

Kentucky Science & Engineering Fair

High School Life Sciences Best of Fair

3rd Place

Amy Wang, David Ma - Central Kentucky Regional Science & Engineering Fair /Fayette County District Science Fair/Dunbar

Rapamycin as a Novel Therapeutic for Alzheimer's Disease: An Imaging Assessment of Prevention and Treatment through In Vivo Brain Vasculature, Metabolism, and Cognition

2nd Place

Madison Sneve - duPont Manual Regional Fair /duPont Manual School Fair

Tactile Stimulation of the Tongue Elicits the Activation of TrkC Neurons in the Trigeminal Ganglion

1st Place

Vishaal Balamurugan - LRSEF /North Oldham High School

Bioengineering Islet Cells using 3D-Bio Printing Technology for the Treatment of Type One Diabetes

High School Physical Sciences Best of Fair

3rd Place

Emily Liu - duPont Manual Regional Fair /duPont Manual School Fair

Collisions of a Buckyball with Graphene and SiC Sheets at Supersonic Speeds

2nd Place

Joshua Jacob - LRSEF /Saint Xavier High School

Development of a Hybrid Direct Ink Writing 3D Printer: a Novel Approach to 3D Printing Multi-material Functional Devices and Flexible Electronics

1st Place

Anjali Chadha - duPont Manual Regional Fair /duPont Manual School Fair

Monitoring of Arsenic in Groundwater Sources Using an Innovative IoT Sensor

Animal Sciences

3rd Place

Alice Beatty - LRSEF - Middle School

Visual and Olfactory Recognition in Hermit Crabs

Megan Slusarewicz - Central Kentucky Regional Science & Engineering Fair - High School
A Colorimetric Test for the Presence of Internal Helminth Ova in Feces

2nd Place

Abigail Gay - Central Kentucky Regional Science & Engineering Fair - Middle School
To Feed or Not to Feed

Nimrit Singh - duPont Manual Regional Fair - High School

Effect of Burning Paraffin Wax Candles on the Growth of Mealworms (*Tenebrio molitor*)

1st Place

Ella Diehl - LRSEF - Middle School

Can Caterpillars Hear? Does Noise Pollution Affect Them?

Sundus (Sunny) Ghuneim - Central Kentucky Regional Science & Engineering Fair - High School
Stability of pSNPs

Behavioral and Social Sciences

3rd Place

Sarah Cecil - LRSEF - High School

How Reliable Are Eyewitness

Testimonies? Seth Spriggs-Dial - LRSEF

- Middle School Exploring the

Bystander Effect in Children

2nd Place

Elke Coenders - Central Kentucky Regional Science & Engineering Fair - Middle School
Down Memory Lane

Marco Muñoz - duPont Manual Regional Fair - High School

Predictors of reading achievement in urban elementary schools: Investigating the role of school belonging, teaching, and site safety

1st Place

Eli Abernathy - Central Kentucky Regional Science & Engineering Fair - Middle School
Why So Fast?

Betty Ngo - duPont Manual Regional Fair - High School

Perfectionism and Body Image Dissatisfaction In Adolescents

Biochemistry

3rd Place

Kristin Drummond - Central Kentucky Regional Science & Engineering Fair - Middle School
Enzymes in Action

Arushi Gupta - duPont Manual Regional Fair - High School

Using a Proteomic Approach to Understand the Effects of TGF- β on Akt-Directed Protein Phosphorylation in Renal Tubular Cells

2nd Place

Akhil Kesaraju - Central Kentucky Regional Science & Engineering Fair - High School
Understanding the Role of Secretion in Platelet Spreading

Rosemary Peters - LRSEF - Middle School

Exploring the Impact of E-Cigarettes on Ascorbic Acid

1st Place

Vivienne Lucier - Central Kentucky Regional Science & Engineering Fair - Middle School
The Effect of Different Sweeteners on Dry Yeast Activation

Aman Mann - duPont Manual Regional Fair - High School

Evaluating the role of the PERK arm of UPR in muscle regeneration

Biomedical and Health

Sciences 3rd Place

Aliana Conway - LRSEF - Middle School

A Safe Substitute? Bisphenol-S Affects Health and Learning

Tess Schrenger - LRSEF - Middle School

Glyphosate Herbicide Impacts Human Health

Riya Shah - duPont Manual Regional Fair - High School

The Effect of Intrauterine Drug Exposure on Neurodevelopmental Outcomes in Children

2nd Place

Dorottya Gal - Central Kentucky Regional Science & Engineering Fair - Middle School
Get Your Fluo-Right!

