

USEF 2019 - Special Awards			
Award Name	Name	School	Project Title
Air and Waste Management Association- Great Basin -	Eric Lu	West High	A Cool new way to cool
American Institute of Aeronautics and Astronautics - Elementary Division - First Place	Ruby Harris	Canyon View Elementary	Will Lightning Destroy Carbon Fiber Airplanes?
American Institute of Aeronautics and Astronautics - Elementary Division - Second Place	Megan Robison	Ensign Elementary	Which nose works the best?
American Institute of Aeronautics and Astronautics - Junior Division	Kassie Holt & Sidor Clare	Beehive Academy	Bound and Bricked
American Institute of Aeronautics and Astronautics - Senior Division - First Place	David Zhong	Skyline High	A LEAF IN THE WIND - A STUDY OF MECHANICAL STRENGTH ON A LEAF, BRANCH AND TREE INDUCED BY WIND LOADING
American Institute of Aeronautics and Astronautics - Senior Division - Second Place	Jaspar Ruegemer	Park City High	The Earth Needs To Chill! How About Some Cool Sunshades? The Furtherance
American Meteorological Society	Wensen Zhang	Hillcrest High	Improvement in Hurricane Forecast Using Neural Networks
	Connor Smith	Salt Lake Center for Science Education (SLCSE)	Implementation of Markov Chains in Weather Forecasting
American Psychological Association	Daphne Liu	West High	An Innovative Approach to Estimating Suicide Underreporting Among Opioid-Related Deaths Using Machine Learning
	Paige Cameron	Juan Diego Catholic High	Characterizing Behavioral Comorbidities in Mouse Model of Dravet Syndrome
American Society of Civil Engineers - Elementary Division - First Place	Dillon McAllister	Cottonwood Elementary	Electromagnetic Engineering - MAGLEV Ski Train
American Society of Civil Engineers - Elementary Division - Honorable Mention	Kennedy McCarthy	Jeremy Ranch Elementary	Safe and Efficient Bridge Design
American Society of Civil Engineers - Elementary Division - Honorable Mention	Evan Weinstein & Merrick Davidson	Rowland Hall	Red Light, Green Light
American Society of Civil Engineers - Junior Division - First Place	Isabel Ibarra	West High	Scared of Earthquakes...Fly Away!
American Society of Civil Engineers - Junior Division - Honorable Mention	Sam Maitre & Eliot Copenhafer	Weilenmann School of Discovery	Solar Powered Aquaponics System
American Society of Civil Engineers - Junior Division - Honorable Mention	Tai Lai Ying	Wasatch Jr. High	How Does the Difference in Angle Size of a Triangular Truss Affect Its Weight Bearing Capacity?
American Society of Civil Engineers - Senior Division - First Place	Jonah Bennett & Alexander Housley	Salt Lake Center for Science Education (SLCSE)	Comparing Drought Stress by Diversity of Xeric Bioswales
American Society of Civil Engineers - Senior Division - Honorable Mention	Aarushi Verma	Skyline High	Functionality of the Oligodynamic Effect in Copper to Purify Water
American Society of Civil Engineers - Senior Division - Honorable Mention	Ian Ackermann	Alta High	Constructing the Strongest Bridge
ASM Materials Education Foundation - Senior Division	Alexander Cheng	Hillcrest High	Determining the Role of Microvascular Pathology as Reflected by Changes in Primary and Secondary Retinal Vessels in the Pathophysiology of Diabetic Complications
Association for Women Geoscientists - Junior Division - First Place	Ava Sibthorp	J.E. Cosgriff Memorial	What type of toilet paper is the most biodegradable when backpacking?
