



Conn. Science & Engineering Fair

Quinnipiac University

March 11 - 16, 2019

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

3007

Control of Varroa Destructor Infestation with a Dual-function, Thymol-Emitting Honey Bee Hive

Student(s) Raina Jain **Grade** 11 **Town** Riverside

- * The Jackson Laboratory Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500, Plaque, CACIWC gifts
- * 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 in partnership with CCAT --- Life Sciences Senior 1st HS- \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- * Fuss & O'Neill, Inc. --- \$200 Award for Excellence in Alternative/Renewable Energy
- * University of Hartford --- University of Hartford Scholarship- For Excellence in Engineering, Science or Mathematics \$26,000
- * TurnKey Compliance Solutions Environmental Awards --- \$300 Cash Award High School- For excellence in environmental sciences
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Environmental Science
- * University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - \$6,500 a year for four academic years- (\$26,000 total)
- * Lunch with a Patent Attorney --- Lunch with a Patent Attorney

Greens Farms Greens Farms Academy Mathieu Freeman

3104

The Effects of Mobile Phone Induced Radiation on Honeybee Behavior

Student(s) Quinn Mullineaux **Grade** 12 **Town** Fairfield

- * The Jackson Laboratory Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque
- * Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
- * Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash
- * Peer-to-Peer Awards --- High School Life Sciences - \$300 Amazon Gift Card

New Haven Hopkins School Philip Stewart

3107

Finding a therapy for Wolfram Syndrome: Exploring a calcium signaling pathway as a target for a disease without a cure.

Student(s) Saira Munshani **Grade** 11 **Town** Easton

- * The Jackson Laboratory Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- * Society for In Vitro Biology --- Certificate and \$25 Amazon gift card given by CSEF

Redding Joel Barlow High School Paul Testa

3061

The effect of Deuterium oxide (D2O) on the viability of Coliphage bacteriophages under Low temperatures as a model for stability in live attenuated viral vaccines

Student(s) Annika Morgan **Grade** 12 **Town** Redding

- * The Jackson Laboratory Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Life Sciences
- * Peer-to-Peer Awards --- High School Life Sciences - \$300 Amazon Gift Card

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

Redding Joel Barlow High School Paul Testa

3077 Detrimental Ecological Impacts on Eruca Vesicaria Sativa

Student(s) **Olivia Fassman** **Grade** 11 **Town** Redding

* The Jackson Laboratory Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque

New Haven Wilbur Cross High School Brendan Hare

3020 Association of Music Perception and Memory

Student(s) **Alexandra Northrup** **Grade** 10 **Town** New Haven

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion

* CASE • PepsiCo Urban School Challenge Awards with IBM --- Senior High Finalist - Medallion

* American Psychological Association --- Certificate, \$25 gift card given by CSEF

New London Science and Technology Magnet High School Charles Mulligan

3021 The Efficiency Of Copper Removal Using Phytoremediation Techniques

Student(s) **Skyler Hatter** **Grade** 10 **Town** GROTON

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion

* Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

* Future Sustainability Awards --- High School Finalist - Medallion

* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate

Greenwich Greenwich High School Andrew Bramante

3030 Rapid, Smartphone-Based Diagnosis of Skin Melanoma through Differences in Tumor Cell Thermal Regulation Combined with Diffuse Spectroscopic Analysis

Student(s) **Melissa Woo** **Grade** 11 **Town** Riverside

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion

* Collins Aerospace Engineering Awards --- 2nd Place- Engineering Senior High- \$400 & plaque

* Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- \$1000 & plaque,

* Lunch with a Patent Attorney --- Lunch with a Patent Attorney

New Haven Wilbur Cross High School Nick Farrell

3052 Developing a Functional Tracheal Replacement Graft: Studying the Effects of Graft Stiffness on Host Response

Student(s) **Sophie Edelstein** **Grade** 12 **Town** New Haven

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion

* CASE • PepsiCo Urban School Challenge Awards with IBM --- 2nd Place High School - \$400 and Plaque, Medallion

* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion

* Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- \$100 & plaque

* Otero Family Award --- The Otero Family Award; \$200 cash

* University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Biochemistry

* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2019 Invention Convention, May 4

