

*Congratulations*  
**TO OUR 2016 SYNOPSIS SACRAMENTO  
REGIONAL STEM FAIR WINNERS!**



**CATEGORY AWARDS**

**BEHAVIORAL AND SOCIAL SCIENCES**

**MIDDLE SCHOOL**

**Honorable Mentions**

Anita Yavorksaya

*Are You Smiling?*

Community Outreach Academy Middle School

Kirsten Briscoe

*Does gender influence the affect on how color changes mood?*

E.V. Cain STEM Charter Middle School

**Fifth Place**

Brooke Abildgaard

*Kids vs. Lids*

Our Lady of the Assumption

**Fourth Place**

Isabel Asker

*The Stroop Effect with Gum*

Brookfield School

**Third Place**

Hayden Bose

*How Social Media Websites and Marketing methods Effect Brand Awareness and Sales*

E.V. Cain STEM Charter Middle School

**Second Place**

Cheyenne Smith

*Does your appearance influence the way people percieve you?*

E.V. Cain STEM Charter Middle School

**First Place**

Emily Valdez

*Do Different Genres of Music Affect Cognitive Performance?*

E.V. Cain STEM Charter Middle School

**HIGH SCHOOL**

**Third Place**

Ayman Dewan, Anant Singh, and Asef Islam

*The Effects of Transcranial Direct Current Stimulation on Recall of Stimuli Received During Sleep*

Mira Loma High School

**Second Place**

Nicholas Wong

*Currency Movement Projections and Possible Societal Applications Using Dollar Bill Tracking Data*

John F. Kennedy High School

**First Place**

Henry Low

*Obsessive Compulsive Disorder: Developing an Intuitive Mobile App for Assessing the Effectiveness of Psychotherapy Treatments*

Western Sierra Collegiate Academy

**BIOLOGICAL SCIENCES**

**MIDDLE SCHOOL**

**Honorable Mentions**

Vishruth Nagam

*Importance of Preserving Food*

Sutter Middle School (Folsom)

Adam Neue

*Which Natural Food has the best Antimicrobial Properties?*

Sutter Middle School (Folsom)

**Fifth Place**

Tristan Halog

*Color, Color, Can Dogs See it All?*

E.V. Cain STEM Charter Middle School

**Fourth Place**

Nathan Smith

*What is the most Drought Resistant Plant?*

Sutter Middle School (Sacramento)

**Third Place**

Emily Sperring

*Variation in Chlorophyll*

Brookfield School

**Second Place**

Bella DeBenedetti & Mollie Kauderer  
*S.O.S. Save Our Seeds*  
Our Lady of the Assumption

**First Place**

Rhitishah Yuva Raju  
*Plants, Photons and Phototropism*  
Winston Churchill Middle School

**HIGH SCHOOL**

**Third Place**

Patrick Song  
*Role of Cationic Polypeptides in DNA Transfection*  
Holmes Junior High School

**Second Place**

Sukhman Sidhu, Alexis Dahley & Jessica Sanchez  
*Effect of 9 Fungicides on the Growth of Colletotrichum Actuatium*  
Antelope High School

**First Place**

Teevyah Yuva Raju  
*Drought Impact on Soilborne Fungal Pathogen of Tomato*  
Mira Loma High School

**CHEMISTRY AND HEALTH SCIENCES**

**MIDDLE SCHOOL**

**Honorable Mentions**

Marianela Shah-Morales & Nidhi Dontha  
*Handling Diabetes: Self-Regulation of Blood Sugar Levels in An Artificial Pancreas*  
Sutter Middle School (Folsom)

Bailey Brazil

*Are Vitamin B12 Capsules or Injections more Absorbent in the Blood?*  
E.V. Cain STEM Charter Middle School

**Fifth Place**

Addison Arsenith  
*Preserving Foods*  
E.V. Cain STEM Charter Middle School

**Fourth Place**

Matthew Mellas  
*Testing Alternative Methods of Purifying Water: Can You Drink Evaporated and Condensed Water From Different Types of Water?*  
Our Lady of the Assumption

