

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>SENIOR DIVISION</b>							
<b>SENIOR DIVISION - ANIMAL SCIENCES</b>							
SR-ANIM-261	3rd	Cruz	Diego	11	To What Extent Has Climate Change Affected the Lives of Polar Bears	Bonita Vista High School	J. Ekstein
<b>SENIOR DIVISION - BEHAVIORAL AND SOCIAL SCIENCES</b>							
SR-BEHA-127	2nd	Botello	Natalie	11	The Effect of Blue Light on Hours of Sleep	Central Union High School	L. Rueda
SR-BEHA-128	2nd	Figuroa	Alyna	10	The Effect of Masks on Facial Perception	Central Union High School	L. Rueda
SR-BEHA-046	1st CSEF	Foss	Spencer	9	Testing Visual Priming	San Diego Jewish Academy 9-12	P. Hagarman
SR-BEHA-172 Team	3rd	Kim Kim	Gina Ryan	11 10	The Factors That Influence the Popularity of Music Channels on Youtube	Del Norte High Westview High	A. Callicott A. Champoux
SR-BEHA-290	1st CSEF	Mohamed	Samiya	10	In-Person Learning vs. Online Learning	Bright Horizon Academy	N. Naserelddin
SR-BEHA-126	3rd	Munoz	Priscila	12	Difference in the Correlation Between Recurring Dream Themes and Anxiety Disorders in 2019 and 2022	Central Union High School	L. Rueda
<b>SENIOR DIVISION - BIOCHEMISTRY</b>							
SR-BCHM-125 	1st CSEF GA RU1- LS	Noto	Matthew	11	Novel Inhibitors for Conserved Regions of RecA to Slow the Development of Antibiotic Resistance in Bacteria	Canyon Crest Academy	A. Siegel
SR-BCHM-308	NS	Sahid	Mahdi	10	Vitamin D Absorbency	Bright Horizon Academy	N. Naserelddin
<b>SENIOR DIVISION - BIOMEDICAL/HEALTH SCIENCES AND BIOENGINEERING</b>							
SR-BMDE-292	3rd	Ali	Amiira	11	Is There a Link Between Blood Type and COVID-19?	Bright Horizon Academy	N. Naserelddin
SR-BMDE-249	1st CSEF	Cao	Cindy	11	Serology of Hospitalized COVID-19 Patients	Torrey Pines High School	B. Belyea
SR-BMDE-309	1st CSEF	Cotuk	Zeynep	11	Nano-material Based Encapsulation Approach for Longevity of Implantable Microelectronic Devices	Scripps Ranch High School	P. Fowler
SR-BMDE-291	2nd	Dandu	Neha	11	An Automated Diagnosis of Heart Disease Using Machine Learning	Canyon Crest Academy	A. Siegel

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<b>SENIOR DIVISION - BIOMEDICAL/HEALTH SCIENCES AND BIOENGINEERING (cont'd)</b>							
SR-BMDE-135	2nd	Hernandez	Ashley	12	The Effect of Energy Drinks on Daphnia Magna	Central Union High School	L. Rueda
SR-BMDE-136 Team	2nd	Hussain Kareem	Daanya Rozita	10 10	Detrimental Effects of Sugars on the Gut Microbiota	Bright Horizon Academy	N. Nasereldin
SR-BMDE-343	1st CSEF	Jung	Chris	11	Structural Analysis and Pharmacodynamic Characterization of a Cyclic Diterpene from Lophogorgia Coral	Canyon Crest Academy	A. Siegel
SR-BMDE-262	2nd	Kalyanaraman	Anirudh	9	Automated Detection of Traumatic Brain Injury (TBI) Using Cranial CT Images	Mt. Carmel High School	J. Earnest
SR-BMDE-132	1st CSEF	Krishnan	Maya	10	Double COVID-19 Antigen Rapid Test Strips: Nucleocapsid and Spike Proteins	La Jolla Country Day School	D. Padgett
SR-BMDE-129	1st CSEF	Kulkarni	Vidhi	10	Analysis of the Cytosolic DNA-Sensing Pathway and RNA Samples for the Early Diagnosis of Alzheimer's in Coronary Artery Disease Patients	Del Norte High School	J. Cheskaty
SR-BMDE-280	1st CSEF	Mandyam	Atulya	12	Novel Biomarker for Identification of Bipolar Disorder Treatment Response	Westview High School	M. Ingram
SR-BMDE-130	1st CSEF	Nayebnazar	Arshia	10	Developing a Machine Learning Model to Predict Hypoxemia in Subjects at Risk	Canyon Crest Academy	A. Siegel
SR-BMDE-134	1st CSEF	Yang	Elita	11	Quantitative Analysis of COVID-19 Using Nanoantibodies, Fluorescence Imaging, and Machine Learning	Pacific Ridge High School	L. O'Brien
SR-BMDE-131	1st CSEF	Zeng	Audrey	11	DO-SRS Microscopy Imaging of Lipid Metabolic Changes in Drosophila Ovary During Aging	Del Norte High School	J. Cheskaty
SR-BMDE-133	2nd	Zhang	Sydney	9	Dual Biomarkers for Point of Care Diagnosis of Dry Eye Disease	Westview High School	M. Ingram
<b>SENIOR DIVISION - CHEMISTRY</b>							
SR-CHEM-235	3rd	Chaturvedi	Archit	11	Reaction Rate Theory-based Mathematical Approximation for the Time It Takes for Cellular Respiration to Occur	Canyon Crest Academy	E. Fisher

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<b>SENIOR DIVISION - CHEMISTRY (cont'd)</b>							
SR-CHEM-146	1st CSEF	Coronel-Villarreal	Hector	10	The Effect of Temperature on BPA Release In Water Bottles	Central Union High School	L. Rueda
SR-CHEM-236	2nd	Gao	Sarah	9	Towards Green Chemistry: Predicting Molecular Optical Properties and Aquatic Biototoxicity in Silico	Canyon Crest Academy	A. Siegel
SR-CHEM-245	1st CSEF	Jeenagala	Jitendra-kumar	11	Fractionation and Analysis of Degraded Healthcare Product, St. Ives Body Lotion	Canyon Crest Academy	R. Shenvi
<b>SENIOR DIVISION - COMPUTATIONAL BIOLOGY AND BIOINFORMATICS</b>							
SR-CBIO-144	2nd	Anusha Vijayanand	Laya	10	The Impact of Population Genetics on the Severity of COVID-19 Disease	Canyon Crest Academy	A. Siegel
SR-CBIO-281	3rd	Arora	Aarav	10	Forecasting Future Mutations of the SARS-CoV-2 Spike Protein	Del Norte High School	A. Callicott
SR-CBIO-233 	1st CSEF GA-LS	Cai	Daniel	12	Deep Learning-Aided Diagnosis of Autoimmune Blistering Diseases	Torrey Pines High School	B. Belyea
SR-CBIO-142	2nd	Cao	Jessy	11	Predicting Age Using Electrocardiogram Data: Deep Learning Using an Autoencoder	University City High School	L. Wymer
SR-CBIO-263 	1st CSEF GA-LS	Chaturvedi	Amogh	11	A Novel Multi-omics Data Integration Framework Using Attributed Networks for Biomedical Classification	Canyon Crest Academy	E. Fisher
SR-CBIO-145	2nd	Dai	Nathan	10	Understanding the Spread of COVID-19 Through an Analysis of Air Pollution, Weather, Social, and Economic Factors	Canyon Crest Academy	A. Siegel
SR-CBIO-137	1st CSEF	De	Rohit	11	Accelerated Pattern Matching for Genome Sequencing Using Quantum Computing	Del Norte High School	J. Buehler
SR-CBIO-138	1st CSEF	Gantla	Maanaskum	11	Discovery of Novel Therapeutics for COVID-19 by Screening of FDA Approved Drugs Through Machine Learning	Canyon Crest Academy	A. Siegel
SR-CBIO-140	1st CSEF	Gao	Andrew	12	Generating Novel Anti-hemolytic Antiviral Peptides with Language-based Machine Learning	Canyon Crest Academy	A. Siegel