Association for Women Geoscientists - Junior Division - Second Place	Sharayu Senthilkumar	West High	Pesticides in Utah Water
Association for Women Geoscientists - Senior Division - First Place	Susan Arcos	Salt Lake Center for Science Education (SLCSE)	Plastic Degradation in the Great Salt Lake
Association for Women Geoscientists - Senior Division - Second Place	Tara Horscroft	Entheos Academy	Evaluating Salt Lake County Watershed Phase 2: A Six-Month Longitudinal Water Quality Study of the Jordan River Corridor, Salt Lake County, Including Wastewater Discharge Detection using Inexpensive Passive Samplers and a Multi-Point Chemical Assay to Promote Environmental Awareness
Lemelson Early Inventor Prize - Junior Division	Julien Grijalva	St. Joseph Elementary School	Face and Obstruction Detecting Robot with Arduino and Adam
Intel Excellence in Computer Science	Wentao Zhang	Hillcrest High	Performance Evaluation of Encryption Schemes for Secure Communication
	Sreemanti Dey	Skyline High	Machine Learning for the Classification of Cyber Attacks on a Smart Grid

The Leonardo - Elementary Division	Breanna Hyre	Rose Springs Elementary	Purrfect Pillow
The Leonardo - Secondary Division	Dannielle Smith	Clarke N. Johnsen Jr. High	The TCF (Timed Chicken Feeder)
Mission Math - Elementary Division	William Harrison	Alta View Elementary	Tic Tac Toe AI
Mission Math - Elementary Division	Moses Samuelson-Lynn	Home School	Optimal Pivots for Quicksort: Manipulating Run Times With Insertion Sort to Approximate Those of Mergesort
Mission Math - Junior Division	Julien Grijalva	St. Joseph Elementary School	Face and Obstruction Detecting Robot with Arduino and Adam
Mission Math - Junior Division	Dallin Soukup	Olympus Jr. High	Shoot For the Moon: Measuring Distance Using Parallax, Electromagnetic Radiation and Lunar Eclipse
Mu Alpha Theta	Tarun Kumar Martheswaran	The Waterford School	A Novel Mathematical Model for the Early Detection of Dengue Fever using SIR Infectious Disease Epidemiological Compartments, Ordinary Differential Equations, and Statistical Computing
	Braxton Dake	Beehive Academy	Speedy Steel
NASA Earth System Science Award	Connor Smith	Salt Lake Center for Science Education (SLCSE)	Implementation of Markov Chains in Weather Forecasting
	Jaspar Ruegemer	Park City High	The Earth Needs To Chill! How About Some Cool Sunshades? The Furtherance
National Oceanic and Atmospheric Administration - First Place	Tara Horscroft	Entheos Academy	Evaluating Salt Lake County Watershed Phase 2: A Six-Month Longitudinal Water Quality Study of the Jordan River Corridor, Salt Lake County, Including Wastewater Discharge Detection using Inexpensive Passive Samplers and a Multi-Point Chemical Assay to Promote Environmental Awareness
National Oceanic and Atmospheric Administration - Second Place	Luqman Abdi	Salt Lake Center for Science Education (SLCSE)	Wildfires and Erosion in Range Creek, Utah
Recursion Pharma	Ava Brinkerhoff, Stella Cianflone & Hannah Kingdon	Channing Hall	Terrific Toothpaste
Recursion Pharma Improving Human Health	Mercedes Randhahn	St. Joseph Elementary School	Opioid-Like Deactivation
Recursion Pharma Best in Machine Learning - First Place	Malavika Singh	West High	Precision Medicine: Analysis of Clinical Literature Corresponding to Genetic Mutations to Determine Cancer Drivers Using Machine Learning Methods
Recursion Pharma Best in Machine Learning - Second Place	Daphne Liu	West High	An Innovative Approach to Estimating Suicide Underreporting Among Opioid-Related Deaths Using Machine Learning
Ricoh Americas Corporation - Senior Division	Tara Horscroft	Entheos Academy	Evaluating Salt Lake County Watershed Phase 2: A Six-Month Longitudinal Water Quality Study of the Jordan River Corridor, Salt Lake County, Including Wastewater Discharge Detection using Inexpensive Passive Samplers and a Multi-Point Chemical Assay to Promote Environmental Awareness
	Tyler Young	Juan Diego Catholic High	How does the biodiversity of bird populations change along an urban gradient?