Greenwich Greenwich High School Andrew Bramante

3053 A Rapid, Solar-Powered, Portable Breast Cancer Diagnosis via Salivary CA15-3 Detection.

Student(s) **Halla Clausi** **Grade** 10 **Town** Cos Cob

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion

* Future Sustainability Awards --- High School Finalist - Medallion

* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion

* Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- \$200 & plaque

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

New London Science and Technology Magnet High School Isabella Moniz

3070 The Correlation Between Nitrogenous Species and the Aboveground and Belowground Biomass of *Spartina alterniflora* (common cordgrass) in a restored Salt Marsh, Barn Island, CT

Student(s) Sara Bouchard **Grade** 11 **Town** Waterford

- * The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 5th Place High School - Plaque, Medallion
- * Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque, CACIWC gifts
- * Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash
- * Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
- * Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Senior
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 2nd Place HS Environmental Project
- * NYUC Pony Club Equine Award --- \$100 Cash Award or excellence in equine studies
- * Fox Pest Control Award for Environmental Management --- \$150 Cash for Excellence in Environmental Management

Greenwich Greenwich High School Andrew Bramante

3106 Rapid, Low-cost, Paper-based Immunosensor for Early Detection of Dengue Virus via Salivary Dengue NS1 Antigen

Student(s) Matthew Jester **Grade** 11 **Town** Greenwich

- * The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High- \$500 & plaque
- * Society for In Vitro Biology --- Certificate and \$25 Amazon gift card given by CSEF

Life Sciences - High School Teams

Greenwich Brunswick School Dana Montanez

3502 Identifying Segmented Nuclei to Advance Medical Research Using Convolutional Neural Networks

Student(s) Ali Hindy **Grade** 10 **Town** Greenwich
Thomas Fouts **Grade** 10 **Town** Rye

- * The Jackson Laboratory Life Sciences Awards --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque

Greenwich Brunswick School Dana Montanez

3521 Extracting, Cloning, and Targeting the Glyceraldehyde 3-Phosphate Dehydrogenase Gene in Invasive Plant Species

Student(s) Logan Darrin **Grade** 11 **Town** Greenwich
David Swigart **Grade** 11 **Town** Greenwich

- * The Jackson Laboratory Life Sciences Awards --- 2nd Place- Life Sciences Senior High Team- \$300 (split) & Plaque
- * Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash

Greenwich Brunswick School Dana Montanez

3505 Developing an Organic Buffer System to Negate Oceanic Algal Blooms and Acidification

Student(s) Colin Mulshine **Grade** 10 **Town** Riverside
Brooks Ferguson **Grade** 10 **Town** Greenwich

- * The Jackson Laboratory Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

Bridgeport Fairchild Wheeler Interdistrict Magnet Mrs. Pearson

3503 Queenswap: an experiment to change the subspecies of an *Apis Mellifera* queen and her colony to a more northeastern acclimated subspecies.

Student(s) Victoria LaGuardia **Grade** 12 **Town** Monroe
Lauren Wokanovicz **Grade** 12 **Town** Shelton

- * The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

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

Norwich Norwich Technical High School Ms. Pelloni

3507 Generation of probiotic strains with increased lactose degradation capabilities for lactose-free yogurt production

Student(s) **Jace Goodrow** **Grade** 11 **Town** Lisbon
Michel Hernandez **Grade** 11 **Town** Norwich
Hailey Bill **Grade** 12 **Town** Baltic

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion
 * Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to Awards Night Dinner with guest

Norwich Norwich Technical High School Aleatha Pelloni

3518 Effects of Metformin on the Regeneration in Planarians

Student(s) **Leslie Garcia** **Grade** 11 **Town** Taftville
Angela Datilus **Grade** 11 **Town** Norwich

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

Norwich Norwich Technical High School Aleatha Pelloni

3522 The Effect of Biochar on Microbial Growth and Plant Growth

Student(s) **Jared Michaud** **Grade** 11 **Town** Norwich
Douglas Rediger **Grade** 12 **Town** Hanover
Joshua McConnell **Grade** 12 **Town** Baltic

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

Life Sciences - Middle School 7th Grade

Danbury Westside Middle School Academy Jonathan Neuhausel

2020 Design, testing, and optimization of Kombucha scoby-based biofilms.

Student(s) **Gabriella Brown** **Grade** 7 **Town** Danbury

* The Jackson Laboratory Life Sciences Awards --- 1st Place- Life Sciences 7th grade- \$200 & trophy and Invitation to Compete Broadcom MASTERS
 * CASE • PepsiCo Urban School Challenge Awards with IBM --- Middle School Finalist - Medallion
 * Peer-to-Peer Awards --- 7th Grade Life Sciences - \$300 Amazon Gift Card

