



2023

SACRAMENTO

REGIONAL

STEM FAIR

AWARDS LIST

Northern California



Education Foundation

Science • Technology • Engineering • Math

CATEGORY AWARDS

Applied Engineering

Middle School

Honorable Mention

Zoha Sajid

Water Filters

Folsom Educational Academy

Ryan Badertcher

How does a nose cone effect flight time?

E.V. Cain Charter Middle School

Fifth Place

Lujayn Saif

Flood Sensor

Folsom Educational Academy

Fourth Place

Drake Hatashita

Which is more wasteful wireless chargers or wired

E.V. Cain Charter Middle School

Third Place

Dilain Silva

Loop roller coaster height project

E.V. Cain Charter Middle School

CATEGORY AWARDS

Applied Engineering **Middle School**

Second Place

Nikita Sethi

The Study of Light through a Spectroscope

Folsom Middle School

First Place

Jennifer Wen

Your Screen Holder

Sutter Middle School (Folsom)

High School

Honorable Mention

Natalia Merlos-Rodriguez & Camila Merlos-Rodriguez

The Study of Light through a Spectroscope

Folsom Middle School

Third Place

Rohan Kilkarni

Your Screen Holder

Sutter Middle School (Folsom)

Second Place

Aaryan Bidaye, Akshayan Nagarajah & Suraj Swaminathan

Bionic Prosthetic Control Utilizing Electromyography Interface

Rocklin High School

CATEGORY AWARDS

Applied Engineering **High School**

First Place

Jordan Prawira

Pura Aer 2

Mountain House High School

Behavioral & Social *Sciences* **Middle School**

Honorable Mention

Hank Pool

How are certain people more susceptible to the placebo effect?

E.V. Cain Charter Middle School

Kamille Taxara

Multitasking: Is it possible?

E.V. Cain Charter Middle School

CATEGORY AWARDS

Behavioral & Social Sciences

Middle School

Fifth Place

Brooklyn Kraus

Music on Dogs

E.V. Cain Charter Middle School

Fourth Place

Emma Georgianna

Effects of music on reading comprehension

E.V. Cain Charter Middle School

Third Place

Brianna Aguilar Diaz

Does the color of a room affect human behavior?

E.V. Cain Charter Middle School

Second Place

Finley Brownell

Serif versus San Serif: The effects on memorization

E.V. Cain Charter Middle School

First Place

Anabelle Williams

Can Doodle Affect your Noodles?

E.V. Cain Charter Middle School

CATEGORY AWARDS

Biology & Health Sciences

Middle School

Honorable Mention

Corey Kurz

Affect of Electrolytes

E.V. Cain Charter Middle School

Lucy Billings

Can Liquids Make a Foles Positive For Coronaviruses?

E.V. Cain Charter Middle School

Fifth Place

Lindsay Lahr

How do our fluffy little vertebrate react to sound?

E.V. Cain Charter Middle School

Fourth Place

Sanjna Krishna & Siddharth Krishna

A comparative study of visual, auditory and haptic reaction times

Montessori School of Mountain House

Third Place

Dominic Dallosta

Bye-Bye Bacteria

E.V. Cain Charter Middle School

CATEGORY AWARDS

Biology & Health Sciences

Middle School

Second Place

Wynzday Harris

Toxic Makeup, Toxic Me!

E.V. Cain Charter Middle School

First Place

Hana Saied

How Does Insulin & Exercise Affect My Blood Sugar

Folsom Educational Academy

High School

Second Place

Justin Phillips

*Reaching The Core: MMP-9 Sensitizes Pancreatic Tumors to Therapy by
Destabilizing Extracellular Matrix*

Oakmont High School

First Place

Yenna Dip & Joseph Thai

Effects of pH, Salinity, and Sugar on Microbial Fuel Cells

Sheldon High School

CATEGORY AWARDS

Chemistry **Middle School**

Fourth Place

Mariyam Arif

Which water filtration system works best?

Folsom Educational Academy

Third Place

Hector Andres Gavilanes

Electro Electro Which Has More?

E.V. Cain Charter Middle School

Second Place

Aisha Rahman

What filtration material is the best?

Folsom Educational Academy

First Place

McKensie Rath

What Purification Method Extracts the most Bacteria out of Water?

E.V. Cain Charter Middle School

CATEGORY AWARDS

Chemistry

High School

Third Place

Borna Abadoo

Reducing Hard Water Precipitate Buildup Through Calcium Solubility

Oak Ridge High School

Second Place

Pranav Saravanan

Thermoplastic monomer Based Anti-Microbial

Mountain House High School

First Place

Pranavi Khanna

*The Effect of Super Absorbent Polymers on Soil Heavy Metal
Immobilization*

Mira Loma High School

CATEGORY AWARDS

Computer Science & Technology

Middle School

Fourth Place

Mohammad Abuqabaita
Making a Calculator Software
Folsom Educational Academy

Third Place

Eden Jameson
Which common computer virus is most destructive to computing performance?
E.V. Cain Charter Middle School

Second Place

Ryan Haider
ITrakr- (Inventory Tracking)
OVO K-8 Orangevale

First Place

Heidi Spantzel & Arnold Spantzel
AI based O2 prediction utilization and staffing needs for COVID-19
John Adams Academy

CATEGORY AWARDS

Computer Science & Technology **High School**

Third Place

Nihar Mudigonda

The Study of Light through a Spectroscope

Rocklin High School

Second Place

Aadil Farooqui & Aleena Farooqui

Real-Time IoT System for California Red Scale Detection and Tracking

Consumnes Oaks High School

First Place

Rishabah Ambavanekar

*Enabling Verbal Communication and Accelerating Recovery: the Creation
of a Novel Low-Cost Electroencephalography-based Brain-Computer*

Interface for the Differently Abled

Vista del Lago High School

CATEGORY AWARDS

Physical Sciences & Math

Middle School

Honorable Mention

Ceily Saenz Gonzalez

What Wax Can Stay Lit Longer?

