

ANIMAL BIOLOGY (JR) J01

Liam Sherman	Milken Community Schools	First Place J0120 Split group: –	<i>Analyzing the behaviors of <i>Petrogale xanthopus</i> in the Los Angeles Zoo</i>
Benjamin Liu	Dana Middle School	Second Place J0115 Split group: –	<i>Novel Spiral Microfluidic Devices Using the Elasto-Inertial Effect for Urinalysis Year 2</i>
Mahnur Bharucha	Institute of Knowledge	Third Place J0106 Split group: –	<i>CAT VS CAT: Prevalence Of Intestinal Parasites In Shelter And Domestic Cats</i>
Manuel Holguin Jonathan Palomo	Monterey Highlands	Honorable Mention J0110 Split group: –	<i>GMOs: Friend or Foe?</i>
Alize Botello	Luther Burbank Math Science and Technology Magnet	Honorable Mention J0107 Split group: –	<i>Does Mating Wild Type Fruit Flies and Mutant Fruit Flies Produce More Wild Type or More Mutated Phenotypes?</i>

ANIMAL BIOLOGY (SR) S01

Vick Liu	Flintridge Preparatory School (High School)	First Place S0105 Split group: –	<i>An Acoustic Enhanced Blood Smear Device</i>
Dustin Hartuv	Palos Verdes High School	Second Place S0102 Split group: –	<i>Correlation between Habitat Quality and Abundance/Diversity of California Birds</i>
Jessica Hui	Viewpoint School	Third Place S0103 Split group: –	<i>Modulation of Mitochondrial DNA Mutation Frequency & Accumulation by Rapamycin and Caloric Restriction in Aging Mouse Muscle</i>
Aleeque Marselian	Rose and Alex Pilibos Armenian School- High School	Honorable Mention S0107 Split group: –	<i>The Effect of UV Light Range Radiation on the Magnetosensitivity of Fruit Flies</i>

ANIMAL PHYSIOLOGY (JR) J02

Zoraiz Hashmi	Al-Huda School	First Place J0207 Split group: –	<i>The Battle of Wits</i>
Joshua Lewis	Pressman Academy	Second Place J0209 Split group: –	<i>Daphnia: Under the Influence</i>

Hamish Cullen	Village Christian Middle School	Third Place J0204 Split group: –	<i>Now You See! Now You Don't?</i>
Lauren Donzel	St. Timothy School	Honorable Mention J0205 Split group: –	<i>X-Inactivation Marks the Spot</i>
Malik Gay	Arroyo Seco Museum Science Magnet School	Honorable Mention J0206 Split group: –	<i>Is Seeing Believing?</i>
ANIMAL PHYSIOLOGY (SR) S02			
Mirna El-khalily	Francisco Bravo Medical Magnet High School	First Place S0201 Split group: –	<i>Abscisic Acid Effects on Cell Proliferation</i>
Caleb Smith	Palos Verdes Peninsula High School	Second Place S0204 Split group: –	<i>Utilizing a Fluorescent Hsp22 Pathway to Discover Lifespan-Increasing Genes in the Drosophila Melanogaster</i>
Cheyenne Newallis	San Pedro High School - Olguin Campus	Third Place S0203 Split group: –	<i>An Examination of the Factors that Contribute to Egg-laying of Pacific Swell Shark (Cephaloscyllium ventriosum)</i>
Ameya Tilaye	Los Angeles County High School for the Arts (LACHSA)	Honorable Mention S0205 Split group: –	<i>Investigating the Correlation of Duration of Sleep, Meal Times, and Body Temperature on a Person's Circadian Rhythm Affecting Performance Level</i>
Mariel Jackson Eliana Estrada	Los Angeles County High School for the Arts (LACHSA)	Honorable Mention S0202 Split group: –	<i>Germ Wars: Microbial Components of the Saliva of Felis Domesticus and Canis Familiaris</i>
BEHAVIORAL SCIENCES - NON-HUMAN (JR) J03			
Benjamin Hewitt	Portola Middle School & HGM	First Place J0306 Split group: –	<i>Retention of Larval Stage Conditioning in Post-Metamorphic Pieris Rapae Butterflies; Can Butterflies Remember Being a Caterpillar?</i>
Timothy Lindsey	Village Christian Middle School	Second Place J0308 Split group: –	<i>How do Different Colors Affect a Turtle's Movement Throughout a Maze?</i>
Angel Andrade	Fleming Middle School	Third Place J0301 Split group: –	<i>Coffee Buzzz</i>

BEHAVIORAL/SOCIAL SCIENCES - HUMAN (JR) J04

Manaal Sayed	Institute of Knowledge	First Place J0433 Split group: –	<i>Eating Disorders Comorbid with Depression</i>
Justine Encontro	John Muir Middle School	Second Place J0411 Split group: –	<i>Money and the Mind</i>
Joshua Richland	Pressman Academy	Third Place J0431 Split group: –	<i>P vs. No</i>
Itai Koronyo	Pressman Academy	Honorable Mention J0422 Split group: –	<i>The Effects of Facts Vs. Feelings in Ads.</i>
Saja Kamal Aya Akbik	Al-Huda School	Honorable Mention J0418 Split group: –	<i>I Crave To Behave!</i>
Alexandra Christodoulou	Weizmann Day School	Honorable Mention J0408 Split group: –	<i>The Golden Rule</i>
Esmah Ascha	Institute of Knowledge	Honorable Mention J0402 Split group: –	<i>Intellect Vs Imagination: HowDoes Your Brain Work?</i>
Sana Asifriyaz	Al-Huda School	Honorable Mention J0403 Split group: –	<i>Chalkboard vs. Whiteboard</i>