**Third Place**

Vishalakshi Arun

*High Fructose Corn Syrup, The Silent Killer Analysis with C.Elegans*  
Winston Churchill Middle School

**Second Place**

Will Myatt

*Clash of Creams*  
W.E. Mitchell Middle School

**First Place**

Rohan Navale

*The Solubility of Solutions*  
Sutter Middle School (Folsom)

**HIGH SCHOOL**

**Third Place**

Preeti Prabhu & Reshma Kodimerla

*Tissue Regeneration using Modified Silk Scaffolds*  
Folsom High School

**Second Place**

Adith Arun

*Novel HEV System and Highly Specific Ligand for A9B1 Recognition in Developing a Theranostic Nanoparticle for Glioblastoma*  
Mira Loma High School

**First Place**

Richard Korshkov

*Got Water! Salt Water to Fresh Water*  
Western Sierra Collegiate Academy

**ENERGY AND TRANSPORTATION**

**MIDDLE SCHOOL**

**Honorable Mentions**

Christopher Cimino

*Dealing with Drought - The Search for a Better Watering Strategy*  
Our Lady of the Assumption

Weston Sellers

*Solar Power, with Solar Panel generate the Most Electricity?*  
E.V. Cain STEM Charter Middle School

**Fifth Place**

Sneha Bagaria and Srinidhi Chandrasekaran

*Optimizing Wind Energy Production by Altering the Geometrical Features of a Windmill*  
Sutter Middle School (Folsom)

**Fourth Place**

Esma Mesihovic  
*Highways on the Sea*  
Al-Arqam Islamic School

**Third Place**

Josh Shuttleworth  
*High Acids vs. Low Acids: Which Food Waste Can Produce the Most Electricity?*  
E.V. Cain STEM Charter Middle School

**Second Place**

Victoria Eichorn  
*Waste to Power*  
E.V. Cain STEM Charter Middle School

**First Place**

Yahvin Gali  
*Shellfish to the Rescue! Restoring Balance to Local Marine Habitats by Bivalve Shell Recycling*  
Lammersville Elementary School

**HIGH SCHOOL**

**Third Place**

Priyanka Venkatesh & Nishita Bagaria  
*Which Renewable Energy Source is the Most Cost Effective for a House: Solar, Wind, or Hydroelectric?*  
Vista Del Lago High School

**Second Place**

Jacquelyn Davila  
*A Pair of Biosticks*  
School of Engineering and Sciences

**First Place**

Sanika Mane  
*Alternative Energy: A Novel Process of Manufacturing Environmental Friendly (Green) Natural Gas by the Process of Methanogenesis*  
Vista Del Lago High School

**ENGINEERING**

**MIDDLE SCHOOL**

**Honorable Mentions**

Lexi Ballard  
*Do Vegetated Ditches Really Work?*  
W.E. Mitchell Middle School

Dalia Pettopoulos & Nicholas Gladding  
*The Hovercraft*  
Sutter Middle School (Folsom)

**Fifth Place**

Owen Nordberg  
*Stealthy Shapes*  
Leonardo Da Vinci

**Fourth Place**

Madeline Sellards, Nolan Leung, & River Swanson  
*Arduino Powered Prosthetic Arm*  
California Middle School

**Third Place**

Joseph Watanabe & Michael Chambers  
*Testing EMF Generating Devices*  
Our Lady of the Assumption

**Second Place**

Benjamin Panasyuk  
*Is Earth-Friendly Concrete Stronger Than Traditional Portland Concrete?*  
E.V. Cain STEM Charter Middle School

**First Place**

Deeraj Gurram  
*The Ping Pong Robo-Trainer*  
Folsom Middle School

**HIGH SCHOOL**

**Third Place**

Peter Milam and Gerardo Inzunza  
*Solar Powered Gearbox*  
School of Engineering and Sciences

**Second Place**

Ameya Naik  
*Determining the Optimal Configuration of Electrodes with Various Surface Areas*  
Mira Loma High School