Bhargav Ramesh - duPont Manual Regional Fair - High School

Effect of Flavoring Compounds Used in Tobacco and E-Cigarette Products on Human iPSC-Derived Cardiomyocytes

1st Place

Sarvesh Babu - Meyzeek Regional Science Fair - Middle School
Thought-code

Will Broomhead, Malachi Richie - Science & Engineering Fair of Northern Kentucky - High School

Impact the Force: Effects of Insoles on Impact Force for Gymnasts

Biomedical Engineering

3rd Place

Angelina Atieh - duPont Manual Regional Fair - High School

Analysis of High and Low Blood Sugars through a Circuit Board Artificial Pancreas Model & its Effect on PH Equilibrium

2nd Place

Ryan Folz, Praharshasai Paladugu, Abraham Riedel-Mishaan - duPont Manual Regional Fair - High School
Development of 3D Printed Electronic Stethoscope And Open-Source Android-Based Automated Diagnosis Of Cardiac Conditions.

Wynstin Perkins - LRSEF - Middle School

Bionic Insulin saver: Can we improve the design for insulin and if so how ?

1st Place

Vishaal Balamurugan - LRSEF - High School

Bioengineering Islet Cells using 3D-Bio Printing Technology for the Treatment of Type One

Diabetes Seth McAfee - LRSEF - Middle School

Engineering New DVT Removal Techniques

Cellular and Molecular Biology

3rd Place

Rohith Kesaraju - Central Kentucky Regional Science & Engineering Fair - High School

Regulation of Survival and Growth of Malignant B-lymphocytes in Chronic Lymphocytic Leukemia

mark schrenger - LRSEF - Middle School

Exploring the Hidden Toxicity of Sunscreen

2nd Place

Analisa Conway - LRSEF - High School

New Home Health Hazard: Exploring Flexible Flooring Cytotoxicity

Grace Hovekamp - LRSEF - Middle School

Cissus Quadrangularis: A Potentially New Anti-Cancer Compound

1st Place

Madison Sneve - duPont Manual Regional Fair - High School

Tactile Stimulation of the Tongue Elicits the Activation of TrkC Neurons in the Trigeminal Ganglion

Andrew Wang - Meyzeek Regional Science Fair - Middle School

The Effects of Water Temperature On Green Tea's Capability to Limit the Growth of Porphyromonas Gingivalis

Chemistry

3rd Place

Eric Cao - Central Kentucky Regional Science & Engineering Fair - High School

Modelling the FEBIE of Copper in Liquid Phase

Preeti Tanwani - Meyzeek Regional Science Fair - Middle

School Too Much Sugar Intake? What a Mistake!

2nd Place

Kaitlin Calvery - LRSEF - Middle School

IR Dyes Improve Photovoltaic Cell Efficiency

Kairav Kukkala - LRSEF - High School

"Surface-migrating" Additives to Improve Paint Stain Resistance

1st Place

Eliza Gallagher - LRSEF - Middle School

Trash to Treasure: Converting Plastic Bottles to Porous

Carbon Felicia Zhong - duPont Manual Regional Fair - High

School

Effects of Glycerin on the Flash Point and Vapor Pressure of Propylene Glycol

Computational Biology and Bioinformatics

3rd Place

Amit Sahoo - duPont Manual Regional Fair - High School
Segmentation of Prostate MRI images

2nd Place

Zsombor Gal - Central Kentucky Regional Science & Engineering Fair - High School
Digital Analysis and Quantification of TDP-43 and Blood Vessel Neuropathology Associated with Alzheimer's Disease

