

2020 Contra Costa County Science & Engineering Fair

PROJECT PLACEMENTS & SPECIAL AWARDS

SENIOR DIVISION GRAND SWEEPSTAKES WINNERS (9th - 12th Grades)

and INTERNATIONAL SCIENCE & ENGINEERING FAIR FINALISTS

These projects will represent CCCSEF at the Regeneron International Science & Engineering Fair (ISEF) scheduled to be held in Anaheim, CA, May 10-15, 2020.

CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Engineering	11	Implementing a Machine Learning Model in an Effective and Low-Cost Parkinson's Disease Diagnosis Algorithm	Sanjita Pamidimukkala Dennis Chan	Dougherty Valley High	California Science & Engineering Fair; AT Young Scientific Innovation Award
Environmental	11	Plastic Debris as a Vector for Heavy Metal Transport & Contamination in the Marine Environment	Melanie Quan	Las Lomas High	California Science & Engineering Fair; American Meteorological Society; US Stockholm International Water Institute Junior Water Prize; AT Young Scientific Innovation Award
Biology	12	A Novel Machine Learning Method to Predict Breast Cancer Patient Response to Neoadjuvant Chemotherapy from MRIs	Janice Yang	Dougherty Valley High	California Science & Engineering Fair; Chevron Innovative Technology Award, \$500; AT Young Scientific Innovation Award

JUNIOR DIVISION GRAND SWEEPSTAKES WINNERS (7th-8th Grades)

These students are eligible to compete, representing Contra Costa County, at the Broadcom Masters Middle School National Science Fair, Oct. 16-21, 2020, held in Washington, DC.

CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Engineering	7	Can You Make an Actuated Trombone Mute?	Kellen Hurrey	Iron Horse Middle	California Science & Engineering Fair; Broadcom Masters; John Henry Award of Technology Innovation \$100 gift card
Environmental	7	Phytoremediation Transformation	Greyson Farrar	Northcreek Academy	California Science & Engineering Fair; Broadcom Masters
Physical	7	Magnetic Regeneration	Brooke Koller	Northcreek Academy	California Science & Engineering Fair; Broadcom Masters

**California Science & Engineering Fair Finalists
(Only 18 projects are selected for this honor.)**

The California Science & Engineering Fair has been cancelled for 2020, but their names will be listed on their website.

CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Behavioral	8	The Peer Pressure Problem	Elena Pettibone	Northcreek Academy	Broadcom Masters
Biology	7	Algae Power: Carbon Scour	Grace Tseng	Northcreek Academy	Broadcom Masters; NASA Earth System Science Award
Biology	8	Busting the Bacteria: Soap and Water vs. Hand Sanitizer	Julia Kuhnhausen	Northcreek Academy	Bio-Rad \$200 gift card
Biology	10	Breast Cell Genetic Mutation from Aluminum Compounds	Cameron Meyer	De La Salle High	AT Young Scientific Innovation Award
Biology	11	Small Molecular Fluorescence Dyes for Immuno Cell Analysis - Enhancement to MRD Detection in Cancer Treatment	Janine Jiang	Monte Vista High	Bio-Rad \$300 gift card; Society for In Vitro Biology; AT Young Scientific Innovation Award
Biology	12	A Novel Machine Learning Method to Predict Breast Cancer Patient Response to Neoadjuvant Chemotherapy from MRIs	Janice Yang	Dougherty Valley High	ISEF Finalist; Senior Sweepstakes Winner; Chevron Innovative Technology Award, \$500 gift card; AT Young Scientific Innovation Award
Engineering	7	Can You Make an Actuated Trombone Mute?	Kellen Hurrey	Iron Horse Middle	Junior Sweepstakes Winner; Broadcom Masters; John Henry Award of Technology Innovation \$100 gift card
Engineering	8	Study to Compare Options for Building Non-Invasive Low-Cost Glucose Meter	Gatik Trivedi	Gale Ranch Middle	Lemelson Early Inventor Prize, \$100
Engineering	10	What's the Pointe in Plantar Fasciitis?; Utilizing a Tailored Compression Sock Prototype and Computer Simulation to Reduce Inflammation for Dancers in Pointe Shoes	Daylin Atwood	Campolindo High	Chevron Innovative Technology Award, \$500 gift card; The Tremsin Award of Technology Innovation, \$100 gift card; AT Young Scientific Innovation Award
Engineering	11	Implementing a Machine Learning Model in an Effective and Low-Cost Parkinson's Disease Diagnosis Algorithm	Sanjita Pamidimukkala Dennis Chan	Dougherty Valley High	ISEF Finalists; Senior Sweepstakes Winners; AT Young Scientific Innovation Award

