-ETSD-189

**Annika Benor**

Barton Elementary School, Corona-Norco Unified School District

*Mail And Firefighters Need A Way To Deliver Materials Quicker. Can A Drone Be Used To Deliver Packages Or Fight Fires?* ..... 4-ETSD-359

**Joel Millan Salgado**

Mead Valley Elementary School, Val Verde Unified School District

*Water Power.* ..... 4-ETSD-374

**Benjamin Corona**

Hemet Dual Language Academy, Hemet Unified School District

*From Kombucha To Bio-Leather. Comparing The Strength Of A Whole Vs. Blended Scoby.* ..... 4-ENEV-113

**Sophia Strayhorne**

Mission Vista Academy

*Tiny Plastics, Big Problem!* ..... 4-ENEV-128

**Eliana Carrillo**

Harry Truman Elementary School, Desert Sands Unified School District

*Does Acidic Water Affect Marine Seashells.* ..... 4-ENEV-184

**Haider Jakvani**

Lincoln Fundamental Elementary School, Corona-Norco Unified School District

# GRADE 4 PROJECTS

*Angle Launcher* .....4-ENEV-296

**Elias Amezcua**

Cathedral City Elementary School, Palm Springs Unified School District

*Blocking Sound* .....4-MATS-402

**Greyson Alonzo**

Harvest Valley Elementary School, Romoland School District

*Cars On Different Surfaces* .....4-PHYS-020

**Aislinn Sanchez**

Eagle Mountain School, Desert Center Unified School District

*Soccer's Sweet Spot: The Optimum Ball Pressure* .....4-PHYS-031

**Jackson Gerhard**

Summerwind Trails School, Beaumont Unified School District

*Investigating The Effects Of Soccer Ball Pressure On Distance And Speed* .....4-PHYS-032

**Mateo Luna**

Anna M. Hause Elementary School, Beaumont Unified School District

*Does Altitude Affect Gravity?* .....4-PHYS-054

**Lucas Galvez**

River Springs Charter School

*Build A Floating Maglev Train* .....4-PHYS-082

**Autumn Friesen**

Palm Innovation Academy, Beaumont Unified School District

*Rain The Robot* .....4-PHYS-084

**Cilla Tsosie**

Palm Innovation Academy, Beaumont Unified School District

*Hydroelectric Turbine* .....4-PHYS-249

**Kylie Villalobos**

Perris Elementary School, Perris Elementary School District

# GRADE 4 PROJECTS

*Bright Stars, Far Away* ..... 4-PHYS-318

**Junaina Ikram**

The Learning Center

*You're Going Outside? Don't Forget Your Sunscreen!* ..... 4-PHYS-400

**Isabel Flores**

Harvest Valley Elementary School, Romoland School District

*That's The Way The Soil Drains* ..... 4-PLNT-028

**Ryan Muehlen**

Anna M. Hause Elementary School, Beaumont Unified School District

*Inside Or Outside? Testing Plant Growth* ..... 4-PLNT-156

**Allie D'Aloisio**

Lake Hills Elementary School, Alvord Unified School District

*Are Plant Lights A Scam?* ..... 4-PLNT-247

**Adeline Driscoll**

Triple Crown Elementary School, Val Verde Unified School District

*Powerful Petunias* ..... 4-PLNT-251

**Ella Genereux**

James Carter Elementary School, Desert Sands Unified School District

*Chasing Sunlight* ..... 4-PLNT-323

**Andrick Perez**

Valley View Elementary School, Alvord Unified School District

*Strawberry DNA Extraction Coffee Filter Vs Cheesecloth* ..... 4-PLNT-406

**Isabella Bandercon**

REACH Leadership STEAM Academy

# GRADE 5 PROJECTS

*Vitamins Effect On Plant Growth* ..... 5-BCHM-063  
**Azalea Fiore**  
Sacred Heart School

*Go Bananas* ..... 5-BCHM-149  
**Peyton Moore**  
Central Elementary School, Banning Unified School District

*Flower Power: Investigating Fabric Absorption And Color Variation In Natural Dyes* ..... 5-BCHM-172  
**Sasha Arriaga-Rauk**  
James Carter Elementary School, Desert Sands Unified School District

*Seeing Clearly: Which Solution Removes The Most Residue?* ..... 5-BCHM-250  
**Kelley Emmons**  
James Carter Elementary School, Desert Sands Unified School District

*Can Your Drink Stain Your Teeth?* ..... 5-BMED-144  
**Genevieve Dunn**  
Sky Country Elementary School, Jurupa Unified School District

*Yeast Fermentation* ..... 5-CELL-106  
**Matthew Gerardo**  
Ronald Reagan Elementary School, Desert Sands Unified School District

*Strawberry DNA* ..... 5-CELL-335  
**Savannah Rocha**  
Three Rings Ranch Elementary School, Beaumont Unified School District

*Icy Times* ..... 5-CHEM-022  
**Ajay Pico-Tinsley**  
Chammakilawish Pechanga School

*Salt And Ice* ..... 5-CHEM-023  
**Dyland Sanchez**  
Eagle Mountain School, Desert Center Unified School District

# GRADE 5 PROJECTS

*Absorb It.* ..... 5-CHEM-030

**Annabelle Rodriguez**

Anna M. Hause Elementary School, Beaumont Unified School District

*Which Water Temperature Makes The Fastest Skittles Rainbow?* ..... 5-CHEM-051

**Jesse Jimenez**

Three Rings Ranch Elementary School, Beaumont Unified School District

*Starter Wars: The Flower Awakens* ..... 5-CHEM-107

**William Sotamayor**

Ronald Reagan Elementary School, Desert Sands Unified School District

*The Golden Syrup.* ..... 5-CHEM-108

**Kailah Coleman**

Ronald Reagan Elementary School, Desert Sands Unified School District

*Hot, Warm, Cold, The Crystal Showdown.* ..... 5-CHEM-117

**Sephira Turner/Naiya Montoya**

Bella Vista Elementary School, Palm Springs Unified School District

*"Who You Gonna Call... Stainbusters!"* ..... 5-CHEM-119

**Jacqueline Garcia**

Anna M. Hause Elementary School, Beaumont Unified School District

*The Case Of The Plastic Milk* ..... 5-CHEM-121

**Melody Tavoli**

Harvest Valley Elementary School, Romoland School District

*Bust That Rust* ..... 5-CHEM-143

**Leonardo Villanueva**

Ina Arbuckle Elementary School, Jurupa Unified School District

*Bouncy Egg.* ..... 5-CHEM-151

**Ava Weil**

Central Elementary School, Banning Unified School District

# GRADE 5 PROJECTS

*Which Soda Brand Inflates A Balloon The Fastest* ..... 5-CHEM-297

**Kataleya Avalos**

Cathedral City Elementary School, Palm Springs Unified School District

*Creepier Explosion* ..... 5-CHEM-353

**Scarlett Stillman**

Sycamore Academy Charter School

*Is The Water In Mead Valley Safe To Drink, Does The Temperature  
And Location Affect The pH And Amount Of Calcium And Magnesium?* ..... 5-CHEM-357

**Julio Armenta Ibarra**

Mead Valley Elementary School, Val Verde Unified School District

*Do Water Fountains In The Sun Have A Different pH Than Water In Classrooms?  
(How Does Temperature Affect pH?)* ..... 5-CHEM-358

