Place Award	Last Name	First Name	Category	School	Grade	Teacher/ Advisor	Project Title
2nd Place	Agashe	Reva	Medicine and Health Sciences	Canyon Crest Academy	10	Haas	Effect of Various Tyrosine-Kinase Inhibitors on SH_SY5Y-APP Clone 3 Cells
4th Place	Al-Jasim	Hannah	Plant Sciences	Central Union High	10	Rueda	Plant Seed Culture
3rd Place	Austin	Jasmyn	Environmental Science and Management	Bonita Vista High	10	Mardahl	Cleaning Water Efficiently
3rd Place	Ballard	Aurora	Biochemistry	Mt. Everest Academy	10	Negus	Are all Coffee's Created Equal? Dunkin Donuts Vs. Starbucks
2nd Place	Barjesteh	Taraneh	Biochemistry	Canyon Crest Academy	11	Haas	The Effects of Cobalamin on Cell Growth Rate and Beta-Catenin and Cyclin D1 Expression in Osteosarcoma and Fibroblast Cells
1st Place *	Bronar	Matt	Biochemistry	Scripps Ranch High	12	Gillum	Identification of Metabolite Differences in Urine as a Form of Early Breast Cancer Diagnosis
1st Place	Bruce	Daniel	Animal Sciences	Canyon Crest Academy	11	Haas	The Effects of Predation Risk on Interspecies Flight Initiation Distance
2nd Place	Cantwell	Amanda	Engineering - Electrical and Mechanical	Central Union High	10	Rueda	Piano Stairs
1st Place	Catanzaro	Dominic	Physics and Astronomy	Cathedral Catholic High	12	Rafie	Quick-Aligning Telescopes
3rd Place *	Cervantes	lvan	Computer Science	Gompers Preparatory Academy	12	Ullyott	Computer Science
1st Place	Chen	Maggie	Engineering - Materials and Bioengineering	Canyon Crest Academy	11	Haas	Synthesis of a Biomimetic Artificial Kidney Using Cell-Membrane Coated Nanotherapeutics and 3D- Printing
4th Place *	Clamon	John	Biochemistry	Bonita Vista High	10	Mardahl	Brine Shrimp vs. PVC

Place Award	Last Name	First Name	Category	School	Grade	Teacher/ Advisor	Project Title
4th Place	Collins	Kianna	Engineering - Electrical and Mechanical	Gompers Preparatory	9	Ullyott	Upright ROV
				Academy			
4th Place	Crimmel	Jon	Environmental Science	Gompers	9	Ullyott	Biodiversity in our Neighborhood
			and Management	Preparatory Academy			
3rd Place	De Jesus	Jocelyn	Behavioral/Social Sciences	Gompers Preparatory Academy	9	Ullyott	Gender Frustration
3rd Place	De La Rosa	Alexis	Plant Sciences	Central Union High	10	Rueda	The Effects of Gibberellic Acid on Growth Rate and Photosynthesis
1st Place	Dehaini	Dina	Computer Science	Scripps Ranch High	10	Naser- elddin	Early Fire Detection
3rd Place	Diaz`	Clarissa	Environmental Science and Management	Central Union High	11	Rueda	Water Quality Determination from Daphnia Magna's Survival Rate
1st Place	Ferguson	Samuel	Engineering - Materials and Bioengineering	Christian Unified High	12	Ferguson	Diagnosing the Puzzle of Autism - A Wearable Micro-Movement Sensing Cap for Early Pediatric Screening
2nd Place	Gantla	Saikumar	Biochemistry	Canyon Crest Academy	10	Haas	Discovering the Novel Applications of the Antimalarial Drug Atovaquone: An In-silico Investigation
3rd Place	Garcia	Esmeralda	Behavioral/Social Sciences	Central Union High	10	Rueda	Difference in Memory Retention Between Handwritten Notes and Digital Notes
1st Place	Gauvreau	Paul	Engineering - Electrical and Mechanical	Canyon Crest Academy	11	Haas	Multicopter Automated Pollination
3rd Place	Gillcrist	David	Environmental Science and Management	Mt. Everest Academy	9	Pachon	Insecticide: Defender or Destroyer

