LIST OF AWARDS WON AT THE 2020 GSDSEF

Booth #105
Individual Senior Division Behavioral & Social Sciences
TITLE: “Repetition Makes Perfect”
By: Abdirahman Kariye
Attending: Bright Horizon Academy 9-12 9th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 2nd
AWARDS WON:
• San Diego Mensa Professional Society Winner

Booth #108
Individual Senior Division Behavioral & Social Sciences
TITLE: “How Age and Social Experience Dictate Beliefs on Ease of Social Mobility”
By: Brian Lee
Attending: Scripps Ranch High School 11th Grade
Advised by: Patty Fowler
PLACEMENT: 3rd
AWARDS WON:
• San Diego Psychological Association Professional Society Winner

Booth #109
Team Senior Division Behavioral & Social Sciences
TITLE: “What Affects the Probability of School Shootings?”
By: Grace Li
By: Albert Liu
Attending: Scripps Ranch High School 9th Grade
Advised by: Patty Fowler
PLACEMENT: 3rd
AWARDS WON:
• San Diego Psychological Association Professional Society Winner

Booth #110
Individual Senior Division Behavioral & Social Sciences
TITLE: “Will Brain Games Increase IQ”
By: Mustafa Mohamed
Attending: Bright Horizon Academy 9-12 10th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 2nd
AWARDS WON:
• San Diego Psychological Association Professional Society Winner
Booth #111
Individual Senior Division Behavioral & Social Sciences
TITLE: “Correlation Between Recurring Dream Themes and Anxiety Disorders”
By: Priscila Munoz
Attending: Central Union High School 10th Grade
Advised by: Lourdes Rueda
PLACEMENT: 3rd
AWARDS WON:
- BD “Advancing the World of Health” Award Professional Society Winner (STAGE)

Booth #115
Individual Senior Division Behavioral & Social Sciences
TITLE: “Prepotent Response Inhibition in ASL vs. non-ASL Multilinguals- A Correlative Study”
By: Anjana Shriram
Attending: Canyon Crest Academy 10th Grade
Advised by: Ariel Haas
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- San Diego Psychological Association Professional Society Winner
- American Psychological Association ISEF Affiliate Winner

Booth #124
Individual Senior Division Biochemistry
TITLE: “Machine Learning and Pharmacophore- Based Drug Discovery for Treating Duchenne Muscular Dystrophy”
By: Kate Wang
Attending: Canyon Crest Academy 11th Grade
Advised by: Ariel Haas
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Senior Division Life Sciences ISEF GRAND AWARD GSDSEF Stage
- American Chemical Society, San Diego Section Professional Society Winner
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Winner
- Biophysical Society Professional Society Honorable Mention

Booth #129
Individual Senior Division Chemistry
TITLE: “Photocatalytic Treatment of Wastewater and Hydrogen Production”
By: Audrey Vargas
Attending: Sweetwater High School 11th Grade
Advised by: Johnathan Chase
PLACEMENT: 2nd
AWARDS WON:
- WateReuse Association - San Diego Regional Chapter Professional Society Winner
Booth #130
Individual Senior Division Chemistry
TITLE: “The Detection and Discrimination of Volatile Organic Vapors in a Thermally Cycled Porous Silicon Photonic Crystal Nanosensor”
By: Ian Xu
Attending: Del Norte High School 11th Grade
Advised by: Frank Liao
PLACEMENT: 2nd
AWARDS WON:
- American Chemical Society, San Diego Section Professional Society Winner
- DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner
- General Atomics Sciences Education Foundation Advanced Materials Award Professional Society Honorable Mention
- Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

Booth #136
Individual Senior Division Computer Science
TITLE: “Simplified Asthma Diagnosis Through Neural Networks”
By: Andrew Kuang
Attending: Canyon Crest Academy 10th Grade
Advised by: Ariel Haas
PLACEMENT: 1st
AWARDS WON:
- Armed Forces Communications and Electronics Association Professional Society Winner
- Institute of Electrical and Electronics Engineers Professional Society Winner

Booth #138
Individual Senior Division Computer Science
TITLE: “DNA Storage - Novel, Cloud-Based Solution to Archive Digital Data Using Synthetic Nucleotides”
By: Raj Pabari
Attending: Classical Academy High School 10th Grade
Advised by: David Bower
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Armed Forces Communications and Electronics Association Professional Society Winner
- San Diego Post of the Society of American Military Engineers Professional Society Winner
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Winner

Booth #139
Individual Senior Division Computer Science
TITLE: “Using Musical Notation to Encrypt Messages in Python”
By: Petunia Rizo
Attending: Mt. Everest Academy 9th Grade
Advised by: Norman Negus
PLACEMENT: 2nd
AWARDS WON:
- SLB Honor Society Award GSDSEF Stage
- Society of Women Engineers - San Diego County Section Professional Society Winner
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Honorable Mention
Booth #142
Individual Senior Division Computer Science
TITLE: “Improving Complexity of Grover’s Algorithm Using Qutrits Manipulation and a Novel Two-Dimensional System of the Oracle”
By: Christopher Um
Attending: Torrey Pines High School 11th Grade
Advised by: Brinn Belyea
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Institute of Electrical and Electronics Engineers Professional Society Winner

Booth #144
Individual Senior Division Computer Science
TITLE: “Artificial Intelligence Based Kawasaki Disease Early Diagnosis”
By: Ellen Xu
Attending: Del Norte High School 9th Grade
Advised by: Andrea Callicott
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• RED Award GSDSEF Stage
• Ruben H Fleet Memorial Award GSDSEF Stage
• Physical Sciences GRAND AWARD Runner Up (Sr.) GSDSEF Stage
• Kaiser Permanente Professional Society Winner
• Society of Women Engineers - San Diego County Section Professional Society Winner

Booth #148
Individual Senior Division Engineering, Electrical & Mechanical
TITLE: “Novel Stimulation of Stem-Cell Derived Brains to Model Neurodevelopmental and Neurodegenerative Diseases”
By: Christopher Caligiuri
Attending: Canyon Crest Academy 11th Grade
Advised by: Ariel Haas
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Professional Engineers in California Government Professional Society Winner (STAGE)

Booth #151
Individual Senior Division Engineering, Electrical & Mechanical
TITLE: “Read My Mind: Morse Code Communication By Measuring Electrical Activity From Eye Blinking”
By: Marc Kuo
Attending: La Jolla High School 10th Grade
Advised by: Jay Coggan
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• American Society of Mechanical Engineers Professional Society Winner
• Institute of Electrical and Electronics Engineers Professional Society Winner
Booth #154
Individual Senior Division Engineering, Electrical & Mechanical
TITLE: “For the Deaf to “Hear” - An Experimentation of Augmented Reality”
By: Michael Zeng
Attending: The Bishop's School 10th Grade
Advised by: Ben Heldt
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Hillcrest-Mission Valley Lions Club Professional Society Winner

Booth #156
Individual Senior Division Engineering, Energy & Transport
TITLE: “Powered Piers and Beaches by the Rise and Fall of Waves -- A Novel Wave Energy Conversion Application”
By: Bella Rose Schremmer
Attending: University City High School 9th Grade
Advised by: Maureen Quessenberry
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Armed Forces Communications and Electronics Association Professional Society Winner
• Association for Women in Science San Diego Chapter Professional Society Winner
• Marine Technology Society Professional Society Winner
• Society of Women Engineers - San Diego County Section Professional Society Winner