Bethel St. Mary School Kate McDonald

2016 Does Boiling Vegetables Affect Vitamin C Content?

Student(s) **Jenna Saidman** **Grade** 7 **Town** Bethel

* The Jackson Laboratory Life Sciences Awards --- 2nd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS

Hamden Hamden Hall Country Day School Dr. Gasparro

2019 Does Dog Saliva Kill Germs & What Else Might?

Student(s) **Lorraine Hillgen-Santa** **Grade** 7 **Town** Stratford

* The Jackson Laboratory Life Sciences Awards --- 3rd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
 * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place- Middle School- \$200 / trophy
 * Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade- trophy
 * Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School Life Sciences

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

Danbury Westside Middle School Academy Jonathan Neuhausel

2024 Molecular Health Indices of the Kalmia Latifolia

Student(s) Maria Eduarda Sousa Lopes **Grade 7** **Town** Danbury

- * The Jackson Laboratory Life Sciences Awards --- 4th Place- Life Sciences 7th grade- trophy and Invitation Compete in Broadcom MASTERS
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- * Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science
- * Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash

Pawcatuck St. Michael School Anna-Helene Grossomanides

2007 The Articulated Hand

Student(s) Lauren Vossler **Grade 7** **Town** Pawcatuck

- * The Jackson Laboratory Life Sciences Awards --- 5rd Place- Life Sciences 7th grade- trophy
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Bridgeport Park City Prep Charter School Vicky Boudreau

2011 The Balance of Nature

Student(s) Eva Holleran **Grade 7** **Town** Bridgeport

- * The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion

West Hartford St. Brigid-St. Augustine Partnership School Mr. Donald Fay

2014 Plants on the Move

Student(s) Kaylana Caguilla **Grade 7** **Town** West Hartford

- * The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion

Life Sciences - Middle School 8th Grade

Danbury St. Gregory the Great School Mrs. Fahey

2518 ONE MAN'S TRASH IS ANOTHER MAN'S ENERGY

Student(s) Thomas Fanelli **Grade 8** **Town** Danbury

- * The Jackson Laboratory Life Sciences Awards --- 1st Place- Life Sciences 8th grade- \$300 & trophy and Invite to Compete Broadcom MASTERS
- * Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology 8th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- * Sister Mary Christine Life Sciences Award --- \$100 for excellence in the life sciences by a catholic middle school project
- * Frank J. Link Family Award for Energy Related Research --- Frank J. Link Award for Energy Related Research - \$50

Avon Talcott Mountain Academy Brigette Zacharczenko

2520 Defensive Behavior of Tobacco Hornworm Caterpillars

Student(s) Tyler Andrews **Grade 8** **Town** Torrington

- * The Jackson Laboratory Life Sciences Awards --- 2nd Place- Life Sciences 8th grade- \$200 & trophy and Invite to Compete Broadcom MASTERS
- * J.A. Augustine Award --- \$100 for excellence in biology
- * Henderson Award --- Certificate and \$25 Amazon Gift Card given by CSF

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

Brookfield Saint Joseph Catholic Academy Mrs. Dimon

2524 The Effect of Various Combinations of Materials as Biosand Filters on the Filtration of Fresh Water

Student(s) Shaun McKenna **Grade 8** **Town** Brookfield

* The Jackson Laboratory Life Sciences Awards --- 3rd Place- Life Sciences 8th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS

Bozrah Fields Memorial School Mrs. Evelyn Brown

2508 A Gravimetric and Microscopic Analysis of the Decomposition Rates of Leaves from Different Species of Trees in Varied Climates.