**Josue Villagran Rodriguez**

Mead Valley Elementary School, Val Verde Unified School District

*"Worms Activate"* ..... 5-EAEV-125

**Zen Truonsalang**

Mission Vista Academy

*Seal The Shore* ..... 5-EAEV-252

**Madison Posey**

James Carter Elementary School, Desert Sands Unified School District

*Help! My Home Had An Oil Spill!* ..... 5-EAEV-260

**Olivia Manio/Shanaya Shah**

Lake Mathews Elementary School, Riverside Unified School District

*Desalination Of Ocean Water: The Future Of Fresh Water Supply* ..... 5-EAEV-369

**Chloe Pruitt**

McAuliffe Elementary School, Alvord Unified School District

*How Safe Is Our Drinking Water?* ..... 5-EAEV-375

**Jonathan Corona**

Hemet Dual Language Academy, Hemet Unified School District

# GRADE 5 PROJECTS

*The Best Power Plant Pt. 2* .....5-EGSD-008

**Austin Solorzano**

Megan Cope Elementary School, San Jacinto Unified School District

*Coming Right Up! Cooking With Sunshine!* .....5-EGSD-047

**Noah Portugal**

Sugar Hill Elementary School, Moreno Valley Unified School District

*Magnetic Madness* .....5-EGSD-080

**Logan Stiles**

Bear Valley Elementary School, Moreno Valley Unified School District

*Hot Colors, Fast Charge: The Effect Of Surface Color On A Solar Power Bank* .....5-EGSD-124

**Eric Bonilla**

McAuliffe Elementary School, Alvord Unified School District

*Can Solar Paint Generate As Much Electricity As A Solar Panel?* .....5-EGSD-179

**Rylan Ho/Sohum Jain/Rudra Patel**

Lincoln Fundamental Elementary School, Corona-Norco Unified School District

*The Power Of Lemons* .....5-EGSD-262

**Maxwell Sanderson**

Rivera Elementary School, Riverside Unified School District

*Chill Lunch Test* .....5-EGSD-298

**Ashton Ramirez**

Cathedral City Elementary School, Palm Springs Unified School District

*Seal The Chill: Finding The Best Diy Window Insulator* .....5-EGSD-336

**Savanna Martine Cabaron**

Anna M. Hause Elementary School, Beaumont Unified School District

*Effect Of Color On Heat Absorption* .....5-EGSD-401

**Chidera Emejom**

St. Edward Catholic School

# GRADE 5 PROJECTS

*Rube Goldberg Machine: Pop It!* ..... 5-ETSD-109

**Eliana Valencia**

Ronald Reagan Elementary School, Desert Sands Unified School District

*Storm-Proof Cars: Which Design Can Stand Up To The Wind?* ..... 5-ETSD-116

**Theodore Zaragoza**

Juan Bautista De Anza Elementary School, San Jacinto Unified School District

*Apartment-Friendly Articulating Vegetable Planter* ..... 5-ETSD-145

**Dominic Cabral/Andony Hanania**

Van Buren Elementary School, Jurupa Unified School District

*Rollercoaster Project* ..... 5-ETSD-150

**Leonardo Valdivia**

Hoffer Elementary School, Banning Unified School District

*Human Vs. AI: The Earthquake-Resistant Lego Build Challenge* ..... 5-ETSD-175

**Vivian Shaver**

James Carter Elementary School, Desert Sands Unified School District

*How Do The Dimensions Of A Paper Airplane Affect How Far It Flies?* ..... 5-ETSD-266

**Jackson Fichtner**

Mark Twain Elementary School, Riverside Unified School District

*Design, Test, Improve: An Earthquake-Resistant Building* ..... 5-ETSD-293

**Lucy Dimick**

James Monroe Elementary School, Desert Sands Unified School District

*The Red Speedster* ..... 5-ETSD-328

**Demitrio Almanza/Emmanuel Aroche/Xiomara Mendez**

Palm View Elementary School, Coachella Valley Unified School District

*Launch It!* ..... 5-ETSD-354

**Mary Huettner**

Rancho Mirage Elementary School, Palm Springs Unified School District

# GRADE 5 PROJECTS

*Wind Power* .....5-ENEV-254

**Matthew Kreps/Brin Shi**

James Monroe Elementary School, Desert Sands Unified School District

*Which Filtration Method Makes The Cleanest Water* .....5-ENEV-343

**Courtland Gear Jr**

Juan Bautista De Anza Elementary School, San Jacinto Unified School District

*Dissolving Peeps* .....5-MATS-071

**Amaya Akhtar**

The Learning Center

*Math In Nature: Exploring Fibonacci Numbers* ..... 5-MATH-039

**Abraham Holm**

Seneca Elementary School, Moreno Valley Unified School District

*Battle Of The Soaps: The Ultimate Germ Fighter Showdown* .....5-MCRO-194

**Omar Reyes**

Garretson Elementary School, Corona-Norco Unified School District

*How Temperature Affects Magnets* ..... 5-PHYS-110

**Arianna Durazo**

Ronald Reagan Elementary School, Desert Sands Unified School District

*Design Vs. Structure* ..... 5-PHYS-118

**Lily Trevizo**

La Jolla Elementary School, Moreno Valley Unified School District

*How Far Can You Kick?* ..... 5-PHYS-146

**Luciano Barrientos**

Ina Arbuckle Elementary School, Jurupa Unified School District

*Does Color Affect Temperature* ..... 5-PHYS-147

**Isaac Barrios**

Granite Hill Elementary School, Jurupa Unified School District

# GRADE 5 PROJECTS

*A Tennis Ball Can Fly!* ..... 5-PHYS-170

**Logan Landfried**

Dr. Carreon Academy, Desert Sands Unified School District

*Investigating The Relationship Between Angle Of Tube And Soda Splashing During Dispensing* ..... 5-PHYS-174

**Lance Vindua**

James Carter Elementary School, Desert Sands Unified School District

*Ice Project* ..... 5-PHYS-242

**Gianna Vazquez**

Val Verde Elementary School, Val Verde Unified School District

*Which Water Bottle Brand Keeps Water The Coolest* ..... 5-PHYS-244

**Kaylee Mejia**

Avalon Elementary School, Val Verde Unified School District

*Saturn's Rings* ..... 5-PHYS-248

**Ethan Stearns**

James Carter Elementary School, Desert Sands Unified School District

*Using Globular Clusters To Locate The Center Of The Milky Way Galaxy* ..... 5-PHYS-271

**Claire Ford**

Kennedy Elementary School, Riverside Unified School District

*Magnetic Push* ..... 5-PHYS-294

**Isabel Eudave**

James Monroe Elementary School, Desert Sands Unified School District

*Optical Illusions: The Mystery Of Colors* ..... 5-PHYS-312

**Susie Maszczak**

Mesa View Elementary School, Romoland School District

*Icy Hot Attraction* ..... 5-PHYS-316

**Sofia Zuhlke**

Starlight Elementary School, Beaumont Unified School District

# GRADE 5 PROJECTS

*Magnetic Levitation - Is It Possible To Make A Toy Car Levitate Using Magnets?* ..... 5-PHYS-378