BEHAVIORAL/SOCIAL SCIENCES (SR) S03

Alexandra Garcia	Francisco Bravo Medical Magnet High School	First Place S0307 Split group: –	<i>The Neural Limitations of Small Invertebrates: Effects of Electrical Shocks on the Behavior of Brine Shrimp</i>
Sam LeFevre	Crescenta Valley High School	Second Place S0311 Split group: –	<i>The Effects of Video Games on Cognitive Function</i>
Ruwanthi Ekanayake	Palos Verdes Peninsula High School	Third Place S0305 Split group: –	<i>Effects of Avatar-Based Virtual Reality on Veracity Perception and Kinetosis</i>

BIOCHEMISTRY & MOLECULAR BIOLOGY (JR) J05

Elisha Johnston	Youth Science Center	First Place J0511 Split group: –	<i>Organic and Conventional Chicken under the Microscope: A Pilot Study Comparing Protein Quality</i>
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Jad Soucar	New Horizon School Pasadena	Second Place J0521 Split group: –	<i>It's More than a Weed, it's Sunscreen</i>
Cindy Xie	Portola Middle School & HGM	Third Place J0525 Split group: –	<i>It's Nutty: Amount of Calories in Different Kinds of Nuts</i>
George Percival	Walter Reed Middle School	Honorable Mention J0517 Split group: –	<i>To Stain Or Not To Stain?</i>
Hagop Chinchinian	AGBU Manoogian- Demirdjian School (Junior Division)	Honorable Mention J0505 Split group: –	<i>Damaged DNA: The Effect of Different Levels of Artificially Induced Glycosylases and AP Endonucleases on Damaged DNA Caused by UV Radiation</i>
Lojain Alshaiji	New Horizon School Pasadena	Honorable Mention J0501 Split group: –	<i>To Brown or Not To Brown</i>

BIOCHEMISTRY & MOLECULAR BIOLOGY (SR) S04

Cody Lim	Francisco Bravo Medical Magnet High School	First Place S0408 Split group: –	<i>Optimizing Viral Vectors for Site-Specific Gene Therapy in Hematopoietic Stem Cells</i>
Emily Kim	Palos Verdes Peninsula High School	Second Place S0407 Split group: –	<i>Electrophysiology-based Screen to Discover Genes Involved in Synaptic Homeostasis</i>
Braeden Benedict	Palos Verdes Peninsula High School	Third Place S0402 Split group: –	<i>Pathology and Chemistry of the Brain in Sanfilippo Syndrome Type B</i>
Brandon Ng	Walnut High School	Honorable Mention S0409 Split group: –	<i>Create a New Target- Specific Cytotoxic RNA and Examine its Viability For Use Against HIV</i>
Aleck Sun	Francisco Bravo Medical Magnet High School	Honorable Mention S0411 Split group: –	<i>Constructing Synthetic Positive Feedback Loops to Reinforce Motor Neuron Fate Commitment</i>

CHEMISTRY - APPLIED (JR) J06

Faatima Zahra Motala	Institute of Knowledge	First Place J0619 Split group: –	<i>Got Biodiesel?</i>
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Chloë Blue Steckart	St. Timothy School	Second Place J0611 Split group: –	<i>The Degradation of Ascorbic Acid: Effects of Electromagnetic Radiation, Convection Currents, and Time (Oh Say Can You See... Vitamin C!)</i>
Liam FitzGerald	St. John Fisher School	Third Place J0602 Split group: –	<i>More Water, Please</i>
Isabella Hoffman	Pressman Academy	Honorable Mention J0618 Split group: –	<i>Salt, Ice, and Everything Nice</i>
Amanda Martinez	El Sereno Gifted Magnet Center	Honorable Mention J0624 Split group: –	<i>The Power of Potatoes</i>
Robert Peltekov	Miraleste Intermediate School	Honorable Mention J0634 Split group: –	<i>Prototyping A More Exact Drug Release Mechanism</i>

CHEMISTRY - GENERAL (JR) J07

Jessie Ellico Franks	Sierra Madre Middle School	First Place J0717 Split group: A	<i>Anthocyanins as Color Changing Acid Indicators</i>
Erik Mercado	Our Lady of Refuge Catholic School	Second Place J0735 Split group: A	<i>How Does Time Affect the Amount of Vitamin C in Oranges?</i>
Larisa Assadourian	St. Gregory A&M Hovsepian School	Third Place J0706 Split group: A	<i>The Effect of Moisturizers on Skin Moisture Retention</i>
Jacque Forman	Echo Horizon School	Honorable Mention J0719 Split group: A	<i>Electrolyte Challenge</i>
Angelo Christian Panopio	Magnolia Science Academy Reseda	Honorable Mention J0739 Split group: A	<i>Turn Milk Into Plastic!</i>
Emily Sarte	Our Mother of Good Counsel School	Honorable Mention J0747 Split group: A	<i>Trash to Triumph</i>
Amr Alazali	Sun Valley Magnet School	Honorable Mention J0703 Split group: A	<i>Gel Well: Which additives make the strongest gelatin?</i>
Sarah Danon Nicole Dersahakian	Porter Ranch Community School	First Place J0715 Split group: B	<i>Which Blond is Best?</i>

Sophie Carter Cameron Gomez	Sierra Madre Middle School	Second Place J0714 Split group: B	<i>Kinetics of the Inversion of Sucrose</i>
Mia Pardo	Ribét Academy Middle School	Third Place J0740 Split group: B	<i>Examination of Tartrate</i>
Yulissa Mendez	New Los Angeles Charter School	Honorable Mention J0734 Split group: B	<i>Measuring The Sugar In Different Sodas</i>
Tyler Romero	Aveson Global Leadership Academy	Honorable Mention J0745 Split group: B	<i>To Clean Or Not To Clean</i>
Pawee Akkharachotmongkhol	John Muir Middle School	Honorable Mention J0702 Split group: B	<i>How Does the Amount of White Vinegar Affected the Amount of Casein Plastic can be Produced?</i>