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<b>SENIOR DIVISION - COMPUTATIONAL BIOLOGY AND BIOINFORMATICS (cont'd)</b>							
SR-CBIO-234 Team	2nd	Geering Nguyen	Giselle Vivian	11	Investigating the Effects of SARS-CoV-2 Receptor Binding Domain Mutations Through Computational Modeling	Bonita Vista High School	M. Mardahl-Dumesnil
SR-CBIO-266	1st CSEF	Goudarzi	Shervin	11	Modeling Cancer Prognosis and Risk with Epigenetic Germline Variants Underlying Topological Associated Domains	Canyon Crest Academy	A. Siegel
SR-CBIO-264	2nd	Gupta	Kavya	11	Energy Efficiency Between Different Synaptic Vesicle Release Locations	Westview High School	M. Ingram
SR-CBIO-139	NS	Jung	Eleanor	11	Docking and Molecular Dynamics Simulation of a Novel Treatment for <i>Klebsiella pneumoniae</i>	Mt. Carmel High School	A. Klingborg
SR-CBIO-143	2nd	Kapoor	Ishan	11	Robust Multi-Modal, Deep Ensemble Network for Differential Diagnosis of Early Depression	Del Norte High School	S. Kapoor
SR-CBIO-265	2nd	Khattar	Zinia	9	Identifying Biomarkers of Distinctive Stress Signaling Pathways to Mitigate Pathologies Associated with Etiologically Diverse Diseases	Del Norte High School	J. Cheskaty
SR-CBIO-250	2nd	Pai	Krish	9	Detecting Propensity of Breast Cancer Using Neural Networks	Torrey Pines High School	R. Eddingfield
SR-CBIO-274	1st CSEF	Peddakama	Rishi	11	A Deep Learning Approach to Thyroid Cancer Diagnosis	Del Norte High School	S. Peddakama
SR-CBIO-141	2nd	Rupesh	Bhadra	10	Identifying Biomarkers for Severe COVID-19 through Single Nucleotide Polymorphisms in Type I & III Interferon-Pathway-Affecting Genes	The Bishop's School	L. Keller
SR-CBIO-293	2nd	Samy	David	10	Live Tracking of Structural Data of SARS CoV-2, the Causative Agent of COVID-19	Canyon Crest Academy	K. Hare
SR-CBIO-344	1st CSEF	Tsui	Andrew	10	Alzheimer's Diagnosis Using PET Imaging and EEG Data through Machine Learning	Canyon Crest Academy	A. Siegel
SR-CBIO-173	2nd	Yu	Andrew	10	Investigation of Potential Gene Pathways in Acute Myeloid Leukemia that Relate to Mutated NRAS	Canyon Crest Academy	A. Siegel

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<b>SENIOR DIVISION - COMPUTER SCIENCE AND SYSTEMS SOFTWARE</b>							
SR-COMP-267	2nd	Alwazir	Solaiman	11	Early Prediction of Heart Failure Using Machine Learning	Bright Horizon Academy	N. Naserelddin
SR-COMP-149	2nd	Chen	Richard	11	Error Mitigation of Quantum Teleportation on IBM Quantum Computers	Canyon Crest Academy	A. Siegel
SR-COMP-150	2nd	Desai	Rohan	11	Practical Deep Learning Trade-off Strategies Between Prediction Accuracy and Computational Speed	Canyon Crest Academy	A. Siegel
SR-COMP-237	1st CSEF	Hou	James	11	Data and Computation Efficient Mitigation of Racial Bias in Language Models	The Bishop's School	M. Jaiclin
SR-COMP-345	1st CSEF	Irigireddy	Ritvik	10	Early Diagnosis of Diabetic Retinopathy Using Deep Learning	Canyon Crest Academy	A. Siegel
SR-COMP-311	2nd	Khanvilkar	Manav	11	Deep-Learning Aided Facial Recognition System Using Open-CV	Canyon Crest Academy	D. Celniker
SR-COMP-310	1st CSEF	Kumar	Sanjana	10	AI-Based Behind-The-Wheel Drowsiness and Distraction Detection	Francis Parker School	J. Pierce
SR-COMP-337	2nd	Rao	Saanvi	9	Skin Disease Diagnostic App - Using Tensorflow-based Machine Learning on iOS	Canyon Crest Academy	A. Siegel
SR-COMP-151 Team	2nd	Rao Rao	Rahul Rikhil	10 10	Detection of Pathologic Breath Sounds Using a Novel Digital Auscultation Tool	Canyon Crest Academy	K. Hare
SR-COMP-147	1st CSEF	Sridharan	Agastya	10	An Automated News Article Bias Classifier Using a C. Elegans Inspired Recursive Feedback Neural Network Architecture	Scripps Ranch High School	P. Fowler
SR-COMP-148	2nd	Wang	Amy	11	Correcting Bias in AI-based Talent Acquisition Systems	Westview High School	S. Zhong
SR-COMP-189	3rd	Zahir	Zalkifl	10	Predicting the Projection of Cryptocurrency with Machine Learning	Bright Horizon Academy	N. Naserelddin
<b>SENIOR DIVISION - EARTH AND ENVIRONMENTAL SCIENCES</b>							
SR-EAEV-275	1st CSEF	Alwazir	Issa	11	How to Maximize Water Quality Long Term Cost Effective Solution	Bright Horizon Academy	N. Naserelddin
SR-EAEV-153	1st CSEF	Barrett	Aimee	11	Salvation from Oil Spills	Central Union High School	L. Rueda