Booth #159
Individual Senior Division Engineering, Materials & Bioengineering
TITLE: “Engineering an Affordable and Sustainable Water Filtration Device”
By: Aurora Czajkowski
Attending: Bonita Vista High School 12th Grade
Advised by: Michelle Mardahl-Dumesnil
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• WateReuse Association - San Diego Regional Chapter Professional Society Winner
• San Diego County Water Authority Professional Society Winner
• NASA EARTH System Science Award ISEF Affiliate Winner
• Stockholm Junior Water Prize ISEF Affiliate Award Winner

Booth #160
Individual Senior Division Engineering, Materials & Bioengineering
TITLE: “Finding an Effective, Self-Cleaning Water Treatment Solution”
By: Mohammad Khan
Attending: Bright Horizon Academy 9-12 9th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 3rd
AWARDS WON:
• San Diego County Water Authority Professional Society Winner
• WateReuse Association - San Diego Regional Chapter Professional Society Winner
Booth #164
Individual Senior Division Engineering, Materials & Bioengineering
By: Emily Tianshi
Attending: The Cambridge School High School 11th Grade
Advised by: Melissa Mayne
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Fred H. Rohr Award from Collins Aerospace Professional Society Winner (STAGE)
- San Diego Zoo Global Professional Society Winner (STAGE)
- General Atomics Sciences Education Foundation Advanced Materials Award Professional Society Winner
- San Diego County Water Authority Professional Society Winner
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Winner
- American Meteorological Society ISEF Affiliate Winner
- Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

Booth #168
Individual Senior Division Environmental Sciences & Management
TITLE: “Effect of Cities on Normalized Differences of Land”
By: Rina Cao
Attending: University City High School 11th Grade
Advised by: Sean Stevenson
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Senior Division Life Sciences ISEF GRAND AWARD GSDSEF Stage
- Building Industry Association Cares Professional Society Winner
- San Diego Audubon Society Professional Society Winner
- American Meteorological Society ISEF Affiliate Winner

Booth #169
Team Senior Division Environmental Sciences & Management
TITLE: “A Device to Detect GenX Contaminated Water Using Chemical Indication and Colorimetry”
By: Dagny Whall, Kavya Gupta
Attending: La Jolla High School 10th Grade, Westview High School 9th Grade
Advised by: Holly Eaton
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Professional Engineers in California Government Professional Society Winner (STAGE)
- ASM Materials Education Foundation ISEF Affiliate Winner
- Stockholm Junior Water Prize ISEF Affiliate Award Winner
Booth #170
Individual Senior Division Environmental Sciences & Management
TITLE: “Optimizing Plant Cellulose for Cost-effective and Environmentally Benign Oil Spill Mitigation”
By: Sanjana Gurram
Attending: Westview High School 11th Grade
Advised by: My-Nga Ingram
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Professional Engineers in California Government Professional Society Winner (STAGE)
• California Environmental Health Association - Southwest Chapter/County of San Diego, Department of Environmental Health Professional Society Winner
• San Diego Post of the Society of American Military Engineers Professional Society Winner
• Stockholm Junior Water Prize ISEF Affiliate Award Winner

Booth #171
Individual Senior Division Environmental Sciences & Management
TITLE: “Fluorescent Reporter Under MerR-like Receptors for Metallic Ion Contaminant Recognition”
By: Mason Holmes
Attending: Canyon Crest Academy 10th Grade
Advised by: Ariel Haas
PLACEMENT: 2nd
AWARDS WON:
• Stockholm Junior Water Prize ISEF Affiliate Award Winner

Booth #173
Individual Senior Division Environmental Sciences & Management
TITLE: “Determining the Efficacy of Mycelium Water Filtration Systems”
By: Grace Oualline
Attending: La Jolla Country Day School 11th Grade
Advised by: Dan Padgett
PLACEMENT: 2nd
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Winner

Booth #174
Individual Senior Division Environmental Sciences & Management
TITLE: “One Man’s Trash Is Another Worm’s Treasure”
By: Sabrina Sanchez
Attending: Bonita Vista High School 12th Grade
Advised by: Michelle Mardahl-Dumesnil
PLACEMENT: 2nd
AWARDS WON:
• San Diego Post of the Society of American Military Engineers Professional Society Winner
Booth #176
Individual Senior Division Mathematical Sciences
TITLE: “Mathematical Analysis of A Fluid in a Polyhedral Domain”
By: Benjamin Faktor
Attending: Canyon Crest Academy 11th Grade
Advised by: Ariel Haas
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Senior Division Physical Sciences ISEF GRAND AWARD GSDSEF Stage
• Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Honorable Mention

Booth #180
Team Senior Division Medicine & Health Sciences
TITLE: “The Efficacy of Topical Curcumin 5% Gel for Knee Osteoarthritis: A Pilot Study”
By: Pranav Bantval
Attending: Canyon Crest Academy 9th Grade
By: Rishi Chiniga
Attending: Francis Parker School 10th Grade
Advised by: Ariel Haas
PLACEMENT: 2nd
AWARDS WON:
• San Diego Society of Health-System Pharmacists Professional Society Winner
• San Diego Society of Health-System Pharmacists Professional Society Winner

Booth #181
Individual Senior Division Medicine & Health Sciences
TITLE: “Do Induced Pluripotent Stem Cell-Derived Extracellular Vesicles Reduce Macrophage Activation and Induce Anti-Inflammatory Effects?”
By: Dylan Feldstein
Attending: Canyon Crest Academy 11th Grade
Advised by: Ariel Haas
PLACEMENT: 3rd
AWARDS WON:
• San Diego County Veterinary Medical Association Professional Society Winner

Booth #184
Individual Senior Division Medicine & Health Sciences
TITLE: “Scan, Sequence, Save: Early Lung Cancer Detection via Novel DNA Methylation Liquid Biopsy and Deep Learning Assisted Imaging Analysis”
By: Andrew Gao
Attending: Canyon Crest Academy 10th Grade
Advised by: Ariel Haas
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Life Sciences GRAND AWARD Runner Up (Sr) GSDSEF Stage
• Kaiser Permanente Professional Society Winner
• San Diego Society of Health-System Pharmacists Professional Society Honorable Mention
• Biophysical Society Professional Society Honorable Mention
Booth #187  
Individual Senior Division Medicine & Health Sciences  
**TITLE:** “Manipulation of Gut Microbiome by Prebiotic to Combat Alcoholic Liver Diseases”  
*By:* Ryan Huang  
*Attending:* Canyon Crest Academy 10th Grade  
*Advised by:* Ariel Haas  
*PLACEMENT:* 1st  
*AWARDS WON:*  
- American Chemical Society, San Diego Section Professional Society Winner  
- California Academy of Nutrition and Dietetics, San Diego District Professional Society Winner  
- San Diego Society of Health-System Pharmacists Professional Society Honorable Mention  
- Society for In Vitro Biology ISEF Affiliate Award Winner

Booth #191  
Individual Senior Division Medicine & Health Sciences  
**TITLE:** “SCH 23390 Inhibits Cell-Death Produced by Methamphetamine in Human Neuronal Progenitor Cells”  
*By:* Atulya Mandyam  
*Attending:* Westview High School 10th Grade  
*Advised by:* My-Nga Ingram  
*PLACEMENT:* 1st  
*AWARDS WON:*  
- California School Nurse Organization: San Diego/Imperial Section Professional Society Winner