**Sophia Miranda Garay**

Hemet Dual Language Academy, Hemet Unified School District

*Where There Is Energy There Are Sparks* ..... 5-PHYS-387

**Michael Ornellas**

Winchester Elementary School, Hemet Unified School District

*The Egg Drop* ..... 5-PHYS-388

**Ashley Rauda**

Winchester Elementary School, Hemet Unified School District

*Tap, Distilled, Or Rain: What Grows A Venus Flytrap Best?* ..... 5-PLNT-018

**Benjamin Valencia**

Tournament Hills Elementary School, Beaumont Unified School District

*Growing At Light Speed* ..... 5-PLNT-072

**Emily Grisham**

North Ridge Elementary School, Moreno Valley Unified School District

*Growing Plants* ..... 5-PLNT-169

**Ximena Aguayo**

Dr. Carreon Academy, Desert Sands Unified School District

*Plant Food Showdown* ..... 5-PLNT-173

**Charlotte Lamata**

James Carter Elementary School, Desert Sands Unified School District

*Grow With The Flow* ..... 5-PLNT-177

**Roman Hernandez/Hunter Thiel**

James Carter Elementary School, Desert Sands Unified School District

*Can Colored Water Change The Color Of Flowers?* ..... 5-PLNT-245

**Lilliana Ortiz**

Mary McLeod Bethune Elementary School, Val Verde Unified School District

# GRADE 5 PROJECTS

*Pool Or Ocean: The Great Water Challenge For Seed Germination* ..... 5-PLNT-274

**Zoya Ray**

Franklin Elementary School, Riverside Unified School District

*Towel Versus Dirt* ..... 5-PLNT-389

**Hazel Sanchez**

Winchester Elementary School, Hemet Unified School District

*Sweet Water* ..... 5-PLNT-392

**Jaxson Wendelborn**

Winchester Elementary School, Hemet Unified School District

*Deep Dive Engineering: Mission Underwater* ..... 5-ROBO-059

**Noah Pineda**

Sunnymead Elementary School, Moreno Valley Unified School District

*Harnessing The Power Of IoT Devices For A Convenient And Safer Society* ..... 5-SOFT-199

**Victoria Zhou**

Garretson Elementary School, Corona-Norco Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

<i>Bones And Calcium</i> .....	6-ANIM-005
<b>Shaela Jerominski/Madeleine Luna</b> Sacred Heart School	
<i>Land Vs. Water: Which One Is Denser?</i> .....	6-ANIM-055
<b>Gabriel Sosa</b> River Springs Charter School	
<i>The Secret Of The Sea Star</i> .....	6-ANIM-302
<b>Keana Beristain-Felix/Bethany Bishay/Juliana Rivera</b> Cielo Vista Charter School, Palm Springs Unified School District	
<i>The Dirty Pet In The House</i> .....	6-ANIM-317
<b>Matthew Johnson</b> Raymond Cree Middle School, Palm Springs Unified School District	
<i>Population Control 101: Silverleaf Whiteflies</i> .....	6-ANIM-347
<b>Noble Holloway</b> Western Center Academy, Hemet Unified School District	
<i>Doppelganger Disparities</i> .....	6-BEHA-012
<b>Emma Ayon/Stephanie Bello/Michelle Benavidez</b> Palm View Elementary School, Coachella Valley Unified School District	
<i>Color Cognition</i> .....	6-BEHA-033
<b>Liam Gonzalez/Axel Gutierrez/Jonathan Vazquez</b> Palm View Elementary School, Coachella Valley Unified School District	
<i>Stay Fresh, Stop The Growth</i> .....	6-BCHM-138
<b>Mackenzie Johnson/Addison Lockwood</b> Camino Real Elementary School, Jurupa Unified School District	
<i>Which Fruits Have The Most Sugar</i> .....	6-BCHM-234
<b>Karina Rea</b> Sierra Vista Elementary School, Val Verde Unified School District	

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Osmosis And Diffusion In A Naked Egg: Modeling An Animal Cell* ..... 6-BCHM-264

**Swastik Bhaskar**

Pachappa Elementary School, Riverside Unified School District

*Project ClearSight* ..... 6-BMED-356

**Coralie Kim**

REACH Leadership STEAM Academy

*Stepping On Diabetes* ..... 6-BMED-403

**Gabriel Jebo**

St. Edward Catholic School

*Egg-Cellent Smiles: Testing Toothpaste Power* ..... 6-CHEM-076

**Maryam Milbes**

The Learning Center

*Cleansing Power* ..... 6-CHEM-139

**Isabel Hooper**

Stone Avenue Elementary School, Jurupa Unified School District

*The Quality Of H2O* ..... 6-CHEM-321

**Jason Ceja/Julian Valenzuela**

Edward Hyatt World Language Academy, San Jacinto Unified School District

*Purifying Plants* ..... 6-EAEV-013

**Heaven Mandujano/Sophia Martinez/Alondra Ramirez**

Palm View Elementary School, Coachella Valley Unified School District

*The Heat Is On!* ..... 6-EAEV-014

**Cecily Cai/Legna Villegas/Jose Zavala**

Palm View Elementary School, Coachella Valley Unified School District

*Roots Or Water?* ..... 6-EAEV-160

**Kathryn Jimenez**

Clearwater Elementary School, Perris Elementary School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Menacing Microplastics And The Ferrofluid Hero* ..... 6-EAEV-290

**Brianne Ourn**

Lake Mathews Elementary School, Riverside Unified School District

*Saving Homes From Water* ..... 6-EAEV-332

**Rhian Welling**

REACH Leadership STEAM Academy

*Wi-Find The Best Signal* ..... 6-EBED-042

**Elijah Hart**

Butterfield Language Academy, Moreno Valley Unified School District

*Electrochemical Activity Of Bacterial Species In A MFC* ..... 6-EGSD-325

**Luz de Luna Gomez**

REACH Leadership STEAM Academy

*Lemon Power!* ..... 6-EGSD-405

**Zahara De Granada**

REACH Leadership STEAM Academy

*Manificent Magnets* ..... 6-ETSD-034

**Alexander Garcia/Ramses Rodriguez/German Villanueva**

Palm View Elementary School, Coachella Valley Unified School District

*Tall Awesome Rollercoaster* ..... 6-ETSD-305

**Londyn Moser**

Cielo Vista Charter School, Palm Springs Unified School District

*Hydraulic Engineering Year 3* ..... 6-ETSD-314

**Zak Bryant**

La Quinta Middle School, Desert Sands Unified School District

*Hydraulic Powered Robot* ..... 6-ETSD-330

**Gael Cabrera/Jubilee LaPeña**

Palm View Elementary School, Coachella Valley Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

<i>The Catapult</i> .....	6-ETSD-331
<b>Santiago Delgado</b> Palm View Elementary School, Coachella Valley Unified School District	
<i>Robotic Arm Iteration 2</i> .....	6-ETSD-364
<b>Odin Garcia</b> Nellie N. Coffman Middle School, Palm Springs Unified School District	
<i>Coral: An Autonomous Long-Term Underwater Monitoring Device</i> .....	6-ENEV-036
<b>Kiyara Gunawardena</b> River Springs Charter School	
<i>How To Make A Paper From Leaves</i> .....	6-ENEV-056
<b>Yujin Lee</b> Mission Vista Academy	
<i>Natural Spark</i> .....	6-ENEV-064
<b>Jose Vasquez-Paredes</b> Sky View Elementary School, Perris Elementary School District	
<i>How Do Wind Turbines Function?</i> .....	6-ENEV-329
<b>Natali Gonzalez/Jimena Pacheco Garcia</b> Palm View Elementary School, Coachella Valley Unified School District	
<i>The Heat Is On</i> .....	6-MATS-083
<b>Alexandra Ruiz</b> Vista Heights Middle School, Moreno Valley Unified School District	
<i>Ready For Kickoff, Not Sunstroke: How Different Infills Affect Soccer Turf Heat</i> .....	6-MATS-268
<b>William Sanchez</b> Washington Elementary School, Riverside Unified School District	
<i>The Strongest Small</i> .....	6-MATS-349
<b>Justin Lander</b> St. Edward Catholic School	