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SR-EAEV-282	3rd	Calderon	David	11	To What Extent Does a Country's Poverty Rate Affect Its Carbon Emission	Bonita Vista High School	J. Ekstein
SR-EAEV-346	2nd	Comer	Kelly	11	To What Extent Does Motor Oil Pollution Affect the Growth and Germination of Marigold ( <i>Tagetes erecta</i> ) Plants Over Time?	Bonita Vista High School	J. Ekstein
SR-EAEV-313	4th	Darcy	Emilio	12	To What Extent Does a Country's Population Density Affect It's Carbon Emissions	Bonita Vista High School	J. Ekstein
SR-EAEV-314	2nd	Garcia	Lannah	11	What Impact Has the Unified Vehicular Volume Reduction Program Had on levels of CO <sub>2</sub> , PM <sub>10</sub> , Ozone and NO <sub>2</sub> in Manila Over Time?	Bonita Vista High School	J. Ekstein
SR-EAEV-157 Team	2nd	Garcia Sagrati	Isabella Giorgio	12 11	To What Extent Do Mushrooms Absorb Oil in Water?	Bonita Vista High School	J. Ekstein
SR-EAEV-270 Team	4th	Hernandez Ruiz	Abramsky Elizabeth	12 11	The Effect of Laundry Detergent on the Growth of <i>Phaseolus Vulgaris</i> (Bean Plants)	Bonita Vista High School	J. Ekstein
SR-EAEV-154	2nd	Kuemmerle	Nolan	11	To What Extent Different Substrates of Mud Affect the Amount of Energy Generated?	Bonita Vista High School	J. Ekstein
SR-EAEV-179	1st CSEF	Lai	William	11	Predicting Fine Aerial Particulate Matter Pollution from Wildfires Using a Regression Model	The Bishop's School	J. Bloom
SR-EAEV-338	3rd	Majidi	Fahad	10	Using Filtered Greywater for an Advanced Irrigation System	Bright Horizon Academy	N. Nasereldin
SR-EAEV-251	2nd	Maywood	William	11	To What Extent is Otay Lakes Reservoir Water at High Probability for Eutrophication	Bonita Vista High School	J. Ekstein
SR-EAEV-347	1st CSEF	Natala	Shruti	11	Developing an Early Oil Spill Detection System Using Artificial Intelligence and Live Satellite Images	Scripps Ranch High School	P. Fowler
SR-EAEV-268	3rd	Nava	Diego	11	The Effects of Lockdown on CO <sub>2</sub> Emissions	Bonita Vista High School	J. Ekstein
SR-EAEV-156 Team	1st CSEF	Navarro Picart	Dahlia Gianna	11 11	To What Extent Does Urban Runoff Affect <i>Bacopa Caroliniana</i> (Blue Water Hyssop)	Bonita Vista High School	J. Ekstein

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<b>SENIOR DIVISION - EARTH AND ENVIRONMENTAL SCIENCES (cont'd)</b>							
SR-EAEV-155	3rd	Quezada	Jayne	11	To What Extent Do Forest Fires Affect the Growth and Germination of California Poppy ( <i>Eschscholzia Californica</i> )?	Bonita Vista High School	J. Ekstein
SR-EAEV-269	3rd	Santacruz	Kyle	11	To What Extent Does Motor Oil Affect Pea Plant ( <i>Pisum Sativum</i> ) Germination and Growth?	Bonita Vista High School	J. Ekstein
SR-EAEV-152	2nd	Turquie	Esther	11	Effect of Oil-Based Paint on the Growth of Moss	Bonita Vista High School	J. Ekstein
SR-EAEV-312	3rd	Zangana	Soleen	11	To What Extent Does Plastic Buried into the Soil Affect the Germination and Growth of <i>Raphanus sativus</i> (Radishes)?	Bonita Vista High School	J. Ekstein
<b>SENIOR DIVISION - ENGINEERING: ELECTRICAL, MECHANICAL, AND ROBOTICS</b>							
SR-EEMR-160	2nd	Backer	Bart	11	Effective Auditory Direction and Intensity Detection for Robots Interacting with Humans	Rancho Bernardo High School	Y. Eibeck
SR-EEMR-252	2nd	Bantval	Pranav	11	Using an EDSR Model to Reconstruct Vehicle Images from Traffic Surveillance Cameras	Canyon Crest Academy	A. Siegel
SR-EEMR-158	3rd	Bharadwaj	Akshaj	10	Adaptive Machine Learning for Computer Vision Using Edge TPU and Cloud	Canyon Crest Academy	A. Siegel
SR-EEMR-348	2nd	Munshi	Ronit	9	Robotic Spider	Canyon Crest Academy	D. Munshi
SR-EEMR-159	1st CSEF	Qiao	Luke	11	Adaptive Musical Accompaniment - Novel Real-Time BPM Detection Via Cyclic Tempogram Representations of Audio Signals	Canyon Crest Academy	A. Siegel
SR-EEMR-161	1st CSEF	Radic	Peter	11	Geolocation of Wireless and Radio Emitters in Real Time	Canyon Crest Academy	A. Siegel
SR-EEMR-283	1st CSEF	Wang	Renee	10	Deconstructable Tiny Homes for Homelessness	The Bishop's School	A. Pelletier
<b>SENIOR DIVISION - ENGINEERING: ENERGY, MATERIALS, AND TRANSPORT</b>							
SR-EEMT-284	1st CSEF GARU2-PS	Fan	Kara	11	Insect-inspired Nanopillared Materials to Prevent Bacterial Growth	Westview High School	M. Ingram
							
SR-EEMT-162	2nd	Li	Grace	11	Optimizing Microbial Fuel Cell Output	Scripps Ranch High School	P. Fowler

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SR-EEMT-163	1st CSEF	McWilliams	Jessica	11	Personal Wind-Powered Charging Device	Scripps Ranch High School	P. Fowler
SR-EEMT-216	4th	Palayur	Sarah	11	Plasma as an Alternative Energy Source for Propulsion	St. Joseph Academy 9-12	J. Schoenfeld
SR-EEMT-271	1st CSEF	Schremmer	Bella Rose	11	Point Absorber Wave Energy Converter Devices on Pre-Existing Marine Structures: An Economic & Sustainable Energy Solution	University City High School	J. Bosch
SR-EEMT-294	2nd	Tatineni	Nitika	10	Analyzing Bridge and Building Structure Health Using Machine Learning	Canyon Crest Academy	K. Hare
<b>SENIOR DIVISION - MATHEMATICS</b>							
SR-MATH-238	1st CSEF GA-PS	Bosworth	Rohan	11	End-to-End Path Planning and Control for Autonomous Vehicles Using Inverse Kinematics with Parameterized Arc Length	Poway High School	K. Woldseth
SR-MATH-166	4th	Broudy	Reuben	11	To What Extent Does the Amount of Carbon Emissions Produced by Countries Correlate to the Amount of Human Rights Violations?	Bonita Vista High School	J. Ekstein
SR-MATH-164	3rd	Erat	Sidarth	9	A Game-Theoretic Model for Internet User-Generated Networks	Torrey Pines High School	M. Livingston
SR-MATH-165	1st CSEF GARU1-PS	Xu	Shirley	11	A Heuristic Solution to the Closest String Problem Using Wave Function Collapse Techniques	The Bishop's School	M. Jaiclin
<b>SENIOR DIVISION - MICROBIOLOGY</b>							
SR-MCRO-239	1st CSEF GARU2-LS	Dong	Elaine	11	Crosslinked Zinc Oxide Nanoparticles: A Novel Approach to Combatting Antibacterial Resistance and Nanoparticle Toxicity	Canyon Crest Academy	A. Siegel
SR-MCRO-295	3rd	Kazi	Hafsah	9	The Effects of Beta Amyloid and Natural Remedies on Planarian	Bright Horizon Academy	N. Naserelddin
SR-MCRO-296	2nd	Mumin	Abdurahma	10	Using Planaria as a Model Organism for Multiple Sclerosis - An Alternative Approach Examining the Use of Naturopathic Medicine	Bright Horizon Academy	N. Naserelddin