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3rd Place	Gillcrist	Katherine	Engineering - Electrical and Mechanical	Mt. Everest Academy	11	Negus	Do Photographers Rely on The Golden Rules of Photography?
1st Place	Guru	Aditya	Medicine and Health Sciences	Torrey Pines High	11	Newman	Identification of novel ciliary protein mutations causing retinal degenerataion
3rd Place	Gutierrez	Carlos Andres	Engineering - Electrical and Mechanical	Eastlake High	11	Bayley	Heat Powered Phone Charger
1st Place	Hansen-Estruch	Philippe	Chemistry	Canyon Crest Academy	11	Haas	Design of Biodegradable Energy Source to Power Wearable Electronics
2nd Place *	Hoh	Jodie	Mathematical Sciences	Torrey Pines High	11	Newman	Algorithm for Demonstrating an Achievable Folding Procedure for a Convex Polygon with n sides (2 <n <13)</n
3rd Place	Horiuchi	Miyu	Medicine and Health Sciences	Central Union High	12	Rueda	Validating the Effectiveness of Proteolytic Enzyme Supplements to Diegest Protein
1st Place	Hu	Hannah	Computer Science	La Jolla High	11	Teach- worth	Image-Based Smog / Air Quality Prediction Algorithm
1st Place	Huang	Lucas	Engineering - Energy and Transport	Mt. Everest Academy	11	Tran	Osmotic Power: Blue Energy from Pressure Between Differing Water Salinities
4th Place	Hwang	Daniel	Microbiology	Canyon Crest Academy		Haas	
4th Place *	Ibarguren	Jon	Biochemistry	Bonita Vista High	10	Mardahl	Brine Shrimp vs. PVC
2nd Place	Ju	Saeyeon	Medicine and Health Sciences	Scripps Ranch High	10	Gillum	Alteration of cancer nuclei by expedited approach for visualization of 3D image stacks using IMOD
1st Place	Kahn	Samuel	Environmental Science and Management	High Tech High Media Arts	9	Millow	Post-Fire Regeneration in Coastal Sage Scrub – 3rd Year of Study

Place Award	Last Name	First Name	Category	School	Grade	Teacher/ Advisor	Project Title
1st Place	Kim	Jae	Physics and Astronomy	La Jolla High	12	Teach- worth	Saving the World, One Asteroid at a Time
1st Place	Krishnamurthy	Nithya	Behavioral/Social Sciences	Canyon Crest Academy	11	Haas	Hippocampal Theta Phase Precession Adapts to Changing Field Length: Implications for Episodic Memory
1st Place	Кио	Alexandra	Engineering - Electrical and Mechanical	La Jolla High	11	Teach- worth	Game, Set, Match: An Electronic Shoe for Playing Tennis
1st Place *	Laqua	Nico	Plant Sciences	Canyon Crest Academy	11	Haas	Novel biogasoline production via macroalgal duckweeds by the operon expression method IL-60
1st Place	Lew	Ken	Engineering - Energy and Transport	La Jolla Country Day	9	Padgett	Analysis Of Aerodynamic Performance between the Kline-Fogleman Vs Standard Airfoils
1st Place	Lewis	Nathan	Plant Sciences	Classical Conversation	10	Lewis	Effects of Water Salinity on Plant Growth
1st Place	Li	Raymond	Microbiology	Canyon Crest Academy	10	Haas	A novel approach to help Lactobacillus survive stomach acid
4th Place	Liu	Cassidy	Computer Science	Canyon Crest Academy	9	Haas	Recording and Reporting ISPE Activity in Smartphones
2nd Place	Lopatka	Kevin	Mathematical Sciences	Rancho Bernard High	9	Lopatka	Pitching a New Idea: Statistical Analysis of Pitcher Selection
3rd Place	Luberto	Judah	Engineering - Materials and Bioengineering	The Cambridge School	11	Gingrich	Soft Pneumatic Actuator Exoskeleton with Focus on Light-weight Capabilities, Small Size, Price, and Endurance
1st Place	Madhukara	Rachana	Mathematical Sciences	Canyon Crest Academy	9	Haas	Dynamics on the Rado Graph