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Testing Techniques* ..... 6-MATH-010

**Marcos Mejia/Jesus Peña**

Palm View Elementary School, Coachella Valley Unified School District

*Angle Arithmetic* ..... 6-MATH-011

**Marleyjay Rivera/Juztice Sherley/Kayden Vargas**

Palm View Elementary School, Coachella Valley Unified School District

*Human Mouth Vs. Dog Mouth* ..... 6-MCRO-159

**Madisyne Foltz**

Good Hope Elementary School, Perris Elementary School District

*What A Drag!* ..... 6-PHYS-040

**Benjamin Ponce/David Ruiz**

Butterfield Language Academy, Moreno Valley Unified School District

*Loose It Or Loop It:* ..... 6-PHYS-130

**Johnny Guzman**

Margaret White Elementary School, Palo Verde Unified School District

*Parachute Shapes* ..... 6-PHYS-188

**Ashton Black**

Norco Elementary School, Corona-Norco Unified School District

*Strawberry Fields Of DNA* ..... 6-PLNT-161

**Stephanie Zamora**

Palms Elementary School, Perris Elementary School District

*Which Soil Is The Most Efficient For Growing Marigolds?* ..... 6-PLNT-380

**Eren Hernandez**

Western Center Academy, Hemet Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

- The Effects Of Wildfire Smoke On Vegetation* ..... 6-PLNT-381  
**Angelica Hluchan**  
 Western Center Academy, Hemet Unified School District
- Greenhouse Effect* ..... 6-PLNT-407  
**Calixta Herrera/Leah Zamora**  
 Valle Del Sol Elementary School, Coachella Valley Unified School District
- Are Steller’s Blue Jays Stellar Catchers?* ..... 7-ANIM-259  
**Nicholas Hoddle**  
 Gage Middle School, Riverside Unified School District
- Bugs Vs. Styrofoam: Testing The Efficacy Of EPS Eating Larvae  
 To Extend The Life Of Our Landfills* ..... 7-ANIM-303  
**Lotus Avina**  
 Cielo Vista Charter School, Palm Springs Unified School District
- Can Senior Citizens Tell The Difference Between Real And AI* ..... 7-BEHA-230  
**Raul DeAnda**  
 March Middle School, Val Verde Unified School District
- Truth Vs Reality: An In Depth Study Of Schizophrenia* ..... 7-BEHA-269  
**Paloma “Riff” Santos**  
 Gage Middle School, Riverside Unified School District
- Un-Limb-Ited Prosthetic* ..... 7-ENBM-111  
**Naomi McAllister**  
 River Springs Charter School
- Prosthetic Globalization* ..... 7-ENBM-404  
**Mia Barrera**  
 St. Edward Catholic School
- Autogenous Culex Pipiens Sperm & Ova Production Are Affected By  
 The Intake Of Distinct Caloric Sources* ..... 7-CELL-278  
**Joshua Curtis/Diego Diaz/Glenn Zhang**  
 Riverside STEM Academy, Riverside Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Candy Chromatography: What Makes These Colors?* ..... 7-CHEM-006  
**Reagan Schantz/Amelia Stanford**  
Sacred Heart School

*The Power Of Solute* ..... 7-CHEM-207  
**Katelyn Cheng**  
Raney Intermediate School, Corona-Norco Unified School District

*Melting Points* ..... 7-CHEM-284  
**Ty Holmes/Zachary Merrill/William Rolshausen**  
Gage Middle School, Riverside Unified School District

*Marshmallow Molecule Meltdown* ..... 7-CHEM-304  
**Alexandra Miramontes**  
Cielo Vista Charter School, Palm Springs Unified School District

*Which Toothpaste Brand Will Remove Stains From Teeth The Best?* ..... 7-CHEM-338  
**Fiona Steele**  
Summerwind Trails School, Beaumont Unified School District

*Hungry Helpers* ..... 7-EAEV-015  
**Gillian Anicoche/Ariel Benard/Xander Miramontes**  
St. Catherine of Alexandria School

*The Use Of Ferrofluid To Remove Microplastics From Water* ..... 7-EAEV-043  
**Madison Caparas**  
Vista Heights Middle School, Moreno Valley Unified School District

*Miracle Grow - Miracle Or No?* ..... 7-EAEV-352  
**Abigail Lytle**  
Sycamore Academy Charter School

*Potato Power* ..... 7-EGSD-339  
**Zachary Aguilar**  
Arizona Middle School, Alvord Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Maximizing Solar Power Via Angular Optimization* .....7-EGSD-362

**John Contreras/Ezekiel Metzler/Audrey Vasquez**

Vista Verde Middle School, Val Verde Unified School District

*How Wing Design Affects Speed* ..... 7-ETSD-115

**Sophia Sanchez-Nunez**

Mission Vista Academy

*Automatic Ping-Pong Ball Launcher* ..... 7-ETSD-263

**Emile Spring-Pearson/Adam Votruba**

Gage Middle School, Riverside Unified School District

*RC Glider* ..... 7-ETSD-300

**Guio Joaquin Esguerra/Nolan Lopez Betti**

Cielo Vista Charter School, Palm Springs Unified School District

*Can Lego Be A Tool?* ..... 7-ETSD-311

**Ryan Ifode**

Cielo Vista Charter School, Palm Springs Unified School District

*The Acceleration Dynamics Across Ramp Angles* ..... 7-ETSD-384

**Taaryle Langdon/Madilyn Sherring**

Cottonwood School, Hemet Unified School District

*Which Material Is Best For Filtering Dirty Water?* .....7-ENEV-307

**Thuan Nguyen**

Cielo Vista Charter School, Palm Springs Unified School District

*Investigating Biodegradability & The Future Of Anti-Pollution Technology*.....7-MATS-272

**Felipe Porto De Souza/Drew Smart/Jeron Xiao**

Riverside STEM Academy, Riverside Unified School District

*Invisible But Deadly: How UV Rays Impact Yeast Colony Growth* ..... 7-MCRO-182

**Ayaan Ali**

Corona Fundamental Intermediate School, Corona-Norco Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*To Jar Or Not To Jar: Which Method Keeps Fruits Fresh Longer And Free Of Mold And Bacteria?* ..... 7-MCRO-333

**Oliver Abeyta**  
St. Edward Catholic School

*The Great Soda Chill Off* ..... 7-PHYS-066

**Steven Carrillo**  
Mission Vista Academy

*Light's Little Secret* ..... 7-PHYS-105

**Austin Marsh**  
Summerwind Trails School, Beaumont Unified School District

*What Materials Can Block A Wifi Signal?* ..... 7-PHYS-141

**Nicholas Pena**  
Mira Loma Middle School, Jurupa Unified School District

*How Pollution Alters The Quality Of Sound Underwater* ..... 7-PHYS-191

**Audri Bautista**  
Raney Intermediate School, Corona-Norco Unified School District

*Photon Push* ..... 7-PHYS-322

**Kristopher Crawford**  
Edward Hyatt World Language Academy, San Jacinto Unified School District

*Dart Vs Glider: Which Paper Airplane Design Flies Farther* ..... 7-PHYS-342

**Andrew Del Villar**  
Lakeside Middle School, Val Verde Unified School District

*Float Or Fall?* ..... 7-PHYS-363

**Isabella Arredondo/Lea Julian/Xaira Rangel**  
Vista Verde Middle School, Val Verde Unified School District

*How Pollution Affects Plant Growth* ..... 7-PLNT-142

**Sophia Tovar**  
Mission Middle School, Jurupa Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Do Magnetic Fields Affect Plant Growth* ..... 7-PLNT-334