Engineering	12	Optimization of Pt/C Catalyst Nanofibers Electrospun on Nafion 117 Membranes in Polyelectrolyte Membrane Fuel Cells	Surya Rajan	California High	Chevron Innovative Technology Award, \$500 gift card; Henkel Aerospace Highflyer Science & Engineering Award, \$250 gift card; AT Young Scientific Innovation Award; ASM Materials Education Foundation
Environmental	7	Phytoremediation Transformation	Greyson Farrar	Northcreek Academy	Junior Sweepstakes Winner; Broadcom Masters
Environmental	8	Reducing Indoor levels of Particulate Matter Using Alternate, Low-Cost Approaches	Harsha Pillarisetti	Windemere Ranch Middle	Broadcom Masters; US Department of the Air Force
Environmental	10	Creating a Super-Enzyme Concentrate to Break Down Plastic	Elliot Kunz Mike Kostolansky	De La Salle High	American Meteorological Society; Ricoh, USA Inc.; AT Young Scientific Innovation Award
Environmental	11	Plastic Debris as a Vector for Heavy Metal Transport & Contamination in the Marine Environment	Melanie Quan	Las Lomas High	ISEF Finalist; Senior Sweepstakes Winner; American Meteorological Society Award; US Stockholm International Water Institute Junior Water Prize; AT Young Scientific Innovation Award
Math/Computer Science	12	Galen: A New Way to Diagnose Medical Images	Siddhant Sharma	California High	Chevron Innovative Technology Award, \$500 gift card; Mu Alpha Theta; AT Young Scientific Innovation Award
Physical	7	Magnetic Regeneration	Brooke Koller	Northcreek Academy	Junior Sweepstakes Winner; Broadcom Masters
Physical	8	The Magic of Souffles	Katie Kostolansky	St. Perpetua	Broadcom Masters; American Psychological Association; Mu Alpha Theta

California Science & Engineering Fair Alternates

(Only 5 projects are chosen.)

The California Science & Engineering Fair has been cancelled for 2020.

CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Physical	Alt 1 12	Thickness of Tomato Paste Solutions--Empirical Measurement of Tomato Paste Viscosity	Noah Chayce	Deer Valley High	AT Young Scientific Innovation Award

Math/Computer Science	Alt 2 11	Lunch Pre-Ordering: Building a Scalable Solution to Optimize the School Lunch Ordering Process Using Automation, Microcontrollers, & Machine Learning	Vishakh Arora	Dougherty Valley High	Chevron Innovative Technology Award, \$500 gift card; Yale Science & Engineering Association; AT Young Scientific Innovation Award
Math/Computer Science	Alt 3 9	(Crack dat-Quake) Using Neural Networks for Preliminary Determination of Earthquakes	Neel Redkar	Dougherty Valley High	
Math/Computer Science	Alt 4 8	Using Segmentation and Deep Convolutional Neural Networks For Diagnosis of Melanoma Skin Cancer	Satwik Panigrahi Kaival Shah	Windemere Ranch Middle	
Behavioral	Alt 5 10	Is There a Link Between the VNTR Expression on the Per3 Gene, Basal Metabolic Rate, and Stress Levels?	Pierre Jolin Spencer Richards	De La Salle	AT Young Scientific Innovation Award

BROADCOM MASTERS FINALISTS

These students are eligible to compete to represent Contra Costa County at the Broadcom Masters Middle School National Science Fair Oct. 16-21, 2020, in Washington DC.

CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Behavioral	8	The Peer Pressure Problem	Elena Pettibone	Northcreek Academy	California Science & Engineering Fair
Biology	7	Algae Power: Carbon Scour	Grace Tseng	Northcreek Academy	California Science & Engineering Fair; NASA Earth System Science Award
Engineering	7	Can You Make an Actuated Trombone Mute?	Kellen Hurrey	Iron Horse Middle	California Science & Engineering Fair; John Henry Award of Technology Innovation \$100 gift card
Engineering	8	Simulating Sound Localization with Machine Learning and Frequency Analysis	Michael Lan	Joaquin Moraga Intermediate	Mt. Diablo Amateur Radio Club, \$150 gift card
Environmental	7	Phytoremediation Transformation	Greyson Farrar	Northcreek Academy	Junior Sweepstakes Winner; California Science & Engineering Fair
Environmental	8	Reducing Indoor levels of Particulate Matter Using Alternate, Low-Cost Approaches	Harsha Pillarisetti	Windemere Ranch Middle	California Science & Engineering Fair; US Department of the Air Force
Physical	7	Magnetic Regeneration	Brooke Koller	Northcreek Academy	Junior Sweepstakes Winner; California Science & Engineering Fair