1st Place

Gregory Schwartz - duPont Manual Regional Fair - High School
Computer Simulation of Genetically Modified *Aedes Aegypti* Release Methods

Earth and Environmental

Science 3rd Place

Anna Ackerman - Central Kentucky Regional Science & Engineering Fair - Middle School
Studying the Potential Effects of Acid Rain on Native and Organic Vegetable Crops by Alternating the pH of Water
Tanya Gupta, Natasha Gupta - LRSEF - High School
TiO₂ Coated-Roofs: Mitigating UHI Effect and Reducing Ethanol Pollution via Photocatalysis (Year 2)

2nd Place

Catherine Meadows - Science & Engineering Fair of Northern Kentucky - High School
Aquatic Ecotoxicity of Pharmaceuticals on Aquatic Organisms
Sharini Shah - Meyzeek Regional Science Fair - Middle School
Using reflectors to improve the efficiency of solar panels

1st Place

Richard Haywood - Central Kentucky Regional Science & Engineering Fair - High School
U-Pb Isotopic Dating of Zircon in the Appalachian Orogen, New England
Gwyneth Thomas - Science & Engineering Fair of Northern Kentucky - Middle School
A Slick Solution

Embedded Systems

3rd Place

Jan Balk - Central Kentucky Regional Science & Engineering Fair - High School
The Use of Arduino in Atmospheric Measurement

2nd Place

Benjamin Jiang - duPont Manual Regional Fair - High School
Balance Temperature, Conveniently
Henry Murr - LRSEF - Middle School
Reducing Avian Fatalities Using Ultrasonic Detection

1st Place

Anjali Chadha - duPont Manual Regional Fair - High School
Monitoring of Arsenic in Groundwater Sources Using an Innovative IoT Sensor
Charlie Murr - LRSEF - Middle School
Aqua Advisor; A Device to Monitor Pool Conditions

Energy: Chemical

3rd Place

Mark Raj, Ruchi Sumanasekera - duPont Manual Regional Fair - High School
Effects of Nanostructured Oxides and Conducting Polymers on Pseudocapacitance
Rowann Zohary, Amel Kredan - Central Kentucky Regional Science & Engineering Fair - Middle School
Biomass to Biogas

2nd Place

Nimish Mathur, Aakash Vadhanam - Meyzeek Regional Science Fair - Middle School

Algae Biofuel: The Future of Fuel

Maha Pattabiraman, Meena Pattabiraman - duPont Manual Regional Fair - High School

Testing Molybdenum Sulfide and Tungsten Sulfide for their Catalytic Properties using Hydrogen Evolution Reaction

1st Place

Fiona Gallagher - LRSEF - Middle School

Trash to Treasure: Converting School Lunchroom Waste Bread to Ethanol

Sriram Satyavolu - LRSEF - High School

Optimization of Storage Capacity using Activated Carbon Fibers from Sustainable Agricultural Sources for Hydrogen

Energy: Physical

3rd Place

Harshith gontla - duPont Manual Regional Fair - High School

Biomass efficiency

Rishi Vinukonda - Meyzeek Regional Science Fair - Middle School

Electromagnetic light

2nd Place

Nicholas Meredith - LRSEF - High School

Geometric Arrangement of Solar Panels for Increased Power Output

Kayla Turney - Central Kentucky Regional Science & Engineering Fair - Middle School

Harnessing The Wind

1st Place

Emma Heironimus - duPont Manual Regional Fair - High School

Collecting Kinetic Energy As An Alternative to Current Tolling Systems

Adrian Morris - LRSEF - Middle School

Designing a More Efficient Wind

Turbine

Engineering Mechanics

3rd Place

Anna Dinius - Science & Engineering Fair of Northern Kentucky - Middle School

The Shapes of Tunnels

Rachel Spaulding - LRSEF - High School

Heat and Wind power

2nd Place

Simon Li - Meyzeek Regional Science Fair - Middle School

The Effect of Polarized Films and its

Application

Rachel SeEVERS - Central Kentucky Regional Science & Engineering Fair - High School

The Next Airbender: A Novel Approach to Airfoil Efficiency and the Optimization of the Lift-to-Drag Ratio

