



Connecticut Science & Engineering Fair

Quinnipiac University

March 6 - 18, 2023

These judging results are unaudited by the fair's Database Committee. The CSEF reserves the right to correct the listings.

Final Judging Results

Award Legend

Plaque Winners = 1, 2, ...
 Medalists = m
 Winners = w

Engineering Awards

[SchTown] [School] [Teacher]
 [Proj#] [FCat] [Project Title]

Middle School

5511 P8 Mitigating the Threat of Microplastics in Drinking Water: The Potential of Coconut Fiber and Activated Coconut Charcoal as Sustainable Filtration Materials

Award 1 Student(s) Rhea Doshi Grade 8 Town Farmington

- * Connecticut Science Fair Association Physical Science Awards --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & trophy
- * Pepsico Engineering Awards --- 1st Place- Engineering Middle School- \$300 & trophy
- * Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7,500 per year) to Quinnipiac University for MS Student
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

5504 P8 Developing and Quantifying the Strength and Reliability of Soft Robotics Tubing Attachment Methods

Award 2 Student(s) Thomas Gerlach Grade 8 Town Ellington

- * Connecticut Science Fair Association Physical Science Awards --- 5th Place- Physical Sciences 8th Grade Ind. - trophy
- * Stanley Black & Decker Applied Technology Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion
- * Pepsico Engineering Awards --- 2nd Place- Engineering MS- \$200 & trophy
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * Otis Elevator Company --- MS Excellence Award - \$250

5010 P7 Disaster Resilient Architecture: Experiments of Tower Design and Construction

Award 3 Student(s) Luke Machado Grade 7 Town Hamden

- * Pepsico Engineering Awards --- 3rd Place- Engineering MS \$100 & trophy
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Otis Elevator Company --- MS Excellence Award - \$250
- * Demos R Us Award --- \$150 Cash Award-- Clear Execution of Research- 7th Grade



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4003 PT Solar Powered Charger
 Award m Student(s) Nilah DeJesus Grade 8 Town Bridgeport
 Karina Conde Grade 8 Town Bridgeport

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion
- * EnergizeCT Alternative & Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy
- * Pepsico Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Constellation Energy --- 1st: \$100.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy

5502 P8 How Ice vs. No Ice Affects a Stirling Engine
 Award m Student(s) Charles Orban Grade 8 Town Norwalk

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * John S. Kendall Memorial --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Second Place
- * Susan and Stanley Lessoff Memorial --- Susan and StanleyLessoff Memorial Award - \$250 Cash and Plaque MS

High School

6008 PS Concurrent Removal of Rising Soluble Ocean Carbon Dioxide and Oil-in-Water Contaminants via Multi-Functional Remediation Framework.
 Award 1 Student(s) Naomi Park Grade 11 Town Riverside

- * Connecticut Science Fair Association Physical Science Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- * Stanley Black & Decker Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- * Pepsico Engineering Awards --- 1st Place- Engineering Senior High- \$500 & plaque,
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

3129 LS Creation and Simulation of Function of Claramine-Atorvastatin Coated Hyaluronic Acid Nanoparticles for Targeted Dissolution of Atherosclerotic Plaque
 Award 2 Student(s) Justin Bernstein Grade 10 Town Greenwich

- * Pepsico Engineering Awards --- 2nd Place- Engineering Senior High- \$300 & plaque



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6064 PS A Self-Stabilizing Haptic Accessibility Mouse for Parkinson's Disease Sufferers
 Award 3 Student(s) Jingyuan Zhang Grade 10 Town Wallingford

- * Connecticut Science Fair Association Physical Science Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque
- * Pepsico Engineering Awards --- 3rd Place- Engineering Senior High- \$200 & plaque
- * Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7,500 per year) to Quinnipiac University for HS Student
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- * Alexion Biotechnology Awards --- 1st Place Biotechnology Senior High - \$500 & plaque
- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Applied Principles Award - \$250
- * IEEE, Connecticut Section --- \$250 Honors Award – Senior
- * Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High

6052 PS Using Magnetic Fields to Direct Crystallization of Calcium Carbonate to Emulate the Growth of Trabeculae Post Bone Fracture
 Award m Student(s) Jonah Rosenbaum Grade 12 Town Fairfield

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * The Jackson Laboratory with Connecticut Academy of Science and Engineering Urban School Challenge Awards --- Senior High Finalist - Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion

6506 PST Comparative analysis of the most efficient, accessible, and useful gasifiable biomatter
 Award m Student(s) Thomas Armstrong Grade 10 Town Greenwich
 Eric Lorenz Grade 10 Town Greenwich

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * J.A. Augustine and H. Glista Awards --- \$100 for excellence in physical sciences

6028 PS Development of an Efficient and Easily-Applicable Low-Energy Process for the Degradation of PFAS
 Award m Student(s) Zara Haque Grade 10 Town Riverside

- * EnergizeCT Future Sustainability Awards --- 1st Place High School - Plaque & \$700 Stipend to Compete at GENIUS Olympiad
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Future Sustainability



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6043 PS Reversible, Tunable Metal Electrodeposition on Pt-Functionalized, Indium Tin Oxide, Transparent Electrodes for Thermal Regulating and Dynamic Optical Properties of Smart Windows

Award m **Student(s)** Madeline Minichetti **Grade** 12 **Town** Greenwich

- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- * CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Amazon Gift Card from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- * Otis Elevator Company --- HS Excellence Award - \$250

6036 PS Environmental Remediation via Photocatalysis for Partial Methane Oxidation and Oil Photodegradation

Award m **Student(s)** Antonia Kolb **Grade** 11 **Town** New Canaan

- * Connecticut Science Fair Association Physical Science Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Freeman Family Excellence in Chemistry Awards --- For Excellence in Chemistry or Chemical Engineering by a High School student, \$200 cash

6076 PS Theoretical Investigation of Sodium Ion Adsorption on N-rich Graphene as a High-Rate Anode for Sodium-Ion Batteries

Award m **Student(s)** Henry Ding **Grade** 11 **Town** Irvine

- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR

6084 PS Water Quality Inspection Catamaran

Award m **Student(s)** Chengyue Zhang **Grade** 11 **Town** Shanghai

- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion

6047 PS Linear Particle Accelerator

Award m **Student(s)** Enzo Adorno **Grade** 12 **Town** Westbrook

- * Pepsico Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificate