



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

Regular Fair Awards - Finalists

Sorted by:

- Fair Category
- Finalist standing in regular fair (1st, 2nd, etc)
- Project number

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

Life Sciences - High School Individual

Greenwich Greenwich High School Andrew Bramante

3030 Design of a Novel, Dual-Functioning Tissue Plasminogen Activator and Anticoagulant Therapeutic for Rapid Ischemic Stroke Treatment

Student(s) Ambika Grover **Grade** 11 **Town** Riverside

- * PepsiCo Life Sciences Awards --- 1st Place- Life Sciences Senior High - \$500 & Plaque
- * Collins Aerospace Engineering Awards --- 1st Place- Engineering Senior High- \$500 & Plaque
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Life Sciences Senior 1st HS- \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High - \$300 & Plaque
- * U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- * Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

New Haven Engineering and Science University Magnet School Roger Rushworth

3009 Implementing Nontoxic Modified Magnetic Metal Oxide Nanoparticle Enhanced Biochar Filtration for the Efficient Removal of Emerging Contaminants in an Aqueous Solution

Student(s) Snigtha Mohanraj **Grade** 9 **Town** Ansonia

- * PepsiCo Life Sciences Awards --- 2nd Place- Life Sciences Senior High - \$300 & Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 1st Place High School - \$500 and Plaque, Medallion
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- \$500 to 1st HS Urban School Challenge Science Department for Equipment/Supplies
- * American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- * ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF

Wallingford Choate Rosemary Hall Murali Chiravuri

3117 Development of a Home N-Terminal Pro-Brain Natriuretic Peptide Assay for the Diagnosis of Congestive Heart Failure.

Student(s) Maya Chiravuri **Grade** 11 **Town** Bridgeport

- * PepsiCo Life Sciences Awards --- 3rd Place- Life Sciences Senior High - \$200 & Plaque
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High - \$500 & Plaque
- * Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

Stamford King School Victoria Schulman

3038 The use of Prime Editing to Induce and Correct the CFTR-F508del mutation in iPSCs.

Student(s) Benjamin Persily **Grade** 11 **Town** Scarsdale

- * PepsiCo Life Sciences Awards --- 4th Place- Life Sciences Senior High - Plaque
- * Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

Greenwich Greenwich High School Andrew Bramante

3091 Development of Readily Accessible Machine Learning Diagnostics for Early Stage Mild TBI using Eye Tracking Methods

Student(s) Ashley Malkin **Grade** 9 **Town** Greenwich

- * PepsiCo Life Sciences Awards --- 5th Place- Life Sciences Senior High - Plaque
- * Computer Science Awards --- 1st Place High School - \$400, Plaque
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High - Plaque

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

Bridgeport Bridgeport Aquaculture Center Kirk Shadle

3002 Quantifying the interspecific impacts of the native relationships of the Long Island Sound

Student(s) Sarah Davis **Grade** 12 **Town** Trumbull

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 2nd Place High School - \$400 and Plaque, Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- * Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash
- * GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project with \$700 stipend

Glastonbury Glastonbury High School Diane Pintavalle

3020 Machine Learning Analysis of EEG Signals to Predict Working Memory Performance in Healthy and Schizophrenic Adults

Student(s) Nitesh Kalangi **Grade** 11 **Town** Glastonbury

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- 2nd Place High School - \$300, Plaque

Hamden Sacred Heart Academy Dr. Sibani Sengupta

3054 Anti-Viral Properties within Ayurvedic Remedies and their Potential COVID-19 Applications

Student(s) Mehr Chhatre **Grade** 12 **Town** Hamden

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion

Windsor The Loomis Chaffee School Koby Osei-Mensah

3068 Computational Psychiatry: Application of Machine Learning Methods to Analyze Marijuana Addictions and Craving

Student(s) Sean Lee **Grade** 12 **Town** Los Altos

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion

Farmington Miss Porter's School Betty Wang

3078 Using Single-Cell Analysis to Explore Prognostic Genes in Prostate Cancer

Student(s) Junyue Ma **Grade** 11 **Town** Farmington

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- 3rd Place High School - \$200, Plaque
- * Regeneron Biomedical Science Award --- Certificate & \$500.00 cash

Darien Darien High School David Lewis

3097 The effect of microplastic ingestion on the health of parasites (*Cryptocotyle lingua*) in periwinkles (*Littorina littorea*).