1st Place

Jacob Deere - Science & Engineering Fair of Northern Kentucky - Middle School

How Do Aluminum Birds Stay Up In The Sky

Joshua Jacob - LRSEF - High School

Development of a Hybrid Direct Ink Writing 3D Printer: a Novel Approach to 3D Printing Multi-material Functional Devices and Flexible Electronics

Environmental Engineering

3rd Place

Conor Blackburn - duPont Manual Regional Fair - High School
Manufacture of a Diverter Based Water Conservation System for Showers
Wilson Spangler - Central Kentucky Regional Science & Engineering Fair - Middle School
"Braking" the Cycle: What Is the Effect of 4-Way Stops vs. Roundabouts on Fuel Usage?

2nd Place

Adithya Iyengar, Louis Yang - duPont Manual Regional Fair - High School
The Effect of Different Materials and Solar Disinfection on Filtering out Excessive Nutrients in Urban Streams
Shreya Solai - Meyzeek Regional Science Fair - Middle School
Cool Roofs: The Albedo Effect

1st Place

Julia Radhakrishnan - Central Kentucky Regional Science & Engineering Fair - High School
Detect and Destroy: The Degradation of Nitroaromatic Compounds in Water
Murari Srinivasan - Meyzeek Regional Science Fair - Middle School
Building a Economically Efficient Model of A Solar HDH Machine

Materials Science

3rd Place

Maggie Ferguson, Eleanor Badgett - Central Kentucky Regional Science & Engineering Fair - Middle School
Poof, It's 'Proofed'
Manasa Sunkara - duPont Manual Regional Fair - High School
Electrospinning ND Fiber Patches for Prevention of Myocardial Infarction

2nd Place

Aidan Blakeman - Central Kentucky Regional Science & Engineering Fair - Middle School
Awesome Insulation
Krista Manche - Central Kentucky Regional Science & Engineering Fair - High School
Impact Resistance of Automotive Body Panels

1st Place

Sowmyan Viswanathan - Meyzeek Regional Science Fair - Middle School
Thermophysical and Mechanical Attributes of 3D Printed Parts
Brenna Wallin - Central Kentucky Regional Science & Engineering Fair - High School
Self-healing Conductive Nanocomposite Fabric Coatings for Wearable Sensors and Electronics

Mathematics

3rd Place

Jared Johnson - Science & Engineering Fair of Northern Kentucky - Middle School
Following the rules can be beautiful!
Henry Robbins - duPont Manual Regional Fair - High School
Degrees of Separation: A Predictive Network Model Equation

2nd Place

Ben Keeney - LRSEF - Middle School
Fractal Analysis of Wildfires
Deev Talati - duPont Manual Regional Fair - High School
Develop a mathematical model to predict college loan payoff

1st Place

Rohin Dutt - Meyzeek Regional Science Fair - Middle School
The Steiner Minimal Tree Problem
Ken Ryumae - Science & Engineering Fair of Northern Kentucky - High School
Computing an Algorithm to Detect Three Dimensional Objects in Space

Microbiology

3rd Place

Kelly Chen - Central Kentucky Regional Science & Engineering Fair - High School
Antibiotic Resistance in Serpentine Microbial Communities and the Potential for Novel Antibiotics Anne
Liang - Meyzeek Regional Science Fair - Middle School
Effect of Grape Seed Extract on Oral Bacteria and Inflammation

2nd Place

Srikhar Padmanabhan - duPont Manual Regional Fair - High School Effect of
Probiotic-derived Ferrichrome on Inflammatory Bowel Disease Elaina Render
- LRSEF - Middle School
Gut Reaction: Food Preservatives and the Microbiome

1st Place

Tushar Sharma - duPont Manual Regional Fair - High School
Therapeutic potential of Azadirachta indica (Neem) leaves ethanolic extracts against Periodontitis Mary
Claire Stukenborg - LRSEF - Middle School
"KY Tuna"/ Asian Carp Epidermal Slime; a Novel Antimicrobial

Physics and Astronomy

3rd Place

Eric Turney - Central Kentucky Regional Science & Engineering Fair - Middle School Heating
the homeless
Zachary Waring - LRSEF - High School Static
discharge in clothing materials