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<b>SENIOR DIVISION - PHYSICS AND ASTRONOMY</b>							
SR-PHYS-339 Team	1st CSEF	Chandra Dresios	Vikramaditya Demetrios	9 9	Using Machine Learning and GAIA to Analyze Relationships Between Molecular Clouds and Open Star Clusters	San Marcos High Carlsbad High	S. Bireddy
SR-PHYS-168	1st CSEF	Li	Andrew	11	The Age of the Coma Ber Cluster II: Denoising Astronomical Images	Canyon Crest Academy	A. Siegel
SR-PHYS-167	3rd	Madhukara	Nandana	9	Analyzing the Chaos of the Generalized Henon-Heiles System with Numerical Methods	Canyon Crest Academy	E. Fisher
SR-PHYS-315 	1st CSEF GA-PS	Nayak	Ayush	11	Using Antimony Indium Quantum Dots for Next Generation High Mobility Transistors	Westview High School	S. Halander
SR-PHYS-174	2nd	Xu	Alex	10	Optimization of Leakage Suppression in Charge Quadrupole Qubits	Canyon Crest Academy	A. Siegel
<b>SENIOR DIVISION - PLANT SCIENCES</b>							
SR-PLNT-169	2nd	Caballero	Noah	11	Impact of Runoff Containing Motor Oil and Soap on Mint Seeds	Bonita Vista High School	J. Ekstein
SR-PLNT-170 Team	3rd	Catalan Iniguez	Gabriel Alex	11 11	To What Extent Does UV Light Affect the Growth and Germination of Dactylis Gloremata	Bonita Vista High School	J. Ekstein
SR-PLNT-272	3rd	Engen	Jessica	11	To What Extent Do the Ashes of Forest Fires Affect the Growth of California Daisies (Bellis Perennis)?	Bonita Vista High School	J. Ekstein
SR-PLNT-171 Team	3rd	Jacobs Ramirez	Zalia Ariana	11 11	To What Extent Does Acid Rain Affect Pinto Beans?	Bonita Vista High School	J. Ekstein
SR-PLNT-177	1st CSEF	Zhang	Jocelyn	10	Infrared Thermal Imaging and Statistical Analysis for Plant Stress Detection and Phenotyping	Del Norte High School	J. Cheskaty

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**JUNIOR DIVISION**

**JUNIOR DIVISION - ANIMAL SCIENCES**

JR-ANIM-206	2nd	Abdulaziz	Omar	6	Do Western Bluebirds Experience and Show Their Emotions to Each Other?	Bright Horizon Academy	N. Naserelddin
JR-ANIM-253 Team	2nd	Arias- Alejo Kalapala	Gladys Isabella	7 7	Dogs with Headphones	St. Peter the Apostle Catholic School	T. Fantano
JR-ANIM-298 	1st GARU-LS CSEF BM	Brocius	Ava	8	The Effect of Carbon Dioxide on Bioluminescent Dinoflagellates	The Children's School	D. Quincannon
JR-ANIM-297	3rd	De Lara	Eithan	8	Are Ants Attracted to Specific Colors in Their Food?	Soille San Diego Hebrew Day School	s. Jones
JR-ANIM-316	3rd	Matkov	Mckayla	7	The Effect Light Has on How Fast Mice Complete a Maze	The Children's School	D. Quincannon
JR-ANIM-317	1st CSEF BM	Shaked	Rachel	8	The Effects of Different Colors and Sugars on Hummingbirds	Soille San Diego Hebrew Day School	S. Jones
JR-ANIM-228	NS	Shue	Mizuki	8	Do Cats Have a Color Preference	St. Didacus Parish School	R. Miller
JR-ANIM-029 	1st GARU-LS CSEF BM	Wyatt	Ronald	8	How Long Does It Take for Superworms to Eat Styrofoam?	Chula Vista Middle School	T. Tom

**JUNIOR DIVISION - BEHAVIORAL AND SOCIAL SCIENCES**

JR-BEHA-299	1st CSEF BM	Ajanovic	Aya	6	Do Certain Items Improve Concentration?	Bright Horizon Academy	N. Naserelddin
JR-BEHA-319	2nd	Ali	Ibtisam	8	How Frequencies Affect Focus	Bright Horizon Academy	N. Naserelddin
JR-BEHA-229	1st CSEF	Cabarios	Caelyn	7	Can You Make a Happy Song Sad?	Bonita Vista Middle School	C. Shimasaki
JR-BEHA-036	3rd	Cabrera	Elizabeth	8	Commonly Remembered Information vs. The Serial Position Effect	St. Didacus Parish School	R. Miller
JR-BEHA-285	4th	Caro	Xavier	7	Does the Time of Beginning of School Affect Students' Attention Spans?	St. Michael's School - Poway	L. Ray
JR-BEHA-048 Team	2nd	Curtis Martin	Brooke Cecilia	7 7	Noisy Brain	St. John School - Encinitas, CA	G. Heins

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JR-BEHA-210	1st	Eilemberg	Asher	8	Tool or Toy?	Soille San Diego Hebrew Day School	S. Jones
JR-BEHA-040	2nd	Esbeck	Ashlyn	8	Listening to Music While Taking a Test	St. John School - Encinitas, CA	G. Heins
JR-BEHA-035	3rd	Fries	Zoe	8	Colored LED's vs. The Human Eye	St. Didacus Parish School	R. Miller
JR-BEHA-198	NS	Golembesky	Rachael	8	What are the Effects of Personal Care Products on Adults?	Soille San Diego Hebrew Day School	S. Jones
JR-BEHA-045	1st CSEF	Goncalves	Lily	7	The Gamer Theory	St. John School - Encinitas, CA	G. Heins
JR-BEHA-039	2nd	Guizar	Andre	7	How Does Smell Affect Taste	San Diego French American School	A. Mobley
JR-BEHA-320	3rd	Hall	Kennedy	7	What is the Effect of Colors on Someone's Mind or Emotions?	Mt. Helix Academy	K. MacDonald
JR-BEHA-043	1st CSEF	Herrera	Valerie	7	Same Shape Different Labels	Bonita Vista Middle School	C. Shimasaki
JR-BEHA-255 Team	3rd	Hill Liem	Lauren Leandra	8 8	Effects of Certain Scent Categories on the Human's Limbic System and Heart Rate	Stella Maris Academy	M. Flores
JR-BEHA-038	1st CSEF	Ingram	Gianna	8	Does Test Anxiety Affect Test Performance	St. John School - Encinitas, CA	G. Heins
JR-BEHA-340	1st CSEF BM	Jacobs	Hillel	8	AI vs. Kids: Mold	Soille San Diego Hebrew Day School	S. Jones
JR-BEHA-242	1st CSEF BM	Khong	Hannah	7	Study of Effects of Inconsistent Sleep Schedules on Cognitive Abilities	St. Michael's School - Poway	L. Ray
JR-BEHA-301	3rd	Kupersmith	Aaron	8	The Decisions in Which a Child Will Hire a Babysitter When They Have Multiple Options of Who to Choose	Soille San Diego Hebrew Day School	S. Jones
JR-BEHA-209	NS	Maya	Esther	8	Do Students Work Better in Pairs or Alone, and is Age a Factor	Soille San Diego Hebrew Day School	S. Jones
JR-BEHA-349	2nd	McCabe	James	7	Stressed from Covid-19? Look to Hobbies!	St. Michael's School - Poway	L. Ray
JR-BEHA-300	2nd	Mizan	Shiraz	8	Does Color Affect Your Memory?	Soille San Diego Hebrew Day School	S. Jones
JR-BEHA-044	1st CSEF BM	Montemayor	Maliya	7	The Beauty of the Golden Ratio: Fact or Fib?	St. John School - Encinitas, CA	G. Heins
JR-BEHA-182	2nd	Moore	Yasmina	8	The Effect of Stress on Test Performance	City Tree Christian School 6-8	M. Lee