**Laken Schoen**

Summerwind Trails School, Beaumont Unified School District

*What Color Bowls Do Chickens Prefer?* ..... 8-ANIM-027

**Abigail Moore/Hazelyn Nunez**

River Springs Charter School

*Insects, Magnets, And Climate Change: Finding Magnetic Solutions  
For Climate-Driven Insect Movements* ..... 8-ANIM-277

**Santiago Joseph**

Gage Middle School, Riverside Unified School District

*What Are The Different Personalities Of Different Species Of Praying Mantis?* ..... 8-ANIM-368

**Ella Molina**

Villegas Middle School, Alvord Unified School District

*When Quality Speaks, People Listen* ..... 8-BEHA-371

**Andrew Ballard**

Western Center Academy, Hemet Unified School District

*Which Electrolyte Drink Works The Best.* ..... 8-BMED-273

**Verena Bebawy/Arianna Recalde**

Gage Middle School, Riverside Unified School District

*The Best Oil Reducer.* ..... 8-BMED-360

**Chizara Odimegwu**

Vista Verde Middle School, Val Verde Unified School District

*Perfume Testing.* ..... 8-CHEM-077

**Jaylin Parra**

Eagle Mountain School, Desert Center Unified School District

*Perfect Cupcakes* ..... 8-CHEM-178

**Sariah Arnwine**

Nicolet Middle School, Banning Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*The Brightness And Duration Of Luminol In A Blood-Simulating Solution* . . . . . 8-CHEM-203  
**Maya Amador/Ganeev Singh**  
Corona Fundamental Intermediate School, Corona-Norco Unified School District

*Hydrogels: Investigating Water Conservation* . . . . . 8-CHEM-212  
**Simrat Kaur/Tamara Sivakulam**  
Raney Intermediate School, Corona-Norco Unified School District

*Floating Eggs In Salt Water Experiment* . . . . . 8-CHEM-253  
**Aliyah Cunanan**  
Desert Ridge Academy, Desert Sands Unified School District

*Hot Vs Cold* . . . . . 8-CHEM-326  
**Miley Jauregui/Kaylee Puente**  
Ruth Brown Elementary School, Palo Verde Unified School District

*Tide Vs Natural Laundry Detergent* . . . . . 8-CHEM-365  
**Kennedy Moody/Kiana Palmer**  
Nellie N. Coffman Middle School, Palm Springs Unified School District

*Iron Chef* . . . . . 8-CHEM-383  
**Carly Johansen**  
Western Center Academy, Hemet Unified School District

*Thirsty Plants* . . . . . 8-EAEV-065  
**Emma Carrillo/Celia Fontes**  
San Jacinto Leadership Academy, San Jacinto Unified School District

*How Pollution Affects Marine Life* . . . . . 8-EAEV-120  
**Melissa Beltran/Isabella Saldaña/Mia Teneffos**  
Ruth Brown Elementary School, Palo Verde Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Basketball Physics: Where Does A Bouncing Ball's Energy Go?* .....8-EGSD-002  
**Quinn Besant/Shalyn Jerominski**  
Sacred Heart School

*Be The Solution To Coal Pollution* .....8-EGSD-017  
**Victoria Baltazar/Caroline Constantino/Caryl Manalang**  
St. Catherine of Alexandria School

*Power Play* .....8-EGSD-038  
**Lilyana Covington/Elijah Holm**  
Vista Heights Middle School, Moreno Valley Unified School District

*Wind Turbine Efficiency* .....8-EGSD-048  
**Andrew Rapier**  
Palm Middle School, Moreno Valley Unified School District

*Medical Device Fidget Glove* .....8-EGSD-155  
**Jasmine Bailey/Bailey Powell/Ai'lani Postell**  
Landmark Middle School, Moreno Valley Unified School District

*Energizing Electrodialysis* .....8-EGSD-340  
**Vashti Rodriguez**  
Arizona Middle School, Alvord Unified School District

*Water As A Fuel* .....8-EGSD-377  
**Asher Garcia**  
Western Center Academy, Hemet Unified School District

*Hydraulic Arm* .....8-ETSD-062  
**Gabriella Clary**  
River Springs Charter School

*Project Hyper: Altering Future Transit* .....8-ETSD-073  
**John Dito/Joshua Guerrero/Minh Nguyen**  
Vista Heights Middle School, Moreno Valley Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Smart Cane Obstacle Detection* ..... 8-ETSD-074

**Kara Madison Ibardolaza/Jayden Shinn**

San Jacinto Leadership Academy, San Jacinto Unified School District

*Stongest Electomagnet?* ..... 8-ETSD-176

**Tyler Smith**

Nicolet Middle School, Banning Unified School District

*Bridge The Gap* ..... 8-ETSD-341

**Jayden Thompson**

Arizona Middle School, Alvord Unified School District

*Fold For Flight* ..... 8-ETSD-344

**Elaina Urquiza**

Edward Hyatt World Language Academy, San Jacinto Unified School District

*Under Pressure* ..... 8-ETSD-345

**Laisha Villegas**

Edward Hyatt World Language Academy, San Jacinto Unified School District

*How To Build A Better Mouse Trap Car* ..... 8-ETSD-355

**Kyle Bui/Kevin Lee**

Villegas Middle School, Alvord Unified School District

*One Barrier To Rule Them All* ..... 8-ETSD-361

**Caden Rissland/Ricardo Sanchez**

Vista Verde Middle School, Val Verde Unified School District

*Ball Launcher Challenge* ..... 8-ETSD-372

**Barr Wardwell/William Wardwell**

Sacred Heart School

*Electrabike: Power Strike* ..... 8-ENEV-016

**Abrielle Blum/Sergio Lopez/Katherine Padilla**

St. Catherine of Alexandria School

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Nurdle* .....8-ENEV-137

**Luke Roble**

Jurupa Middle School, Jurupa Unified School District

*The Great Filter Challenge: Who Will Win?* .....8-ENEV-140

**Marissa Aguilar/Serenity Velasquez**

Mission Middle School, Jurupa Unified School District

*Sprayable Hydrogels For Preventing The Rekindling Of Wildfires.* .....8-ENEV-257

**Henry Grover/Jack Grover**

Riverside STEM Academy, Riverside Unified School District

*H<sub>2</sub>O Whoa* .....8-ENEV-348

**Riley Harmening**

Cottonwood School, Hemet Unified School District

*Insulating Ice.* .....8-MATS-148

**Kylie Gil/Jasleen Morales**

Nicolet Middle School, Banning Unified School District

*What Shape Of A House Would Be Most Resistant To Damage During An Earthquake?.* .....8-MATS-217