CHEMISTRY (SR) S05

Taniel Keosseian	Rose and Alex Pilibos Armenian School- High School	First Place S0512 Split group: –	<i>Make Cellphone Spectrophotometer to See Light</i>
Diana Palma	Saint Anthony High School	Second Place S0518 Split group: –	<i>Polystyrene and its Effectiveness of Removing Calcium and Magnesium from Water</i>
Jessica Estrada	King/Drew Magnet High School of Medicine & Science	Third Place S0507 Split group: –	<i>The Effect of Casein on the Strength and Photodegradability of Handmade Recycled Paper</i>
Maria Medrano	King/Drew Magnet High School of Medicine & Science	Honorable Mention S0516 Split group: –	<i>Different Ways to Make Crayon Lipstick</i>
Janet Marie Hernandez	Pomona Unified School District Senior Division	Honorable Mention S0509 Split group: –	<i>Hard Water and Soft Water</i>
Max Brown	The Navigator Academy- High School	Honorable Mention S0504 Split group: –	<i>Shield the Steel: Arresting Rust Insomnia Naturally</i>

EARTH/SPACE SCIENCES (JR) J08

George Khouri	Sierra Canyon School	First Place J0813 Split group: –	<i>Put Your Soil To The Test!</i>
Matas Kulikauskas	South Pasadena Middle School	Second Place J0814 Split group: –	<i>A Puzzling Parallax Perspective</i>

Mia Dixon Evelyn Favretto	Mayfield Junior School of the Holy Child Jesus	Third Place J0808 Split group: –	<i>Erosion of Simulated Shorelines</i>
Brady Masih	St. Timothy School	Honorable Mention J0815 Split group: –	<i>The Effect of Acid on Seashells</i>
Dorian Andrei	John Muir Middle School	Honorable Mention J0802 Split group: –	<i>How Does Altitude Affect the Amount of Solar Radiation?</i>
Pamela Cana	Luther Burbank Math Science and Technology Magnet	Honorable Mention J0805 Split group: –	<i>Which Type of Greenhouse Gas is More Effective for Global Warming?</i>
EARTH/SPACE SCIENCES (SR) S06			
Ethan Uetrecht	Palos Verdes Peninsula High School	First Place S0606 Split group: –	<i>Assessing the Practicality of Asteroid Deflection Strategies Using Simulation</i>
Kaitlyn Arst	Daniel Pearl Magnet High School	Second Place S0602 Split group: –	<i>Use of Starch and Biopolymers Aqueous Solutions to Reduce Soil Erosion</i>
Zoe Zawol	Pasadena High School	Third Place S0609 Split group: –	<i>The Effect of Strong Magnetic Fields Caused by Broadcast Antennas on the Local Cosmic Ray Flux</i>
ECOLOGY (JR) J09			
Caroline Choi	South Pasadena Middle School	First Place J0905 Split group: –	<i>Drugs in Our Waters Make Daphnia's Hearts Flutter</i>
Logan Dalton	Portola Middle School & HGM	Second Place J0906 Split group: –	<i>Examining Potential Well Water Contamination</i>
Samantha Morris Christina Lee Angela Lee	Mirman School	Third Place J0913 Split group: –	<i>H2O: Hope to Others</i>
Kyle Newman	Milken Community Schools	Honorable Mention J0914 Split group: –	<i>Determining the Accuracy of Three Methods in Identifying the Presence of Cyanobacteria in the Ballona Wetlands During the Winter Season</i>
Curtis Yun	Village Christian Middle School	Honorable Mention J0926 Split group: –	<i>Purification of Water through Natural Factors. Is it Possible?</i>

Ashley Castro	Arroyo Seco Museum Science Magnet School	Honorable Mention J0904 Split group: –	<i>LA River: Concrete Floor vs Natural Floor</i>
Echo Seireeni	Millikan Science Academy School	Honorable Mention J0922 Split group: –	<i>The Mini MixMasters of the Sea: How Copepods Affect Ocean Water Mixing</i>
ECOLOGY (SR) S07			
Michael McFarland	Palos Verdes Peninsula High School	First Place S0704 Split group: –	<i>The Potential Impact of Hyperion Treatment Plant's Chlorinated Effluent and West Basin Brine on Marine Organisms</i>
Lilit Danelyan Siranush Martirosyan Bianca Mirza	Herbert Hoover High School	Second Place S0701 Split group: –	<i>Effect of Plastic on Laysan Albatross</i>
Natachi Onwudiwe	California Academy of Math & Science	Third Place S0705 Split group: –	<i>How does Proximity to the Ocean affect the Conductivity of the L.A. River?</i>
ENGINEERING APPLICATIONS (JR) J10			
Grady Morrissey	Flintridge Preparatory School (Middle School)	First Place J1034 Split group: A	<i>How the Shape of a Telescope's Mirror Affects the Size of Image Produced</i>
Alessandro Villain Jae Won Kwak	Ridgecrest Intermediate School	Second Place J1048 Split group: A	<i>Comparing the Versatility of an Aftermarket Controller from its Standard Counterpart</i>
Heaven Williams	Crawford Academy	Second Place J1049 Split group: A	<i>Solar Water Collector: Effect of Collector Diameter, Tilt, and Cover Material on Efficiency</i>
Allison Lowe	Intellectual Virtues Academy	Honorable Mention J1030 Split group: A	<i>Oh Say Can You See?</i>
Ashley Davy	St. Joseph Long Beach	Honorable Mention J1015 Split group: A	<i>Hot Air Balloon Madness</i>
Ivy Goodwin	Intellectual Virtues Academy	Honorable Mention J1020 Split group: A	<i>Finding Renewable Sources of Paper Fiber</i>
Azrin Khan	El Sereno Gifted Magnet Center	Honorable Mention J1026 Split group: A	<i>Funtional Prosthetic Hand for Everyday Activities</i>

