

2022 USEF - Special Awards

Award Name	Name	School	Project Title
University of Utah ACCESS Scholarship Program Director's Invitation and College of Science Nomination	Emma Baker	Juan Diego Catholic High	cBIN1-Regulated T-Tubule Protein Distribution and Localization in Cardiomyocytes
	Haley Welker	Juan Diego Catholic High	Ultradeformable Liposomes for Delivery of Chemopreventative Agents Against Melanoma: A Preliminary Study
	Susan Arcos-Flores & Nathan Flores	Salt Lake Center for Science Education (SLCSE)	Latino Disparities In High School's Mental Health Resources and Distribution
Air & Waste Management Association Great Basin Chapter	Aarav Parikh	Hillcrest High	Growth Analysis and Cultivation of Algae Using Rotating Algae Biofilm Reactors
American Meteorological Society	Caroline Cook & Meir Grayzel	Salt Lake Center for Science Education (SLCSE)	Soil Micro-Biodiversity and Relativity to Roads
	Aarav Parikh	Hillcrest High	Growth Analysis and Cultivation of Algae Using Rotating Algae Biofilm Reactors
American Psychological Association	Sierra Sun	The Waterford School	A Behavioral Study of COVID-19 Public Health Messaging: Self Interest, Vulnerability, and Racial Bias
ASM Materials Education Foundation	Marianne Liu	West High	Employing the DiSCoVeR Machine Learning Algorithm to Discover New Novel High-Performing Superhard Materials
Association for Women Geoscientists National	Zejun Li	West High	Imaging Calcite in Trilobite Lenses Using Confocal Raman Microscopy
Association for Women Geoscientists Salt Lake Chapter 1st Place Junior Division	Aadhi Umamageswaran	American Preparatory Academy APA Draper 3	Eat Your Bandages!!! (Homemade Biodegradable Adhesives For Topical Drug Delivery)
Association for Women Geoscientists Salt Lake Chapter 2nd Place Junior Division	Lavanya Mohnani	Challenger	The Effect of Magnets on the Extraction of Microplastics
Association for Women Geoscientists Salt Lake Chapter 1st Place Senior Division	Zejun Li	West High	Imaging Calcite in Trilobite Lenses Using Confocal Raman Microscopy
Association for Women Geoscientists Salt Lake Chapter 2nd Place Senior Division	Ethan Yrungaray & Isabella DeLagerheim	Salt Lake Center for Science Education (SLCSE)	Saving Our Soil (SOS): Finding a Reliable Base to Create Soil Stability Around the Receding Great Salt Lake.
Broadcom Foundation Coding With Commitment Award	Thomas Holt	Beehive Academy	If you add a deepfake to an image with steganography in it, will the steganography break?
Journal of Young Investigators Best Abstract 1st Place	Megan Tandar	West High	Repressed Autophagy in Aging is Associated with Blood-Brain-Barrier Permeability and Changes in Blood Vessel Thickness
Journal of Young Investigators Best Abstract 2nd Place	Aaron Wang	Skyline High	A Deep Learning Model to Forecast the Impact of Efficiency of Tamoxifen Dosing in an mGluR5 Knockout Mouse Model
Journal of Young Investigators Best Abstract 3rd Place	Bea Pascual	Juan Diego Catholic High	
Lemelson Inventor's Award	Aadhi Umamageswaran	American Preparatory Academy APA Draper 3	Eat Your Bandages!!! (Homemade Biodegradable Adhesives For Topical Drug Delivery)
Mission Math 1st Place Elementary Division	Jacob Houston	Copper Hills Elementary	Jello-O and the speed of light
Mission Math 2nd Place Elementary Division	Everett Gassman	Bonneville Elementary	Does a Fully Charged Battery Weigh More Than a Dead Battery?
Mission Math 3rd Place Elementary Division	Anushka Rajeev	Brookwood Elementary	Doubles, Triples, and Home Runs: Using the Huffman Code to Shorten the Human Genome
Mission Math 1st Place Junior Division	Shurik Rajeev	West High	The Automatic Hotline
Mission Math 2nd Place Junior Division	Victor Young & Forest Young	Reid School	Projectile Motion
Mission Math 3rd Place Junior Division	Rowan Hankins	J.E. Cosgriff Memorial	How does the angle at which a knee bends affect the relative tension on the patellar tendon?
Mu Alpha Theta	Lukas Mesicek	Salt Lake Center for Science Education (SLCSE)	Photorealistic Simulations of General Relativity: Using the Finite Element Method to Solve, Test, and Analyze the Einstein Field Equations
NASA Earth System Science Award	Felix Keil	City Academy	Colonizing The Arctic: Our Last Great Hope
National Geographic	Hazel Wilde	Salt Lake Center for Science Education (SLCSE)	Exploring Golden Eagle Diets Through Isotopes