**Diksha Uppal**

Corona Fundamental Intermediate School, Corona-Norco Unified School District

*Organic Vs. Synthetic: The Science Of Staying Warm* .....8-MATS-376

**Samuel Flores**

Western Center Academy, Hemet Unified School District

*Are You Really Clean?* .....8-MCRO-081

**Drew Castor**

Eagle Mountain School, Desert Center Unified School District

*Battery Brands: Are They Lying* .....8-PHYS-114

**Ivan Maldonado/Brock Peterson/Elijah Teegarden**

Ruth Brown Elementary School, Palo Verde Unified School District

# JUNIOR DIVISION (GRADES 6-8) PROJECTS

*Thermal Carousels* ..... 8-PHYS-127

**Chelsea Barrera/Sophey Dagnino/Clarissa Scartozzi**

Ruth Brown Elementary School, Palo Verde Unified School District

*Bridging The Gap: Which Design Holds The Most Weight* ..... 8-PHYS-246

**Jizelle Pizano**

Tomas Rivera Middle School, Val Verde Unified School District

*Can We Use Electrical Sine-Waves To Check How Clean Water Is?* ..... 8-PHYS-279

**Emma Liu**

Riverside STEM Academy, Riverside Unified School District

*Solar Geometree* ..... 8-PHYS-283

**Leela Aji**

Riverside STEM Academy, Riverside Unified School District

*Determining Plant Health With A Color Sensor* ..... 8-PLNT-295

**Shane Crouse**

Ethan A. Chase Middle School, Romoland School District

*How Chemise Seeds Germinate* ..... 8-PLNT-350

**Melania Mikhail**

Western Center Academy, Hemet Unified School District

*UPDS: Testing Feasibility Of Underground Robotic Delivery* ..... 8-ROBO-195

**Yunhan Bonnie Feng**

Dr. Augustine Ramirez Intermediate School, Corona-Norco Unified School District

*Lidar Distance To Sound Glasses For The Visually Impaired* ..... 8-ROBO-288

**Benjamin Achiricoaie**

Riverside STEM Academy, Riverside Unified School District

*Extreme Temperatures, Rising Risks: A Data Analysis Of Temperature Trends  
And The Correlation To Mortality In U.S. Cities* ..... 8-SOFT-200

**Vienna Zhou**

El Cerrito Middle School, Corona-Norco Unified School District

# SENIOR DIVISION (GRADES 9-12) PROJECTS

*Are You Vegan Yet?* .....9-BEHA-044  
**Diana Doan/Elise Patino**  
Valley View High School, Moreno Valley Unified School District

*Helpalot!: The Mental Health App* .....9-BEHA-050  
**Peyton Raz/Evelyn Santoyo**  
Valley View High School, Moreno Valley Unified School District

*Smell Vs Taste* .....9-BEHA-058  
**Andres Reyes**  
Valley View High School, Moreno Valley Unified School District

*Does Mode Matter? Unpacking The Role Of Transportation Mode In Ridership* .....9-BEHA-265  
**Alex Beran**  
Riverside STEM High School, Riverside Unified School District

*A-Synuclein Aggregation In Saccharomyces Cerevisiae:  
Experimental Analysis Of Comorbidity In Parkinson's Disease* ..... 9-BCHM-209  
**Chaitra Ayinampudi**  
Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*Decoding Diseases: Contextual AI In Infection Identification  
(Can Artificial Intelligence Improve Pre-Diagnostic Infection Identification By Using  
Multimodal Patient And Environmental Data Before Laboratory Testing?)* ..... 9-ENBM-192  
**Rohit Satheeshkumar/Roshhan Satheeshkumar**  
Santiago High School, Corona-Norco Unified School District

*Crime Scene Chemistry Continued* ..... 9-CHEM-131  
**Melody Lopez-Aguayo**  
Rubidoux High School, Jurupa Unified School District

*Bio-Control: Fungi Vs. Fire Ants* .....9-EAEV-231  
**Edward Hernandez/Caleb McMahon/Rodrigo Rangel**  
Rancho Verde High School, Val Verde Unified School District

*From Court To Quake: Testing A Tennis Ball Seismic Isolator* .....9-EAEV-281  
**Naomi Zhang**  
Riverside STEM High School, Riverside Unified School District

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*Memoband: A Novel And Innovative Solution To Approaching The Pressing Issue  
Of Alzheimer's And Dementia* ..... 9-EBED-213

**Shreyansh Medatati**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*Powerpath: Harvesting Footstep Energy With Hybrid Triboelectric And Electromagnetic Tiles* ..... 9-EGSD-218

**Adithyakrishna Ayyappan/Vaidya Cherukuri/Caiden Voong**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*Windfall Profits: Optimizing Turbine Design* ..... 9-EGSD-243

**Athena Chacon/Michael Marquez**

Rancho Verde High School, Val Verde Unified School District

*Bridge Design* ..... 9-ETSD-166

**Lovely Castaneda-Santacruz**

Coachella Valley High School, Coachella Valley Unified School District

*Autonomous Unmanned Aerial Vehicle System Based On Multimodal  
Sensing Enables Early Detection And Precision Application Of Crop Diseases* ..... 9-ENEV-004

**Zhanyi Li**

Linfield Christian School,

*Duckweeds For Phytoremediation: Comparing The Phytoremediation Capabilities  
Of Lemna And Spirodela In Removing Manganese* ..... 9-ENEV-256

**Siwei Wang/Jeffrey Zou**

Riverside STEM High School, Riverside Unified School District

*Concrete Solutions To Plastic Pollution* ..... 9-MATS-041

**Laisha Bautista/Naomi Godoy/Nicolas Gonzalez**

Valley View High School, Moreno Valley Unified School District

*Spectroscopy-Based Machine-Learning Platform For Food Quality Assessment* ..... 9-MATS-280

**Daniel Balandin**

Riverside STEM High School, Riverside Unified School District

*A Study On The Sensitivity Of The Logistic Map To Variations In The Parameter R* ..... 9-MATH-216

**Daksh Jain**

Centennial High School, Corona-Norco Unified School District

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*Measuring The Distortion In Optical Lenses Due To Deviation In Distance From  
The Optical Center Through Different Lens Powers And Optical Materials* ..... 9-MATH-220

**Leila Vu**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*The Importance Of Combating Bacteria With The Right Antibiotic* ..... 9-MCRO-198

**Abrielle Jasman/Leilani Torres**

Corona High School, Corona-Norco Unified School District

*Investigating The Reflection Of Light From Different Materials  
For Applications From Robotics To Medicine* ..... 9-PHYS-282

**Ritobroto Roy-Chowdhury**

Riverside STEM High School, Riverside Unified School District

*Drone Accessibility Using LLM In Python* ..... 9-ROBO-324

**Evelyn Trujillo**

Palm Desert High School, Desert Sands Unified School District

*Beating The Bread Clocks!* ..... 9-SOFT-053

**Olive Gibson**

Valley View High School, Moreno Valley Unified School District

*School Cafeteria Tracker* ..... 9-SOFT-057

**Maximiliano Alvarado/Sean Johnston/Raiden Ortiz**

Valley View High School, Moreno Valley Unified School District

*Fit Over Wins: The NFL Quarterback Development And Coach Dynamic Analyzed* ..... 10-BEHA-087

**Arturo Beristain**

Temescal Canyon High School, Lake Elsinore Unified School District

*Confidence Vs. Reality: The Mandela Effect* ..... 10-BEHA-132

**Arlene Chavez**

Patriot High School, Jurupa Unified School District

*A Comparative Analysis Of Sanitation Efficiency And Cost In Pool Water Treatments* ..... 10-BCHM-152

**Brooke Batdorf**

Norte Vista High School, Alvord Unified School District

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*Comparative Analysis Of Probiotic Microbial Decomposition Efficacy In Food Waste: Investigating The Potential Of Microorganisms In Waste Management, Agricultural, And Energy Systems* . . . . . 10-BCHM-214

**Jeffrey Choi**

Centennial High School, Corona-Norco Unified School District

*Modeling The Self-Sustaining Logic Of Endometriosis: A Computational Study Of The Estrogen-Aromatase Feedback Loop* . . . . . 10-BMED-270