Physical	8	The Magic of Souffles	Katie Kostolansky	St. Perpetua	California Science & Engineering Fair; American Psychological Association; Mu Alpha Theta
FIRST PLACE AWARDS					
CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Behavioral	8	The Peer Pressure Problem	Elena Pettibone	Northcreek Academy	California Science & Engineering Fair; Broadcom Masters
Behavioral	10	Is There a Link Between the VNTR Expression on the Per3 Gene, Basal Metabolic Rate, and Stress Levels?	Pierre Jolin Spencer Richards	De La Salle High	California Science & Engineering Fair Alternates; AT Young Scientific Innovation Award
Biology	7	Algae Power: Carbon Scour	Grace Tseng	Northcreek Academy	California Science & Engineering Fair; Broadcom Masters; NASA Earth System Science Award
Biology	8	Busting the Bacteria: Soap and Water vs. Hand Sanitizer	Julia Kuhnhausen	Northcreek Academy	California Science & Engineering Fair; Bio-Rad \$200 gift card
Biology	10	Breast Cell Genetic Mutation from Aluminum Compounds	Cameron Meyer	De La Salle High	California Science & Engineering Fair; AT Young Scientific Innovation Award
Biology	11	Small Molecular Fluorescence Dyes for Immuno Cell Analysis - Enhancement to MRD Detection in Cancer Treatment	Janine Jiang	Monte Vista High	California Science & Engineering Fair; Bio-Rad \$300 gift card; Society for In Vitro Biology; AT Young Scientific Innovation Award
Biology	12	A Novel Machine Learning Method to Predict Breast Cancer Patient Response to Neoadjuvant Chemotherapy from MRIs	Janice Yang	Dougherty Valley High	ISEF Finalist; Senior Sweepstakes Winner; California Science & Engineering Fair, Chevron Innovative Technology Award, \$500 gift card; AT Young Scientific Innovation Award
Engineering	7	Can You Make an Actuated Trombone Mute?	Kellen Hurrey	Iron Horse Middle	Jr. Sweepstakes Winner; California Science & Engineering Fair; Broadcom Masters; John Henry Award of Technology Innovation, \$100 gift card
Engineering	8	Study to Compare Options for Building Non-Invasive Low-Cost Glucose Meter	Gatik Trivedi	Gale Ranch Middle	California Science & Engineering Fair; Lemelson Early Inventor Prize, \$100

Engineering	10	What's the Pointe in Plantar Fasciitis?; Utilizing a Tailored Compression Sock Prototype and Computer Simulation to Reduce Inflammation for Dancers in Pointe Shoes	Daylin Atwood	Campolindo High	California Science & Engineering Fair; Chevron Innovative Technology Award, \$500 gift card; The Tremsin Award of Technology Innovation, \$100 gift card; AT Young Scientific Innovation Award
Engineering	11	Implementing a Machine Learning Model in an Effective and Low-Cost Parkinson's Disease Diagnosis Algorithm	Sanjita Pamidimukkala Dennis Chan	Dougherty Valley High	ISEF Finalist; Senior Sweepstakes Winners; California Science & Engineering Fair; AT Young Scientific Innovation Award
Engineering	12	Optimization of Pt/C Catalyst Nanofibers Electrospun on Nafion 117 Membranes in Polyelectrolyte Membrane Fuel Cells	Surya Rajan	California High	California Science & Engineering Fair; Chevron Innovative Technology Award, \$500 gift card; Henkel Aerospace Highflyer Science & Engineering Award, \$250 gift card; ASM Materials Education Foundation; AT Young Scientific Innovation Award
Environmental	7	Phytoremediation Transformation	Greyson Farrar	Northcreek Academy	Jr. Sweepstakes Winner; California Science & Engineering Fair; Broadcom Masters
Environmental	8	Reducing Indoor levels of Particulate Matter Using Alternate, Low-Cost Approaches	Harsha Pillarisetti	Windemere Ranch Middle	California Science & Engineering Fair; Broadcom Masters; US Department of the Air Force
Environmental	10	Creating a Super-Enzyme Concentrate to Break Down Plastic	Elliot Kunz Mike Kostolansky	De La Salle High	California Science & Engineering Fair; American Meteorological Society; Ricoh, USA Inc.; AT Young Scientific Innovation Award
Environmental	11	Plastic Debris as a Vector for Heavy Metal Transport & Contamination in the Marine Environment	Melanie Quan	Las Lomas High	ISEF Finalist; Senior Sweepstakes Winner; California Science & Engineering Fair; American Meteorological Society Award; US Stockholm International Water Institute Junior Water Prize; AT Young Scientific Innovation Award
Math/Computer Science	8	Using Segmentation and Deep Convolutional Neural Networks For Diagnosis of Melanoma Skin Cancer	Satwik Panigrahi Kaival Shah	Windemere Ranch Middle	California Science & Engineering Fair Alternate
Math/Computer Science	9	(Crack dat-Quake) Using Neural Networks for Preliminary Determination of Earthquakes	Neel Redkar	Dougherty Valley High	California Science & Engineering Fair Alternate