Student(s) Alison Enters **Grade** 12 **Town** Darien

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Senior

Wallingford Choate Rosemary Hall Xin Wang

3101 A clinicogenomic prediction model for the early diagnosis of lung cancer

Student(s) Isabella Wu **Grade** 10 **Town** Stony Brook

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Computer Science Awards --- 2nd Place High School - \$300, Plaque
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

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

Ridgefield Ridgefield High School Aine Kapell

3106 Assessing the efficacy of botanical repellents against blacklegged ticks

Student(s) **Ava Anderson** **Grade** 11 **Town** Ridgefield

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Science or Mathematics \$30,000 (\$7,500 per year)

Westport Staples High School Amy Parent

3110 Alzheimer's Disease Identification with Machine Learning Based on Wavelet Transform

Student(s) **Aalok Bhattacharya** **Grade** 11 **Town** Westport

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion

Life Sciences - High School Teams

Norwich Norwich Technical High School Tiffani Kaminski

3515 Biodegradation of Polystyrene by Bacteria Found in The Gut of Tenebrio Molitor Larvae

Student(s) **Tori Simmons** **Grade** 11 **Town** Norwich

Sara Smith **Grade** 11 **Town** New London

- * PepsiCo Life Sciences Awards --- 1st Place- Life Sciences Senior High Team - \$500 (split) & Plaque
- * EnergizeCT Technical High School Science & Technology Awards --- Technical High School Finalist - medallion
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)

Greenwich Brunswick School Dana Montanez

3507 Identification and purification of algal supplements as a means to reduce methane production within ruminants

Student(s) **James O'Connor** **Grade** 10 **Town** Rye

Whip Gorman **Grade** 10 **Town** New Cannan

- * PepsiCo Life Sciences Awards --- 2nd Place- Life Sciences Senior High Team - \$300 (split) & Plaque
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion

Norwich Norwich Technical High School Tiffani Kaminski

3522 Using Different Compounds to Reduce Hydrophobicity in Soil After a Forest Fire

Student(s) **Janelle Lambert** **Grade** 11 **Town** Scotland

Hailey Ruddock **Grade** 11 **Town** Oakdale

- * PepsiCo Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque
- * EnergizeCT Technical High School Science & Technology Awards --- 2nd Place- Technical High School , \$300, Plaque

Greenwich Brunswick School Dana Montanez

3509 Utilizing the Mycorrhizal relationship between plants as a biological control to prevent insect invasion and disease in plant populations.

Student(s) **Jack Morningstar** **Grade** 10 **Town** Greenwich

Sebastian DeAngelis **Grade** 10 **Town** Darien

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

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

Greenwich Brunswick School Dana Montanez

3512 Determining the optimal concentration of nitrogen in fertilizer by examining Wheat samples with NIR spectroscopy.

Student(s) **Campbell Officer** **Grade 11** **Town** Greenwich
Henry Sorbaro **Grade 11** **Town** Greenwich

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion

Milford Platt Technical High School Sara Bruno

3519 The Palingenesis Project

Student(s) **Ashley Ramos** **Grade 11** **Town** Bridgeport
Bruno Valdivia **Grade 11** **Town** West Haven
Katelyn Zayas **Grade 11** **Town** New Haven

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion
- * EnergizeCT Technical High School Science & Technology Awards --- 1st Place- Technical High School, \$500, Plaque
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place Technical High School with \$700 stipend

Hamden Hamden Hall Country Day School Frank Gasparro

3527 Determining Carbon Dioxide Levels in Classroom Settings

Student(s) **Yue Zhuo** **Grade 10** **Town** Woodbridge
Huiwen Zeng **Grade 10** **Town** Cheshire

- * PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

Life Sciences - Middle School 7th Grade

New Haven Engineering and Science University Magnet School Roger Rushworth

2006 Catalace

Student(s) **Ethan Joseph** **Grade 7** **Town** West Haven

- * PepsiCo Life Sciences Awards --- 1st Place- Life Sciences 7th grade - \$200 & Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 1st Place Middle School - \$300 and Plaque, Medallion
- * Computer Science Awards --- 2nd Place Middle School - \$200, Plaque
- * Connecticut Academy of Science and Engineering Middle School Urban School Challenge Award --- Urban School Challenge 1st MS - \$250 Cash Award, Invite to attend CASE's Annual Meeting
- * Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Avon Talcott Mountain Academy Brigette Zacharczenko

2019 How Ocean Acidification Affects Shelled Marine Life

Student(s) **Rhea Doshi** **Grade 7** **Town** Farmington

- * PepsiCo Life Sciences Awards --- 2nd Place- Life Sciences 7th grade - \$100 & Plaque
- * Environmental Sciences Awards with CACIWC --- 1st Place MS - \$300 and Plaque
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade - \$200 & Plaque
- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- * Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS
- * TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award Middle School- For excellence in environmental sciences

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

Pawcatuck St. Michael School Anna-Helene Grossomanides

2012 American Juvenile Horseshoe Crab Aquaculture

Student(s) **Gianna Giovanelli** **Grade 7** **Town** Westerly

- * PepsiCo Life Sciences Awards --- 3rd Place- Life Sciences 7th grade - \$100 & Plaque
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade - Plaque
- * Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF
- * Southeastern New England Marine Educators (SEMEME) --- \$100 award and membership in SEMEME - 1st Place Junior & T-Shirt
- * Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Junior

Hartford Environmental Sciences Magnet School Ms. Hays

2010 Mealybug Management 101
A Study of Household Plant Pest Treatment Options

Student(s) **Avni Manish** **Grade 7** **Town** Newington

- * PepsiCo Life Sciences Awards --- 4th Place- Life Sciences 7th grade - Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 5th Place Middle School - Plaque, Medallion
- * EnergizeCT Future Sustainability Awards --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade - \$100 & Plaque

New Canaan St. Aloysius School Deborah Philips

2016 Are You "Bready" For Some Mold?

Student(s) **Maria Victoria Triantafyllos** **Grade 7** **Town** Stamford

- * PepsiCo Life Sciences Awards --- 5rd Place- Life Sciences 7th grade - Plaque
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Avon Talcott Mountain Academy Brigette Zacharczenko

2018 Well-being in middle schoolers using intervention strategies

Student(s) **Nandini Panigrahi** **Grade 7** **Town** west hartford

- * PepsiCo Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion
- * American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project

Life Sciences - Middle School 8th Grade

Avon Talcott Mountain Academy Anya Jensen

2515 The RightSwitch: An Automatic Light Switch Sterilization Device

Student(s) **Samuel Wu** **Grade 8** **Town** Avon

- * PepsiCo Life Sciences Awards --- 1st Place- Life Sciences 8th grade - \$300 & Plaque
- * EnergizeCT Future Sustainability Awards --- 1st Place Middle School - \$300 and Plaque
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology 8th grade - \$300 & Plaque
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Hamden Hamden Hall Country Day School Paulomi Aldo

2509 Copper Contamination of Freshwater sources which pollute and harm the ecosystem and its consumers (Phytoremediation)

Student(s) **Sophia Vash** **Grade 8** **Town** Fairfield CT

- * PepsiCo Life Sciences Awards --- 2nd Place- Life Sciences 8th grade - \$200 & Plaque
- * Petit Family Foundation Women in Science & Engineering Awards --- 1st Place - Middle School \$300 / Plaque
- * Environmental Sciences Awards with CACIWC --- 3rd Place MS- \$100 and Plaque
- * Fox Pest Control for Environmental Management --- \$150 Cash for Excellence in Environmental Management
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