2nd Place

Ronit Kar - Central Kentucky Regional Science & Engineering Fair - High School Analysis of
Chemical Composition at the Micron Scale using Lateral Force Microscopy Kyle Sanderfer -
LRSEF - Middle School
Exploring Cosmic Rays

1st Place

Hayden Harned - LRSEF - Middle School
Exploring the Physics of Irrigation Droplets
Emily Liu - duPont Manual Regional Fair - High School
Collisions of a Buckyball with Graphene and SiC Sheets at Supersonic Speeds

Plant Sciences

3rd Place

Tanay Neotia - duPont Manual Regional Fair - High School
The Effect of Nitrates and pH on the Quality of Insect Digestion in Pitcher
Plants Isabella Squire - Central Kentucky Regional Science & Engineering Fair -
Middle School Bloom Where You Are Planted...or Not!?

2nd Place

Megan Crouch - Science & Engineering Fair of Northern Kentucky - Middle
School power of pectinase
Rhyan Moseley - Central Kentucky Regional Science & Engineering Fair - High School
Effect of Sublethal Fungicide Dosage on Colonization of Apples by Tolerant And Sensitive Collectotrichum
Species Causing Bitter Rot Disease

1st Place

Carson Harral, Mark Johannemann - LRSEF - High School
A Study of Aquaponics With Recreational and Industrial
Fishes Rob Player - LRSEF - Middle School
Observing Shade Avoidance in Vigna Radiata

Robotics and Intelligent

Machines 3rd Place

Melissa Hannemann - Central Kentucky Regional Science & Engineering Fair - Middle School
Arduinos and Spices

Lokesh Nanthakumar - duPont Manual Regional Fair - High School
Can Adding Sensors to a Cane help the blind navigate better?

2nd Place

Nathan Rukavina, Kelly Kral, Chris Duncan - Central Kentucky Regional Science & Engineering Fair - High School
Simplified Proprioception Model for Agile Robot Gripper

Mina Ryumae - Science & Engineering Fair of Northern Kentucky - Middle School
Do you see what I see?

1st Place

Diya Mathur, Sophia Korner - duPont Manual Regional Fair - High School
The Effect of Prosthetic Arm Vibrotactile Indicators to Create a More Efficient Robotic System
Trisha Sexton - LRSEF - Middle School
Exploring Soft Robotic Appendage

Systems Software

3rd Place

Nikhil Polepalli - duPont Manual Regional Fair - High School
The effect of various types of music on heart rate and a device to control heart rate
Vishnupriya Ramasamy - LRSEF - Middle School
Alexa, Call Doctor

2nd Place

Shreeya Arora - Meyzeek Regional Science Fair - Middle School
Tracking Our Heroes - Saving Lives Using Wearable Technology (Phase 3)
Erin Markel - Central Kentucky Regional Science & Engineering Fair - High School
3-D Data Visualization of ROOT Graphs in Google Cardboard

1st Place Josh Ashley, Muamer Bektic - duPont Manual Regional Fair - High School
Improving the Efficiency of Simulation Intelligence Generated by Neuroevolution
Ritesh Dhakal - LRSEF - Middle School

WaterGuardian; a Device to Prevent Drowning

Translational Medical Science

3rd Place

Vaitheesh Jaganathan - LRSEF - High School
CAN TENDER COCONUT WATER INHIBIT THE GROWTH OF HepG2 LIVER CANCER CELLS

2nd Place

Scott Dues - LRSEF - Middle School
E-cigarettes Effect on Learning and Health
Amy Wang, David Ma - Central Kentucky Regional Science & Engineering Fair - High School
Rapamycin as a Novel Therapeutic for Alzheimer's Disease: An Imaging Assessment of Prevention and Treatment through In Vivo Brain Vasculature, Metabolism, and Cognition

1st Place

Sophia Bryant - LRSEF - Middle School
Exploring the Potential Anti-Cancer Abilities of Natural Compounds
Sophie Lai - duPont Manual Regional Fair - High School
Urolithin A suppresses chemoresistant cell proliferation when in combination with