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National Oceanic and Atmospheric Administration	Aaron Wang	Skyline High	A Deep Learning Model to Forecast the Impact of COVID-19 on Traffic Demand in Salt Lake County
Red Butte Garden Excellence in Plant Science Elementary Division	Liberty Schafer	St. Francis Xavier	Plant Life
Red Butte Garden Excellence in Plant Science Junior Division	Sai Anshitha Duvvarapu	American Preparatory Academy APA Draper 3	Microgreens in soil vs hydroponics
Red Butte Garden Excellence in Plant Science Senior Division	Ethan Yrungaray & Isabella DeLagerheim	Salt Lake Center for Science Education (SLCSE)	Saving Our Soil (SOS): Finding a Reliable Base to Create Soil Stability Around the Receding Great Salt Lake.
Regeneron Biomedical Science Award	Mercedes Randhahn	St. Joseph High School	Investigating the Cytotoxicity of Centella asiatica Methanolic Leaf Extracts on MDA-MB-231 Human Breast Cancer Cells
Ricoh USA, Inc.	Jameson Thackeray	Murray High School	Geo-Thermoelectric Generator
USEF Student Advisory Board 1st Place Elementary Division	Caleb Soukup	Cottonwood Elementary	Testing the Tests: Comparing the Accuracy of Antigen and PCR Tests in Detecting SARS-CoV-2
USEF Student Advisory Board 2nd Place Elementary Division	Isaac Wilson	Stansbury Park Elementary	How dirty is your mask?
USEF Student Advisory Board 3rd Place Elementary Division	Peter Kim	Hawthorne Elementary	Are Mask Mandates in Schools Effective at Protecting against COVID-19?
USEF Student Advisory Board 1st Place Junior Division	Sophia Lentz	St. John the Baptist Middle School	Solar Panel Positions
USEF Student Advisory Board 2nd Place Junior Division	Ian Kim	West High	Covid-Related Self-Quarantine and Air Quality in Salt Lake City
USEF Student Advisory Board 3rd Place Junior Division	Thomas Hall	Hillside Middle School	Magnetic Levitated Train
Salt Lake City Public Utilities Junior Division	Alexia Davis	Jefferson Jr. High	Thermal desalination process
Salt Lake City Public Utilities Senior Division	Ruchi Agarwal	Rowland Hall	Water Scarcity in Arid West: What is the Role of Harmful Algal Blooms?
Society for In Vitro Biology	Megan Tandar	West High	Repressed Autophagy in Aging is Associated with Blood-Brain-Barrier Permeability and Changes in Blood Vessel Thickness
Stockholm Junior Water Prize	Priyanka Mathews	Hillcrest High	Identifying Lead Compounds for Cyanobacterial Quorum Sensor Inhibitors for Use in Harmful Algal Bloom (HAB) Control through Deep Learning Methods
	Ruchi Agarwal	Rowland Hall	Water Scarcity in Arid West: What is the Role of Harmful Algal Blooms?
	Krishnam Goel	West High	Microbiology of Virus and Bacterial Interactions with Silver Nanoparticles with Therapeutic and Ecological Implications
T.D. Williamson Outstanding Young Scientist in 5th Grade	Crystal Mirci	Fox Hills ALC	Got Food Waste? Turn It Into Durable, Biodegradable Plastic!
T.D. Williamson Outstanding Project in Energy or Environmental Science	Ethan Yrungaray & Isabella DeLagerheim	Salt Lake Center for Science Education (SLCSE)	Saving Our Soil (SOS): Finding a Reliable Base to Create Soil Stability Around the Receding Great Salt Lake.
U.S. Agency for International Development (USAID)	Parker Webb & Racer Bishop	Stansbury High School	The Gutter Wheel
U.S. Metric Association	Dora Meiwes	West High	Investigating the Properties of Paint Binders and Their Applications
United States Air Force	Yaniv Taussky	West High	Simulating Prey and Predator Evolution
University of Utah Health Department of Pediatric Infectious Disease Elementary Division	Caleb Soukup	Cottonwood Elementary	Testing the Tests: Comparing the Accuracy of Antigen and PCR Tests in Detecting SARS-CoV-2
University of Utah Health Department of Pediatric Infectious Disease Junior Division	Sai Akshith Challagolla & Sai Ananya Challagolla	American Preparatory Academy APA Draper 3	Covid -19 Risk Prediction using Machine Learning and Computer Vision
University of Utah Health Department of Pediatric Infectious Disease Senior Division	Riya Soneji	West High	Developing a Phage Library to Identify Potential Coronavirus D-Peptide Inhibitors
XMission	Aymeric Blaizot	Juan Diego Catholic High	The use of artificial intelligence (AI) methods for reviews in health sciences: an AI-assisted systematic review
Yale Science and Engineering Association	Mercedes Randhahn	St. Joseph High School	Investigating the Cytotoxicity of Centella asiatica Methanolic Leaf Extracts on MDA-MB-231 Human Breast Cancer Cells

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Director's Award Elementary Division	Ryder Paea	West Valley STEM	Protective Equipment for Deaf Athletes Hearing Devices
Director's Award Junior Division	Aadhi Umamageswaran	American Preparatory Academy APA Draper 3	Eat Your Bandages!!! (Homemade Biodegradable Adhesives For Topical Drug Delivery)
Director's Award Senior Division	Susan Arcos-Flores & Nathan Flores	Salt Lake Center for Science Education (SLCSE)	Latino Disparities In High School's Mental Health Resources and Distribution
GENIUS Olympiad	Ethan Yrungaray & Isabella DeLagerheim	Salt Lake Center for Science Education (SLCSE)	Saving Our Soil (SOS): Finding a Reliable Base to Create Soil Stability Around the Receding Great Salt Lake.
	Priyanka Mathews	Hillcrest High	Identifying Lead Compounds for Cyanobacterial Quorum Sensor Inhibitors for Use in Harmful Algal Bloom (HAB) Control through Deep Learning Methods
	Aarav Parikh	Hillcrest High	Growth Analysis and Cultivation of Algae Using Rotating Algae Biofilm Reactors
Broadcom MASTERS	Aadhi Umamageswaran	American Preparatory Academy APA Draper 3	Eat Your Bandages!!! (Homemade Biodegradable Adhesives For Topical Drug Delivery)
	Sohum Krishna	Emerson Elementary	Here Comes the Sun Powered Car
	Lavanya Mohnani	Challenger	The Effect of Magnets on the Extraction of Microplastics
	Shurik Rajeev	West High	The Automatic Hotline
	Ansh Devlekar	Challenger	The Strongest Truss Challenge
	Senya Walker	Union Middle School	Impacts of Salinity on the Diameter of an Oil Spill
	Aadi Mishra	The Waterford School	A Novel Method to Efficiently Predict Drug Consumption Risk Using Boosted Decision Trees
	Thalia Hanfland-Parenti	Challenger	What is the Effect of the Surface Area of Charcoal on its Filtration Capability?
	Phoebe Zaniello & Elsie Hubrich	Weilenmann School of Discovery	Perfect Purification (Which Bottled Water is the Safest)
	Jacob Houston	Copper Hills Elementary	Jello-O and the speed of light
	Victor Young & Forest Young	Reid School	Projectile Motion
	Becket Evans	St. John the Baptist Middle School	Don't Lose your (Radioactive) Marbles!
	Hannah Galian & Chloe Crumley & Josie Flickinger	Wasatch Elementary	Sparkly Fresh Saltwater
	Albert Xu	Challenger	Water Purification with Different Sized Carbon Particles
	Parv Kale	Challenger	Is Bigger Always Better
	Cedar Hall & Logan McNally	Weilenmann School of Discovery	The Effects of Wax on Skis
	Calvin Glende & Owen Jameson	Bonneville Elementary	Movable Pipe Organ
	Noelle Thackeray	Longview Elementary	Pungent2Posh
	Anda Xie	West High	Spring Foreverer 2.0
	Seyon Juyal	American Preparatory Academy APA Draper 1	Disinfectants at Work
	Solomon Kim	Wasatch Jr. High	What kind of milk makes your stomach happy?
	Evie Thomsen	Challenger	Solution to Pollution: The Effect of Substrate pH on the Ability of Mycelium to Degrade Polyethylene Terephthalate Plastic
	Evan Lee	American Preparatory Academy APA Draper 3	What woods are most resistant to a fire, a bullet, and a hammer. Evan Lee
	Maddie Shragge	St. Vincent de Paul School	Super Tasters
	Lana Chan	Challenger	Martian Bricks

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	Quentin Parnell	Bonneville Elementary	"I Think I Can": Testing Slopes with a Model Train
	Christopher Joklik	St. John the Baptist Middle School	Muscle Madness
	Joshua Potter	Clarke N. Johnsen Jr. High	Energy Rocks
	Grant Shmookler	Challenger	High Flight
	Isaac Wilson	Stansbury Park Elementary	How dirty is your mask?