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - BEHAVIORAL AND SOCIAL SCIENCES (cont'd)</b>							
JR-BEHA-047 Team	3rd	Noves Price	Sophia Gabriella	7 7	Does a Simulated 3D Environment Make Human Beings React Differently to Reality?	San Diego French American School	A. Mobley
JR-BEHA-042	3rd	O'Connell	Cillian	7	Running Faster	St. Michael's School - Poway	L. Ray
JR-BEHA-041	3rd	Quezada	Gabriel	8	Mindful Music: How Music Affects Memory	St. John School - Encinitas, CA	G. Heins
JR-BEHA-318	2nd	Rothstein	Emma	8	Does Color Have an Affect on Taste	Soille San Diego Hebrew Day School	S. Jones
JR-BEHA-183 Team	4th	Salazar Thomas	Alexa Sophia	7 7	The Effect of Sight on Distinguishing Taste	City Tree Christian School 6-8	M. Lee
JR-BEHA-037	2nd	Savant	Luca	7	Does Color Affect the Taste?	St. John School - Encinitas, CA	G. Heins
JR-BEHA-302	2nd	Snowten	Harmony	8	The Effect of Personality Type on Memory Task Performance	City Tree Christian School 6-8	M. Lee
JR-BEHA-341	1st CSEF	Soukup	Branden	7	Lobe at First Sleight	Mt. Helix Academy	K. MacDonald
JR-BEHA-230	1st CSEF BM	Weissler	Eliora	8	Does Dyslexie Font Affect Individuals Without Dyslexia?	Soille San Diego Hebrew Day School	S. Jones
<b>JUNIOR DIVISION - BIOCHEMISTRY</b>							
JR-BCHM-031	3rd	Alvarez	Andres	8	Which Plant Generates the Most Electricity: Potatoes or Lemons	Chula Vista Middle School	T. Tom
JR-BCHM-241 Team	2nd	Chuprevich Martinez	Joel Ella Jean	7 7	Kitchen Full of Germs	St. Peter the Apostle Catholic School	T. Fantano
JR-BCHM-207	1st CSEF BM	Khan	Mohammad Adam	6	The Effect of Cooking on Vitamin C	Bright Horizon Academy	N. Naserelddin
JR-BCHM-032	2nd	Mendoza	Olivia	7	Which Type of Honey Has the Least Glucose?	Bonita Vista Middle School	C. Shimasaki
JR-BCHM-240 Team	3rd	Minderman Reyes	Miranda Stephanie	7 7	Is the Five Second Rule Real?	St. Peter the Apostle Catholic School	T. Fantano
JR-BCHM-208	NS	Qarar	Yusra	6	Will Soaking Food in Water Before Cooking Remove Starch from It?	Bright Horizon Academy	N. Naserelddin
JR-BCHM-030	NS	Vu	Christopher	7	Vitamin C Level Comparison Between Different Oranges' Juices and Skins	Nativity School	L. McTavish
<b>JUNIOR DIVISION - BIOMEDICAL/HEALTH SCIENCES AND BIOENGINEERING</b>							
JR-BMDE-050	3rd	Alfaro	Daniela	7	Did Older People Have Less Side Effects from the Covid-19 Vaccine than Younger People?	Nazareth School	M. Reed

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - BIOMEDICAL/HEALTH SCIENCES AND BIOENGINEERING (cont'd)</b>							
JR-BMDE-049	NS	Cacho	Alexa	8	Are Fingerprints Inherited?	St. John of the Cross Catholic School	G. Krumm
JR-BMDE-051	1st GA-LS CSEF BM	Fan	Leanne	8	Finsen Headphone: A Smart headphone to Diagnose and Control Middle Ear Infection Using Machine Learning and Light Spectrum	Mesa Verde Middle School	R. Bird
JR-BMDE-203	2nd	Guerrero	Elaine	8	What Type of Face Mask is More Breathable?	St. Peter the Apostle Catholic School	T. Fantano
JR-BMDE-243	NS	Jackson	Mia	7	Which Mask Performs the Best?	Nazareth School	M. Reed
JR-BMDE-028	2nd	Mandyam	Tanya	8	Curcumin Alleviates the Effects of Jet Lag on Exercise Output in Rats	Mesa Verde Middle School	J. Woo
JR-BMDE-350	NS	Pacheco	Rick	8	The Best Hand Drying Technology	Coastal Academy	B. Biernacki
JR-BMDE-052	3rd	Schneider	Elizabeth	7	J.S. Bach's Minuet Trio and Their Effect on 7-17 Year Old's Heart Rates	St. Michael's School - Poway	L. Ray
JR-BMDE-193	3rd	Serawit	Naomi	8	The Effectiveness of Fruit Supplements	St. Didacus Parish School	R. Miller
JR-BMDE-053	3rd	Soberanes	Melissa	8	What Affects the Covid-19 Vaccine Side-Effects	Our Lady of Guadalupe Academy	J. Patton
<b>JUNIOR DIVISION - CHEMISTRY</b>							
JR-CHEM-063	2nd	Carr	Frankie	7	The Effect of Substances on Non-Human Proteins	St. Michael's School - Poway	L. Ray
JR-CHEM-060	2nd	Corona	Alyssa	8	Tide vs. Homemade Detergent	Chula Vista Middle School	T. Tom
JR-CHEM-057	1st CSEF BM	Estill	Daniel	7	Crack Snap Shine: Tempering Chocolate	Bonita Vista Middle School	C. Shimasaki
JR-CHEM-066 Team	1st CSEF BM	Ganji Ganji	Vibha Vidha	8 8	Can We Enrich the Percentage of Curcumin from Turmeric by Removing Non-curcuminoids Using Water Extraction?	Oak Valley Middle School	N. Ganji
JR-CHEM-286	2nd	Griffith	Hayley	8	The Effects of Acidity on the Oxidation of Steel Wool	St. Peter the Apostle Catholic School	T. Fantano
JR-CHEM-244	2nd	Herman	Ruth	8	What Melts Ice the Fastest	St. Peter the Apostle Catholic School	T. Fantano
JR-CHEM-304	1st	Johnston	Alex	8	The Effect of Different Flour Types on Muffin Height	City Tree Christian School 6-8	M. Lee
JR-CHEM-067 Team	2nd	Jones Leighton	Bennet Ozzie	7 7	Finding Electrolytes in Sport Drinks	St. Gregory the Great Catholic School	S. Dasgupta