Kentucky Science & Engineering Fair - All Divisions - Special Awards

Dr. Barbara Ramey Physical Sciences Award

Josh Ashley, Muamer Bektic - duPont Manual Regional Fair - High School
Improving the Efficiency of Simulation Intelligence Generated by
Neuroevolution

American Meteorological Society - American Meteorological Society - Certificate

Exhibit in atmospheric science
Cindy Wan, Emma Cammack - duPont Manual Regional Fair - High School
THE CORRELATION BETWEEN SURFACE WATER QUALITY AND VARYING LAND USES IN WATERSHEDS OF
FLOYDS FORK

American Psychological Association - American Psychological Association Award - Certificate

Best project on psychological science
Betty Ngo - duPont Manual Regional Fair - High School Perfectionism and Body Image
Dissatisfaction In Adolescents

ASM Materials Education Foundation - ASM Materials Science Certificate of Recognition - Certificate & Medallion

Best use of materials-related concepts
Brenna Wallin - Central Kentucky Regional Science & Engineering Fair - High School
Self-healing Conductive Nanocomposite Fabric Coatings for Wearable Sensors and Electronics

Association for Women Geosciences - Student Awards for Geoscience Excellence - Certificate

Award for female student's best project in the geosciences
Catherine Meadows - Science & Engineering Fair of Northern Kentucky -
High School Aquatic Ecotoxicity of Pharmaceuticals on Aquatic Organisms

Bob and Melani Walton Sustainability Solutions - ASU Walton Sustainability Solutions Award - Certificate and invitation to enter competition

Nomination to enter the ASU Sustainability Solutions
Competition Sriram Satyavolu - LRSEF - High School
Optimization of Storage Capacity using Activated Carbon Fibers from Sustainable Agricultural Sources
for Hydrogen

Intel - Intel Excellence in Computer Science Award - Certificate for \$200.00

Best use of computers/programming
Diya Mathur, Sophia Korner - duPont Manual Regional Fair - High School
The Effect of Prosthetic Arm Vibrotactile Indicators to Create a More Efficient Robotic System

Kentucky Society of Natural History - 1st Place - Outstanding Natural History Project - \$100 Cash Prize and a certificate to be mailed to the winner

Presented By : Jeff D. Foster and J. Daniel Foster
Awarded to the Outstanding Project Focused on the Natural History of
Kentucky Cindy Wan, Emma Cammack - duPont Manual Regional Fair -
High School
THE CORRELATION BETWEEN SURFACE WATER QUALITY AND
VARYING LAND USES IN WATERSHEDS OF FLOYDS FORK

Kentucky Society of Natural History - 2nd Place - Outstanding Natural History Project - \$50 Cash Prize and a certificate to be mailed to the winner

Presented By : Jeff D. Foster and J. Daniel Foster

Awarded to a project demonstrating excellence that is focused on the Natural History of Kentucky Catherine Meadows - Science & Engineering Fair of Northern Kentucky - High School Aquatic Ecotoxicity of Pharmaceuticals on Aquatic Organisms

KY Section - American Institute of Professional Geologists Award - Best Project - KY-AIPG - Book and certificate and \$50 check (certificate and check to be mailed)

Richard Haywood - Central Kentucky Regional Science & Engineering Fair - High School U-Pb Isotopic Dating of Zircon in the Appalachian Orogen, New England

Mu Alpha Theta Mathematics Honor Society - Mu Alpha Theta Mathematics Award - Certificate

Award for the best use of mathematics.