Student(s) Norah Tracy **Grade 8** **Town** Gilman

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
* Environmental Sciences Awards with CACIWC --- 2nd Place MS- \$200, Trophy, CACIWC gifts
* Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum

Westport Bedford Middle School NA

2511 Analysis of SNPs' association with early onset of Alzheimer's disease

Student(s) Aalok Bhattacharya **Grade 8** **Town** Westport

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Trumbull Christian Heritage School Daniel Cote

2529 Use of Bioluminescent Dinoflagellates to Detect Water Contaminants

Student(s) Samuel Tsao **Grade 8** **Town** OLD GREENWICH

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
* Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
* NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
* TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award Middle School- For excellence in environmental sciences

Bridgeport Park City Prep Charter School Jonathan Jaekle

2531 Improving Fuel Economy

Student(s) David Boudreau Jr **Grade 8** **Town** Ansonia

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
* CASE • PepsiCo Urban School Challenge Awards with IBM --- 2nd Place Middle School - \$200 and Trophy, Medallion
* Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion

New Haven Betsy Ross Arts Magnet School Roisin Macdonald

2532 From Clean to Clean

Student(s) Matilda Pethrick **Grade 8** **Town** Stratford

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
* U.S. Metric Association --- Certificate & \$25 Amazon gift card given by CSEF
* Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum

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

Life Sciences - Middle School Teams

Greenwich Greenwich Catholic School Carol Ann Lutz

1023 Breathe Better

Student(s)	William Carragher	Grade 7	Town Stamford
	Joseph Pizzurro	Grade 7	Town Stamford
	Ryan McIntire	Grade 7	Town Darien

* The Jackson Laboratory Life Sciences Awards --- 1st Place- Life Sciences MS Team- \$100 each & trophy and Invite to Compete Broadcom MASTERS

* Future Sustainability Awards --- Middle School Finalist - Medallion

* Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS

Greenwich Greenwich Catholic School Carol Lutz

1018 Factor Fiction

Student(s)	Carmelia Zuniga	Grade 8	Town Stamford
	Emily Cook	Grade 8	Town Stamford
	Catherine May	Grade 8	Town Stamford

* The Jackson Laboratory Life Sciences Awards --- 2nd Place- Life Sciences MS Team- \$100 each & trophy and Invite to Compete Broadcom MASTERS

Danbury St. Gregory the Great School Christine Fahey

1006 Fire For Farming

Student(s)	Joseph Halas	Grade 7	Town Danbury
	Patrick Heslin	Grade 7	Town New Milford
	Ryan Devin	Grade 7	Town Brookfield

* The Jackson Laboratory Life Sciences Awards --- 3rd Place- Life Sciences MS Team- trophy and Invite to Compete Broadcom MASTERS

* Future Sustainability Awards --- Middle School Finalist - Medallion

Stamford Bi-Cultural Hebrew School Christopher Grasek

1001 Drought Tolerance of Herbs

Student(s)	Charlotte Moreen	Grade 7	Town Stamford
	Jason Kwalwasser	Grade 7	Town Stamford

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

Manchester Saint James School Mary J. Plante

1002 I'm Dyeing to Find Out

Student(s)	Marion Patsalides	Grade 7	Town Manchester
	Shreya Senthil	Grade 7	Town South Windsor

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

* Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion

Meriden ACES-Thomas Edison STEM Middle School Anker

1003 Natural Sugar Banana Count

Student(s)	Alyssa Tack	Grade 8	Town meriden
	Giuliana Mazzarelli	Grade 8	Town Waterbury

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

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

Meriden ACES-Thomas Edison STEM Middle School Caitlin Lombardi

1021 Does Water Temperature Affect Plant Growth

Student(s) **Karry Guo** **Grade 7** **Town** Middletown
Alyssa Arce **Grade 7** **Town** Meriden

* The Jackson Laboratory Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

Physical Sciences - High School Individual

Greenwich Greenwich High School Andrew Bramante

6047 A Green Nanotechnological Approach for Energy Efficiency and Conservation: Tungsten-doped Vanadium Dioxide Thermo-chromic Smart Windows

Student(s) **Cynthia Chen** **Grade 11** **Town** Riverside

- * Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque
- * Future Sustainability Awards --- 2nd Place High School - \$300 Cash and Plaque
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering in partnership with CCAT --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg

Redding CT STEM Fair - Greenwich High School Andrew Bramante

6090 Al(III)-Mediated Ionic Conduction in New Abundant Metakaolin Solid Electrolyte for Safe, Efficient Power Grid Na-Ion Batteries

Student(s) **Alexander Kosyakov** **Grade 12** **Town** Riverside

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque
- * Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report