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - CHEMISTRY (cont'd)</b>							
JR-CHEM-063	2nd	Kishimoto	Elise Selei	7	The Effect of Substances on Non-Human Proteins	St. Michael's School - Poway	L. Ray
JR-CHEM-059	2nd	Lindsey	Ashlie	7	The Effect of Air Temperature on the Crystallization of Bismuth Metal	City Tree Christian School 6-8	M. Lee
JR-CHEM-056	2nd	Moreno	Antonio	7	Bye Bye Salt	St. Peter the Apostle Catholic School	T. Fantano
JR-CHEM-062	2nd	Mudwilder	Aaleya	7	What's the Fastest Way to Cool a Drink, and Does the Sugar Content Have an Effect?	St. Gregory the Great Catholic School	S. Dasgupta
JR-CHEM-303	3rd	Petrie	Kenji	8	Chambers of Flames	St. Peter the Apostle Catholic School	T. Fantano
JR-CHEM-181	3rd	Pham	Michelle	7	The Effect of Ingredients in Baking Time	St. Michael's School - Poway	L. Ray
JR-CHEM-058	1st CSEF BM	Teresi	Lillianna	7	Most Effective Activator for Slime	St. Michael's School - Poway	L. Ray
JR-CHEM-061	3rd	Vassar	Eli	7	Water Quality in San Diego City Parks	St. Michael's School - Poway	L. Ray
JR-CHEM-055	2nd	Wilson	Elliot	7	A-maize-ing Popcorn Kernels!	Bonita Vista Middle School	J. Stell
JR-CHEM-199	2nd	Zanani	Yarden	8	Soaperior	Soille San Diego Hebrew Day School	S. Jones
<b>JUNIOR DIVISION - COMPUTATIONAL BIOLOGY AND BIOINFORMATICS</b>							
JR-CBIO-054	1st CSEF	Dogra	Saanvi	8	Structural, Sequence, and Germline Comparison of SARS-COV-2 Antibodies Across Humans and Mice	Oak Valley Middle School	S. Kumar
<b>JUNIOR DIVISION - COMPUTER SCIENCE AND SYSTEMS SOFTWARE</b>							
JR-COMP-068	2nd	Bisain	Aditya	7	Augmented Reality Application for Solving Social Awkwardness	Pacific Trails Middle School	M. Mareth
JR-COMP-305	1st GA-PS CSEF BM	Dagar	Arnav	8	Where's Waldo - A Bayesian Approach for Localizing a LEGO Robot	Pacific Trails Middle School	M. Mareth
JR-COMP-069	3rd	Flores	Sebastian	7	Do People Reuse Passwords for Their Accounts?	Mt. Helix Academy	K. MacDonald
JR-COMP-321	3rd	Pathria	Sachin	7	Soccer Penalty-Kick Predictor	The Children's School	D. Quincannon
JR-COMP-070	3rd	Zwolinski	Alexander	7	Do the Variables in Video Games Affect the Score?	St. Gregory the Great Catholic School	S. Dasgupta

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - EARTH AND ENVIRONMENTAL SCIENCES</b>							
JR-EAEV-212 Team	1st CSEF BM	Aly Naveed	Omar Haadi	6 6	A Potential Solution to Purify Irrigation Water from Heavy Metal Pollutants	Bright Horizon Academy	N. Naserelddin
JR-EAEV-074	3rd	Arellano	Nurah	8	How Do Different Soils Affect the pH of Water?	St. John of the Cross Catholic School	G. Krumm
JR-EAEV-077	1st CSEF	Bridges	Alana	7	Using Different Methods to Clean Water	St. Gregory the Great Catholic School	S. Dasgupta
JR-EAEV-079 Team	2nd	Chan Talavera	Cassidy Jessica	7 7	Desalination	St. Michael's School - Poway	L. Ray
JR-EAEV-080 Team	1st CSEF BM	Chandler McComic	Jason Cole	7	Water Pods	St. Gregory the Great Catholic School	S. Dasgupta
JR-EAEV-071	2nd	Deilke	Drew	7	Do You Need to Clean Your Solar Panels?	St. Gregory the Great Catholic School	S. Dasgupta
JR-EAEV-073	3rd	Herrera	Michelle	8	Homemade Water Filter	Chula Vista Middle School	T. Tom
JR-EAEV-211	1st CSEF BM	Hertzog	Penelope	7	Can Plants Be Used to Desalinate Soil?	St. Gregory the Great Catholic School	S. Dasgupta
JR-EAEV-342	4th	Hillyard	Thea	8	The Affect of Air Quality on Water Quality	The Children's School	D. Quincannon
JR-EAEV-076	2nd	Lawrenz	Samuel	7	The Impact of Compost on Organic and Non-Organic Soil	St. Gregory the Great Catholic School	S. Dasgupta
JR-EAEV-277	1st CSEF	Marce	Bernardo	7	Are We Disposing Of Biodegradable Products Correctly	Our Lady of Guadalupe Academy	J. Patton
JR-EAEV-075	2nd	Michelsen	Sarah	8	How Environmental Conditions Affect the Intensity of Sound Waves in Water	St. John School - Encinitas, CA	G. Heins
JR-EAEV-184	3rd	Morin	Emma	8	The Effect of Manure and Coffee Grounds on Raising Nitrogen Levels: Dixie Fire	City Tree Christian School 6-8	M. Lee
JR-EAEV-072	2nd	Rose	Autumn	7	Grass Patch Repair and Its Relationship to Watering, Substrate, and Resistance to Leaching	St. Gregory the Great Catholic School	S. Dasgupta
JR-EAEV-256	3rd	Washington	Aijah	8	What Material Filters Water the Best?	St. Peter the Apostle Catholic School	T. Fantano

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - EARTH AND ENVIRONMENTAL SCIENCES</b>							
JR-EAEV-078	1st CSEF	Xu	Kayley	7	Using Machine Learning Algorithms to Predict Water Potability	The Bishop's School	M. Samale
JR-EAEV-323	3rd	Zamora	Eli	8	The Effect of Water on Wood	St. Didacus Parish School	R. Miller
<b>JUNIOR DIVISION - ENGINEERING: ELECTRICAL, MECHANICAL, AND ROBOTICS</b>							
JR-EEMR-081	2nd	Anderson	Julian	7	Battery Power vs. Solar Power	St. John School - Encinitas, CA	G. Heins
 JR-EEMR-083	1st GARU-PS CSEF BM	Bantval	Dhruv	7	Development of Smart Stick with Visual and Ultrasonic Sensor to Assist Visually Impaired	Pacific Trails Middle School	L. McVay
JR-EEMR-086	2nd	Dhamim	Ayyub	8	Auto Lockdown Safety Sensors	Bright Horizon Academy	N. Nasereldin
 JR-EEMR-200	1st GA-PS CSEF BM	Dimenstein	Shiloh	8	LIV: Litter Identification Vehicle	Soille San Diego Hebrew Day School	S. Jones
JR-EEMR-324	NS	Hamel	Leo	7	How Far Can a Gauss Rifle Shoot	Mt. Helix Academy	K. MacDonald
JR-EEMR-306	3rd	Housden	Hannah	8	The Self-Powered City of the Future, Using Kinetic and Solar Together	The Children's School	D. Quincannon
JR-EEMR-326	NS	Howton	Sophia	8	Using Light to Determine If a Fruit is Ripe	The Children's School	D. Quincannon
 JR-EEMR-082	1st GARU-PS CSEF BM	Leivers-Breise	Danielle	8	Deodorant Alarm	The Children's School	D. Quincannon
JR-EEMR-085	2nd	Mallory	Henry	8	The Effect of Different Wattages of Batteries in an Electromagnetic Motor	St. John School - Encinitas, CA	G. Heins
<b>JUNIOR DIVISION - ENGINEERING: ELECTRICAL, MECHANICAL, AND ROBOTICS (cont'd)</b>							
JR-EEMR-084	2nd	Morales	Diego	8	How to Raise a Hydraulic Elevator	St. John of the Cross Catholic School	G. Krumm
JR-EEMR-175	2nd	Odenthal	Jake	8	The Effect of Different Surfaces on a Custom-Built Mini Electric Car	St. John School - Encinitas, CA	G. Heins
JR-EEMR-325	NS	O'Donnell	Oliver	8	Tire Traction and Grip	Mt. Helix Academy	K. MacDonald
JR-EEMR-194	3rd	Ward	Paddy	8	A Water Efficient Irrigation System	St. Didacus Parish School	R. Miller