Ken Ryumae - Science & Engineering Fair of Northern Kentucky - High School Computing an Algorithm to Detect Three Dimensional Objects in Space

NASA - NASA Earth System Science Award

Tanya Gupta, Natasha Gupta - LRSEF - High School

TiO₂ Coated-Roofs: Mitigating UHI Effect and Reducing Ethanol Pollution via Photocatalysis (Year 2)

NOAA - Taking the Pulse of the Planet Award - Letter of Congratulations, NOAA medallion, award certificate

Projects that reflect changes in climate, weather & water cycle events, commerce & transportation Varun Hariprasad - Central Kentucky Regional Science & Engineering Fair - Middle School Finding the Best Absorbent to Clean up Oil Spills in Water

Office of Naval Research - Navy/Marine Corp Excellence in Research Award - Award Certificates and gift certificates

Awarded to best research in military

related work Gus Dillon - LRSEF -

Middle School

Kentucky Hemp: Higher Tensile Strength in Concrete

Ellie English - LRSEF - Middle School

Mindfulness Matters: Eliminating Negative Classroom Behaviors

Tanya Gupta, Natasha Gupta - LRSEF - High School

TiO₂ Coated-Roofs: Mitigating UHI Effect and Reducing Ethanol Pollution via Photocatalysis (Year 2)

Dalton Sunday - Science & Engineering Fair of Northern Kentucky - Middle School Rethinking Turbine Designs to Provide Electrical Power to the World

Jahnvi Sunkara - duPont Manual Regional Fair - High School

The Effect of NRF2 on Retinal Ganglion Cell Densities in a DBA/2J Model of Glaucoma

Ricoh Americas Corporation - Ricoh Sustainable Development Award 2015 - Certificate

Project that demonstrated the principles and technical innovations that offer the greatest potential for Sustainable Development
Rachel Spaulding - LRSEF - High School
School Heat and Wind power

Society for In Vitro Biology - Certificate of Outstanding Achievement in In Vitro - Certificate

Restricted to 11th grade student exhibiting in in vitro biology or tissue culture
Sophie Lai - duPont Manual Regional Fair - High School
Urolithin A suppresses chemoresistant cell proliferation when in combination with 5-fluorouracil

U.S. Metric Association - U.S. Metric Association Award - Certificate

Best use of the metric units
Deev Talati - duPont Manual Regional Fair - High School
Develop a mathematical model to predict college loan payoff

United States Air Force - Air Force Award - Unknown

Best military award
Sarvesh Babu - Meyzeek Regional Science Fair - Middle School
Thought-code

Jan Balk - Central Kentucky Regional Science & Engineering Fair - High School
The Use of Arduino in Atmospheric Measurement

Varun Hariprasad - Central Kentucky Regional Science & Engineering Fair - Middle School
Finding the Best Absorbent to Clean up Oil Spills in Water

Rachel SeEVERS - Central Kentucky Regional Science & Engineering Fair - High School
The Next Airbender: A Novel Approach to Airfoil Efficiency and the Optimization of the Lift-to-Drag Ratio

US Army - US Army Award

Shreeya Arora - Meyzeek Regional Science Fair - Middle School
Tracking Our Heroes - Saving Lives Using Wearable Technology (Phase 3)

Will Broomhead, Malachi Richie - Science & Engineering Fair of Northern Kentucky - High School
Impact the Force: Effects of Insoles on Impact Force for Gymnasts

Nimish Mathur, Aakash Vadhanam - Meyzeek Regional Science Fair - Middle School
Algae Biofuel: The Future of Fuel

Brenna Wallin - Central Kentucky Regional Science & Engineering Fair - High School
Self-healing Conductive Nanocomposite Fabric Coatings for Wearable Sensors and Electronics

Water Environment Federation - Stockholm Junior Water Prize - Regional Certificates and Nomination to the State SJWP Competition

Best water-related research
Conor Blackburn - duPont Manual Regional Fair - High School
Manufacture of a Diverter Based Water Conservation System for Showers

Anjali Chadha - duPont Manual Regional Fair - High School
Monitoring of Arsenic in Groundwater Sources Using an Innovative IoT Sensor

Adithya Iyengar, Louis Yang - duPont Manual Regional Fair - High School

The Effect of Different Materials and Solar Disinfection on Filtering out Excessive Nutrients in Urban Streams

Yale Science and Engineering Association - Yale S - 1 certificate and medallion

Awarded to 11th grader for a computer science, engineering, physics or chemistry research project Sophie Lai - duPont Manual Regional Fair - High School

Urolithin A suppresses chemoresistant cell proliferation when in combination with 5-fluorouracil