Math/Computer Science	11	Lunch Pre-Ordering: Building a Scalable Solution to Optimize the School Lunch Ordering Process Using Automation, Microcontrollers, & Machine Learning	Vishakh Arora	Dougherty Valley High	California Science & Engineering Fair Alternate; Chevron Innovative Technology Award, \$500 gift card; Yale Science & Engineering Association; AT Young Scientific Innovation Award
Math/Computer Science	12	Galen: A New Way to Diagnose Medical Images	Siddhant Sharma	California High	California Science & Engineering Fair; Chevron Innovative Technology Award, \$500 gift card; Mu Alpha Theta; AT Young Scientific Innovation Award
Physical	7	Magnetic Regeneration	Brooke Koller	Northcreek Academy	Jr. Sweepstakes Winner; California Science & Engineering Fair; Broadcom Masters
Physical	8	The Magic of Souffles	Katie Kostolansky	St. Perpetua	California Science & Engineering Fair; Broadcom Masters; American Psychological Association; Mu Alpha Theta
Physical	12	Thickness of Tomato Paste Solutions--Empirical Measurement of Tomato Paste Viscosity	Noah Chayce	Deer Valley High	California Science & Engineering Fair Alternate; AT Young Scientific Innovation Award

SECOND PLACE AWARDS

CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Behavioral	7	Athlete/Non-Athlete Memory Comparison	Vivian Gallaway	Northcreek Academy	
Behavioral	7	A Bit Close There! A Look into Personal Space	Kimberly Chanwattanapong	Northcreek Academy	
Behavioral	8	Caught in a Lie	Ella DeGuzman	Northcreek Academy	
Behavioral	10	Effectiveness of the Placebo Effect in Video and Audio Forms: The Power of Placebo	Sam Pickett	De La Salle High	
Behavioral	10	Effect of Distractions on Driving	Alex Green	De La Salle High	
Behavioral	12	SPEAK UP! YOUR IDEAS MATTER!	Fleur-De-Lis Flores	Deer Valley High	AT Young Scientific Innovation Award
Biology	7	Five Second Rule at School	Samantha Dale	Northcreek Academy	
Biology	10	The Results of E-Cigarette Vapor on the Ames Carcinogenesis Test	Zane Mogannam	De La Salle High	
Biology	11	Inhibiting BIR1p Protein Translation within the Model Organism <i>S. Cerevisiae</i> : An Application to Antisense Therapeutics as a Novel Treatment for Cancer	Sahiti Peddibhotla Sanjana Prasad	Dougherty Valley High	