Daniella Spina Sofia Goldschmidt	St. Joseph Long Beach	Honorable Mention J1043 Split group: A	<i>MUAX-UUV (Multi-Axis Unmanned Underwater Vehicle)</i>
Jahan Razavi	Mirman School	First Place J1037 Split group: B	<i>PyroVision: A Detection System for Wildfires</i>
Jonathan Abrams	Milken Community Schools	Second Place J1002 Split group: B	<i>The Claw Cane; A Cane with a Claw Mechanism for Picking up Dropped Items</i>
Melany Arriola Camila Fernandez	Magnolia Science Academy 6	Third Place J1005 Split group: B	<i>Landslides, Soils, and Building Foundations</i>
Jordan Feldman	Pressman Academy	Honorable Mention J1016 Split group: B	<i>"Look Ma No Hands"- On the Path to Programming a Brain-Controlled Vehicle</i>
Lauren Kong	Ridgecrest Intermediate School	Honorable Mention J1027 Split group: B	<i>Projecting A Brighter Future: Placing Reflective Materials On The Interior Of A Lampshade To Increase The Scope And Intensity Of The Projected Light</i>
Ryan Biazzo	Royal Oak Middle School	Honorable Mention J1008 Split group: B	<i>Endure-Boost Exo-Skeleton</i>
Stacey Bedolla	St. Joseph Long Beach	Honorable Mention J1007 Split group: B	<i>Tornado Chamber</i>
Sebastian Cordero	Our Mother of Good Counsel School	Honorable Mention J1014 Split group: B	<i>Floating on Air The Effect of an Air Ventilation System on the Drag Force of a Ship</i>

ENGINEERING APPLICATIONS (SR) S08

Rei Landsberger	Palos Verdes Peninsula High School	First Place S0812 Split group: –	<i>Effects of a Fluid-Tracking Design on Solar Panel's Efficiency</i>
Christopher Isozaki	Palos Verdes High School	Second Place S0810 Split group: –	<i>Reducing the Amount of Electricity Used by Computers Utilizing Green Technologies</i>
Shannon Chen	Palos Verdes Peninsula High School	Third Place S0803 Split group: –	<i>Design and Construction of a Miniature Helium Airship</i>

Eric Han	Harvard-Westlake School	Honorable Mention S0808 Split group: –	<i>MRI Noise Reduction through Intelligent Data Acquisition</i>
Cheolmin Im	Palos Verdes Peninsula High School	Honorable Mention S0809 Split group: –	<i>Bézier Curve Based 3D Wing Design Tool (BezFoil) Development (YEAR 2)</i>
Michael Culhaoglu	AGBU Manoogian-Demirdjian School (Senior Division)	Honorable Mention S0805 Split group: –	<i>iWalker Prototype</i>
ENGINEERING RESEARCH (JR) J11			
Max Froch	Milken Community Schools	First Place J1116 Split group: –	<i>Creating Images that Represent both Monocular and Binocular Vision of an Averaged Sized Clydesdale Horse</i>
Donald MacArthur	American Martyrs School	Second Place J1128 Split group: –	<i>The Effect of a Cooler Condenser in Distilling Freshwater from Saltwater</i>
Jeanie Benedict	St. John Fisher School	Third Place J1103 Split group: –	<i>The Chinchiller - For the Coolest Pet on the Block: Effect of Air Flow Restriction on Evaporative Cooling</i>
Shiv Patel	Ridgecrest Intermediate School	Honorable Mention J1133 Split group: –	<i>This Experiment Tests the Amount of hits a Gold, P.F. M, and E-max Can Take Before Signs of Initial and Complete Failure.</i>
Andrew Karroum	Nativity Catholic School - Torrance	Honorable Mention J1121 Split group: –	<i>The Effect of Bracing Type on Structural Integrity</i>
Kaitlyn Marcarian	Chamlian Armenian School	Honorable Mention J1129 Split group: –	<i>Defying Gravity</i>
Kiyan Lies	St. John Fisher School	Honorable Mention J1125 Split group: –	<i>Building a Hovercraft out of Common Materials and Testing Weight Support</i>
Jon Louis Mbakata	Our Mother of Good Counsel School	Honorable Mention J1130 Split group: –	<i>The Effect of a Pipe's Diameter on the Efficiency of a Hydroelectric Power Plant</i>
John Olson	St. John Fisher School	Honorable Mention J1132 Split group: –	<i>Solar Power</i>

ENGINEERING RESEARCH (SR) S09

Raymond Gilmartin	South Pasadena High School	First Place S0904 Split group: –	<i>Characterization of Magnetic Tunnel Junctions to Improve Tunnel Magnetoresistance for Next-Generation Memory Technologies</i>
Jasmine Cha	Village Christian High School	Second Place S0902 Split group: –	<i>The Snitch on the Stitch</i>
Timothy Santos	California Academy of Math & Science	Third Place S0911 Split group: –	<i>What is the Effect of Temperature on the Discharge Rate of Lithium-ion Batteries?</i>
Azad Moazzam-Doulat	Ribét Academy High School	Honorable Mention S0909 Split group: –	<i>Designing an Ideal Radiation Shield, Year 2</i>
Eugene Ko Finley Jacobsen	Grand Arts / Cortines High School	Honorable Mention S0908 Split group: –	<i>tDCS and its Effects on Cognitive Function</i>