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

Shelton Shelton Intermediate School Erica Napoli

2504 The Power of Teeth Whitening

Student(s) **Reese Vartelas** **Grade 8** **Town** Shelton

* PepsiCo Life Sciences Awards --- 3rd Place- Life Sciences 8th grade - \$100 & Plaque

Bridgeport John Winthrop School Ms. Beres

2516 Which Filtration Material Leads to the Best Drinking Water?

Student(s) **Wayne Lewis** **Grade 8** **Town** Bridgeport

* PepsiCo Life Sciences Awards --- 4th Place- Life Sciences 8th grade - Plaque
* American Psychological Association --- Certificate, \$25 gift card given by CSEF
* Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF

Avon Talcott Mountain Academy Anya Jensen

2503 Applications of Machine Learning in the Prediction and Clustering of COVID-19 Deaths

Student(s) **Vanessa Slepini** **Grade 8** **Town** West Hartford

* PepsiCo Life Sciences Awards --- 5th Place- Life Sciences 8th grade - Plaque

Hamden Hamden Hall Country Day School Brian Christman

2517 The Latch

Student(s) **Neev Makin** **Grade 8** **Town** Hamden

* PepsiCo Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
* Stanley Black & Decker Applied Technology Awards --- 2nd Place Middle School - \$200 and Plaque, Medallion
* Computer Science Awards --- 3rd Place Middle School- \$100, Plaque
* Collins Aerospace Engineering Awards --- 3rd Place- Engineering MS \$100 & Plaque
* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

Life Sciences - Middle School Teams

Greenwich Greenwich Catholic School Mrs. Carol Lutz

1007 Ready, Set, Grow

Student(s) **Nicholas Barone** **Grade 7** **Town** Stamford

Luke Mannello **Grade 7** **Town** Stamford

* PepsiCo Life Sciences Awards --- 1st Place- Life Sciences MS Team - \$100 each & Plaque
* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Wilton Middlebrook School Carol Festa

1012 A novel way to solve coral bleaching

Student(s) **Preethi Vijay** **Grade 8** **Town** Wilton

Trisha Prabhu **Grade 8** **Town** Wilton

* PepsiCo Life Sciences Awards --- 2nd Place- Life Sciences MS Team - \$100 each & Plaque
* J.A. Augustine Award --- \$100 for excellence in biology
* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2
* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

New Haven Engineering and Science University Magnet School Roger Rushworth

1005 Flocculants to Mitigate Harmful Algal Blooms (HABS)

Student(s) **Saket Aliminate** **Grade 8** **Town** Milford

Sahithi Aliminate **Grade 7** **Town** Milford

* PepsiCo Life Sciences Awards --- 3rd Place- Life Sciences MS Team - Plaque
* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion

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

Enfield Chiaravalle Academy Timothy Coleman

1003 Comparing Kale Growth In Hydroponics Versus Potting Soil In Winter

Student(s) **Carys Wilson** **Grade 7** **Town** Somers
Delphine Lamattina **Grade 7** **Town** West Hartford

- * PepsiCo Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * EnergizeCT Future Sustainability Awards --- 2nd Place Middle School - \$200 and Plaque
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade - \$300 & Plaque
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Danbury St. Gregory the Great School Mrs, Fahey

1004 Sun vs. Moon

Student(s) **Briella Dunkle** **Grade 8** **Town** Newtown
Nicole Dicello **Grade 8** **Town** Southbury
Sophia DaSilva **Grade 8** **Town** Danbury

- * PepsiCo Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * EnergizeCT Future Sustainability Awards --- 3rd Place Middle School - \$100 and Plaque

Enfield Chiaravalle Academy Tim Coleman

1016 Improving Composting During the Winter Months

Student(s) **Delainey Pappas** **Grade 7** **Town** Enfield
Sabrina Plaz **Grade 7** **Town** Suffield
Madeline Agrafojo **Grade 7** **Town** Suffield