Biology	11	Hidden Markov Chain 3D Contour Trajectory Analysis through Gaussian Normalization of Gene Loci in Drosophila	Shlok Mehrotra	Dougherty Valley High	
Biology	12	The Effect of Air-Purifying Plants on Indoor Levels of VOCs	Andrew Ngo	Deer Valley High	US Stockholm International Water Institute Junior Water Prize
Engineering	8	Simulating Sound Localization with Machine Learning and Frequency Analysis	Michael Lan	Joaquin Moraga Intermediate	Broadcom Masters; Mt. Diablo Amateur Radio Club, \$150 gift card
Engineering	11	Safety Device for the Visually Impaired	Arpitha Parthasarathy	Dougherty Valley High	
Engineering	12	VOID: Vertical Observer and Integrated Drone	Jesse Lutan Jia Xin Li Peter Lee	Dougherty Valley High	US Department of the Air Force
Environmental	7	Which Soil is Best for Growing Plants?	Pranav Saravanan	Windemere Ranch Middle	
Environmental	8	Combatting Plastic Pollution: Using Algae to Develop Environmentally Friendly Biodegradable Plastic as a Better Alternative to Conventional Plastic	Natalie Villard	Northcreek Academy	
Environmental	8	Microplastics: A Negative Ripple in our Water Supply	Madeline Neypes	Northcreek Academy	National Oceanic and Atmospheric Administration (NOAA)
Environmental	8	Plant Power	Jordan Gamoras	Northcreek Academy	
Environmental	10	Impact of Car Exhaust on PM2.5 and PM10 Levels in the School Parking Lot -- Health and Environmental Analysis	Trey Johnson	De La Salle High	
Environmental	11	Can Moss Grown on Mars?	Andrea Romero Melanie Gonzalez	Deer Valley High	US Metric Association; US Stockholm International Water Institute Junior Water Prize
Math/Computer Science	8	AI to the Rescue!: A Novel Approach to the Continuous Monitoring of Contaminated Water Using a Neural Network	Riya Kumar	Northcreek Academy	
Math/Computer Science	9	Detecting E-Cigarette or Vaping Product Use-Associated Lung Injury Using Predictive Analytics	Riyanka Narasimhan	Dougherty Valley High	
Math/Computer Science	10	Using Deep Learning to Classify Plays in High School Football	Marcel Latasa	De La Salle High	AT Young Scientific Innovation Award
Math/Computer Science	11	Pollen Automaton: Using Drones to Pollinate Plants	Pranav Kesani	Dougherty Valley High	
Math/Computer Science	11	A Novel Self-Assessing Compilation Based Searching Algorithm for Analytical Research	Ananth Goyal	Dougherty Valley High	

Physical	7	Effects of pH Levels in Body Lotion on Skin Moisture	Alexandra Ackert	Northcreek Academy	
THIRD PLACE AWARDS					
CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Behavioral	7	Mom, I'm Bored.	Charlotte James	Northcreek Academy	
Behavioral	8	Social Media: Gender Hysteria	Ashley Chan	Northcreek Academy	
Behavioral	8	Time Will Tell	Mariah McCoy	Northcreek Academy	
Behavioral	10	The Effects of "Tik Toks" on Human Brain Activity	Quentin Kelley Patric Bello	De La Salle High	American Psychological Association
Behavioral	11	Cell Phones and Social Media: Hours Spent and the Effect on Grades	Dakota Spencer Allison Lee Lauren Sirmons	Deer Valley High	AT Young Scientific Innovation Award
Behavioral	12	Are Middle School Standards Set Too High?	Trisha Mae Cuenco Jamie Gonzales	Deer Valley High	
Behavioral	12	What Method of Inviting Subjects to a Study Yield to a Higher Return	Jaedon Esteves Guillermo Perez	Deer Valley High	
Biology	7	Are Nutrition Labels Accurate?	Rishav Saravanan	Windemere Ranch Middle	
Biology	7	How Can Boba Affect Your Long-Term Health?	Paloma Kimball Meghan Cheung Anya Sundaram	Diablo Vista Middle	
Biology	8	Insane-itary Toothbrushes: The Affect of Light Wavelengths on Bacteria	Rachel Kimball	Holy Rosary	
Biology	8	Community is Not Immunity	Mary Easley	Northcreek Academy	
Biology	10	Effect of Atmospheric Oxygen on Insects	Joshua Meeks Philip Arrajj	De La Salle High	
Biology	10	Physiological Affects of Intermittent Fasting on <i>Daphnia Magna</i>	Ameya Padakanti	Dougherty Valley High	
Engineering	10	Hydrogen Battery	Colby Ye	Deer Valley High	
Engineering	12	Accessible Automatic Composting System that Mitigates Greenhouse Gas Emissions for Household and Community Use	Arnav Gupta Om Anabekar	The Athenian School	
Environmental	8	Wind and Solar: Passing the Baton	Elin Kim	Northcreek Academy	
Environmental	8	The Plague of Plastic Pollution	Kate Rollins	Northcreek Academy	
Math/Computer Science	8	Detecting Fatal Falls with Computer Visioin	Christina Sun	Northcreek Academy	