E.V. Cain Charter Middle School

Julia Simpson

An All-Time Grow

E.V. Cain Charter Middle School

Fifth Place

Gabriel Nucamenti

What sticky substance makes a ball go faster?

E.V. Cain Charter Middle School

Fourth Place

Chase Rodarte

The Great Bambino: Which Bat Has The Biggest Bam?

E.V. Cain Charter Middle School

Third Place

Caden Cavrikas

Does the color of the net affect your freethrow average?

E.V. Cain Charter Middle School

CATEGORY AWARDS

Physical Sciences & Math

Middle School

Second Place

Ivyona Stafford

What is the effect of runoff on a natural habitat?

E.V. Cain Charter Middle School

First Place

Liam James Manzyuk

The Wonders of Soil!

E.V. Cain Charter Middle School

High School

First Place

Katherine Lee

Quantum Tunneling: Optimizing Nuclear Fusion

Vista del Lago High School

CATEGORY AWARDS

Sustainable Technology

Middle School

Honorable Mention

Sam Sykes

Cold Feet? Hot Socks!

E.V. Cain Charter Middle School

William Hake

Does the surrounding temperature affect the speed at which a candle burns

E.V. Cain Charter Middle School

Fifth Place

Elise Walker

Slippery Sliding Friction

E.V. Cain Charter Middle School

Fourth Place

Cicely Griffiths

How is plant growth effected by using different liquids?

E.V. Cain Charter Middle School

Third Place

Camdyn Ayles

Can you Blaim the Baking Sheet for your Burnt Cookies?

E.V. Cain Charter Middle School

CATEGORY AWARDS

Sustainable Technology

Middle School

Second Place

Reiley Kaiser

Soar High Fly Far: Which Wing Design has the Most Lift?

E.V. Cain Charter Middle School

First Place

Candace Lu

Development of Home-Built Portable & Sustainable Microbial Fuel Cell System from Living Plants

Sutter Middle School (Folsom)

High School

First Place

Kaleb Krafka

What Would it Take to Replace all non-Carbon Neutral Power?

West Park High School

SPECIAL AWARDS

American Psychological Association

Anabelle Williams

Can Doodles Affect Your Noodles?

E.V. Cain Charter Middle School

Association for Women Geoscientists

Pranavi Khanna

The Effect of Super Absorbent Polymers on Soil Heavy Metal Immobilization

Mira Loma High School

California Association of Professional Scientists

Borna Abadooz

Reducing Hard Water Precipitate Buildup through Calcium Solubility

Oak Ridge High School

Lemelson Foundation

Candace Lu

Development of Home-Built Portable & Sustainable Microbial Fuel Cell System from Living Plants

Sutter Middle School (Folsom)

NASA

Kaleb Krafska

What would it take to replace all non-carbon neutral power?

West Park High School

SPECIAL AWARDS

National Geographic Society

Aadil Farooqui & Aleena Farooqui

Real-time IoT System for California Red Scale Detection and Tracking
Consumnes Oaks High School

National Oceanic and Atmospheric Association

Kaleb Krafka

What would it take to replace all non-carbon neutral power?
West Park High School

Naval Research Award

Jordan Prawira

Pura Aer 2

Mountain House High School

Reiley Kaiser

Soar High Fly Far: Which Wing Design has the Most Lift?
E.V. Cain Charter Middle School

Anabelle Williams

Can Doodles Affect Your Noodles?
E.V. Cain Charter Middle School

Regeneron Biomedical Science

Justin Phillips

Reaching the Core: MMP-9 Sensitizes Pancreatic Tumors to Therapy by Destabilizing Extracellular Matrix
Oakmont High School

SPECIAL AWARDS

Ricoh Sustainable Development

Katherine Lee

Quantum Tunneling: Optimizing Nuclear Fusion

Vista del Lago High School

Society for Invitro Biology

Justin Phillips

Reaching the Core: MMP-9 Sensitizes Pancreatic Tumors to Therapy by

Destabilizing Extracellular Matrix

Oakmont High School

US Agency for International Development

Katherine Lee

Quantum Tunneling: Optimizing Nuclear Fusion

Vista del Lago High School

US Air Force

Aaryan Bidaye, Akshayan Nagarajah & Suraj Swaminathan
Bionic Prosthetic Control Utilizing Electromyography Interface

Rocklin High School

Hana Saied

How Does Insulin & Exercise Affect My Blood Sugar

Folsom Educational Academy

SPECIAL AWARDS

US Metric Association

Borna Abadooz

Reducing Hard Water Precipitate Buildup through Calcium Solubility
Oak Ridge High School

Stockholm Junior Water Prize

Borna Abadooz

Reducing Hard Water Precipitate Buildup through Calcium Solubility
Oak Ridge High School

Yale Science & Engineering Association

Rishabh Ambavanekar

Enabling Verbal Communication and Accelerating Recovery: the Creation of Novel Low-Cost Electroencephalography-based Brain-Computer Interface for the Differently Abled
Vista del Lago High School

GRAND PRIZE WINNERS

Third Place

Pranavi Khanna

The Effect of Super Absorbent Polymers on Soil Heavy Metal Immobilization

Mira Loma High School

Second Place

Rishabh Ambavanekar

Enabling Verbal Communication and Accelerating Recovery: the Creation of Novel Low-Cost Electroencephalography-based Brain-Computer Interface for the Differently Abled

Vista del Lago High School

First Place

Jordan Prawira

Pura Aer 2

Mountain House High School

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 PERSON in 2024!