- * PepsiCo Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade - Plaque

Physical Sciences - High School Individual

Greenwich Greenwich High School Andrew Bramante

6082 Biomimetic Removal of Microspheres Water Contaminants, via Calcite-Infused, Coral-like Melamine Sponges

Student(s) **Naomi Park** **Grade 10** **Town** Riverside

- * Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- * Collins Aerospace Engineering Awards --- 2nd Place- Engineering Senior High- \$400 & Plaque
- * 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
- * Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- * National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- * Southeastern New England Marine Educators (SEMEME) --- \$100 award and membership in SEMEME - 1st Place Senior & T-Shirt

New Haven Hopkins School Dr. Phillip Stewart

6054 Real-Time Motion Tracking System and Data Analytics for Live Insects Using Three-Wheeled Servosphere Robot

Student(s) **Nicholas Lee** **Grade 11** **Town** Trumbull

- * Lockheed Martin Physical Sciences Awards --- 2nd Place - Physical Sciences Senior High Individual - \$300 & Plaque
- * Computer Science Awards --- Senior High Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Yale Science & Engineering Association, Inc. --- 1 Certificate, Medallion and 1- \$25 gift card given by CSEF
- * IEEE, Connecticut Section --- \$100 Honorable Mention

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

Greenwich Greenwich High School Andrew Bramante

6042 Controlled Delivery of Sulfoxaflo Pesticide via Cinnamaldehyde-infused Hydrogels to Reduce Toxicity to Honey and Wild Bee Pollinators

Student(s) Elizabeth Wallace **Grade** 11 **Town** Old Greenwich

- * Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Individual - \$200 & Plaque
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- * Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF
- * The Goodwin-Niering Center for the Environment --- \$100 for "Excellence in Environmental Conservation Studies"

Greenwich Greenwich High School Andrew Bramante

6080 Remediation of Fire-Foam PFAs from Contaminated Water Using an Eco-Friendly and Reusable Water Filtration System

Student(s) Adam Kleshchelski **Grade** 11 **Town** Cos Cob

- * Lockheed Martin Physical Sciences Awards --- 4th Place - Physical Sciences Senior High Individual - Plaque
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- * EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- * University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Engineering, or Technology, \$30,000 (\$7,500 per year)

Darien Darien High School David Lewis

6071 Cloud Identification in Mars Daily Global Maps with Deep Learning

Student(s) Sebastian Mengwall **Grade** 12 **Town** Darien

- * Lockheed Martin Physical Sciences Awards --- 5th Place - Physical Sciences Senior High Individual - Plaque
- * Mathematics Awards --- 2nd Place High School - \$300 and Plaque
- * Computer Science Awards --- Senior High Finalist - Medallion
- * Raytheon Corporation Awards --- \$500, Plaque
- * MapleSoft Awards for Applied Mathematics and Modeling --- For excellence in Mathematics and Modeling - Maple Software and T-shirt

Kent Kent School Jesse Klingebiel

6003 Flexibility with Flying: Replicable and Attachable Aerial Robot with Multi-Degree-of-Freedom

Student(s) Siyi Lu **Grade** 11 **Town** Kent

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place - High School \$250 / Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)

Windsor The Loomis Chaffee School Koby Osei-Mensah

6021 NeRF-UAV: Inexpensive 3-D Colored Video Reconstruction Using RGB Camera Equipped Drone Swarms and Neural Radiance Fields

Student(s) Eric Sun **Grade** 11 **Town** Flushing

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Computer Science Awards --- Senior High Finalist - Medallion

Greenwich Greenwich High School Andrew Bramante

6027 Simple Remediation of Heavy Metal and Fertilizer Runoff Water Contaminants via Carbon Nanotube Infused Pinus strobus Xylem Filtration

Student(s) Justin Bernstein **Grade** 9 **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100 and Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- * National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- * John S. Kendall Memorial Awards --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering - High School

[SchTown] [School] [Teacher]
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Stamford King School Victoria Schulman

6028 Electrochromism paired with Finite Difference Time Domain Modeling allows for the Successful Prediction of Color Change Achieved by Electrochromic Reactions