ENVIRONMENTAL MANAGEMENT (JR) J12

Katherine Matsukawa	San Gabriel Christian School	First Place J1222 Split group: –	<i>Photobioreactors vs. Raceway Ponds</i>
Emily Banno	Portola Middle School & HGM	Second Place J1206 Split group: –	<i>What is the Best Mulch Material to Prevent Soil Water Evaporation?</i>
Dania Ansari	Institute of Knowledge	Third Place J1203 Split group: –	<i>Water Does Not Grow On Trees</i>
Madison Dietz	St. Martin of Tours	Third Place J1212 Split group: –	<i>Let There Be Light</i>
Alistair McMillan	New Los Angeles Charter School	Honorable Mention J1223 Split group: –	<i>Are Clovers a Suitable Lawn Alternative to Grass?</i>
Cooper Zell	Robert A. Millikan Middle School	Honorable Mention J1240 Split group: –	<i>Got Clogs? Which Toilet Paper Brand Degrades the Quickest?</i>
Rohan Jayasekara	Blair Middle School	Honorable Mention J1219 Split group: –	<i>Can Mushrooms Clean Polluted Soil?</i>

James Monroe	The Navigator Academy Middle School	Honorable Mention J1224 Split group: –	<i>pHarming Smart: Soil Additives in Drought Conditions</i>
Jeffrey Shen	Millikan Science Academy School	Honorable Mention J1236 Split group: –	<i>Dun(g) With Fossil Fuels: The Study of Biogas</i>
Alexa Nestic	Millikan Science Academy School	Honorable Mention J1225 Split group: –	<i>Ancient Bacteria for the Future: Spirulina Solar Cell</i>
Kate Reilly	American Martyrs School	Honorable Mention J1232 Split group: –	<i>Acid Bath</i>
Lauren Harris	Millikan Science Academy School	Honorable Mention J1217 Split group: –	<i>Solar Solution for Clean Water</i>
Muhammad Ali	Institute of Knowledge	Honorable Mention J1202 Split group: –	<i>Disappearing Bioplastic</i>

ENVIRONMENTAL MANAGEMENT (SR) S10

Martin Liu Kimberly Fuentes Zoe Parcels	Santa Monica High School	First Place S1011 Split group: –	<i>Cigarette Butt Pollution Abundance Study</i>
Huws Landsberger	Palos Verdes Peninsula High School	Second Place S1008 Split group: –	<i>The Effect of Temperature on Salt Marsh Plant Growth</i>
Sarah El-khalily	Francisco Bravo Medical Magnet High School	Third Place S1006 Split group: –	<i>Testing Different Plants for Filtration of Nitrates</i>
Rachel Hood	Palos Verdes High School	Honorable Mention S1007 Split group: –	<i>Watering Amounts in Coastal Los Angeles Grasses</i>

MATERIALS SCIENCE (JR) J13

So-Jung An	Walter Reed Middle School	First Place J1304 Split group: –	<i>Playing With Pencils</i>
Jennifer Hritz	Portola Middle School & HGM	Second Place J1312 Split group: –	<i>How do Various Materials and Methods for Creating Static Electricity Affect the Ability to Generate and Store Static Electricity?</i>
Nicholas Rivelle	Flintridge Preparatory School (Middle School)	Third Place J1326 Split group: –	<i>Relative Strength of Five Common Wood Joints</i>

Maia Sung	Ridgecrest Intermediate School	Honorable Mention J1330 Split group: –	<i>The Effects of Color on the Performance of Thermobimetal under Radiant Heat</i>
Samantha Bevers	South Pasadena Middle School	Honorable Mention J1306 Split group: –	<i>Which Material Will Save Us From Radiation?</i>
Claire Schmidt	Holy Angels School	Honorable Mention J1329 Split group: –	<i>Pykrete: Super Ice!</i>
Ryan Cartledge	Our Lady of Refuge Catholic School	Honorable Mention J1308 Split group: –	<i>Fed Up With Wi-Fi?</i>
Hannah Gansert	Sierra Canyon School	Honorable Mention J1310 Split group: –	<i>Aluminum Composite Horseshoe</i>
Emilie Nunn Alexa Zuch	Mayfield Junior School of the Holy Child Jesus	Honorable Mention J1323 Split group: –	<i>Edible Water Bottles</i>
Alexander Matiossian	Chamlian Armenian School	Honorable Mention J1318 Split group: –	<i>The Effect of Acids in Various Drinks on Limestone</i>

MATHEMATICS & COMPUTER SCIENCES (JR) J14

Andrew Shaheen	St. Joseph Long Beach	First Place J1409 Split group: –	<i>Basketball: The Geometry of Banking a Basket</i>
Kaylen Ng	Ridgecrest Intermediate School	Second Place J1407 Split group: –	<i>Experimental Theory of Using Bubbles as a Sustainable Source of Air Underwater</i>
Evan Vail	St. Joseph Long Beach	Third Place J1410 Split group: –	<i>The Groovy Gratings Experiment: Using Diffraction Patterns to Measure Data Track Spacing on CDs and DVDs</i>
Albert Liu	Portola Middle School & HGM	Honorable Mention J1406 Split group: –	<i>Can Morphological Noise Removal Algorithms be Optimized in Order to Lower the Standard Deviation and Average Error?</i>
Jack Pearce	St. Joseph Long Beach	Honorable Mention J1408 Split group: –	<i>Finding the Viscosities of Liquids</i>