**First Place**

Jeffrey Yin  
*Floating Solar Power to Save Drought Reservoirs - Folsom Lake*  
Davis Senior High School

**MATH AND COMPUTER SCIENCE  
MIDDLE SCHOOL**

**Honorable Mentions**

Lucas Dawson  
*Signal Blockage*  
Leonardo Da Vinci

Adam Hutchings  
*Convergent and Divergent Series*  
Robert E. Willett Elementary

**Fifth Place**

Samyak Surti  
*Music Composition Using Markov Chain Model*  
Folsom Middle School

**Fourth Place**

Matthew Stringer  
*A Programmable Robotic Arm that Identifies Shapes and Characters*  
Sutter Middle School (Sacramento)

**Third Place**

Advait Thaploo & Mario Ishac  
*Prevention of Food Wastage through Expiration*  
Winston Churchill Middle School

**Second Place**

Tirth Surti  
*Smart System that Reminds People when to Take Medicine*  
Loomis Basin Charter School

**First Place**

Albert Qin  
*An Application of Artificial Neural Networks to Decentralized Cooperative Navigation*  
Winston Churchill Middle School

**HIGH SCHOOL**

**Third Place**

Karmit Dandona & Shiva Sudanagunta  
*Creating an Accurate Machine Learning Predictive Model Using Correlations*  
Folsom High School

**Second Place**

Guadalupe Bernal  
*Maze Robot*  
Folsom High School

**First Place**

Dylan McLeod & Daniel Bolya  
*Using Artificial Intelligence Systems for Autonomous Visual Comprehension and Handwriting Generation*  
Folsom High School

**PHYSICAL SCIENCES  
MIDDLE SCHOOL**

### **Honorable Mentions**

Asa Barnhart  
*The Power of Color*  
E.V. Cain STEM Charter Middle School

Dinara Brown  
*Lines of Inheritance?*  
Leonardo Da Vinci

### **Fifth Place**

Delany Volker  
*Rollarcoaster of Energy*  
Sutter Middle School (Sacramento)

### **Fourth Place**

Ava Grefrath  
*Measuring Sugar Content of Liquid with a Laser Pointer*  
Sutter Middle School (Sacramento)

### **Third Place**

Isaac Anchanattu  
*Turn up the Volume: A Sound Wave Candle Light Extinguisher*  
Bethany Elementary

### **Second Place**

Ashlee Ziegelmann  
*Hot, Hot, Which Ball Goes the Highest?*  
E.V. Cain STEM Charter Middle School

### **First Place**

Ish Khandelwal  
*Does the Strength of a Magnet Vary with Temperature*  
Elizabeth Pinkerton Middle School

### **HIGH SCHOOL**

#### **Third Place**

Catherine Colella  
*Resistance is not so Futile - Can Thermal Contact Resistance Reveal the Hardness of Materials?*  
Western Sierra Collegiate Academy

#### **Second Place**

Madihah Masood  
*Be Rad without Radiation*  
School of Engineering and Sciences

#### **First Place**

Sydney Walthall  
*Testing Simple Radiation Shielding Methods in a Cloud Chamber*  
C.K. McClatchy High School



## GRAND PRIZE AWARDS

### Third Place

Dylan McLeod & Daniel Bolya

*Using Artificial Intelligence Systems for Autonomous Visual Comprehension and Handwriting Generation*  
Folsom High School

### Second Place

Teevyah Yuva Raju

*Drought Impact on Soilborne Fungal Pathogen of Tomato*  
Mira Loma High School

### First Place

Henry Low

*Obsessive Compulsive Disorder: Developing an Intuitive Mobil App for Assessing the Effectiveness of  
Psychotherapy Treatments*  
Western Sierra Collegiate Academy

# *Congratulations again to all our Winners!*

All participating students developed AMAZING projects for our judges to view.

You have ALL accomplished so much. We hope to see you ALL in 2017!

Northern California



Education Foundation  
Science • Technology • Engineering • Math