Salt Lake Public Utilities - Junior Division	Izzy Fowler	J.E. Cosgriff Memorial	How well do various filtration methods eliminate chlorine?
Salt Lake Public Utilities - Senior Division	Aarushi Verma	Skyline High	Functionality of the Oligodynamic Effect in Copper to Purify Water
Society for In Vitro Biology	Thomas Barbera	Juan Diego Catholic High	Biomarker Development in Sudden Unexplained Death in Epileptic Patients: Roles of Neuroinflammation, Serum Lactate, and Respiration
STEM Action Center - Junior Division	Mercedes Randhahn	St. Joseph Elementary School	Opioid-Like Deactivation
STEM Action Center - Junior Division	Swayam Sakpal	American Preparatory Academy APA Draper 3	Can the heat produced by electronics be repurposed
STEM Action Center - Junior Division	Marianne Liu	West High	Is Our Sunscreen Safe?
STEM Action Center - Senior Division	Ryan Williamson	Juan Diego Catholic High	Emission Spectra of Single, Trapped Nanoparticles

STEM Action Center - Senior Division	Nihal Kariparduc & Zachary Maynard	Beehive Academy	Vibration Analysis in Additive Manufacturing
STEM Action Center - Senior Division	David Zhong	Skyline High	A LEAF IN THE WIND - A STUDY OF MECHANICAL STRENGTH ON A LEAF, BRANCH AND TREE INDUCED BY WIND LOADING
Stockholm Junior Water Prize - First Place	Rachel Maxfield	American Preparatory Academy APA Draper 3	Creating a Cost Effective Solution for Water Problems in Developing Countries
Stockholm Junior Water Prize - Second Place	Tara Horscroft	Entheos Academy	Evaluating Salt Lake County Watershed Phase 2: A Six-Month Longitudinal Water Quality Study of the Jordan River Corridor, Salt Lake County, Including Wastewater Discharge Detection using Inexpensive Passive Samplers and a Multi-Point Chemical Assay to Promote Environmental Awareness
Stockholm Junior Water Prize - Third Place	Aarushi Verma	Skyline High	Functionality of the Oligodynamic Effect in Copper to Purify Water
Stockholm Junior Water Prize - Fourth Place	Adam Larsen	Salt Lake Center for Science Education (SLCSE)	Bamboo's ability to Remediate arsenic contaminated water
Stockholm Junior Water Prize - Fifth Place	Jonah Bennett & Alexander Housley	Salt Lake Center for Science Education (SLCSE)	Comparing Drought Stress by Diversity of Xeric Bioswales
Stockholm Junior Water Prize - Sixth Place	Susan Arcos	Salt Lake Center for Science Education (SLCSE)	Plastic Degradation in the Great Salt Lake
Student Advisory Board Special Award	Aadarsh Kuberan	Challenger	What's Good For Your Blood Vessels
Student Advisory Board Special Award	Eva Dvoretzkiy	Challenger	Fountain of Youth
Student Advisory Board Special Award	Ridhitha Nachaegari	Challenger	Green Power Bike
Student Advisory Board Special Award	Jaden Tu	Hawthorne Elementary	Power on the go
Student Advisory Board Special Award	Aiden Gandhi	Rowland Hall	Air, Wind & Rain
Student Advisory Board Special Award	Leif Kiouss	Bonneville Elementary	Shake and Quake
Student Advisory Board Special Award	Grant Eliason & James Eliason	Emerson Elementary	It's a Long Shot!
Student Advisory Board Special Award	Nicolas Rodgers	West Kearns Elementary	The Sound Absorber
Student Advisory Board Special Award	Hugo Moreno Jr.	St. Francis Xavier	Let's plant it!!