Booth #193  
Individual Senior Division Medicine & Health Sciences  
**TITLE:** “Fast Food VS Homemade Food”  
*By:* Andres Morales  
*Attending:* Gompers Preparatory Academy 9th Grade  
*Advised by:* Jessica Ullyott  
*PLACEMENT:* 3rd  
*AWARDS WON:*  
- BD “Advancing the World of Health” Award Professional Society Winner (STAGE)

Booth #194  
Individual Senior Division Medicine & Health Sciences  
**TITLE:** “ADHD in a Stratified Pediatric Sample: A Study of Prevalence, Comorbid Conditions, & Impairments”  
*By:* Alexis Negrete  
*Attending:* Central Union High School 12th Grade  
*Advised by:* Lourdes Rueda  
*PLACEMENT:* 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
*AWARDS WON:*  
- Kaiser Permanente Professional Society Honorable Mention
Booth #195
Individual Senior Division Medicine & Health Sciences
TITLE: “NSAIDs: The Fastest Pain Relief”
By: Jadyn Ramirez
Attending: Central Union High School 10th Grade
Advised by: Lourdes Rueda
PLACEMENT: 3rd
AWARDS WON:
• BD “Advancing the World of Health” Award Professional Society Winner (STAGE)

Booth #197
Individual Senior Division Medicine & Health Sciences
TITLE: “Multiple Factor Analysis Methods Elucidate Genome Expression Changes Across Cell Types”
By: Jeffrey Wang
Attending: The Bishop's School 11th Grade
Advised by: Anthony Pelletier
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Senior Division Grand Award: The Taiwan Award GSDSEF Stage

Booth #204
Individual Senior Division Microbiology
TITLE: “The Road to the Cure of Alzheimer's”
By: Haya Belbese
Attending: Bright Horizon Academy 9-12 9th Grade
Advised by: Najwan Naserelldin
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Price-Pottenger Nutrition Foundation Professional Society Winner
• Kaiser Permanente Professional Society Honorable Mention

Booth #207
Individual Senior Division Microbiology
TITLE: “Antibacterial Polymer: Aloe Vera Synthesis of Nano-silver Polymer and its Application”
By: Kara Fan
Attending: Westview High School 9th Grade
Advised by: Matt Christopher
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner
Booth #208
Individual Senior Division Microbiology
TITLE: “A Novel Approach to Killing Klebsiella Pneumoniae Using Endolysins and Polycationic Peptides”
By: Eleanor Jung
Attending: Mt. Carmel High School 9th Grade
Advised by: Amy Klingborg
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Life Sciences GRAND AWARD Runner Up (Sr) GSDSEF Stage
- Biophysical Society Professional Society Winner

Booth #212
Individual Senior Division Microbiology
TITLE: “Antioxidants: A Potential Key In Preventing Radiotherapy Cell Toxicity”
By: Shukriya Osman
Attending: Bright Horizon Academy 9-12 9th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 1st
AWARDS WON:
- Kaiser Permanente Professional Society Honorable Mention
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Honorable Mention

Booth #219
Individual Senior Division Physics & Astronomy
TITLE: “Determining Plastics with a Grating Spectrometer”
By: Francisco Catanzaro
Attending: Cathedral Catholic High School 11th Grade
Advised by: Marjan Rafie
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Senior Division Physical Sciences ISEF GRAND AWARD GSDSEF Stage
- American Society for Non Destructive Testing (San Diego Section) Professional Society Winner
- DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner
- San Diego Astronomy Association Professional Society Winner

Booth #220
Individual Senior Division Physics & Astronomy
TITLE: “Effect of Down Force of the Best Beyblades using a MainStays Fan”
By: Efrain Tanori
Attending: Central Union High School 11th Grade
Advised by: Lourdes Rueda
PLACEMENT: 3rd
AWARDS WON:
- San Diego Astronomy Association Professional Society Honorable Mention
Booth #221
Individual Senior Division Physics & Astronomy
TITLE: “Characterizing the Pulsations of Delta Scuti Stars Using the Mg I b Triplet”
By: Vivek Vijayakumar
Attending: San Marcos High School 11th Grade
Advised by: Robert Terrill
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- Physical Sciences GRAND AWARD Runner Up (Sr.) GSDSEF Stage
- Armed Forces Communications and Electronics Association Professional Society Winner
- California Association of Professional Scientists Professional Society Winner
- DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner
- San Diego Astronomy Association Professional Society Winner

Booth #223
Individual Senior Division Plant Sciences
TITLE: “Effects of Mycorrhizal Networks on Carbon Flow Between Plants”
By: Malvyn Lai
Attending: Mt. Everest Academy 9th Grade
Advised by: Rebeca Pachon
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- San Diego Audubon Society Professional Society Winner
- San Diego Zoo Global Professional Society Honorable Mention

Booth #501
Individual Junior Division Animal Sciences
TITLE: “Investigating Plastic Contaminants Present in the Alimentary Tracts of Fish”
By: Mele Barton
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
AWARDS WON:
- Association for Women in Science San Diego Chapter Professional Society Winner
- San Diego County Veterinary Medical Association Professional Society Winner
- San Diego Zoo Global Professional Society Honorable Mention
- National Oceanic and Atmospheric Administration “Taking the Pulse of the Planet” Award ISEF Affiliate Award Winner
Booth #502
Team Junior Division Animal Sciences
TITLE: “Dog Saliva vs. Human Saliva”
By: Preston Bove
By: Carlie Burns
Attending: St. John School - Encinitas, CA 7th Grade
Advised by: Gena Heins
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• San Diego County Dental Society Professional Society Winner

Booth #522
Individual Junior Division Behavioral & Social Sciences
TITLE: “The Effect of Your Age on How Scared You Are”
By: Maya Bateman
Attending: The Children's School 8th Grade
Advised by: Tina Brown
PLACEMENT: 1st
AWARDS WON:
• San Diego Psychological Association Professional Society Honorable Mention

Booth #523
Team Junior Division Behavioral & Social Sciences
TITLE: “Who Follows the Rules?”
By: Grace Howard
By: Taylor Belanich
Attending: The Rhoades School 7th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Price-Pottenger Nutrition Foundation Professional Society Winner
• San Diego Psychological Association Professional Society Winner

Booth #527
Individual Junior Division Behavioral & Social Sciences
TITLE: “Effects of Positive Vocalizations On Athletic Performance”
By: Griffin Cappiello
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 3rd
AWARDS WON:
• San Diego Psychological Association Professional Society Honorable Mention
Booth #540
Individual Junior Division Behavioral & Social Sciences
TITLE: “Testing the Effectiveness of the Flipped Classroom Model on Student Recall”
By: Leila Elasaad
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• San Diego Mensa Professional Society Winner
• San Diego Psychological Association Professional Society Honorable Mention

Booth #542
Individual Junior Division Behavioral & Social Sciences
TITLE: “Does Color Have an Effect on Our Memory?”
By: Sophia Frank
Attending: St. John School - Encinitas, CA 7th Grade
Advised by: Gena Heins
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner

Booth #546
Individual Junior Division Behavioral & Social Sciences
TITLE: “The Power of Suggestion”
By: Karis Goodwin
Attending: St. John School - Encinitas, CA 8th Grade
Advised by: Gena Heins
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• San Diego Mensa Professional Society Winner
• San Diego Psychological Association Professional Society Honorable Mention

Booth #548
Individual Junior Division Behavioral & Social Sciences
By: Marc Jinich
Attending: San Diego Jewish Academy 7-8 8th Grade
Advised by: Lily Deveau
PLACEMENT: 2nd
AWARDS WON:
• San Diego Psychological Association Professional Society Honorable Mention
**Booth #552**
Individual Junior Division Behavioral & Social Sciences  
**TITLE:** “Effect of Color On Memory”  
**By:** Safwa Khan  
**Attending:** Bright Horizon Academy 6-8 8th Grade  
**Advised by:** Najwan Naserelddin  
**PLACEMENT:** 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
Invited to apply for BROADCOM MASTERS competition  
**AWARDS WON:**  
- California School Nurse Organization: San Diego/Imperial Section Professional Society Honorable Mention

**Booth #554**
Individual Junior Division Behavioral & Social Sciences  
**TITLE:** “Reaction Time”  
**By:** Christopher Lindgren  
**Attending:** St. Didacus Parish School 7th Grade  
**Advised by:** Rita Blickenstaff  
**PLACEMENT:** 2nd  
**AWARDS WON:**  
- San Diego Psychological Association Professional Society Winner

**Booth #556**
Individual Junior Division Behavioral & Social Sciences  
**TITLE:** “Investigating Anxiety Levels In Preadolescent Vs. Adolescent Children”  
**By:** Lily Masi  
**Attending:** The Rhoades School 7th Grade  
**Advised by:** Roxanne Hunker  
**PLACEMENT:** 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
Invited to apply for BROADCOM MASTERS competition  
**AWARDS WON:**  
- Association for Women in Science San Diego Chapter Professional Society Winner  
- San Diego Psychological Association Professional Society Honorable Mention

**Booth #562**
Individual Junior Division Behavioral & Social Sciences  
**TITLE:** “The Effect of Teaching Nonverbal Communication on Nonverbal Communication Knowledge”  
**By:** Shane Montal  
**Attending:** The Children's School 7th Grade  
**Advised by:** Diana Quincannon  
**PLACEMENT:** 1st  
**AWARDS WON:**  
- San Diego Psychological Association Professional Society Winner
Booth #566
Individual Junior Division Behavioral & Social Sciences
TITLE: “The Effects of Roris Marini on Recall in Adolescent Test Subjects”
By: Wesley Nesbitt
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 2nd
AWARDS WON:
- SLB Honor Society Award GSDSEF Stage
- San Diego Psychological Association Professional Society Honorable Mention

Booth #576
Individual Junior Division Behavioral & Social Sciences
TITLE: “Who Has Better Memory-- Introverts or Extroverts?”
By: Denisse Podolsky
Attending: Soille San Diego Hebrew Day School 8th Grade
Advised by: Matt Bessler
PLACEMENT: 1st
AWARDS WON:
- San Diego Mensa Professional Society Winner

Booth #578
Individual Junior Division Behavioral & Social Sciences
TITLE: “Comparing Paper and Computer”
By: Qudsia Qarar
Attending: Bright Horizon Academy 6-8 7th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 2nd
AWARDS WON:
- Association for Women in Science San Diego Chapter Professional Society Honorable Mention
- San Diego Psychological Association Professional Society Honorable Mention

Booth #579
Individual Junior Division Behavioral & Social Sciences
TITLE: “It’s All In Your Head: Inside a Stutterer’s Brain”
By: Adriana Quezada
Attending: St. John School - Encinitas, CA 8th Grade
Advised by: Gena Heins
PLACEMENT: 1st
AWARDS WON:
- San Diego Psychological Association Professional Society Winner
- Association for Women in Science San Diego Chapter Professional Society Honorable Mention
Booth #582
Individual Junior Division Behavioral & Social Sciences
TITLE: “The Empathy Mechanism: Using a Quotient To Evaluate the Effects of Gender and Age”
By: Leia Ryan
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Life Sciences GRAND AWARD Runner Up (Jr) GSDSEF Stage
• Association for Women in Science San Diego Chapter Professional Society Winner
• San Diego Psychological Association Professional Society Winner

Booth #585
Individual Junior Division Behavioral & Social Sciences
TITLE: “Quantifying the Impact of Search-Order Bias on Voting Preferences using a Simulated Web Environment”
By: Agastya Sridharan
Attending: Thurgood Marshall Middle School 8th Grade
Advised by: Erin Schumacher
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• San Diego Mensa Professional Society Winner
• San Diego Psychological Association Professional Society Winner

Booth #588
Team Junior Division Behavioral & Social Sciences
TITLE: “Exploring Effects of Transient Emotions on Short Term vs Long Term Recall”
By: Jamie Jane Weston
By: Mehar Thaper
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• San Diego Psychological Association Professional Society Honorable Mention

Booth #602
Individual Junior Division Biochemistry
TITLE: “Turmeric: The Effect on Metals in Healthy Cells”
By: Hafsah Kazi
Attending: Bright Horizon Academy 6-8 7th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Winner
Booth #615
Individual Junior Division Chemistry
TITLE: “Preventing Condensation on Eyeglasses”
By: Lukky De Guzman
Attending: Chula Vista Middle School 8th Grade
Advised by: Tina Tom
PLACEMENT: 3rd
AWARDS WON:
- BD “Advancing the World of Health” Award Professional Society Winner (STAGE)
- American Chemical Society, San Diego Section Professional Society Winner

Booth #616
Individual Junior Division Chemistry
TITLE: “Acid Attack”
By: Nathan Do
Attending: Farb Middle School 8th Grade
Advised by: Patricia Huntington
PLACEMENT: 3rd
AWARDS WON:
- NACE International Professional Society Winner

Booth #620
Individual Junior Division Chemistry
TITLE: “Water and Nitrates”
By: Sam Fries
Attending: St. Didacus Parish School 8th Grade
Advised by: Rita Blickenstaff
PLACEMENT: 2nd
AWARDS WON:
- WateReuse Association - San Diego Regional Chapter Professional Society Winner

Booth #621
Individual Junior Division Chemistry
TITLE: “Types of Paint and Temperature vs Drying Time”
By: Alexis Green
Attending: St. Michael Academy San Diego 7th Grade
Advised by: Marlin Escalante
PLACEMENT: 1st
AWARDS WON:
- NACE International Professional Society Winner

Booth #633
Individual Junior Division Chemistry
TITLE: “Does Copper Ionization Work Better than Chemicals in Killing Algae?”
By: Jocelyn Sweeney
Attending: Nazareth School 7th Grade
Advised by: Marilyn Reed
PLACEMENT: 2nd
AWARDS WON:
- American Chemical Society, San Diego Section Professional Society Winner
- Association for Women in Science San Diego Chapter Professional Society Winner
Booth #635
Individual Junior Division Chemistry
TITLE: “What Recipe for Bath Bombs Makes the Fizziest Bath Bomb?”
By: Maya Zagursky
Attending: San Diego Jewish Academy 7-8 8th Grade
Advised by: Lily Deveau
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
- American Chemical Society, San Diego Section Professional Society Winner