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - ENGINEERING: ENERGY, MATERIALS, AND TRANSPORT</b>							
JR-EEMT-328	NS	Abbott	Maxwell	8	How High Does a Golf Ball Bounce on Different Types of Surfaces	Mt. Helix Academy	K. MacDonald
JR-EEMT-353 Team	2nd	Banda Carrillo Leal	Ana Marisela	8 8	How Does Color Affect Our Energy Footprint?	Our Lady of Guadalupe Academy	J. Patton
JR-EEMT-246	2nd	Boeh	Nicholas	8	What Insulation is the Best for Insulating a House	St. Didacus Parish School	R. Miller
JR-EEMT-257 Team	2nd	Buitron McGrain	Max Atticus	8 8	The Heavy-Duty Dog Toy	The Children's School	D. Quincannon
JR-EEMT-092	NS	Burke	Caelan	7	The Safe and Secure Hand Washing Station	St. Michael's School - Poway	L. Ray
JR-EEMT-088	1st CSEF	Colucci	Alexander	8	Do Reflectors Affect the Speed of a Solar Powered Car?	St. John School - Encinitas, CA	G. Heins
JR-EEMT-329	1st CSEF	Gurtch	Maria	8	The Multi Camper	The Children's School	D. Quincannon
JR-EEMT-327	2nd	Krauss	Miranda	8	Building Stability Influenced by Shape	Mt. Helix Academy	K. MacDonald
JR-EEMT-089	1st CSEF BM	Lucero	Eric	7	Does the Color of the Roof Affect the Efficiency of Your Solar Panels?	St. Gregory the Great Catholic School	S. Dasgupta
JR-EEMT-096 Team	2nd	Lyons Simon	Nathan Lorenzo	7 7	What Material Reflects the Most Solar Energy?	St. Michael's School - Poway	L. Ray
JR-EEMT-352	1st CSEF BM	McGuinness	Stella	8	The Portable Wheelchair Ramp	The Children's School	D. Quincannon
JR-EEMT-090	3rd	Mendoza	Maximiliano	7	How Dense Does an Aluminum Foil Sphere Boat Have to Be Before It Sinks	Bonita Vista Middle School	C. Shimasaki
JR-EEMT-087	1st	Meringolo	Mark	7	A Vegetable Powered Future	Nativity School	L. McTavish
JR-EEMT-330	2nd	Middleton	Olivia	8	Volleyball Serving Brace	The Children's School	D. Quincannon
JR-EEMT-093	2nd	Orabona	Joseph	7	Which Building Design Withstands Earthquakes the Best?	St. Michael's School - Poway	L. Ray
JR-EEMT-091	2nd	Paccaloni-Cordero	Olivia	8	Portable Multitasking Camping Tool	The Children's School	D. Quincannon
JR-EEMT-288	1st CSEF BM	Poch	Olivia	8	The Ultimate Storm Drain Solution	The Children's School	D. Quincannon
JR-EEMT-331	NS	Romano	Jordan	8	Which Paper Airplane Shape Achieves the Most Aerodynamics and Flies the Farthest	Mt. Helix Academy	K. MacDonald

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - ENGINEERING: ENERGY, MATERIALS, AND TRANSPORT (cont'd)</b>							
JR-EEMT-094	2nd	Vosburgh	Tyler	8	Which Material Blocks Water the Best Inside of a Sandbag?	St. John School - Encinitas, CA	G. Heins
JR-EEMT-307	3rd	Whittle	Logan	7	Does the String Pattern of a Tennis Racket Affect How Far the Ball Goes?	Nazareth School	M. Reed
<b>JUNIOR DIVISION - MATHEMATICS</b>							
JR-MATH-097	1st CSEF BM	Bayona	Benito	7	Does Chaos Theory Influence the Flow of Liquids?	St. Gregory the Great Catholic School	S. Dasgupta
<b>JUNIOR DIVISION - MICROBIOLOGY</b>							
JR-MCRO-332	3rd	Bemaras	David	8	5 Second Rule	Soille San Diego Hebrew Day School	S. Jones
JR-MCRO-201	2nd	Broudy	Yael	8	Masked Microbes: Bacteria Growth in Short-Term Mask Storage Methods	Soille San Diego Hebrew Day School	S. Jones
JR-MCRO-099	2nd	Burchell	Jaden	7	How Often Do You Need to Clean an Emergency Waiting Room in Order to Keep Everyone Safe?	Nazareth School	M. Reed
JR-MCRO-278	3rd	Cheikka	Emily	8	Bacteria on Dance Shoes	Soille San Diego Hebrew Day School	S. Jones
JR-MCRO-180 Team	3rd	Dawson McPherson	Adelyn Maggie	7 7	Which Soap Cleans More Bacteria: Chemical or Natural	St. Michael's School - Poway	L. Ray
JR-MCRO-204	3rd	Gonzalez	Sol	8	What Mask Works Best to Decrease the Spread of COVID-19 and Other Viruses?	Chula Vista Middle School	T. Tom
JR-MCRO-289	2nd	Hakmon	Sivan	8	Diluting Disinfectants	Soille San Diego Hebrew Day School	S. Jones
JR-MCRO-098	3rd	Quinn	Jayleen	8	Germs Vs. Handsoap	Chula Vista Middle School	T. Tom
JR-MCRO-034 Team	4th	Trujillo Uriostegui	Ashlyn Samantha	7 7	Holy Water Testing	St. Peter the Apostle Catholic School	T. Fantano
<b>JUNIOR DIVISION - PHYSICS AND ASTRONOMY</b>							
JR-PHYS-107	NS	Alioto	Sam	7	Which Materials Silence the Drums Most Effectively?	St. Gregory the Great Catholic School	S. Dasgupta
JR-PHYS-333	2nd	Birdsell	Aureylia	8	The Effect of Parachute Material and Shape on Time of Descent	City Tree Christian School 6-8	M. Lee
JR-PHYS-105	2nd	Contreras	Santiago	8	What Type of Cup Amplifies Sound the Most?	Chula Vista Middle School	T. Tom
JR-PHYS-186 Team	4th	DeCarolis Johnson	Audrey Vincent	7 7	The Effect of Light Contrast on Visibility of Rays in Photos	City Tree Christian School 6-8	M. Lee