Student Advisory Board Special Award	Grace Squibbs	Trailside Elementary	Sunlight v. Artificial
Symantec - Elementary	Moses Samuelson-Lynn	Home School	Optimal Pivots for Quicksort: Manipulating Run Times With Insertion Sort to Approximate Those of Mergesort
Symantec - Junior	Julien Grijalva	St. Joseph Elementary School	Face and Obstruction Detecting Robot with Arduino and Adam
Symantec - Senior - First Place	Sreemanti Dey	Skyline High	Machine Learning for the Classification of Cyber Attacks on a Smart Grid
Symantec - Senior - Second Place	Daphne Liu	West High	An Innovative Approach to Estimating Suicide Underreporting Among Opioid-Related Deaths Using Machine Learning
Symantec - Senior - Third Place	Sanjana Kargi & Dua Azhar	Beehive Academy	Using Machine Learning Techniques to Predict Mutant p53 Transcriptional Activity
T.D. Williamson - Elementary	McCall Birkinshaw	Morningside ALC	Evaporation Exploration
T.D. Williamson - Junior	Lilly Hunt	Weilenmann School of Discovery	Fantastic Plastic
US Air Force - Junior Division	Marianne Liu	West High	Is Our Sunscreen Safe?
	Julien Grijalva	St. Joseph Elementary School	Face and Obstruction Detecting Robot with Arduino and Adam
US Air Force - Senior Division	Alexander Cheng	Hillcrest High	Determining the Role of Microvascular Pathology as Reflected by Changes in Primary and Secondary Retinal Vessels in the Pathophysiology of Diabetic Complications
	Daphne Liu	West High	An Innovative Approach to Estimating Suicide Underreporting Among Opioid-Related Deaths Using Machine Learning
US Navy - Junior Division	Eric Lu	West High	A Cool new way to cool
	Lukas Mesicek	Salt Lake Center for Science Education (SLCSE)	The N-body Problem: Simulating Space with Computers
	Mercedes Randhahn	St. Joseph Elementary School	Opioid-Like Deactivation

	Colleen MacWilliams	J.E. Cosgriff Memorial	How do the Melting Ice Caps, Water Salinity, and Iron Content Affect Plankton Growth?
US Navy - Senior Division	Emma Sun	The Waterford School	Exploring Motivated Numeracy
	David Zhong	Skyline High	A LEAF IN THE WIND - A STUDY OF MECHANICAL STRENGTH ON A LEAF, BRANCH AND TREE INDUCED BY WIND LOADING
	Malavika Singh	West High	Precision Medicine: Analysis of Clinical Literature Corresponding to Genetic Mutations to Determine Cancer Drivers Using Machine Learning Methods
Utah Department of Transportation - Elementary Division	Evan Weinstein & Merrick Davidson	Rowland Hall	Red Light, Green Light
Utah Department of Transportation - Junior Division	Eric Pesci, Paul Gerritsen & Kareem Rifaat	Channing Hall	Passed Gas
Utah Department of Transportation - Senior Division	Hassan Alsarrieh & Hector Flores	Salt Lake Center for Science Education (SLCSE)	Does Octane rating on fuel affect the amount of Particulate Matter a car emits?
XMission	Breanna Quigley	Juan Diego Catholic High	Potential Correlation Between Biased Results and Industry Sponsorship in HIV/AIDS Studies
Yale Science and Engineering	Wensen Zhang	Hillcrest High	Improvement in Hurricane Forecast Using Neural Networks
	Sreemanti Dey	Skyline High	Machine Learning for the Classification of Cyber Attacks on a Smart Grid
Director's Award - Elementary Division	Sebastian Wrona	Ecker Hill Middle School	KICKBOARD Plus
Director's Award - Junior Division	Dana-Xuan Nguyen	Churchill Jr. High	DIY Cell Phone
Director's Award - Senior Division	Jaspar Ruegemer	Park City High	The Earth Needs To Chill! How About Some Cool Sunshades? The Furtherance
Broadcom Masters	Mindy Phan	Wasatch Jr. High	Fetch It, Then Stretch It
	David Habib	Challenger	Enzyme Activity
	Evan Weinstein & Merrick Davidson	Rowland Hall	Red Light, Green Light
	Aliyah Grijalva	St. Joseph Elementary School	Say it again, my eyes didn't catch it!
	Julia Powell	Ensign Elementary	Simulating Object Motion Using Scratch
	Nicolas Bailey	Dual Immersion Academy	Color & Emotions
	Joad Al-Saleh	Fox Hills ALC	Heartburn Vs. Antacids
	Yaniv Taussky	Hawthorne Elementary	Serve Velocity and String Tension in Tennis
	Mary Slatter	St. Joseph Elementary School	One Leaf, Two Leaf, Red Leaf, Green Leaf
	Sophie Zheng	Challenger	Let it Grow
	Allison Sorenson	American Preparatory Academy APA Draper 2	The U.S. Citizenship Test: Can You Pass?
	Selleck Tedrow	Uintah Elementary	A Comparison of Egg Density Between Pastured and Factory Farmed Eggs
	Breanna Hyre	Rose Springs Elementary	Purrfect Pillow
	Grant Eliason & James Eliason	Emerson Elementary	It's a Long Shot!
	Kai Michal Makowski	Fox Hills ALC	Fast And Furious
	Janaki Spaulding	Wasatch Jr. High	Keepin' It Cool
	Nikolas Vargas	St. Francis Xavier	To rust or not to rust
	Carter Vijayaraghavan	American Preparatory Academy APA Draper 2	5 Second Rule
	Marianne Liu	West High	Is Our Sunscreen Safe?
	Julien Grijalva	St. Joseph Elementary School	Face and Obstruction Detecting Robot with Arduino and Adam
	Eric Lu	West High	A Cool new way to cool
	Lukas Mesicek	Salt Lake Center for Science Education (SLCSE)	The N-body Problem: Simulating Space with Computers
	Mercedes Randhahn	St. Joseph Elementary School	Opioid-Like Deactivation
	Colleen MacWilliams	J.E. Cosgriff Memorial	How do the Melting Ice Caps, Water Salinity, and Iron Content Affect Plankton Growth?
	Ronak Agarwal	West High	Copper . . . to the Res(Cu)?!?!
	Dallin Soukup	Olympus Jr. High	Shoot For the Moon: Measuring Distance Using Parallax, Electromagnetic Radiation and Lunar Eclipse

	Nathaniel Loveless	West High	An Affordable Alternative to Conventional Fused Deposition Modeling Waste Material Recycling
	Leah Han	Our Lady of Lourdes	Can Game Extract the Desire to Learn?
	Ava Sibthorp	J.E. Cosgriff Memorial	What type of toilet paper is the most biodegradable when backpacking?
	Teo Kjolseth	St. Vincent de Paul School	Prove Them Wrong: How the Sand Palace Beat the Odds
	Kassie Holt & Sidor Clare	Beehive Academy	Bound and Bricked
	Reagan Manwaring	Albion Middle School	The Effect of Piano Practice on Fluency Speed
	Michael Donnelly	J.E. Cosgriff Memorial	How does tension relate to a catapult's projectile height, speed, and distance?
	Sharayu Senthilkumar	West High	Pesticides in Utah Water
	Aidan Mulligan	St. John the Baptist Middle School	Acid Attack
	Izzy Fowler	J.E. Cosgriff Memorial	How well do various filtration methods eliminate chlorine?
	Katherine Hall	St. Joseph Elementary School	A Fountain of Germs
	Emma Sachse	Clayton Middle School	Killer in the Kitchen: Indoor Air Pollution By Cooking
	Swayam Sakpal	American Preparatory Academy APA Draper 3	Can the heat produced by electronics be repurposed
	Gabriel Williams	Midvale Middle School	Thermoelectricity: The Seebeck Effect
	Kai Gerton	West High	Effect of Sugar Source on Growth and Lactic Acid Production of Lactobacilli
Genius Olympiad	Wensen Zhang	Hillcrest High	Improvement in Hurricane Forecast Using Neural Networks