Booth #639
Individual Junior Division Computer Science
TITLE: “Using Machine Learning to Detect and Identify Food Products for the Sight Impaired.”
By: Ashton Anderson
Attending: Correia Middle School 8th Grade
Advised by: Jeff Flosky
PLACEMENT: 2nd
AWARDS WON:
- Armed Forces Communications and Electronics Association Professional Society Winner
- Hillcrest-Mission Valley Lions Club Professional Society Winner

Booth #640
Team Junior Division Computer Science
TITLE: “Generating Color Through Coding an Infinity Mirror”
By: Koe Goodsell
By: Logan Benintend
Attending: The Rhoades School 7th Grade
Advised by: Roxanne Hunker
PLACEMENT: 3rd
AWARDS WON:
- DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner

Booth #641
Individual Junior Division Computer Science
TITLE: “Look Away: Vision App”
By: Liora Berg
Attending: Soille San Diego Hebrew Day School 8th Grade
Advised by: Matt Bessler
PLACEMENT: 3rd
AWARDS WON:
- San Diego County Optometric Society Professional Society Winner
Booth #642
Team Junior Division Computer Science
TITLE: “Fall Detection: Using Artificial Intelligence to Help the Elderly”
By: Arjun Chatha
By: David Samy
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
AWARDS WON:
• Institute of Electrical and Electronics Engineers Professional Society Winner
• San Diego County Optometric Society Professional Society Winner
• Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Winner
• Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Honorable Mention

Booth #647
Individual Junior Division Computer Science
TITLE: “Forecasting Stock Market Values Using Machine Learning”
By: Kai Goodsell
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Selected as Alternate for (cancelled) California State Science & Engineering Fair
AWARDS WON:
• Armed Forces Communications and Electronics Association Professional Society Winner

Booth #648
Individual Junior Division Computer Science
TITLE: “What Materials Can Reduce A WiFi Signal”
By: Andrew Martinez
Attending: St. Mary Star of the Sea School 6th Grade
Advised by: Janice Alonso
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
AWARDS WON:
• American Society of Materials International, San Diego Chapter Professional Society Winner

Booth #650
Team Junior Division Computer Science
TITLE: “AI-Based Obstacle Detection and Notification for the Visually Impaired”
By: Rikhil Rao
By: Rahul Rao
Attending: Pacific Trails Middle School 8th Grade
Advised by: Samantha Thacker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Winner
• Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Honorable Mention
**Booth #651**

Individual Junior Division Computer Science  
**TITLE:** “Using a Neural Network to Determine Emotion in Music”  
**By:** Aleister Steadman  
**Attending:** Wangenheim Middle School 8th Grade  
**Advised by:** Marin Silva  
**PLACEMENT:** 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
Invited to apply for BROADCOM MASTERS competition  
**AWARDS WON:**  
- Physical Sciences GRAND AWARD Runner Up (Jr.) GSDSEF Stage

**Booth #655**

Individual Junior Division Earth & Planetary Science  
**TITLE:** “Why is there Extra Light in our Skies?”  
**By:** Morgan Brady  
**Attending:** Stella Maris Academy 8th Grade  
**Advised by:** Adrienne Jones  
**PLACEMENT:** 2nd  
**AWARDS WON:**  
- San Diego Astronomy Association Professional Society Winner  
- San Diego Section of the International Dark Sky Association Professional Society Winner  
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Honorable Mention

**Booth #657**

Individual Junior Division Earth & Planetary Science  
**TITLE:** “Percolation: Quantifying the Movement of Water Through Soil”  
**By:** Marcus Catanzaro  
**Attending:** Pacific Beach Middle School 8th Grade  
**Advised by:** Greg Greenberg  
**PLACEMENT:** 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
Invited to apply for BROADCOM MASTERS competition  
**AWARDS WON:**  
- San Diego County Water Authority Professional Society Winner  
- San Diego Post of the Society of American Military Engineers Professional Society Winner

**Booth #663**

Individual Junior Division Earth & Planetary Science  
**TITLE:** “Wave Runup and Ocean Floor Composition”  
**By:** Gabriela Serena  
**Attending:** St. Michael’s School - Poway 7th Grade  
**Advised by:** June Poling  
**PLACEMENT:** 2nd  
**AWARDS WON:**  
- Marine Technology Society Professional Society Winner  
- Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner
Booth #664
Individual Junior Division Earth & Planetary Science
TITLE: “The Effect of Different Types of Sunscreens on Brine Shrimp”
By: Sophia Tamashiro
Attending: City Tree Christian School 6-8 8th Grade
Advised by: Michelle Lee
PLACEMENT: 1st
Selected as Alternate for (cancelled) California State Science & Engineering Fair
AWARDS WON:
• Marine Technology Society Professional Society Winner
• Association for Women Geoscientists ISEF Affiliate Winner

Booth #665
Individual Junior Division Earth & Planetary Science
TITLE: “The Impact of Light Pollution”
By: Kandice Alvarado
Attending: Corfman School 7th Grade
Advised by: Isaac Leon
PLACEMENT: 3rd
AWARDS WON:
• San Diego Section of the International Dark Sky Association Professional Society Honorable Mention

Booth #667
Team Junior Division Engineering, Electrical & Mechanical
TITLE: “The Memory Metal”
By: Brendan Cordaro
By: Michael Apalatea
Attending: St. John School - Encinitas, CA 8th Grade
Advised by: Gena Heins
PLACEMENT: 3rd
AWARDS WON:
• American Society of Materials International, San Diego Chapter Professional Society Honorable Mention

Booth #668
Team Junior Division Engineering, Electrical & Mechanical
TITLE: “Constructing an Affordable Robotic Device that Automates Multiple Agricultural Tasks”
By: Tom Bamford
By: Ashur Taylor
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT:
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
Booth #673
 Individual Junior Division Engineering, Electrical & Mechanical
 TITLE: “Solectricity”
 By: Chris Choi
 Attending: Corfman School 7th Grade
 Advised by: Isaac Leon
 PLACEMENT: 1st
 AWARDS WON:
 • Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

Booth #677
 Individual Junior Division Engineering, Electrical & Mechanical
 TITLE: “Generating Energy from Sewage Water Flow”
 By: Jennine Manalo
 Attending: St. Rita’s Catholic School 8th Grade
 Advised by: Ahmad Rice
 PLACEMENT: 1st
 Invited to Attend (cancelled) California Science & Engineering Fair
 Invited to apply for BROADCOM MASTERS competition
 AWARDS WON:
 • Building Industry Association Cares Professional Society Winner
 • San Diego County Water Authority Professional Society Winner
 • WateReuse Association - San Diego Regional Chapter Professional Society Winner
 • Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

Booth #678
 Individual Junior Division Engineering, Electrical & Mechanical
 TITLE: “Mapping the Field of an Electromagnet”
 By: Nathan McKinney
 Attending: Good Shepherd Catholic School 8th Grade
 Advised by: Mary Anne McNeil
 PLACEMENT: 2nd
 AWARDS WON:
 • American Society for Non Destructive Testing (San Diego Section) Professional Society Winner
 • Armed Forces Communications and Electronics Association Professional Society Winner