Math/Computer Science	10	The AI Caretaker: Using Artificial Intelligence to Detect a Fall or Abnormal Pose of a Senior and Alert a Caretaker	Arjun Chandra	Dougherty Valley High	
Math/Computer Science	12	If You Snooze, You Lose: A Correlational Study of GPA and Number of Absences	Jonathan Ferrari Adrienne Cao Ryan Cao	Deer Valley High	
Physical	7	Chemicals in Bottled vs. Tap Water	Chloe Ryan	Northcreek Academy	
Physical	7	Noise Absorber & Electricity Generator	Shivam Mohapatra	Gale Ranch Middle	
Physical	8	Not All Sweeteners are Equal	Katherine Tworek	Northcreek Academy	
Physical	10	Eco-Friendly Batteries	Divyanshi Singh	Dougherty Valley High	AT Young Scientific Innovation Award
Physical	11	Measurements of Binary Star 02529+1040	Justin Williams	Deer Valley High	AT Young Scientific Innovation Award
Physical	11	The Evolution of Galaxy Dark Matter Content Since Cosmic Noon	Franklin Ho	Homeschool	
Physical	12	Astrometric Measurements of Double-Star WDS 04580+490Z	Tatsuya Bautista	Deer Valley High	

FOURTH PLACE AWARDS

CATEGORY	GRADE	TITLE	STUDENT	SCHOOL	SPECIAL AWARD
Behavioral	8	TMS and the Effect on Neuropsychiatric Disorders	Diana Campos	Northcreek Academy	
Behavioral	10	How Does Social Media Affect the Brain Function of Teenagers?	Jacob Oledan	De La Salle High	
Behavioral	10	Teens' Sleeping Patterns Affected by Proximity to their Cell Phones	Isaiah Sana	De La Salle High	
Behavioral	10	Testing the Effects of the Vegan Diet--Is Pain Reduction One of Them?	Scott Tomaszewicz	De La Salle High	
Behavioral	10	Pretty Packaging: How Age and Experience Affect Package Choice	Indi Fulgham-Raju Caitlin Todd	Deer Valley High	
Biology	10	Do You Know How Your Pancreas Works?	Kopratha Satchidanantham Srinitya Sriram	Dougherty Valley High	
Biology	10	Can Tomato Plants Get Too Much Light?	Ellie Yin	Deer Valley High	
Biology	10	Gene Editing of Tumor Suppressor Protein p53 in Cancer Cells	Shreya Lakkaraju	Dougherty Valley High	

Biology	10	Using Polyhydroxylated Small Gap Fullerenes to Reduce Oxidative Stress In Yeast Cells	Cathy Kenderski	Campolindo High	
Biology	10	Effect of Botrytis Content on Wine	Thomas Welch	De La Salle High	
Biology	10	Molecular Characterization of Measles Virus in California Outbreaks in the New Millennium	Sarah Wu	Campolindo High	
Biology	10	Testing the Efficiency of the Piper Beetle on Drug Resistant and Antibiotic Resistant Bacteria	Ashwin Chandra	Dougherty Valley High	
Biology	11	Earbuds--The Deliverer of Music and Bacteria to Your Ear	Tyler Lam Brandon Gee	Deer Valley High	
Biology	11	Development of PURE ID to Selectively Identify Nascent Proteomes for Mass Spectrometry	Bala Vinaithirthan	San Ramon Valley High	
Biology	11	The Effect of Curcumin on Metal Ions Present in Individuals with Alzheimer's Disease	Salika Vummarao	Dougherty Valley High	
Biology	11	Analysis of Yield and Fiber Quality of Sea Island Cotton using Propagated Seeds grown in Arkansas	Summitt Wright	Monte Vista High	US Agency for International Development (USAID)
Biology	11	What's Cooking? Ground-Baking Research	Cynthia DonJuan Jezreel Franco	Deer Valley High	
Environmental	8	Removing Phosphorus from Greywater using Microalgae	Ananth Venkatesh Jax Milasincic Ben Lin	Diablo Vista Middle	
Math/Computer Science	10	A Novel Deep Learning Approach to Early Detection of Neurological Disorders	Harshita Krupadanam	Quarry Lane School	
Physical	7	Solar Energy on a Whole 'Nother Level	Aditya Kumar Talen Zhang	Diablo Vista Middle	
Physical	8	pHun with Nails	Ibrahim Khan Ishan Royyuru Anish Sajja	Diablo Vista Middle	
Physical	8	Perpetual Motion Generator	Gabe Jones Shlok Kunjoor Kai Shamblen	Diablo Vista Middle	
Physical	9	Using Photoelectrolytic Cells to Test a More Efficient Method of Power Generation	Justin Kashayar	Campolindo High	
Physical	11	Geodesic Domes & Magneteic Fields for Long-Term Storage and Shelter on Mars	Maxwell Edmonds-Drati	Deer Valley High	

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