Youssef Zerroug	New Horizon School Pasadena	Honorable Mention J1412 Split group: –	<i>Do you know your Wi-Fi?</i>
MATHEMATICS & COMPUTER SCIENCES (SR) S11			
Sanath Devalapurkar	West High School	First Place S1101 Split group: –	<i>The K-Theory of Symmetric Monoidal ∞-Categories of Modules</i>
George Hou	Arcadia High School	Second Place S1103 Split group: –	<i>Separating Mixed Signals in a Noisy Environment Using Global Optimization</i>
Raam Tambe	Palos Verdes Peninsula High School	Third Place S1108 Split group: –	<i>The Effects of Neutral Agents on the Expansion of Ideology in a Hypothetical Social Space</i>
Emon Sahaba Rony Contreras	Francisco Bravo Medical Magnet High School	Honorable Mention S1107 Split group: –	<i>Decoding the Patterns in Brain Activity: A Multi-fractal Investigation of Actions and Intentions</i>
MICROBIOLOGY (JR) J15			
Tai Michaels	Portola Middle School & HGM	First Place J1512 Split group: –	<i>Which Virus is Better at Killing Bacteria?</i>
James Bowden	Portola Middle School & HGM	Second Place J1502 Split group: –	<i>Antibiotic Resistance By Repeated Exposure</i>
Tess Robertson-Neel	Flintridge Preparatory School (Middle School)	Third Place J1515 Split group: –	<i>Can SODIS Compete?: Is solar distillation a reliable water purification method?</i>
Luke Quezada	South Pasadena Middle School	Honorable Mention J1514 Split group: –	<i>Meat Mystery</i>
Anushka Mukhey	St. Martin of Tours	Honorable Mention J1513 Split group: –	<i>Can You Resist Me?</i>
MICROBIOLOGY (SR) S12			
Elan Filler	Palos Verdes High School	First Place S1202 Split group: –	<i>Transcriptional Regulators as Drug Targets for Treatment of <i>C. glabrata</i> Infection</i>
Sophia Hewitt	North Hollywood High School	Second Place S1203 Split group: –	<i>Optimizing Chromosomal Exposure for Florescence In Situ Hybridization in <i>Tetrahymena thermophila</i></i>

Claire Muscat Danielle Castillo	Village Christian High School	Honorable Mention S1204 Split group: –	<i>How to Disinfect Water- Effective Methods of Disinfecting Water</i>
Adam Oshan	California Academy of Math & Science	Honorable Mention S1205 Split group: –	<i>The Effect of Circadian Rhythm on Bioluminescence in Pyrocystis Fusiformis</i>
Christine Ausherman	Village Christian High School	Honorable Mention S1201 Split group: –	<i>Climate Dependent Analysis of Airborne Microbes</i>

PHARMACOLOGY (JR) J16

Aiman Soomro	Institute of Knowledge	First Place J1605 Split group: –	<i>Constant Constipation</i>
Aliyah Dost	Institute of Knowledge	Second Place J1602 Split group: –	<i>Operation Combat Cholesterol</i>
Mahmoud Alamad	Al-Huda School	Third Place J1601 Split group: –	<i>Relieve My Stress!</i>
Jack Lulich	American Martyrs School	Honorable Mention J1603 Split group: –	<i>"Bayer"ing the Pain</i>
Hayat Owainat	New Horizon School Pasadena	Honorable Mention J1604 Split group: –	<i>Organic vs Inorganic</i>

PHARMACOLOGY (SR) S13

Edward Park	Larchmont Charter School	First Place S1398 Split group: –	<i>Hybrid Biosensor Capable of Early Diagnosis and Rapidly Monitoring Breast Cancer</i>
Rebecca Sine	Francisco Bravo Medical Magnet High School	Second Place S1303 Split group: –	<i>Allopregnanolone Site of Action for Promoting Regeneration of Human Neural Stem Cells: Uncovering the Path for the Detection of Neurogenesis</i>
Eunice Padilla	Francisco Bravo Medical Magnet High School	Third Place S1302 Split group: –	<i>The Effect of Pseudoephedrine on the Cardiovascular System of the California Blackworms</i>
Emilee Hall	Village Christian High School	Honorable Mention S1301 Split group: –	<i>The Heart of the Problem: A Comparison and Analysis of Various Heartburn Remedies</i>

Dennis Chen	Palos Verdes Peninsula High School	Honorable Mention S1399 Split group: –	<i>Testing the Simulation of AChE Inhibitors on BChE to Improve Upon the Design of Existing Drugs and Procedures</i>
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PHYSICS - AERODYNAMICS/HYDRODYNAMICS (JR) J17

Dylan Lee	Portola Middle School & HGM	First Place J1721 Split group: –	<i>What is the Most Efficient Angle of Attack of an Airplane's Wing?</i>
Nicholas Tan	Mayfield Junior School of the Holy Child Jesus	Second Place J1732 Split group: –	<i>Planes, Birds and V-Shapes</i>
Ethan Kita	San Gabriel Christian School	Third Place J1719 Split group: –	<i>Tangle of the Flight Angles</i>
Victoria Benefield	Classical Conversations Long Beach	Honorable Mention J1703 Split group: –	<i>Lowering the Use of Fossil Fuels by Container Ships through Friction Reduction</i>
Nicolas Winwood Xavier Haesly Donovan Ballard	Intellectual Virtues Academy	Honorable Mention J1799 Split group: –	<i>Hovercraft</i>
Austin Tran	American Martyrs School	Honorable Mention J1733 Split group: –	<i>Propeller Design</i>
Narek Kurkjian Marco Antonyan	Rose & Alex Pilibos Armenian School- Middle School	Honorable Mention J1720 Split group: –	<i>Wave After Wave</i>
Kami Arabian	Chamlian Armenian School	Honorable Mention J1701 Split group: –	<i>Bloat. My Unsinkable Balloon-Supported Boat.</i>

PHYSICS - ELECTRICITY & MAGNETISM (JR) J18

Matthew Prata Jacob Passalacqua	Holy Name of Mary School	First Place J1819 Split group: –	<i>Just Charge It</i>
Iliana Kleiner	Millikan Science Academy School	Second Place J1814 Split group: –	<i>Power of Shields</i>
Samuel Wentzel	St. Mel School	Third Place J1829 Split group: –	<i>The Utilization of Thermal Couplers</i>
Jayden Kemanian	South Pasadena Middle School	Honorable Mention J1813 Split group: –	<i>The "MAG"nificent Gaussian Rifle</i>