Booth #680
 Individual Junior Division Engineering, Electrical & Mechanical
 TITLE: “Motor’s Role in Robot Mobility”
 By: Cecilia Moxley
 Attending: De Portola Middle School 8th Grade
 Advised by: Michael Bridges
 PLACEMENT: 1st
 Invited to Attend (cancelled) California Science & Engineering Fair
 Invited to apply for BROADCOM MASTERS competition
 AWARDS WON:
 • Armed Forces Communications and Electronics Association Professional Society Winner
 • Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner
Booth #689
Individual Junior Division Engineering, Electrical & Mechanical
TITLE: “Raspberry Pi Powered Microscopic Particle Detector Using Image Processing”
By: Kyle Tianshi
Attending: The Cambridge School High School 8th Grade
Advised by: Melissa Mayne
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Physical Sciences GRAND AWARD (Jr.) GSDSEF Stage
• American Society of Mechanical Engineers Professional Society Winner
• Armed Forces Communications and Electronics Association Professional Society Winner
• DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner
• Institute of Electrical and Electronics Engineers Professional Society Winner
• San Diego Post of the Society of American Military Engineers Professional Society Winner
• General Atomics Sciences Education Foundation Advanced Materials Award Professional Society Honorable Mention
• Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

Booth #691
Individual Junior Division Engineering, Electrical & Mechanical
TITLE: “Engineering a Hand”
By: Lorenzo Valenzuela
Attending: Corfman School 7th Grade
Advised by: Isaac Leon
PLACEMENT: 2nd
AWARDS WON:
• Armed Forces Communications and Electronics Association Professional Society Winner

Booth #698
Individual Junior Division Engineering, Energy & Transport
TITLE: “Soaring Through the Science of Rockets”
By: Kyle Estep
Attending: Farb Middle School 8th Grade
Advised by: Patricia Huntington
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Armed Forces Communications and Electronics Association Professional Society Winner
• Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner
Booth #713

Individual Junior Division Engineering, Energy & Transport

TITLE: “Superconductors: The Future of Transportation?”

By: Nicholas Usher

Attending: Classical Academy Middle School 8th Grade

Advised by: Jennifer Morrow

PLACEMENT: 1st

Invited to Attend (cancelled) California Science & Engineering Fair

Invited to apply for BROADCOM MASTERS competition

AWARDS WON:

- Physical Sciences GRAND AWARD WINNER (Jr.) GSDSEF Stage
- Professional Engineers in California Government Professional Society Winner (STAGE)
- Armed Forces Communications and Electronics Association Professional Society Winner
- General Atomics Sciences Education Foundation Advanced Materials Award Professional Society Winner
- American Institute of Aeronautics and Astronautics - San Diego Section Professional Society Winner
- San Diego Science Educators Association Professional Society Winner

Booth #714

Individual Junior Division Engineering, Energy & Transport

TITLE: “Harvesting Piezoelectricity from Commonly Used Devices”

By: Kashifa Vellore

Attending: Bernardo Heights Middle School 7th Grade

Advised by: Linguie Cao

PLACEMENT: 1st

Invited to Attend (cancelled) California Science & Engineering Fair

AWARDS WON:

- American Society of Materials International, San Diego Chapter Professional Society Honorable Mention

Booth #715

Individual Junior Division Engineering, Energy & Transport

TITLE: “What’s the Best Cooking Pot Material?”

By: Alondra Villa

Attending: Chula Vista Middle School 8th Grade

Advised by: Gina Saclauso-Caro

PLACEMENT: 2nd

AWARDS WON:

- Society of Women Engineers - San Diego County Section Professional Society Winner
- American Society of Materials International, San Diego Chapter Professional Society Honorable Mention

Booth #721

Individual Junior Division Engineering, Materials & Bioengineering

TITLE: “Raise The Roof-Top Gardens”

By: Dayna Coates

Attending: Rancho del Rey Middle School 8th Grade

Advised by: Dawn Castillo

PLACEMENT: 3rd

AWARDS WON:

- Association for Women in Science San Diego Chapter Professional Society Winner
Booth #726
Individual Junior Division Engineering, Materials & Bioengineering
TITLE: “Is It Possible to Make a Biodegradable Straw Out of Casein Plastic?”
By: Veronica Griger
Attending: Coastal Academy 7th Grade
Advised by: Bridget Biernacki
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• American Society of Materials International, San Diego Chapter Professional Society Winner
• Society of Women Engineers - San Diego County Section Professional Society Winner

Booth #728
Individual Junior Division Engineering, Materials & Bioengineering
TITLE: “Why It Breaks”
By: Cooper Lynch
Attending: San Diego Jewish Academy 7-8 8th Grade
Advised by: Lily Deveau
PLACEMENT: 2nd
AWARDS WON:
• NACE International Professional Society Winner

Booth #729
Individual Junior Division Engineering, Materials & Bioengineering
TITLE: “Ocean Pollution Solution”
By: Nina Maya
Attending: Soille San Diego Hebrew Day School 8th Grade
Advised by: Matt Bessler
PLACEMENT: 3rd
AWARDS WON:
• Marine Technology Society Professional Society Honorable Mention

Booth #731
Individual Junior Division Engineering, Materials & Bioengineering
TITLE: “Structures that Reduce Tsunami Damage”
By: Liam Patterson
Attending: St. Didacus Parish School 7th Grade
Advised by: Rita Blickenstaff
PLACEMENT: 3rd
AWARDS WON:
• Marine Technology Society Professional Society Honorable Mention
**Booth #740**

Team Junior Division Environmental Sciences & Management

**TITLE:** “How Does the Presence of Heavy Metals Affect Aquatic Environments?”

**By:** Brando Banco  
**By:** Jacob Antonio  
**Attending:** Wangenheim Middle School 8th Grade  
**Advised by:** Marin Silva  
**PLACEMENT:** 3rd  
**AWARDS WON:**  
- Marine Technology Society Professional Society Honorable Mention

**Booth #744**

Team Junior Division Environmental Sciences & Management

**TITLE:** “Light Pollution”

**By:** Alex Burkart  
**By:** Eoin Buechs  
**Attending:** St. John School - Encinitas, CA 8th Grade  
**Advised by:** Gena Heins  
**PLACEMENT:** 4th  
**AWARDS WON:**  
- San Diego Section of the International Dark Sky Association Professional Society Honorable Mention

**Booth #749**

Individual Junior Division Environmental Sciences & Management

**TITLE:** “H2 Oh No! Which San Diego Public Parks Have the Cleanest Drinking Water?”

**By:** Ryan De Guzman  
**Attending:** Good Shepherd Catholic School 8th Grade  
**Advised by:** Mary Anne McNeil  
**PLACEMENT:** 3rd  
**AWARDS WON:**  
- California Environmental Health Association - Southwest Chapter/County of San Diego, Department of Environmental Health Professional Society Honorable Mention

**Booth #751**

Individual Junior Division Environmental Sciences & Management

**TITLE:** “Reach for the Stars”

**By:** Colin Dionne  
**Attending:** St. Peter the Apostle Catholic School 7th Grade  
**Advised by:** Ted Fantano  
**PLACEMENT:** 4th  
**AWARDS WON:**  
- San Diego Section of the International Dark Sky Association Professional Society Honorable Mention
Booth #752
Team Junior Division Environmental Sciences & Management
Title: “Quantifying the Effectiveness of P. ostreatus in Mycoremediation of Heavy Metals”
By: Adam Esch
By: Grace Millikin
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
Placement: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
Awards Won:
• Association for Women in Science San Diego Chapter Professional Society Winner

Booth #753
Individual Junior Division Environmental Sciences & Management
Title: “Can San Diego’s Freshwater pH Sustain Rainbow Trout Population?”
By: Savanna Grodeman
Attending: Chula Vista Middle School 8th Grade
Advised by: Tina Tom
Placement: 3rd
Awards Won:
• Marine Technology Society Professional Society Winner

Booth #754
Individual Junior Division Environmental Sciences & Management
Title: “Oceans Without Border”
By: Alayda Guerrero
Attending: Chula Vista Middle School 8th Grade
Advised by: Gina Saclauso-Caro
Placement: 3rd
Awards Won:
• Marine Technology Society Professional Society Winner

Booth #755
Individual Junior Division Environmental Sciences & Management
Title: “Temperature and Beach water pH”
By: Marcos Hernandez
Attending: St. Didacus Parish School 8th Grade
Advised by: Rita Blickenstaff
Placement: 4th
Awards Won:
• Marine Technology Society Professional Society Winner
Booth #756
Individual Junior Division Environmental Sciences & Management
TITLE: “Can Bacteria Break Down Engine Oil?”
By: Fatuma Ismail
Attending: Bright Horizon Academy 6-8 8th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 2nd
AWARDS WON:
• Marine Technology Society Professional Society Winner

Booth #757
Individual Junior Division Environmental Sciences & Management
By: Tanner Kamencik
Attending: All Hallows Academy 7th Grade
Advised by: Jennifer Meza
PLACEMENT: 2nd
AWARDS WON:
• DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner

Booth #758
Team Junior Division Environmental Sciences & Management
TITLE: “Documenting the Prevalence of Invasive Species at the Batiquitos Lagoon”
By: Rohan Keswani
By: Elias Samady
Attending: The Rhoades School 7th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• San Diego Zoo Global Professional Society Winner (STAGE)
• Friends of Famosa Slough Professional Society Winner
• Torrey Pines Docent Society Professional Society Winner

Booth #764
Individual Junior Division Environmental Sciences & Management
By: Willa Norvell
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Torrey Pines Docent Society Professional Society Winner
Booth #765
Individual Junior Division Environmental Sciences & Management
TITLE: “Air Pollutants In Our Environment”
By: Alyssa Ortega
Attending: Corfman School 8th Grade
Advised by: Christina Butler
PLACEMENT: 2nd
AWARDS WON:
• BD “Advancing the World of Health” Award Professional Society Winner (STAGE)

Booth #767
Team Junior Division Environmental Sciences & Management
TITLE: “Exploring Water Quality at the Buena Vista Lagoon”
By: Kelly Bordine
By: Kaitlyn Podlich
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 2nd
AWARDS WON:
• Friends of Famosa Slough Professional Society Winner
• San Diego County Water Authority Professional Society Winner

Booth #772
Individual Junior Division Environmental Sciences & Management
TITLE: “Effectiveness of Homemade Desalinators”
By: Peyton Slinkard
Attending: St. Didacus Parish School 7th Grade
Advised by: Rita Blickenstaff
PLACEMENT: 4th
AWARDS WON:
• Armed Forces Communications and Electronics Association Professional Society Winner
• Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

Booth #777
Individual Junior Division Mathematical Sciences
TITLE: “Mathematical Origami Models for Space Structures Based on the Axial Compressibility of Cones”
By: Nandana Madhukara
Attending: Pacific Trails Middle School
Advised by: Kathryn Freeman
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Physical Sciences GRAND AWARD Runner Up (Jr.) GSDSEF Stage
• American Institute of Aeronautics and Astronautics - San Diego Section Professional Society Winner
• DoD STEM Leadership Prize ISEF Affiliate Winner
Booth #782
Team Junior Division Medicine & Health Sciences
TITLE: “A Study of Padding”
By: Tyler Duong
By: Ethan Bertelotti
Attending: St. Michael's School - Poway 7th Grade
Advised by: Kaley McHale
PLACEMENT: 3rd
AWARDS WON:
• San Diego Society of Health-System Pharmacists Professional Society Honorable Mention

Booth #783
Team Junior Division Medicine & Health Sciences
TITLE: “Hearing Loss When You Use Headphones, Earbuds, Airpods”
By: Patrick Dockery
By: Gustavo Serena
Attending: St. Michael's School - Poway 7th Grade
Advised by: Kaley McHale
PLACEMENT: 2nd
AWARDS WON:
• California School Nurse Organization: San Diego/Imperial Section Professional Society Winner
• San Diego Society of Health-System Pharmacists Professional Society Honorable Mention
• Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Honorable Mention

Booth #786
Individual Junior Division Medicine & Health Sciences
TITLE: “One Step Closer to Ending Diabetes by Choosing the Right Variety of Rice”
By: Reem Hmoud
Attending: Bright Horison Academy 6-8 7th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 1st
Selected as Alternate for (cancelled) California State Science & Engineering Fair
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Honorable Mention
• California School Nurse Organization: San Diego/Imperial Section Professional Society Honorable Mention

Booth #791
Team Junior Division Medicine & Health Sciences
TITLE: “Investigating Antimicrobial Properties of Eco-Friendly Herbal Disinfectants”
By: Audrey Link
By: Divya Sharma
Attending: The Rhoades School 7th Grade
Advised by: Roxanne Hunker
PLACEMENT: 2nd
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Winner
**Booth #801**

Individual Junior Division Medicine & Health Sciences  
**TITLE:** “Evaluating Single Nucleotide Polymorphisms in the Correlation of Phenotypes to Type 2 Diabetes”  
By: Bhadra Rupesh  
Attending: The Rhoades School 8th Grade  
Advised by: Roxanne Hunker  
**PLACEMENT:** 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
Invited to apply for BROADCOM MASTERS competition  
**AWARDS WON:**  
- Life Sciences GRAND AWARD WINNER (Jr) GSDSEF Stage  
- San Diego Society of Health-System Pharmacists Professional Society Winner

**Booth #804**

Individual Junior Division Medicine & Health Sciences  
**TITLE:** “How Pollution is Affecting Children in the Imperial/Mexicali Valley”  
By: Melissa Soberanes  
Attending: Our Lady of Guadalupe Academy 6th Grade  
Advised by: Joshua Patton  
**PLACEMENT:** 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
Invited to apply for BROADCOM MASTERS competition  
**AWARDS WON:**  
- BD “Advancing the World of Health” Award Professional Society Winner (STAGE)  
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Winner  
- Society of Women Engineers - San Diego County Section Professional Society Winner

**Booth #806**

Individual Junior Division Medicine & Health Sciences  
**TITLE:** “Will Organic Really Make a Difference?”  
By: Sarah Youssef  
Attending: Bright Horizon Academy 6-8 7th Grade  
Advised by: Najwan Naserelldin  
**PLACEMENT:** 1st  
Invited to Attend (cancelled) California Science & Engineering Fair  
Invited to apply for BROADCOM MASTERS competition  
**AWARDS WON:**  
- Association for Women in Science San Diego Chapter Professional Society Honorable Mention  
- Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Honorable Mention
Booth #807
Individual Junior Division Medicine & Health Sciences
TITLE: “Designing A Low-cost, High-sensitivity Method For Early Diagnosis Of Dry Eye Diseases”
By: Sydney Zhang
Attending: Mesa Verde Middle School 7th Grade
Advised by:
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Life Sciences GRAND AWARD WINNER (Jr) GSDSEF Stage
• San Diego County Optometric Society Professional Society Winner