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3rd Place	Malhotra	Niharika	Engineering - Electrical and Mechanical	Scripps Ranch High	9	Gillum	Special Needs Tetherball
2nd Place *	Marin	Jessica	Plant Sciences	Central Union High	11	Rueda	Hydroponics vs Soil Grown
2nd Place *	Martinez	Antonio	Behavioral/Social Sciences	Central Union High	12	Rueda	The Effect of High School Grade Level on an Individual's Mindset
3rd Place *	Martinez	Diego	Engineering - Electrical and Mechanical	Gompers Preparatory Academy	10	Ullyott	Reagle the Robot
2nd Place *	McQuitty	Micah	Engineering - Electrical and Mechanical	Central Union High	10	Rueda	Gauss ProAcc
3rd Place *	Mencia	Angel	Computer Science	Gompers Preparatory Academy	10	Ullyott	Computer Science
1st Place	Merk	Liana	Microbiology	Canyon Crest Academy	12	Haas	Uncovering the Transcriptional Secrets of Protective O21 H+ E. Coli
3rd Place	Mohammad	Jameel	Chemistry	Eastlake High	11	Bayley	What are FDTs
2nd Place	Morse	Isabella	Microbiology	Central Union High	11	Rueda	Heat and Moisture Exchanger Resistance to Bacterial Contamination over Time
1st Place *	Nadig	Mihika	Chemistry	Torrey Pines	12	Newman	Dehydrocoupling to Stabilize Photonic Crystal- Based Porous Silicon Sensors
2nd Place *	Nava	Clarrisa	Behavioral/Social Sciences	Central Union High	12	Rueda	A Longitudinal Study of the Immediate Effects of Lies on the Human Body
2nd Place *	Nava	Kiana	Plant Sciences	Central Union High	11	Rueda	Hydroponics vs Soil Grown

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1st Place	Nguyen	Emily	Medicine and Health Sciences	Mt. Everest Academy	11	Negus	Effects of Dietary Supplements on Pesticide- Induced Neurodegeneration in Dugesia tigrina
1st Place	Nichani	Arjun	Engineering - Electrical and Mechanical	Canyon Crest Academy	11	Haas	Determining Exit Velocity Through Ball Tracking by Using Computer Vision Techniques
2nd Place	Pastore	Aspen	Environmental Science and Management	La Jolla High		Teach- worth	
2nd Place *	Peralta-Ochoa	Marco	Behavioral/Social Sciences	Central Union High	12	Rueda	A Longitudinal Study of the Immediate Effects of Lies on the Human Body
2nd Place	Plancarte	Victor	Plant Sciences	Central Union High	10	Rueda	Pollination When Raining?
1st Place *	Provol	Jason	Biochemistry	Scripps Ranch High	12	Gillum	Identification of Metabolite Differences in Urine as a Form of Early Breast Cancer Diagnosis
2nd Place *	Pummay	Harisher	Engineering - Electrical and Mechanical	Central Union High	11	Rueda	Gauss ProAcc
3rd Place	Rabe	Heidi	Animal Sciences	Central Union High	10	Rueda	The Effect of Environmental pH on Pogonomyrmex Barbatus Forager Behaviors
1st Place *	Reddy	Meghana	Mathematical Sciences	Francis Parker	12	Hanscom	Reddy's Corollary
1st Place *	Reddy	Rakesh	Mathematical Sciences	Francis Parker	9	Hanscom	Reddy's Corollary
1st Place	Rehan	Aadil	Plant Sciences	Canyon Crest Academy	10	Shakeri	A Multilateral Approach to Combatting the Recurrence of Phytophthora cinnamomi
2nd Place *	Ren	Kevin	Mathematical Sciences	Torrey Pines High	11	Newman	Algorithm for Demonstrating an Achievable Folding Procedure for a Convex Polygon with n sides (2 <n <13)</n