Glastonbury Glastonbury High School Ms. Diane Pintavalle

6091 SELECTIVE OXIDATION OF BENZYL ALCOHOL TO BENZALDEHYDE USING A VANADIUM DOPED CERIA MESOPOROUS CATALYST

Student(s) **Ananya Aggarwal** **Grade 11** **Town** South Glastonbury

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Chemistry

Greenwich Greenwich High School Andrew Bramante

6036 Portable, Simple Filtration of (Modeled) V. cholerae Infected Water using Electrified, Silver-SWCNT Nanostructures within a Sari-Cloth Textile

Student(s) **Shun Sakai** **Grade 11** **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque
- * Future Sustainability Awards --- High School Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

Redding CT STEM Fair - Greenwich High School Andrew Bramante

6024 Open-source, In-field Android and iOS Detection and Mapping of Waterborne Diseases via Time-Based Spectroscopic Sensing and RGB Luminance with a New 3D Printable Optical Interface

Student(s) **Nicholas Liu** **Grade 12** **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences Senior High Individual - Plaque
- * Applied Technology Awards --- Senior High Finalist - Medallion
- * Computer Science Awards --- Senior High Finalist - Medallion

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

Bridgeport Bridgeport Regional Aquaculture Center Mr. Shadle

6001 Enhancing Dye Sensitized Solar Cell Efficiency Through the Application of a Silica Structure Microfilm Layer

Student(s) Camryn Mazerolle **Grade** 12 **Town** Shelton

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 2nd Place HS Alternative/Renewable Energy Project
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Energy & Transportation

Greens Farms Greens Farms Academy Mathieu Freeman

6013 The effect of growth temperature and annealing on the degradation rate of AZ31 magnesium alloy for biomedical engineering applications

Student(s) Eva (Yihua) Zhang **Grade** 12 **Town** Fairfield

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

Kent Kent School Ben Nadire

6048 Intuitive Control Algorithm Development of 4WIS/4WID Using A SpaceMouse

Student(s) Taewook Kim **Grade** 11 **Town** Kent

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Computer Science Awards --- Senior High Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * IEEE, Connecticut Section --- \$250 Honors Award -Senior
- * Robotics And Beyond --- MS- For Excellence in Engineering Design- \$200 for Robotics And Beyond STEM Design Academy in July
- * Barker Mohandas Awards for Transportation Research --- \$200 Cash & Plaque for Excellence in Transportation Related Research- High School

Windsor Academy of Aerospace and Engineering Dr. Bellinger

6058 The Effect of Design Parameters and Operating Conditions on Optimal Energy Conversion and Force Generation in a Magneto hydrodynamic Drive

Student(s) Vishakh Talanki **Grade** 12 **Town** South Windsor

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- Senior High Finalist - Medallion
- * Applied Technology Awards --- Senior High Finalist - Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR

Woodbridge Amity Regional High School Catherine Piscitelli

6064 Designing and Testing an Aid for the Visually Impaired

Student(s) Shyam Viswanathan **Grade** 10 **Town** Woodbridge

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Applied Technology Awards --- Senior High Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Electrical

Wallingford Choate Rosemary Hall Betty Wang

6073 Enhanced Photocatalytic Activity of Carbon Dots Grafted TiO2 Nanorods

Student(s) Shimin Cai **Grade** 11 **Town** wellesley

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Future Sustainability Awards --- High School Finalist - Medallion

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

Greenwich Greenwich High School Andrew Bramante

6089 Single-Use, Insulative Tableware Made from Cornstarch and a Hydrophobic Edible Thin Film, as a Biodegradable Replacement for Styrofoam

Student(s) Tyler Fox **Grade** 11 **Town** Cos Cob

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * Applied Technology Awards --- Senior High Finalist - Medallion
- * Future Sustainability Awards --- High School Finalist - Medallion
- * Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash
- * Connecticut Science Supervisors Association --- \$125 for a high school project
- * Robotics And Beyond --- HS- For Excellence in Material Science- \$200 for Robotics And Beyond STEM Design Camp or Academy

Windsor Academy of Aerospace and Engineering Dr. Bellinger

6092 The Effect of Piezoelectric Cantilever Beam Design and Spatial Positioning in a Network on the Efficiency and Maximum Energy Output of a Vibro Wind Unit.