**Methsandi De alwis/Sestina Dhakal/Mary Mason**

Martin Luther King High School, Riverside Unified School District

*Seizure Prediction Device* . . . . . 10-ENBM-186

**Ved Davey/Sanjay Pattabiraman/Sanjay Purusothaman**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*Molecular Dynamics Modeling Of Acoustic Behavior Ultrasound Propagation Of Oil In Water Nanoemulsion Coupling Media* . . . . . 10-ENBM-197

**Hailey Menez/Madeline Menez**

Centennial High School, Corona-Norco Unified School District

*Shining A Light On Bacteria* . . . . . 10-CELL-123

**Issabella Esquivel/Nallely Lopez**

Norte Vista High School, Alvord Unified School District

*From Rust To Results: Citric Acid's Effectiveness In Measuring Iron Released From Rust* . . . . . 10-CHEM-088

**Julia Flynn**

Temescal Canyon High School, Lake Elsinore Unified School District

*Preserving Vitamin C In Cooking* . . . . . 10-CHEM-167

**Liliana Vargas Bravo**

Hillcrest High School, Alvord Unified School District

*Simulated Blood Viscosity Changes Under Hyperglycemic Conditions* . . . . . 10-CHEM-208

**Arsheen Kaur**

Centennial High School, Corona-Norco Unified School District

*The Effects Of pH On Calcareous Organism's Mass* . . . . . 10-EAEV-093

**Antonette Resano**

Temescal Canyon High School, Lake Elsinore Unified School District

# SENIOR DIVISION (GRADES 9-12) PROJECTS

*Save Our Seas: Testing Sorbent's Effectiveness* ..... 10-EAEV-285

**Caydence Chitwood**

Poly High School, Riverside Unified School District

*Fork Found In Compost* ..... 10-EAEV-346

**Cailin Ommanney**

Hillcrest High School, Alvord Unified School District

*Signal Snatchers, What Materials Weaken A Wi-Fi Signal?* ..... 10-EBED-397

**Donya Ilbeigi/Sommer Morris/Lily Naderi**

Xavier College Preparatory High School

*Wireless Energy Transfer With Metamaterials* ..... 10-EGSD-181

**Brayden Goytia**

Centennial High School, Corona-Norco Unified School District

*The Totally Awesome Rotating Shelf* ..... 10-ETSD-046

**Aayma Cheema/Darren Paliza/Dylan Ximil Estrada**

Valley View High School, Moreno Valley Unified School District

*Locked In* ..... 10-ETSD-049

**Irie Houston/Amanda Settle/Lauren Tate**

Valley View High School, Moreno Valley Unified School District

*Groovy Fins: Effects On Drag When Adding Indentations Longitudinally Along Fins* ..... 10-ETSD-089

**Cole Borowski/Jeffrey Eads/Lucio Pena**

Temescal Canyon High School, Lake Elsinore Unified School District

*Comparative Analysis Of Different Energy Sources On  
The Performance On Mechanical Power Generation* ..... 10-ETSD-103

**Olivia Herrera/Kaylie Tran/Chloe Waller**

Temescal Canyon High School, Lake Elsinore Unified School District

*The Effect Of Winglets On Vorticity Size: Flying Smarter, Not Harder* ..... 10-ETSD-267

**Gabriel Anderson/Chloe Raranta**

Poly High School, Riverside Unified School District

# SENIOR DIVISION (GRADES 9-12) PROJECTS

*Saving The Dam Water* .....10-ENEV-129

**Andre Nisby**

Hillcrest High School, Alvord Unified School District

*Assessing Cacao Husk Retardant As An Eco-Friendly Alternative To Phos-Chek MVP-FX: Toxicity, Large-Scale Effectiveness, And Long-Term Fire Resistance Testing.* .....10-ENEV-187

**Arav Randhawa/Avijeet Randhawa**

Corona High School, Corona-Norco Unified School District

*H2...Uh Oh!* .....10-ENEV-319

**Mia Aguilar/Kharlo Silo**

Hillcrest High School, Alvord Unified School District

*Difference In Elasticity Of Spider Webs Between Different Spider Species* ..... 10-MATS-099

**Summer Bristow/Sophia Lares Alonso/Mackenzie Miller**

Temescal Canyon High School, Lake Elsinore Unified School District

*Scorching Stucco: Preventing Wildfire Damage.* ..... 10-MATS-193

**Filza Jamal/Deeba Siddiqui**

Santiago High School, Corona-Norco Unified School District

*Cubing Quickly: Optimization Vs. Complexity* ..... 10-MATH-094

**Hunter Ishisaka**

Temescal Canyon High School, Lake Elsinore Unified School District

*The Effect Of Vibrational Intensities On Bacterial Proliferation And Germ Production* .....10-MCRO-095

**Isabella Noss/Nayely Villa/Xitlaly Villa**

Temescal Canyon High School, Lake Elsinore Unified School District

*Disinfecting Properties Of Plant Extracts.* .....10-MCRO-100

**Rylee Farver**

Temescal Canyon High School, Lake Elsinore Unified School District

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**Sai Srinika Bommineni/Tarini Siram**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

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**Madison Yi**

Centennial High School, Corona-Norco Unified School District

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**Sahana Sharma**

Centennial High School, Corona-Norco Unified School District

*Caffeinated Plant Growth* ..... 10-PLNT-091

**Mia Papineau/Izabella Perez**

Temescal Canyon High School, Lake Elsinore Unified School District

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**Emily Boulos/Rowen Sullivan/Charlotte Zunigha**

Poly High School, Riverside Unified School District

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**Alyna Burgett**

Martin Luther King High School, Riverside Unified School District

*Structure-Guided Biochemical Design Of DNA Tweezers Targeting The Glioblastoma Biomarker Protein S100A4* ..... 11-BCHM-153

**Hayley Foo**

Great Oak High School, Temecula Valley Unified School District

*The Effects Of Household Chemicals On Enzymes In The Body* ..... 11-BCHM-205

**Akhil Srikakollu/Luleeya Zeru**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*Evaluating Milk Variants In Aiding Hypertension, Hypotension, And Hyper-Coagulability* ..... 11-BMED-092

**Rania Khan**

Temescal Canyon High School, Lake Elsinore Unified School District

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**Adithiyan Sathees/Nilay Vora**

Centennial High School, Corona-Norco Unified School District

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**Mia Fusca/Tori Hashimoto/Bella Lopez**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*CD73 Inhibition Boosts Chemotherapy-Triggered Sting Activation And T Cell Immunity In Pancreatic Cancer.* . . . . . 11-CELL-196

**Syed Ali/Dario Nunez**

Centennial High School, Corona-Norco Unified School District

*Effect Of Sugar Concentration On Yeast Fermentation Measured By CO<sub>2</sub> Production.* . . . . . 11-CHEM-102

**Allison Do**

Temescal Canyon High School, Lake Elsinore Unified School District

*Investigating The Effects Of Solution pH On The Corrosion Rate Of Steel.* . . . . . 11-CHEM-202

**Adam Beach/Isabella Martinez**

Corona High School, Corona-Norco Unified School District

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**Clover Valverde**

Desert Hot Springs High School, Palm Springs Unified School District

*The Reason For Seasons.* . . . . . 11-EAEV-035

**Isabella Ramos**

Coachella Valley High School, Coachella Valley Unified School District

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**Francine Habacon**

Rancho Verde High School, Val Verde Unified School District

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**Micah Oregel/Majesty Pickett**

Temescal Canyon High School, Lake Elsinore Unified School District

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**Harleen Virk**  
 Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

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**Logan Beaucaire**  
 Beaumont High School, Beaumont Unified School District