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1st Place	Reza	Samiha	Biochemistry	Canyon Crest Academy	10	Haas	Escherichia Coli Potassium Binding Protein as a Potassium Ion Inhibitor
2nd Place	Sahana	Kumar	Medicine and Health Sciences	Francis Parker	10	Whimpy	
3rd Place *	Sayd	Khadija	Behavioral/Social Sciences	National University Acad	9	Dillard	Do You get Easily Distracted While Multitasking?
3rd Place *	Sayd	Sumeya	Behavioral/Social Sciences	National University Acad	10	Dillard	Do You get Easily Distracted While Multitasking?
2nd Place	Schapiro	Risa	Microbiology	Mt. Everest Academy	9	Huy	Peppermint: Efficacy as an Oral Rinse
2nd Place	Settergren	Lucas	Animal Sciences	The Cambridge School	11	Gingrich	The Behavior and Life of Drosophila and its Mutants
2nd Place	Setzer	Nicholas	Plant Sciences	Canyon Crest Academy	11	Haas	The Novel Study of The Symbiotic Relationship Between Phaseolus Vulgaris, Rhizobium Bacteria, and the Impact of Lyophilization.
3rd Place	Shiffer	Catherine	Plant Sciences	Central Union High	10	Rueda	Synergetic Effect of Plant Hormones on Medicago Sativa
1st Place	Singh	Anshul	Engineering - Electrical and Mechanical	Scripps Ranch High	11	Gillum	Omnidirectional Drone Collision Avoidance
1st Place	Singh	Richa	Environmental Science and Management	Scripps Ranch High	9	Gillum	Lead Detection in Water
1st Place	Situ	Julia	Biochemistry	Canyon Crest Academy	10	Haas	Role of Circular RNAs in Drosophila Innate Immunity
3rd Place	Strumlauf	Alexander	Medicine and Health Sciences	Mt. Everest Academy	9	Pachon	What are the effects of Stance on Accuracy?

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4th Place	Sudthivongse	Jacqueline May	Behavioral/Social Sciences	Gompers Preparatory Academy	9	Ullyott	Clothing and Behavior
4th Place	Sysavath	Stephanie	Behavioral/Social Sciences	Gompers Preparatory Academy	9	Ullyott	Incentives to Increase Safety In San Diego
3rd Place *	Tablas	Jason	Engineering - Electrical and Mechanical	Gompers Preparatory Academy	9	Ullyott	Reagle the Robot
2nd Place	Talamantez	Mary	Environmental Science and Management	Bonita Vista High	12	Mardahl	Bioremediation of Eutrophic Bodies of Water
3rd Place	Tam	Colin	Physics and Astronomy	Eastlake High	11	Bayley	Gravitational Acceleration on an Inclined Plane
1st Place *	Tran	Annam	Plant Sciences	Canyon Crest Academy	11	Haas	Novel biogasoline production via macroalgal duckweeds by the operon expression method IL-60
2nd Place	van den Bergh	Greta	Physics and Astronomy	Mt. Everest Academy	9	Pachon	Astronometric Measurement of HJL1020
2nd Place	Verdolin	Michael	Medicine and Health Sciences	Eastlake High		Bayley	
2nd Place *	Villa	Alexandra	Behavioral/Social Sciences	Central Union High	12	Rueda	The Effect of High School Grade Level on an Individual's Mindset
3rd Place	Villa	Monica	Medicine and Health Sciences	Central Union High	11	Rueda	The Effect of Age/Headphones on the Hearing Sense of Humans
1st Place	Wang	Matthew	Engineering - Materials and Bioengineering	Scripps Ranch High	11	Stock	Characterization of the Osteochondral Interface with Digital Volumetric Imaging

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1st Place	Wildenhain	Patrick	Computer Science	Scripps Ranch High	11	Stock	Mitigating Flood Risk by Predicting River Heights Using Neural Networks
1st Place	Xia	Brian	Medicine and Health Sciences	Canyon Crest Academy	12	Haas	Early-life epigenetic therapies to delay aging and multiple aging-related diseases
1st Place *	Yin	Andre	Chemistry	Westview High	11	Newman	Dehydrocoupling to Stabilize Photonic Crystal- Based Porous Silicon Sensors
1st Place	Zaragoza	Sofia	Biochemistry	Eastlake High	10	Bayley	Protein Dynamics of W215A Thrombin Mutant
1st Place	Zhang	Daniel	Medicine and Health Sciences	Westview High	11	Ingram	Genome-Based Discovery of Novel CpG Biomarkers for Early Diagnosis and Prognosis of Leukemia