Student(s) Jean Pasato **Grade** 12 **Town** Middletown

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Applied Technology Awards --- Senior High Finalist - Medallion
- * Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- * Constellation, an Exelon Company --- 1st: \$150.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy
- * Robotics And Beyond --- HS- For Excellence in Physics- \$200 for Robotics And Beyond STEM Design Camp or Academy

Danbury Immaculate High School Bernice Papia

6097 Unprecedented Biofuel Formation by isomerization and Cross Metathesis of Sunflower Oil

Student(s) Elias Haddad **Grade** 10 **Town** Danbury

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

Physical Sciences - High School Teams

Westport Staples High School Karen Thompson

6510 Optimization of High-Efficiency Organic-Inorganic Lead Halide Perovskite Solar Cells via a Novel Polycaprolactone Additive Pathway

Student(s) Sirina Prasad **Grade** 12 **Town** Westport

Anisa Prasad **Grade** 12 **Town** Westport

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- * Alternative/Renewable Energy Awards --- 1st Place High School - \$500 Cash and Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * U.S. Metric Association --- Certificate & \$25 Amazon gift card given by CSEF
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, middle school, \$100 cash award

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

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6530 Optimizing Archimedian screw geometry to increase the energy conversion efficiency of a micro hydropower plant.

Student(s) **Devesh Kakkar** **Grade 11** **Town** South Windsor
Johnathan Bell **Grade 11** **Town** Glastonbury

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Team- \$300(split) & Plaque
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 4th Place High School - Plaque, Medallion
- * Collins Aerospace Engineering Awards --- 3rd Place- Engineering Senior High- \$200 & plaque
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * Connecticut Association of Physics Teachers --- \$100 Senior project
- * Environmental / Energy Award- New Haven Public School Award --- \$100 Award for top environmental or alternative energy project from a New Haven public school
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Mechanical

Windsor Academy of Aerospace and Engineering Dr. Bellinger

6511 The Effect of Hydrofoil Design Parameters on Dynamic Behavior and Energy Extraction Efficiency of an Oscillating Hydrofoil Power Generation Unit

Student(s) **Christopher Rinaldi** **Grade 12** **Town** Enfield
Abhiram Tirumala **Grade 12** **Town** South Windsor

- * Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque
- * Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6521 Development of In-situ Fabrication Methods of Martian Construction Material

Student(s) **Cristian Rodriguez** **Grade 12** **Town** East Hartford
Srikar Godilla **Grade 12** **Town** Newington

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 1st Place High School - \$500 and Plaque, Medallion
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering in partnership with CCAT --- \$500 to 1st HS Urban School Challenge Science Department for Equipment/Supplies
- * Arthur Mensing Award --- \$1000 cash award for Excellence in the Physical Sciences

Physical Sciences - Middle School 7th Grade

Stamford Scofield Magnet Middle School Louise McMinn

5022 Water Quality of the Rippowam River

Student(s) **Aryan Pandalai** **Grade 7** **Town** Stamford

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences 7th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- * Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF

Newtown St. Rose of Lima School Mrs. Valerie Petrillo

5029 How Does the Shape of an Airplane Affect Its Speed and Lift?

Student(s) **Rohan Carey** **Grade 7** **Town** Sandy Hook

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate

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

Danbury Westside Middle School Academy J. Neuhausel

5027 DIY WiFi Booster

Student(s) Chase Tomaino **Grade 7** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 3rd Place Middle School - \$100 and Trophy, Medallion
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate
- * Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp

Bozrah Fields Memorial School Evelyn Brown

5025 Recovering Energy From an A/C Unit Condenser Exhaust Fan

Student(s) Elle Okoney **Grade 7** **Town** Bozrah

- * Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences 7th Grade Ind. - trophy and Invitation Compete in Broadcom MASTERS
- * Applied Technology Awards --- Middle School Finalist - Medallion
- * Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 Cash and Trophy
- * Future Sustainability Awards --- 1st Place Middle School - \$300 Cash and Trophy
- * Collins Aerospace Engineering Awards --- 1st Place- Engineering Middle School- \$400 & trophy and Invitation Compete in Broadcom MASTERS
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate
- * National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- * The Children's Museum --- 1 family 4-Pack of Admission Passes to the Children's Museum
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Air and Waste Management Association, Connecticut Chapter --- \$100 Junior, Environmental Research, waste recycling related

Bridgeport High Horizons Magnet School Mrs Scott-Thiam

5014 Hydraulic Arm

Student(s) Deandre Jenkins **Grade 7** **Town** BRIDGEPORT

- * Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences 7th Grade Individual - trophy