Booth #812
Individual Junior Division Microbiology
TITLE: “Which Works Best?? Alcohol vs. Homemade Sanitizers”
By: Farah Aswad
Attending: Bright Horizon Academy 6-8 8th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 3rd
AWARDS WON:
• Price-Pottenger Nutrition Foundation Professional Society Winner

Booth #817
Individual Junior Division Microbiology
TITLE: “The Five Second Rule”
By: Ema Escobar
Attending: St. Didacus Parish School 7th Grade
Advised by: Rita Blickenstaff
PLACEMENT: 2nd
AWARDS WON:
• California Environmental Health Association - Southwest Chapter/County of San Diego, Department of Environmental Health Professional Society Winner

Booth #818
Individual Junior Division Microbiology
TITLE: “Power of Light: The Antibacterial Effect of Red and Blue Lights”
By: Leanne Fan
Attending: Mesa Verde Middle School 6th Grade
Advised by: Danielle Fice
PLACEMENT: 1st
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
Booth #820
Individual Junior Division Microbiology
TITLE: “Is a Washed or Unwashed Egg Better at Protecting Against Bacteria”
By: Josh Kozak
Attending: All Hallows Academy 7th Grade
Advised by: Jennifer Meza
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Life Sciences GRAND AWARD Runner Up (Jr) GSDSEF Stage
• California Academy of Nutrition and Dietetics, San Diego District Professional Society Winner

Booth #824
Individual Junior Division Microbiology
TITLE: “Child and Adult Medical Clinic Waiting Rooms: Which Has More Bacteria?”
By: Shannon Stroup
Attending: Nazareth School 7th Grade
Advised by: Marylin Reed
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Winner

Booth #826
Individual Junior Division Microbiology
TITLE: “Testing the Effectiveness of Commercially Available Water Filters for Total Dissolved Solids and Microbial Growth”
By: Erin Grace Tuscano
Attending: St. Michael Academy San Diego 8th Grade
Advised by: Marilin Escalante
PLACEMENT: 2nd
AWARDS WON:
• WateReuse Association - San Diego Regional Chapter Professional Society Winner

Booth #828
Individual Junior Division Microbiology
By: Ella Yerushalmi
Attending: Soille San Diego Hebrew Day School 8th Grade
Advised by: Matt Bessler
PLACEMENT: 2nd
AWARDS WON:
• Price-Pottenger Nutrition Foundation Professional Society Winner
Booth #834
Team Junior Division Physics & Astronomy
TITLE: “Evaluating the Effectiveness of Light Shields Against Skyglow”
By: Jake Streitman
By: Sawyer Benedict
Attending: The Rhoades School 7th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
AWARDS WON:
- Building Industry Association Cares Professional Society Winner
- San Diego Astronomy Association Professional Society Winner
- San Diego Section of the International Dark Sky Association Professional Society Winner

Booth #840
Individual Junior Division Physics & Astronomy
TITLE: “Light Pollution”
By: Jackson Faust
Attending: St. John School - Encinitas, CA 7th Grade
Advised by: Gena Heins
PLACEMENT: 2nd
AWARDS WON:
- San Diego Astronomy Association Professional Society Honorable Mention

Booth #841
Individual Junior Division Physics & Astronomy
TITLE: “Make A Hit Chart Like A Pro”
By: Lucas Fouch
Attending: Bonita Vista Middle School 7th Grade
Advised by: Cynthia Shimasaki
PLACEMENT: 2nd
AWARDS WON:
- Mickey Award GSDSEF Stage

Booth #843
Individual Junior Division Physics & Astronomy
TITLE: “Model Rocket Aerodynamics”
By: Micah Hall
Attending: Mt. Helix Academy 7th Grade
Advised by: John Hudson
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
- American Institute of Aeronautics and Astronautics - San Diego Section Professional Society Winner
Booth #847
Individual Junior Division Physics & Astronomy
TITLE: “Bumper to Bumper”
By: Jack Licha
Attending: Soille San Diego Hebrew Day School 8th Grade
Advised by: Matt Bessler
PLACEMENT: 1st
AWARDS WON:
• San Diego Science Educators Association Professional Society Winner

Booth #853
Individual Junior Division Physics & Astronomy
TITLE: “The Effects of Various Wavelengths on Rod Activity”
By: Tejas Ravi
Attending: The Rhoades School 7th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Armed Forces Communications and Electronics Association Professional Society Winner
• DRS Daylight Solutions Award for Optics and Photonics Professional Society Winner
• Institute of Electrical and Electronics Engineers Professional Society Winner
• San Diego Astronomy Association Professional Society Winner

Booth #863
Individual Junior Division Plant Sciences
TITLE: “Wifi the Death to Plants?”
By: Jodie Marie Cagayao
Attending: St. Michael Academy San Diego 7th Grade
Advised by: Marilin Escalante
PLACEMENT: 2nd
AWARDS WON:
• Price-Pottenger Nutrition Foundation Professional Society Winner

Booth #870
Individual Junior Division Plant Sciences
TITLE: “Effect of Elements on Plants”
By: Rozita Kareem
Attending: Bright Horizon Academy 6-8 8th Grade
Advised by: Najwan Naserelddin
PLACEMENT: 2nd
AWARDS WON:
• San Diego Zoo Global Professional Society Honorable Mention
Booth #888
Individual Junior Division Plant Sciences
TITLE: “The Effect of Extra Water on Closely Spaced Plants”
By: Rebecca Venger
Attending: Soille San Diego Hebrew Day School 8th Grade
Advised by: Matt Bessler
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Honorable Mention

Booth #901
Individual Junior Division Product Testing/Consumer Science
By: Anusha Chatha
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Winner

Booth #904
Individual Junior Division Product Testing/Consumer Science
TITLE: “Comparing the Effectiveness of Various Face Masks in Blocking Coarse and Fine Particulates”
By: Cameron Do
Attending: The Rhoades School 8th Grade
Advised by: Roxanne Hunker
PLACEMENT: 1st
Selected as Alternate for (cancelled) California State Science & Engineering Fair
AWARDS WON:
• San Diego Post of the Society of American Military Engineers Professional Society Winner
• California School Nurse Organization: San Diego/Imperial Section Professional Society Honorable Mention

Booth #913
Individual Junior Division Product Testing/Consumer Science
TITLE: “Soaking Up the Sun”
By: Katie Hayek
Attending: St. Peter the Apostle Catholic School 8th Grade
Advised by: Theodore Fantano
PLACEMENT: 2nd
AWARDS WON:
• Association for Women in Science San Diego Chapter Professional Society Honorable Mention
Booth #927

Team Junior Division Product Testing/Consumer Science

TITLE: “Bottle of the Brands”

By: Margaret Nasry
By: Rosy Montejo

Attending: St. Peter the Apostle Catholic School 8th Grade

Advised by: Theodore Fantano

PLACEMENT: 1st

Invited to Attend (cancelled) California Science & Engineering Fair
Invited to apply for BROADCOM MASTERS competition

AWARDS WON:
- Association for Women in Science San Diego Chapter Professional Society Winner