Student(s) Gouri Krishnan **Grade** 11 **Town** Darien

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * MIT Club of Hartford K-12 Initiative
- C/O Leon Kaatz; 111 Oak Street; Hartford, CT 06106 --- For excellence in science & technology of energy related research, high school, \$100 cash award
- * Frank J. Link Family Award for Energy Related Research --- Frank J. Link Award for Energy Related Research - \$50

Woodbridge Amity Regional High School Catherine Piscitelli

6031 Theoretical Modelling and Parameterization of a Novel-Actuator-Based Transtibial Pediatric Prosthetic

Student(s) Aditi Bhattamishra **Grade** 10 **Town** Orange

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- 1st Place High School - \$500 and Plaque, Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * IEEE, Connecticut Section --- \$250 Honors Award -Senior
- * Wisner Chairman's Award --- \$500 cash & Plaque HS
- * Otero Family Award --- The Otero Family Award; \$250 cash

Greenwich Greenwich High School Andrew Bramante

6039 Eco-Friendly Remediation of Polycyclic Aromatic Hydrocarbons in Stormwater via Magnesium-Infused Calcite Crystal, Supramolecular Hydrogel Scaffolding

Student(s) Audrey Lin **Grade** 10 **Town** Riverside

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200 and Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project with \$700 stipend

Bridgeport Bridgeport Aquaculture Center Kirk Shadle

6057 An Inexpensive, Simple and Effective Application of Off the Grid Solar Disinfection For Potable Water

Student(s) Allison Greenberg **Grade** 12 **Town** Fairfield

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion

Woodbridge Amity Regional High School Catherine Piscitelli

6058 The Manufacture and Expanded Function of a Locking Container to Eliminate the Distraction of Phones While Driving

Student(s) Scott Lowder **Grade** 12 **Town** Orange

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

Greenwich Greenwich High School Andrew Bramante

6060 Increasing Elasticity, Durability, and Function of Wearable PANI-Sense pH Health Monitors via a Superhydrophobic, Textile Framework

Student(s) Madeline Minichetti **Grade** 11 **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Engineering, or Technology, \$30,000 (\$7,500 per year)

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

Physical Sciences - High School Teams

Windsor Academy of Aerospace & Engineering Dr. Michelle Bellinger

6502 The Effect Of Altering The Material Composition in Ultra High-Performance Concrete (UHPC) With Regional Materials On Compressive Strength

Student(s) Justin Ho **Grade** 11 **Town** Suffield
Nathan Magold **Grade** 11 **Town** Southington

- * Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Team- \$500 (split) & Plaque
- * ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF

Windsor Academy of Aerospace & Engineering Dr. Michelle Bellinger

6505 Piezoelectric Wind Harvesting Electrical Energy Conversion

Student(s) Dylan Pueschel **Grade** 12 **Town** Hebron
John Watrous **Grade** 12 **Town** Hartford

- * Lockheed Martin Physical Sciences Awards --- 2nd Place - Physical Sciences Senior High Team- \$300(split) & Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 4th Place High School - Plaque, Medallion
- * EnergizeCT Future Sustainability Awards --- 1st Place High School - \$500 and Plaque
- * Raytheon Corporation Awards --- \$500, Plaque
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Future Sustainability with \$700 stipend

Greenwich Sacred Heart Greenwich Joan Fei

6514 Association between Aggressive Behavior and Allele 1820272961:A:C in Purebred and Mixed Breed Canines

Student(s) Gigi Pascal **Grade** 12 **Town** Darien
Sarah Augustine **Grade** 12 **Town** Greenwich
Caroline Nemec **Grade** 12 **Town** Darien

- * Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque

Physical Sciences - Middle School 7th Grade

Cheshire St. Bridget School Michelle. Carroll

5011 Coding an Affordable Goat Identification System for All Farmers

Student(s) Avery Fowler **Grade** 7 **Town** Cheshire

- * Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences 7th Grade Ind. - \$200 & Plaque
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * EnergizeCT Future Sustainability Awards --- Middle School Finalist - Medallion
- * National Center for Inquiry Learning --- Danielle & Maggie Award for Imagination - MS \$100
- * Dreams Unlimited Award --- \$100 Cash Award + Certificate to each student
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Ellington Ellington Middle School Scott Raiola