Conrad Davis	St. Cyril of Jerusalem School	Honorable Mention J1807 Split group: –	<i>Reading at the Right Angle</i>
PHYSICS - GENERAL (JR) J19			
Chloe Brandon	Sierra Madre Middle School	First Place J1911 Split group: A	<i>What is the Effect of Color on Solar Water Heating?</i>
Drew Quishenberry	Aveson Global Leadership Academy	Second Place J1971 Split group: A	<i>The Visualization of Sound</i>
Gabriela Mercado	Our Lady of Refuge Catholic School	Third Place J1956 Split group: A	<i>How Does the Shape of an Eggshell's Arch Affect the Amount of Weight It Can Support?</i>
Fatima Eyadat	Al-Huda School	Honorable Mention J1929 Split group: A	<i>What Will Fall First?</i>
Ariana Stiles	Sierra Canyon School	Honorable Mention J1980 Split group: A	<i>Energetic Nuts</i>
Armen Ghazarian	St. Gregory A&M Hovsepian School	Honorable Mention J1934 Split group: A	<i>Does More Energy in a Spring Make the Ball Go Farther?</i>
Caralynn Connolly	American Martyrs School	Honorable Mention J1919 Split group: A	<i>Does a Balloon Retain Helium Better Indoors or Outdoors?</i>
Eden Endewardt Hansy Zhang	Robert A. Millikan Middle School	Honorable Mention J1927 Split group: A	<i>Egg-Tastic! The Study of Non-Newtonian Fluids</i>
Gage Detchemendy	Mayfield Junior School of the Holy Child Jesus	Honorable Mention J1923 Split group: A	<i>How Does the Type of Rollercoaster Affect the Amount of G-Forces Produced?</i>
Jiamin Xu Jaemyung Choi	South Pasadena Middle School	Honorable Mention J1988 Split group: A	<i>Top Vertex Angle In The Warren Truss Bridge Design</i>
Christine Aghjayan Aleen Kuyumjian	Holy Martyrs Ferrahian Middle School	Honorable Mention J1901 Split group: A	<i>How Can You Resist?</i>
Jocelyn Chang Michael Chan Audrey Lim	San Gabriel Christian School	Honorable Mention J1917 Split group: A	<i>Base Race</i>

Neil Hoffmann	St. John Fisher School	First Place J1938 Split group: B	<i>The Tarzan Problem</i>
Nicholas Sercel	St. Bede The Venerable	Second Place J1976 Split group: B	<i>A Ballistic Pendulum Study of How Clothing Fabric Properties Effect Momentum and Energy Transfer of Paintballs to Simulated Human Flesh</i>
Justin Delgado	Magnolia Science Academy 6	Third Place J1921 Split group: B	<i>Flying High: How Ambient Temperature Affects the Buoyancy of Helium-filled Latex Balloons</i>
Robert Wakefield-Carl	Ridgecrest Intermediate School	Honorable Mention J1987 Split group: B	<i>Utilization of Ultrasonic Waves to Measure Temperature of Different Materials</i>
Julia Demer	St. Timothy School	Honorable Mention J1922 Split group: B	<i>The Yin and the Yang of the Ding</i>
Rachel Lu	South Pasadena Middle School	Honorable Mention J1952 Split group: B	<i>When Words Fail, Pianos Sing</i>
Patrick Hastings	Flintridge Preparatory School (Middle School)	Honorable Mention J1936 Split group: B	<i>Desalination</i>
Nicholas Mihranian	AGBU Manoogian-Demirdjian School (Junior Division)	Honorable Mention J1957 Split group: B	<i>Robotics VS Soundwaves</i>
Kai Taylor	Aveson Global Leadership Academy	Honorable Mention J1981 Split group: B	<i>The Science Behind Tsunamis</i>
Nicholas Semenov	Robert A. Millikan Middle School	Honorable Mention J1975 Split group: B	<i>Hitting the Mark: An investigation on the effects of angle to distance of a projectile</i>
Noah von der Linden	Intellectual Virtues Academy	Honorable Mention J1986 Split group: B	<i>The Effect of Weight Distribution on a RC Plane</i>
Kiera Gonzalez-Lyons	Robert A. Millikan Middle School	Honorable Mention J1935 Split group: B	<i>Sound Matters - A Study in Cymatics, the Science of How Sound Affects Matter</i>
Saya Sarma	Flintridge Preparatory School (Middle School)	Honorable Mention J1974 Split group: B	<i>iDROPPED</i>

PHYSICS (SR) S14

Clarence Nakano	Flintridge Preparatory School (High School)	First Place S1408 Split group: –	<i>Biological Electron-Transfer Dynamics in Multiheme Cytochrome Complexes</i>
Clement Decker	St. Monica Academy - High School	Second Place S1404 Split group: –	<i>Comparing Quantum and Classical Explanations for the Non-Interference of Orthogonally-Polarized Light Waves</i>
Jack Sun	Ribét Academy High School	Third Place S1412 Split group: –	<i>Newton Second Law</i>
Naomi Berhane	Flintridge Preparatory School (High School)	Honorable Mention S1402 Split group: –	<i>Combined Harmonic Motion: The Investigation of a Spring Pendulum</i>

