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

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

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

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

- American Society of Mechanical Engineers Professional Society Winner
- Institute of Electrical and Electronics Engineers Professional Society Winner

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

Individual Senior Division Engineering, Materials & Bioengineering

TITLE: "Atmospheric Moisture Harvesting Device: Biomimicking Torrey Pine Needles"

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

Attending: La Jolla High School 10th Grade

By: Kavya Gupta

Attending: Westview High School 9th Grade

Advised by: Holly Eaton

PLACEMENT: 1st

Invited to Attend (cancelled) California Science & Engineering Fair

- Professional Engineers in California Government Professional Society Winner (STAGE)
- ASM Materials Education Foundation ISEF Affiliate Winner
- Stockholm Junior Water Prize ISEF Affiliate Award Winner

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'ss 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

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

- 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

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

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 Naserelddin

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

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

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

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

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 **TITLE**: "Decision Making Biases: Nature vs. Nurture"

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

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

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

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

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

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

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

- 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

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

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

• 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

AWARDS WON:

Attending: The Rhoades School 8th Grade

Advised by: Roxanne Hunker

PLACEMENT:

Invited to apply for BROADCOM MASTERS competition

Individual Junior Division Engineering, Electrical & Mechanical

TITLE: "Solectricity" **Bv**: 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

- Armed Forces Communications and Electronics Association Professional Society Winner
- Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

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

- Armed Forces Communications and Electronics Association Professional Society Winner
- Office of Naval Research (U.S. Navy/ U.S. Marine Corps) ISEF Affiliate Award Winner

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

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

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

Team Junior Division Environmental Sciences & Management

TITLE: "Quantifying the Effectiveness of P. ostreatus in Mycoremediartion 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

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

TITLE: "Would a Black Solar Tube Filled with Water Gain More Energy Than a White Solar Tube Filled with

Water?"

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

TITLE: "Woolsey Fire Burnt Soil: Analyzing Factors for Native Plant Regrowth"

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

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

Team Junior Division Medicine & Health Sciences

TITLE: "A Study of Padding"

By: Tyler Duong **By**: Ethan Bertellotti

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 Horizon 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

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 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 Honorable Mention

 Sigma Xi: The Scientific Research Honor Society (San Diego Chapter) Professional Society Honorable Mention

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

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

TITLE: "SCOBY-doo. Where Are You? A Scientific Kombucha Experiment"

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

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

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

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

TITLE: "Harvesting Water: Testing the Effectiveness of Various Sized Mesh in Fog Nets"

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

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