*Automatic Waste Segregation System* . . . . . 11-ETSD-133  
**Jocelynn Mendoza/Aiden White**  
 Jurupa Valley High School, Jurupa Unified School District

*Sandcastle: A Portable, Economical, Environmentally Friendly Habitat Printer For Low-Resource Communities* . . . . . 11-ETSD-275  
**Aiden Grover**  
 Riverside STEM High School, Riverside Unified School District

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**Janessa Carrera/Joshua Coreas/Dana Diven**  
 Canyon Springs High School, Moreno Valley Unified School District

*Just Like New: Reinvigorating Essential Oils For Enhanced Mosquito Repellency Using Nootkatone Synergy.* . . . . . 11-ENEV-201  
**Lauren Ho**  
 Centennial High School, Corona-Norco Unified School District

*Underground Dams* . . . . . 11-ENEV-315  
**John Richards**  
 San Jacinto Leadership Academy, San Jacinto Unified School District

*Using The Properties Of Lignin And Hemicellulose In Wood To Assess The Strength Of Various Wood Welds.* . . . . . 11-MATS-104  
**Jonathan Aguiar**  
 Temescal Canyon High School, Lake Elsinore Unified School District

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**Aiden Anaya/Cristopher Fierros Mendez/Antonio Rodriguez**  
 Coachella Valley High School, Coachella Valley Unified School District

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**Melody Gallardo**

Temescal Canyon High School, Lake Elsinore Unified School District

*Future Characterization Of Newly-Identified Bacteriophages Using  
Phage-Antibiotic Synergy Under Human Body Temperatures* . . . . . 11-MCRO-211

**Tanmay Gorthy/Daniel Ta**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

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**London Prude/Karisma Solomon**

Canyon Springs High School, Moreno Valley Unified School District

*Plant Growth Vs Color* . . . . . 11-PLNT-045

**Catherine Gutierrez**

Bayside Community School, Moreno Valley Unified School District

*How Effectively Different Aquatic Plants *Salvina Molesta*, *Azolla Filiculoides*,  
And *Ceratophyllum Demersum* Removes Copper From Water* . . . . . 11-PLNT-221

**Eduardo Alcala/Matthew Chen**

Centennial High School, Corona-Norco Unified School District

*Phytochrome B Output Module Sets Thermosensing Photobody Number  
And Tunes *Arabidopsis* Adaptation* . . . . . 11-PLNT-287

**Erik Chen/Tingdan Deng/Shivani Talati**

Martin Luther King High School, Riverside Unified School District

*Designing And Evaluating Haptic Affective Social Touch Systems  
To Address Isolation In Older Adults* . . . . . 11-ROBO-224

**Ava George**

Centennial High School, Corona-Norco Unified School District

*Automatically Generating Evacuation Routes Using Computer Algorithms* . . . . . 11-SOFT-096

**Randall Gulyas**

Temescal Canyon High School, Lake Elsinore Unified School District

*The Effect Camera Settings Have On Pictures* . . . . . 11-TECA-228

**Eli Gatchel Hernandez/David Morales/Aiden Rosales**

Temescal Canyon High School, Lake Elsinore Unified School District

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**Jennifer Martinez Martin/Jayne Moreno**  
Temescal Canyon High School, Lake Elsinore Unified School District
- Comprehensive Multi-Factor Toxicity Prediction Of Biological Pharmaceuticals  
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**Rayyan Khaliq/Trevon Nguyen/Dylan Patel**  
Centennial High School, Corona-Norco Unified School District
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**Daniel Gutierrez**  
Coachella Valley High School, Coachella Valley Unified School District
- Green Inhibitor-Based Prevention Of Iron Corrosion And Oxidation:  
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**Gurnoor Kaur**  
Centennial High School, Corona-Norco Unified School District
- Culturing And Isolating Bacteriophages For Antimicrobial Potential* ..... 12-BMED-185  
**Shruthi Gouni/Juhitha Koduri**  
Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District
- Cardio Carry* ..... 12-BMED-396  
**Azalea Manco**  
Desert Hot Springs High School, Palm Springs Unified School District
- Reimagining Wearable Systems: Integrating Adaptive Jamming Techniques  
In Finger Tremor Suppression Devices* ..... 12-ENBM-289  
**Robert Christian Flores/Aiden Rheem**  
Martin Luther King High School, Riverside Unified School District
- Forensic Vs Paper Chromatography* ..... 12-CHEM-061  
**Tatianna Peters**  
Bayside Community School, Moreno Valley Unified School District
- Creation Of A Fire Deterrent* ..... 12-CHEM-070  
**Noah Jackson/Jason Reynoso/Marely Gonzalez**  
Canyon Springs High School, Moreno Valley Unified School District

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**Anthony Hernandez/Emmanuel Pudusery**  
Riverside STEM High School, Riverside Unified School District
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**Jerry Arevalo/Alejandro Chaidez-Jimenez/George Diaz**  
Jurupa Valley High School, Jurupa Unified School District
- Gorilla Straps* ..... 12-ETSD-135  
**Logan Cervantes/Pablo Jara/Casey Raine Tumlos**  
Jurupa Valley High School, Jurupa Unified School District
- Pill Sorter* ..... 12-ETSD-136  
**Vincent Bello/Talula Uribe/David Vazquez**  
Jurupa Valley High School, Jurupa Unified School District
- Evaluating The Effectiveness Of Plant-Based Coagulants In Water Purification* ..... 12-ENEV-206  
**Helen Duenas**  
Centennial High School, Corona-Norco Unified School District
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**Erica Yin/Zoe Zhang**  
Martin Luther King High School, Riverside Unified School District
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**Maya Villanueva**  
Canyon Springs High School, Moreno Valley Unified School District
- Here Comes The Sun: Photothermal Depolymerization Of  
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**Darius Fields**  
Lakeside High School, Lake Elsinore Unified School District
- SiO<sub>2</sub> Nanocrystals In Adaptive Janus Colloidal Architectures:  
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**Ian Do/Ian Zhang**  
Martin Luther King High School, Riverside Unified School District

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**Jade Ingram**

Western Center Academy, Hemet Unified School District

*An Approximation Of Stochastic Brownian Motion For Flow Prediction  
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**Derek Zhang**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*Applying Thermodynamic Principles To Determine The Most Efficient Traffic Lane* . . . . . 12-MATH-210

**Manuel Dumais/Erik Mendoza**

Norco High School, Corona-Norco Unified School District

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**Dwight Maranan/Joshua Salacup**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

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**Patrick Moon/Ubaid Awan**

Martin Luther King High School, Riverside Unified School District

*Effect Of Resisted Sprint Training On 30-Yard Acceleration In Distance Runners* . . . . . 12-PHYS-086

**Tessanni Ngor/Bryant Akanni**

Temescal Canyon High School, Lake Elsinore Unified School District

*Sonoscan: A Deep Learning System For Automated Detection Of Down Syndrome  
In Prenatal Ultrasound Images* . . . . . 12-ROBO-226

**Vinaya Ayinampudi**

Eastvale STEM Academy/Eleanor Roosevelt High School, Corona-Norco Unified School District

*Operation Bedside-Breach: Analysis Of Ransomware Attacks On Pediatric Hospital Systems* . . . . . 12-SOFT-162

**Andrew Melek**

Lakeside High School, Lake Elsinore Unified School District

*The Efficiency Of Different 3-D Cardiac Stent Designs: Flow Dynamics* . . . . . 12-TMED-391

**Ethan Tsai/Dylan Tsai**

Western Center Academy, Hemet Unified School District