5007 Wall climbing soft robot

Student(s) Thomas Gerlach **Grade** 7 **Town** Ellington

- * Lockheed Martin Physical Sciences Awards --- 2nd Place - Physical Sciences 7th Grade Ind. - \$100 & Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7,500 per year) to Quinnipiac University for MS Student
- * CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- * Demos R Us Award --- \$150 Cash Award-- Clear Execution of Research- 7th Grade
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

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

Danbury Westside Middle School Academy Jonathan Neuhausel

5009 Impact of prediction methods on the percentage accuracy of a stock forecast.

Student(s) Alejandro Mayorga **Grade 7** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences 7th Grade Ind. - \$100 & Plaque
- * Mathematics Awards --- 2nd Place Middle School - \$200 and Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion
- * Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science

Pawcatuck St. Michael School Anna-Helene Grossomanides

5008 Underground Life

Student(s) Owen Nicholas **Grade 7** **Town** Pawcatuck

- * Lockheed Martin Physical Sciences Awards --- 4th Place - Physical Sciences 7th Grade Ind. - Plaque
- * EnergizeCT Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 and Plaque

Manchester St. James School Ellen Oei

5005 Power to the Puck

Student(s) Jameson Fisher **Grade 7** **Town** EAST HARTFORD

- * Lockheed Martin Physical Sciences Awards --- 5th Place - Physical Sciences 7th Grade Individual - Plaque
- * Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Junior Award: Certificate, & teeshirt & \$25 Amazon Card from CSEF
- * Samantha Freeman Award for Excellence in Sports Science or Engineering --- For Excellence in Sports Science or Engineering by a Middle School student, \$100 cash

Physical Sciences - Middle School 8th Grade

Avon Talcott Mountain Academy Lydia Gibb

5525 Pellet-"O"-Trap: Capturing Plastic Pellets Through a Multi-Filter System & Analyzing Their Progression Using Binary Image Processing

Student(s) Sia Reddy **Grade 8** **Town** Avon

- * Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences 8th Grade Ind. - \$300 & Plaque
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Environmental Sciences Awards with CACIWC --- 2nd Place MS- \$200 and Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Danbury Westside Middle School Academy Jon Neuhausel

5510 The Effects of Ice Mitigation Strategies on Livestock Waterers

Student(s) Sophia Blumenreich **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- 2nd Place - Physical Sciences 8th Grade Ind. - \$200 & Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * J.A. Augustine Award --- \$100 for excellence in physical sciences
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

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

Danbury Westside Middle School Academy Jon Neuhausel

5514 Model System Design For Technology-Assisted Insulin Regulation

Student(s) Sydney Borst **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences 8th Grade Ind. - \$100 & Plaque
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Pfizer Computational Biology and Bioinformatics Awards --- 1st Place Middle School - \$300, Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 2nd Place Middle School - \$200 and Plaque, Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology 8th grade - \$200 & Plaque
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project with \$700 stipend
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Danbury Westside Middle School Academy Jonathan Neuhausel

5505 Design and Testing of an Integrated 360 Degree Pi Camera System for Deep Well Rescue Mission

Student(s) Sandhya Sudarsanam **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- 4th Place - Physical Sciences 8th Grade Ind. - Plaque
- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place - Middle School- \$200 / Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- 4th Place Middle School - Plaque, Medallion
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Computer Science Awards --- 1st Place Middle School - \$300, Plaque
- * Collins Aerospace Engineering Awards --- 2nd Place- Engineering MS- \$200 & Plaque
- * Raytheon Corporation Awards --- \$500, Plaque
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * IEEE, Connecticut Section --- \$250 Honors Award -Junior
- * Jon Chapis Memorial Award --- John Chapis Spirit of Innovation Award - MS \$100
- * Zepke Awards --- \$100 - For the Best Use of Electronic Circuitry- Middle School
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Bridgeport Park City Prep Charter School Mr. Jaekle

