

2022 USEF - Junior Division

Category and Rank	Name	School	Project Title
Behavioral & Social Sciences - First Place	Aadi Mishra	The Waterford School	A Novel Method to Efficiently Predict Drug Consumption Risk Using Boosted Decision Trees
Behavioral & Social Sciences - Second Place	Reece Thomas & Carter Williams	American Preparatory Academy APA Draper 3	The Correlation between VR and Reality
Behavioral & Social Sciences - Third Place	Hugh (Leif) Kious	Hillside Middle School	Social Media & the Brain
Behavioral & Social Sciences - Fourth Place	Erika Berge & Ella Winston	Hillcrest Jr. High	Color Confusion
Biology & Microbiology - First Place	Eva Dvoretzkiy	Challenger	Daphne's Heartbreak
Biology & Microbiology - Second Place	Kache Hortmann	Challenger	Survival of the Finnest
Biology & Microbiology - Third Place	Christiana Cortes	Challenger	Sweet, Sweet Fermentation: The Effect of Artificial Sweeteners on Yeast Fermentation
Biology & Microbiology - Fourth Place	Alana Frazier	Bonneville Academy	What is the Best Natural Disinfectant?
Chemistry & Biochemistry - First Place	Senya Walker	Union Middle School	Impacts of Salinity on the Diameter of an Oil Spill
Chemistry & Biochemistry - Second Place	Parv Kale	Challenger	Is Bigger Always Better
Chemistry & Biochemistry - Third Place	Evie Thomsen	Challenger	Solution to Pollution: The Effect of Substrate pH on the Ability of Mycelium to Degrade Polyethylene Terephthalate Plastic
Chemistry & Biochemistry - Fourth Place	Connor Hoisington	Blessed Sacrament	Which Rock Holds Heat The Longest?
Civil & Environmental Engineering - First Place	Thalia Hanfland-Parenti	Challenger	What is the Effect of the Surface Area of Charcoal on its Filtration Capability?
Civil & Environmental Engineering - Second Place	Samhith Vajjala & Anshika Musigumpala	American Preparatory Academy APA Draper 3	Sorbents as Solutions: Cleaning Oil Spills Using Sorbents
Civil & Environmental Engineering - Third Place	Keira Jameson	Weilenmann School of Discovery	Combating Ocean Acidification with Electrolysis.
Civil & Environmental Engineering - Fourth Place	Mason Houchens	American Preparatory Academy APA Draper 3	Invisible Forces at work
Computer Science & Applied Computational Methods - First Place	Shurik Rajeev	West High	The Automatic Hotline
Computer Science & Applied Computational Methods - Second Place	Sai Akshith Challagolla & Sai Ananya Challagolla	American Preparatory Academy APA Draper 3	Covid -19 Risk Prediction using Machine Learning and Computer Vision
Earth & Environmental Sciences - First Place	Lavanya Mohnani	Challenger	The Effect of Magnets on the Extraction of Microplastics
Earth & Environmental Sciences - Second Place	Phoebe Zaniello & Elsie Hubrich	Weilenmann School of Discovery	Perfect Purification (Which Bottled Water is the Safest)
Earth & Environmental Sciences - Third Place	Evan Lee	American Preparatory Academy APA Draper 3	What woods are most resistant to a fire, a bullet, and a hammer
Earth & Environmental Sciences - Fourth Place	Selha Chazotsang	Challenger	Groundbreaking Grass: the effect of grass density on green roofs on the amount of water drained and pollutants filtered
Electrical Engineering - First Place	Anda Xie	West High	Spring Foreverer 2.0
Electrical Engineering - Second Place	Juan Luis Bonifasi Zhang	Challenger	Mechanical Advantage in Pulley Systems
Energy: Chemical & Physical - First Place	Becket Evans	St. John the Baptist Middle School	Don't Lose your (Radioactive) Marbles!
Energy: Chemical & Physical - Second Place	Joshua Potter	Clarke N. Johnsen Jr. High	Energy Rocks
Energy: Chemical & Physical - Third Place	Aliya Bohman	Clarke N. Johnsen Jr. High	H2O2 vs. LED
Energy: Chemical & Physical - Fourth Place	Solomon Guilkey	J.E. Cosgriff Memorial	How Does Dirt Affect a Solar Panel's Power Output Rate?
Mechanical & Materials Engineering - First Place	Lana Chan	Challenger	Martian Bricks
Mechanical & Materials Engineering - Second Place	Michael Rickerd	St. Joseph Elementary School	Automatic Dog Scratcher
Mechanical & Materials Engineering - Third Place	Ridhitha Nachaegari	Challenger	Efficiently Lazy Blinds
Mechanical & Materials Engineering - Fourth Place	Alexia Davis	Jefferson Jr. High	Thermal desalination process
Medicine, Health Sciences, & Biomedical Engineering - First Place	Aadhi Umamageswaran	American Preparatory Academy APA Draper 3	Eat Your Bandages!!! (Homemade Biodegradable Adhesives For Topical Drug Delivery)
Medicine, Health Sciences, & Biomedical - Second Place	Maddie Shragge	St. Vincent de Paul School	Super Tasters
Medicine, Health Sciences, & Biomedical Engineering - Third Place	Isabelle Miller	Entheos Academy	Electrolytes in Sports Drinks vs. Orange Juice

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Medicine, Health Sciences, & Biomedical Engineering - Fourth Place	Rowan Hankins	J.E. Cosgriff Memorial	How does the angle at which a knee bends affect the relative tension on the patellar tendon?
Physics, Astronomy & Math - First Place	Victor Young & Forest Young	Reid School	Projectile Motion
Physics, Astronomy & Math - Second Place	Warren Ellsworth	American Preparatory Academy APA Draper 3	What's Going Through your Head
Physics, Astronomy & Math - Third Place	Skyler White & Jaxen Morgan	Clarke N. Johnsen Jr. High	Paper Airplane Distances
Physics, Astronomy & Math - Fourth Place	Tyler Lengerich	St. John the Baptist Middle School	An Eggcellent Study of Density
Plant Sciences - First Place	Sai Anshitha Duvvarapu	American Preparatory Academy APA Draper 3	Microgreens in soil vs hydroponics
Plant Sciences - Second Place	Sarah Leng	Challenger	Irradiation and Radishes
Plant Sciences - Third Place	Eduardo Peralta Uroza	St. Andrew School	Thrive or Survive!
Plant Sciences - Fourth Place	Riley Christensen	Bonneville Academy	Plants Surviving In Different Liquids