PLANT BIOLOGY (JR) J20

Anthony Castillo	Our Lady of Refuge Catholic School	First Place J2012 Split group: A	<i>Is Less More?: The Effect of Fertilizer Microdosing on Non-GMO Diploid Yemeni Watermelon Seeds</i>
Johan Thuen	Sierra Madre Middle School	Second Place J2050 Split group: A	<i>Lights From The Sea: How Do Light/Dark Cycles Affect Bioluminescence?</i>
Camille Paquette	St. Timothy School	Third Place J2039 Split group: A	<i>Why are Leaves' Colors Different?</i>
Isabella Kimbrough	St. Timothy School	Honorable Mention J2030 Split group: A	<i>Hydroponics: A Better Gardening Alternative</i>
Alesandro Mier	Luther Burbank Math Science and Technology Magnet	Honorable Mention J2037 Split group: A	<i>Which Species of Radishes are More Resilient to Salinization?</i>
Josiah Rattay	El Sereno STeM Magnet	Honorable Mention J2042 Split group: A	<i>Cut Flower Power</i>
Megan Kohanarieh	Milken Community Schools	First Place J2031 Split group: B	<i>Germinating a mixture of Lolium perenne and Poa pratensis L.: Grey Water vs. Tap Water</i>
Raquel Kaufman	New Los Angeles Charter School	Second Place J2029 Split group: B	<i>What Type of Grass Has the Largest Amount of Biomass?</i>

Sadie Huntley	Arroyo Seco Museum Science Magnet School	Third Place J2025 Split group: B	<i>Water From Its Roots</i>
Melanie Aguilar	Monterey Highlands	Honorable Mention J2003 Split group: B	<i>How Environmental Changes Affect a Plant's Greenhouse Gas Production</i>
Savannah House	New Los Angeles Charter School	Honorable Mention J2024 Split group: B	<i>The Prosperous Environments of Plants</i>
Sara Shirazian	City of Knowledge Middle School	Honorable Mention J2046 Split group: B	<i>Does Vitamin B12 affect Seed Germination?</i>
Luka Bradvica	Holy Angels School	Honorable Mention J2010 Split group: B	<i>Effect of Allelopathy on Plants</i>
Zaynab Eltaib	New Horizon School Pasadena	Honorable Mention J2016 Split group: B	<i>Solvents and Their Effects on Chlorophyll Extraction in Leaves</i>
Sera Aintablian	St. Gregory A&M Hovsepian School	Honorable Mention J2004 Split group: B	<i>Do Different Containers Affect Plant Growth?</i>

PLANT BIOLOGY (SR) S15

Heather Robinson Amelia Dibbo	Palos Verdes High School	First Place S1508 Split group: –	<i>Effects of Temperature Manipulation on Vitamin C Levels</i>
Adaeze Oduma	King/Drew Magnet High School of Medicine & Science	Second Place S1506 Split group: –	<i>The Effect of Wind Speed on Seed Dispersal</i>
Kevin Coronado	California Academy of Math & Science	Third Place S1502 Split group: –	<i>The Effect of Different Water Temperatures on Boseila Orbigniana Red Algae Photosynthesis, Respiration, and Growth</i>
Michael Liu	Palos Verdes High School	Honorable Mention S1504 Split group: –	<i>Greywater Irrigation</i>
Daniela Flores	Huntington Park High School	Honorable Mention S1503 Split group: –	<i>Plant Germination</i>
Grayson Wade Will Cosso Austin Davis	Don Bosco Technical Institute	Honorable Mention S1511 Split group: –	<i>Productive Solutions</i>

PLANT PHYSIOLOGY (JR) J21

Isaiah O'Neal	Portola Middle School & HGM	First Place J2112 Split group: –	<i>Plant Electrophysiology - How Does the Stimulation of Trigger Hairs Affect the Generation of Action Potentials in a B52 Venus Flytrap?</i>
Safiyah Lakhany	Institute of Knowledge	Second Place J2109 Split group: –	<i>Holy Spinach</i>
Muhammad Abd-Allah	New Dimensions Middle School	Third Place J2101 Split group: –	<i>The Impact of Vitamins in Negating Hydrogen Peroxide Oxidant Effects on Seed Germination</i>
Eric Xue	Monterey Highlands	Honorable Mention J2119 Split group: –	<i>CO2 Absorbption Through Different Species of Algae</i>
Talia Toutounjian	AGBU Manoogian-Demirdjian School (Junior Division)	Honorable Mention J2117 Split group: –	<i>Effects of Biosolid Combinations on Seedling Germination and Growth</i>

PRODUCT SCIENCE (JR) J22

Annaliese Rupp	Holy Trinity Catholic School	First Place J2233 Split group: –	<i>"Mom, Do I Have to Rinse/Scrub The Plates Before I Put Them in The Dishwasher?"</i>
William Labrador	Chandler School	Second Place J2218 Split group: –	<i>How Quickly do Tortilla Chips Become Stale?</i>
Nicholas Hammons	Parras Middle School	Third Place J2213 Split group: –	<i>Kitchen Synthesized Magnetite Nanocrystals</i>
Aileen Keane	Holy Trinity Catholic School	Honorable Mention J2215 Split group: –	<i>The Stay of the Spray</i>
Rahma Nur	Al-Huda School	Honorable Mention J2228 Split group: –	<i>Decaffeinated Tea</i>
Hamna Khan	Al-Huda School	Honorable Mention J2216 Split group: –	<i>Natural vs. Synthetic Fertilizer on the Germination of Corn</i>
Dylan Drake	Mayfield Junior School of the Holy Child Jesus	Honorable Mention J2206 Split group: –	<i>Batter Up</i>

Lily Fotovat	St. Martin of Tours	Honorable Mention J2208 Split group: –	<i>Wash It Away</i>
Samantha Gonzalez Madison Laughlin	Pomona Unified School District Junior Division	Honorable Mention J2211 Split group: –	<i>What's the Scoop?</i>
Brendan Pernecky	Mayfield Junior School of the Holy Child Jesus	Honorable Mention J2230 Split group: –	<i>Which Football Helmet Best Prevents a Concussion?</i>