Greens Farms Greens Farms Academy Ms. Modupe Oshin

5003 Mobility Assistance Device for the Visually Impaired

Student(s) Chad Ruggiero **Grade 7** **Town** Greenwich, CT

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade- \$100 & trophy and Invitation Compete in Broadcom MASTERS
- * Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash

Danbury Westside Middle School Academy Mr. Neuhausel

5005 Good Up High, Bad Near By

Student(s) Annabella Jardim **Grade 7** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF

Pawcatuck St. Michael School Anna-Helene Grossomanides

5006 LEGO MINDSTORMS EV3 - Can Accuracy Be Improved?

Student(s) Matthew Drago **Grade 7** **Town** Pawcatuck

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Applied Technology Awards --- Middle School Finalist - Medallion
- * Computer Science Awards --- Middle School Finalist - Medallion

[SchTown] [School] [Teacher]
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Physical Sciences - Middle School 8th Grade

Wilton Middlebrook Middle School Mrs. Garcia

5502 Alternative Household Method to Extinguish Fires

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

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences 8th Grade Ind.- \$300 & trophy, invite to compete Broadcom MASTERS
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology 8th grade- \$500 & trophy and Invitation Compete in Broadcom MASTERS
- * American Society of Safety Professionals, CT Valley Chapter --- \$100 grade 7-8 project
- * Jon Stone Memorial Award --- \$100 cash for Innovative Engineering

New Haven Worthington Hooker Middle School Mr. Jones

5540 Saving The Ocean: 700,000 Microplastics at a Time

Student(s) Athena Brown **Grade 8** **Town** New Haven

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 5th Place Middle School - Trophy, Medallion
- * Applied Technology Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
- * Society of Women Engineers - Hartford Section --- Scientific Calculator

Groton Sacred Heart School Dr. Juan Pacheco

5523 Building a Better Hearing Aid Using Noise Cancellation

Student(s) Payton Noe **Grade 8** **Town** East Lyme

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & trophy, invite to compete Broadcom MASTERS
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Applied Technology Awards --- 1st Place Middle School - \$300 and Trophy, Medallion
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology 8th grade- trophy and Invitation Compete in Broadcom MASTERS
- * American Society of Safety Professionals, CT Valley Chapter --- \$100 grade 7-8 project
- * IEEE, Connecticut Section --- \$250 Honors Award -Junior
- * Connecticut Academy of Audiology --- \$200 Award HS- For Excellence in Audiology and Acoustics, opport. to shadow an audiologist
- * Broadcom MASTERS --- The Lemelson Early Inventor Prize
- * Zepke Awards --- \$100 - For the Best Use of Electronic Circuitry- Middle School

Greenwich Greenwich Country Day School Sam Rosenfeld

5553 Tracking Plastic Bottles on Blockchain - Better Environmental Policies and Accountability through Economic and Accurate, Real-Time Management

Student(s) C. Brooks Harris **Grade 8** **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy and Invitation Compete in Broadcom MASTERS
- * People's United Bank Mathematics Awards - with ATOMIC --- 1st Place Middle School- \$150 from ATOMIC, and Trophy, \$300 from People's United Bank
- * Computer Science Awards --- 1st Place Middle School - \$300, Trophy and Medallion
- * Society of Women Engineers - Hartford Section --- Scientific Calculator

Cheshire Dodd Middle School Manish Bhardwaj

5531 Vision Assist 2.0

Student(s) Siddhant Bhardwaj **Grade 8** **Town** Cheshire

- * Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences 8th Grade Ind. - trophy
- * Applied Technology Awards --- Middle School Finalist - Medallion
- * Computer Science Awards --- 3rd Place Middle School- \$100, Trophy, Medallion

[SchTown] [School] [Teacher]
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Danbury Westside Middle School Academy Jonathan Neuhausel

5509 The Study of Effectiveness of Different Separation Methods in Removing Suspended Microplastics from Water

Student(s) **Srishti Ramakrishnan** **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- 1st Place- Middle School \$300 / trophy
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 1st Place Middle School - \$300 and Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- 3rd Place MS- \$100, Trophy, CACIWC gifts
- * 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
- * National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEFF
- * Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science
- * Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, waste recycling related
- * Urban School Challenge 1st Place Middle School Awards --- Highest Placing 8th grader- GENIUS-Olympiad Competition -\$500 travel stipend (See Sponsor 421)
- * GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project