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - PHYSICS AND ASTRONOMY (cont'd)</b>							
JR-PHYS-196	1st CSEF	Gao	William	8	Resistance is Futile! Using Machine Learning to Predict Critical Temperatures of Superconductors	Pacific Trails Middle School	S. Thacker
JR-PHYS-213	NS	Gonzalez	Andrea	7	How Color Affects Heat	Bonita Vista Middle School	C. Shimasaki
JR-PHYS-185	3rd	Kouli	Haissam	8	The Effect of Blowing Wind onto Hot Food Substances	City Tree Christian School 6-8	M. Lee
JR-PHYS-103	4th	Liang	Nikolas	7	How Does Angle Affect Speed	Bonita Vista Middle School	C. Shimasaki
JR-PHYS-195	3rd	Lopez	Misael	8	A Comparison of Cushioning Materials When Conducting an Egg Drop	St. Didacus Parish School	R. Miller
JR-PHYS-351	NS	McEvoy	Maeve	8	Materials Effect on the Performance of a Glider	The Children's School	D. Quincannon
JR-PHYS-100	2nd	Michalowski	Kenneth	8	A Comparison of a Bridge Structure's Ability to Hold Weight	St. Didacus Parish School	R. Miller
JR-PHYS-106	1st CSEF BM	Michelsen	Lucas	8	Which Gliding Raptor Wing Shape Creates the Most Lift per Surface Area?	St. John School - Encinitas, CA	G. Heins
JR-PHYS-334	3rd	Nagal	Matthew	7	Using a Digital Camera to Measure Skyglow	Mt. Helix Academy	K. MacDonald
JR-PHYS-102	1st CSEF	Niguidula	Tristen	7	How Do High Temperatures Affect the Elasticity of Rubber?	St. Gregory the Great Catholic School	S. Dasgupta
JR-PHYS-187 Team	2nd	Norin Thompson	Luke Zachary	8 8	The Effect of Type of Liquid on Surface Tension	City Tree Christian School 6-8	M. Lee
JR-PHYS-101	3rd	Zavala	Edgar	8	Does a Helium Soccer Ball Bounce Higher Than a Normal Soccer Ball?	Chula Vista Middle School	T. Tom
JR-PHYS-104	3rd	Zomerdyke	Max	7	Stealthy Shapes: How to Make an Aircraft Invisible to Radar	St. Gregory the Great Catholic School	S. Dasgupta
<b>JUNIOR DIVISION - PLANT SCIENCES</b>							
JR-PLNT-215	3rd	Adatto	Shira	8	Does Carbonated Water Help Plants Grow Taller?	Soille San Diego Hebrew Day School	S. Jones
JR-PLNT-108	3rd	Brennan	Chase	7	Does the Mineral Content in Water Affect Plant Growth?	San Diego French American School	A. Mobley
JR-PLNT-110	3rd	Cordaro	Jacob	8	Effects of Natural Pesticides on Plants	St. John School - Encinitas, CA	G. Heins
JR-PLNT-279	1st	Factor	Adin	8	The Effect of Different Watering Techniques on Plants	Soille San Diego Hebrew Day School	S. Jones

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - PLANT SCIENCES (cont'd)</b>							
JR-PLNT-113	1st CSEF BM	Habas	Julia	7	Observing Plant Growth Rate and Flavor Depending on Different Liquids	St. Michael's School - Poway	L. Ray
JR-PLNT-232	1st	Leboffe	Selah	8	Hydrogen Peroxide: Friend or Foe?	De Portola Middle School	M. Bridges
JR-PLNT-202	2nd	Lerner	Aiden	8	Plant Memory	Soille San Diego Hebrew Day School	S. Jones
JR-PLNT-117 Team	2nd	Mara Olaes	Annika Avery	7 7	Native California Plant Recovery from Fires using Different Types of Water	St. Michael's School - Poway	L. Ray
JR-PLNT-111	3rd	Matz	Blake	7	How Do Liquids Affect Plants?	San Diego French American School	A. Mobley
JR-PLNT-335	2nd	McElfresh	Daniela	8	Does Hair Beautification Lead to Environmental Degradation?	Soille San Diego Hebrew Day School	S. Jones
JR-PLNT-109 	1st GA-LS CSEF BM	Moore	Kai	8	Effect of Kelp Fertilizer on Growth Rate of Eruca sativa	The Children's School	D. Quincannon
JR-PLNT-115	2nd	O'Malley	Meaghan	8	The Effect of Soaps on Plant Growth	St. John School - Encinitas, CA	G. Heins
JR-PLNT-112	3rd	Pacheco	Lauren	8	How Does Carbon Dioxide Affect Plant Germination?	St. John of the Cross Catholic School	G. Krumm
JR-PLNT-258	3rd	Parsons	Lily	7	Plant Growth	St. Michael's School - Poway	L. Ray
JR-PLNT-114	3rd	Schmidt	Cade	7	The Best Type of Water for Radish Growth	St. Gregory the Great Catholic School	S. Dasgupta
JR-PLNT-118 Team	2nd	Suzara Wisniew	Riley Jack	7 7	Hydroponics vs Soil	St. Gregory the Great Catholic School	S. Dasgupta
JR-PLNT-116	1st CSEF	Zumwalt	James	7	The Effects of Regular and Eco-Friendly Detergent Greywater on Plants	St. Gregory the Great Catholic School	S. Dasgupta
JR-PLNT-188	2nd	Zwierzykowski	Kasia	7	The Effect of Sea Air on Tomato Plant Growth in Length	City Tree Christian School 6-8	M. Lee
<b>JUNIOR DIVISION - PRODUCT TESTING (Junior Division Only)</b>							
JR-PROD-322	1st CSEF	Arnold	Wyatt	7	Does Sunscreen with Zinc or No Zinc Do Better at Blocking the Sun's UV Rays?	Mt. Helix Academy	K. MacDonald
JR-PROD-192	1st	Audiss	Isabella	8	A Water Bottle's Ability to Stay Cold for Hourly Increments	St. Didacus Parish School	R. Miller

**68th Annual Greater San Diego Science & Engineering Fair - 2022**  
**Categorical Place Awards by Last Name**

Project ID	Award	Last Name	First Name	Gr	Project Title	School	Tchr/Adv
<b>JUNIOR DIVISION - PRODUCT TESTING (Junior Division Only) (cont'd)</b>							
JR-PROD-122	1st CSEF	Berardino	Anthony	7	Which Type of Catcher's Chest Protectors Protects Someone the Most	Nazareth School	M. Reed
JR-PROD-260	1st CSEF BM	Birch	Charlotte	7	The Effect of Different Types of Packaging on the Properties of "Freshness" of a Carrot	City Tree Christian School 6-8	M. Lee
JR-PROD-259	2nd	Fritzler	Olivia	8	A Comparison of Bubble Gum Brands	St. Didacus Parish School	R. Miller
JR-PROD-205	2nd	Godinez	Carlos	8	Do More Expensive Battery Brands Last Longer?	Chula Vista Middle School	T. Tom
JR-PROD-336	4th	Green	Emerson	8	What is the Fastest Way to Cool a Soda?	Mt. Helix Academy	K. MacDonald
JR-PROD-120	2nd	Jones	Sofia	8	Duct Tapes Stickiness	St. Didacus Parish School	R. Miller
JR-PROD-124 Team	2nd	Kassar Sandoval	Simon Mia	8 8	The Effect of Paper Towel Brands on Absorbing Water	The Children's School	D. Quincannon
JR-PROD-119	3rd	Larios	Arianna	6	Birthday Candles	St. Vincent De Paul	S. Ballman / A. Avalos
JR-PROD-176	2nd	Loebig	Maya	7	Softy Gloss	St. John School - Encinitas, CA	G. Heins
JR-PROD-191	3rd	Mulvey	Liam	8	Which Water Bottle Stays the Coldest the Longest	St. Didacus Parish School	R. Miller
JR-PROD-123 Team	2nd	Nasrawi Paraiso	Sophia Ava Rosalena	7 7	Longevity of Designer Perfumes	St. Michael's School - Poway	L. Ray
JR-PROD-247	4th	Nguyen	Katie	8	The Difference in Durability Between LDPE and HDPE Plastic Bags	St. Didacus Parish School	R. Miller
JR-PROD-121	2nd	Quinn	Gemma	8	The Effect of Plastic Wrap Against Evaporation	St. Didacus Parish School	R. Miller