5522 The Connection of Coronal Mass Ejections and Sunspots

Student(s) Marcus Rosario **Grade 8** **Town** Bridgeport

- * Lockheed Martin Physical Sciences Awards --- 5th Place - Physical Sciences 8th Grade Ind. - Plaque
- * Mathematics Awards --- 3rd Place Middle School - \$100 and Plaque

Trumbull Christian Heritage School Mr Daniel Cote

5508 The Luboni

Student(s) Lucille Presbrey **Grade 8** **Town** Ridgefield

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * EnergizeCT Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 and Plaque
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * Robotics And Beyond --- Middle School- For excellence in engineering design; \$200 toward Robotics And Beyond STEM and Design summer camp, \$50 cash if cannot attend camp. Certificate.

[SchTown] [School] [Teacher]
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Cheshire Dodd Middle School Clare Gonzalez

5509 A Domestic Violence Alerting Device Comprised of an Analog Sound Level Meter OLED Display and iOS Mobile App built using Swift

Student(s) **Suchita Srinivasan** **Grade 8** **Town** Cheshire

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place - Middle Schools- \$100 / Plaque
- * Collins Aerospace Engineering Awards --- 1st Place- Engineering Middle School- \$400 & Plaque
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Connecticut Academy of Audiology --- \$200 Award MS- For Excellence in Audiology and Acoustics, oport. to shadow an audiologist
- * Robert Francoeur Memorial Award --- Creative or innovative project in engineering or computer science by female students - \$100
- * Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School Student
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Physical Sciences - Middle School Teams

Wilton Middlebrook School Kendra Norman

4003 School Bus Approach Alert System

Student(s) **Leonardo Kulon** **Grade 7** **Town** Wilton

Sanaka Dash **Grade 7** **Town** Wilton

- * Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences MS Team- \$100 each & Plaque
- * Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- * Raytheon Corporation Awards --- \$500, Plaque
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Enfield Chiaravalle Academy Timothy Coleman

4014 Can You Separate Solids and Liquids Going Down Your Sink

Student(s) **Caleb Quinby** **Grade 7** **Town** Windsor

Holt Serrano **Grade 7** **Town** Somers

- * Lockheed Martin Physical Sciences Awards --- 2nd Place - Physical Sciences MS Team- \$100 each & Plaque
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CSF Medallion
- * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

Danbury Westside Middle School Academy Jon Neuhausel

4013 Benefit of Granular and Mesh Filters on Concentrations of Microplastics in Water

Student(s) **Krrish Brahmshatriya** **Grade 8** **Town** Danbury

Benjamin Miller **Grade 8** **Town** Danbury

Alexander Herzegovitch **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences MS Team - Plaque
- * CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CSF Medallion
- * Alexion Biotechnology Awards --- 5th Place- Biotechnology 8th grade - Plaque
- * John S. Kendall Memorial Awards --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Middle School

Shelton Shelton Intermediate School Erica Napoli

4007 Sheets that Dry, Which one is Fly?

Student(s) **Sailor Martin** **Grade 8** **Town** Shelton

Quinn Wherley **Grade 8** **Town** Shelton CT

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion

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

Wilton Middlebrook School Deborah Mallozzi

4009 Illusion v. Reality

Student(s)	Arista Sullivan	Grade 8	Town Wilton
	Meredith Sullivan	Grade 8	Town Wilton

* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion

Enfield Chiaravalle Academy Timothy Coleman

4010 Determining the Most Efficient and Effective Method of Filtration for the Purpose of Creating Potable Water

Student(s)	Rhys Wilson	Grade 8	Town Somers
	Oliver Kolb	Grade 8	Town Longmeadow
	Jacek Cieslak	Grade 8	Town Monson

* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion

* Environmental Sciences Awards with CACIWC --- MS Finalist - CSF Medallion

* Alexion Biotechnology Awards --- 3rd Place- Biotechnology 8th grade - \$100 & Plaque