Wilton Middlebrook Middle School Mrs. Mallozzi

5510 Fighting Wildfires with Data from Satellite Remote Sensors.

Student(s) **Gayathri Kaimal** **Grade 8** **Town** Wilton

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- * Connecticut Science Supervisors Association --- \$125 for a middle school project

Danbury St. Gregory the Great School Christine Fahey

5517 Testing Different Nano-Particle Inks as Electrodes in a Sunlight-Seeking. Printed, Bio-Photovoltaic System

Student(s) **Maximilien Coisman** **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Computer Science Awards --- Middle School Finalist - Medallion
- * Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 Cash and Trophy
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- * MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, high school, \$100 cash award

Bozrah Fields Memorial School Mrs. E Brown

5526 Piezo Energy Collection from Quake Vibrations

Student(s) **Alanna Brady** **Grade 8** **Town** Bozrah

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Collins Aerospace Engineering Awards --- 3rd Place- Engineering MS \$100 & trophy and Invitation Compete in Broadcom MASTERS
- * POWER Engineers --- \$200 for " Excellence in Electrical Engineering- emphasis on Power Electronics" - Middle School

Danbury Saint Joseph School Jennifer Reilly

5539 Recycled Plastics As Insulation For Energy Efficient Homes

Student(s) **Georen Chirayil** **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Demos R Us Award --- \$150 Cash Award- Clear Execution of Research- 8th Grade

[SchTown] [School] [Teacher]
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Physical Sciences - Middle School Teams

Bethany Amity Middle School - Bethany Kevin Berean

4025 Artificial Pancreas to Regulate Blood Sugar Levels

Student(s) **Anchal Bahel** **Grade 8** **Town** Woodbridge
Nina Carmeli **Grade 8** **Town** Woodbridge

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * ISA - International Society for Automation - Ct. Valley Section --- 1st - \$125 award

Windsor Academy of Aerospace and Engineering - MS Dr. Bellinger

4028 Do Contaminants Effect the Strength of Concrete at Construction Sites?

Student(s) **Justin Ho** **Grade 8** **Town** Suffield
Nicholas Sattan **Grade 8** **Town** Suffield

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- Middle School Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology 8th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS
- * ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF
- * Garg Consulting Services Award for Excellence in Construction Engineering --- \$250 cash and plaque

Bethany Amity Middle School - Bethany Kevin Berean

4005 Multifunctional Temperature Sensor

Student(s) **Annie Liu** **Grade 8** **Town** Woodbridge
Melinda Lu **Grade 8** **Town** Woodbridge

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences MS Team- trophy, invite to compete Broadcom MASTERS
- * Applied Technology Awards --- Middle School Finalist - Medallion
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * Dreams Unlimited Award --- \$100 Cash Award + Certificate

Fairfield St. Thomas Aquinas Catholic School Philip Flynn

4007 Wind Energy

Student(s) **Andrew Cimmino** **Grade 8** **Town** FAIRFIELD
Joshua Dixon **Grade 8** **Town** Bridgeport

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- * Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion
- * Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF
- * J.A. Augustine Award --- \$100 for excellence in physical sciences

Windsor Madina Academy Mr. Coleman

4008 An innovative way to remove oil from water.

Student(s) **Amer Kabatilo** **Grade 8** **Town** Windsor
Zain Kabatilo **Grade 8** **Town** Windsor

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion

[SchTown] [School] [Teacher]
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Bethany Amity Middle School - Bethany Kevin Berean

4009 Coral Explorer

Student(s) **Zoe Fleischman** **Grade 8** **Town** Woodbridge
Aadya Wijesekera **Grade 8** **Town** Bethany

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- * ISA - International Society for Automation - Ct. Valley Section --- 2nd - \$75 award
- * Spirit of Invention Award --- \$100 Cash and Plaque for Inventive Concepts

Windsor Academy of Aerospace and Engineering - MS Dr. Bellinger

4012 What is the Effect of the Frequency of "Oobleck" on its Flow?

Student(s) **Cody Chivinski** **Grade 8** **Town** Torrington
Ronak Ramesh **Grade 7** **Town** Middletown

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion

Manchester Saint James School Mary J. Plante

4022 THE BERNOULLI EFFECT

Student(s) **Carson Herr** **Grade 7** **Town** South Windsor
Andrew Burnham **Grade 7** **Town** Mansfield

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion