



Conn. Science & Engineering Fair

Quinnipiac University

March 12 - 17, 2018

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:
 - School Town
 - School
 - Last Name

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

Avon Talcott Mountain Academy John Lombardo

5542 Acoustic Anomaly Detector

Student(s) **Brendan Glastris** **Grade 8** **Town** Burlington

- * Barnes Aerospace Applied Technology Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
- * Computer Science Awards --- Middle School Finalist - Medallion
- * Connecticut Academy of Audiology --- \$150 Award MS- For Excellence in Audiology and Acoustics, oport. to shadow an audiologist

Avon Talcott Mountain Academy Dr. Brigette Zacharczenko

2505 Development of rapid test for Lyme bacteria in ticks

Student(s) **Julian Kage** **Grade 8** **Town** Glastonbury

- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology 8th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS

Avon Talcott Mountain Academy Lydia Gibb

2516 Got Your Back

Student(s) **Emma Ruccio** **Grade 8** **Town** Southington

- * UTC Aerospace Systems Engineering Awards --- 3rd Place- Engineering MS \$100 & trophy and Invitation Compete in Broadcom MASTERS
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology 8th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- * Henderson Award --- Certificate and \$25 Amazon Gift Card given by CSF
- * Robotics And Beyond Award for Excellence in Physics- High School and Engineering Design- Middle School --- Middle School- For Excellence in Engineering Design- \$200 for for Robotics And Beyond STEM Design Academy in July

Baltic Sayles School Miss Roy

4018 Black Light Experiment

Student(s) **Brendan Bezanson** **Grade 7** **Town** Sprague
Hunter Bittman **Grade 7** **Town** Sprague

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences MS Team- trophy, invite to compete Broadcom MASTERS

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5546 The Portable Linux Terminal

Student(s) **Sandra Correya** **Grade 8** **Town** Bethany

- * Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences 8th Grade Ind. - trophy

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5534 The Rolling Cane

Student(s) **Michael Coyne** **Grade 8** **Town** Woodbridge

- * Barnes Aerospace Applied Technology Awards --- 3rd Place Middle School - \$100 and Trophy, Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project

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

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

4015 Preventing SIDS From Suffocation

Student(s) **Ellina Medovnikov** **Grade 8** **Town** Woodbridge
Audrey Marin **Grade 8** **Town** Woodbridge

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- * Computer Science Awards --- 3rd Place Middle School- \$100, Trophy, Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * Spirit of Invention Award --- \$100 Cash and Plaque for Inventive Concepts

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5550 Manual Tightening Prosthetic Hand

Student(s) **Sage Paglia** **Grade 8** **Town** Woodbridge

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5556 3D Printed Dog Prosthetic

Student(s) **Karli Scianna** **Grade 8** **Town** Woodbridge

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Bethel St. Mary School Mrs. McDonald

2030 Hot and Hard Headband

Student(s) **Anna Kopec** **Grade 7** **Town** Bethel

- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate

Bethel St. Mary School Kate McDonald

2506 New Creature in the Sea.

Student(s) **Magdalena Swierczek** **Grade 8** **Town** Danbury

- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate

Bozrah Fields Memorial School Mrs. E. Brown

5027 How Do Variables Impact The Amount of Energy Collected by a Wind Turbine

Student(s) **Alanna Brady** **Grade 7** **Town** Bozrah

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
- * People's United Bank Mathematics Awards - with ATOMIC --- 3rd Place Middle School - Trophy , \$100 from People's United Bank
- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place- Middle School- \$200 / trophy
- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy
- * Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Association for Women Geoscientists --- Certificate & \$25 gift card to Amazon given by CSEF
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, middle school, \$100 cash award
- * Stanley Lessoff Award for Excellence In Analytical Technique --- \$100 Cash and Plaque

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

Bozrah Fields Memorial School Mrs. E. Brown

5535 Using Robotics for Investigating Underwater Habitats

Student(s) Morgan Tainter **Grade 8** **Town** Gilman

- * People's United Bank Mathematics Awards - with ATOMIC --- Middle School Finalist - Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Computer Science Awards --- Middle School Finalist - Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash
- * Barker Mohandas Awards for Transportation Research --- \$100 Cash & Plaque for Excellence in Transportation Related Research- Middle School
- * Leask/Francoeur Family Awards --- 1st Place Middle School- For innovation electrical engineering or computer science - \$200 cash
- * Dreams Unlimited Award --- \$100 Cash Award + Certificate

Bozrah Fields Memorial School Mrs. E Brown

2024 Do different species of tree's growth patterns vary when looking at their growth rings?

Student(s) Norah Tracy **Grade 7** **Town** Bozrah

- * Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade- trophy and Invitation Compete in Broadcom MASTERS
- * Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science
- * Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
- * Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash
- * Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3051 Regulation of Lemna minor Reactive Oxygen Species through Iodide and Tyrosine Antioxidant Treatments to Maximize Biofuel Yield

Student(s) Alia Aguilar **Grade 12** **Town** Monroe

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 Cash and Plaque
- * Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Life Sciences

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3036 Development of a Mucin Based Biomedical Adhesive Gel

Student(s) Brian Duffy **Grade 12** **Town** Fairfield

- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR
- * Otero Family Award --- The Otero Family Award; \$200 cash
- * Biophysical Society --- Biophysics Award- \$100
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Biochemistry

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

6004 Investigation of Recycled Concrete Aggregate as a low-cost CO2 sequestration vehicle through Indirect Mineral Carbonation

Student(s) Jinkuk Hong **Grade 12** **Town** Shelton

- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion

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

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
6023 Development of a Portable, Kinetic Driven, Ozone Based Water Purification System for Application in Disaster Relief
Student(s) Jamielyn Iquina **Grade** 12 **Town** Stratford

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Society of Women Engineers - Hartford Section --- Scientific Calculator

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
6068 The Utilization of Light Amplification by Stimulated Emission of Radiation in Amalgamating Free-Space Optical Communication and Wireless Power Transmission
Student(s) Julia LaPenna **Grade** 12 **Town** Milford

- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 5th Place High School - Plaque, Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
3031 Amplifying Heat Shock Protein Expression in Glycine max for cross protection against substandard growing conditions.
Student(s) Evan O'Keefe **Grade** 12 **Town** Fairfield

- * Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Cell and Molecular Biology

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
6074 A Novel Heavy Metal Remediation Technique Utilizing a Photocatalyst Driven Graphene-Cupric Oxide Matrix
Student(s) Catherine Odendahl **Grade** 12 **Town** Trumbull

- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle
6030 The Analysis of a Biochar Containment Boom as a Mitigation Technique for Relic Pollutants after Marine Dredging
Student(s) Ethan Skuches **Grade** 12 **Town** Milford

- * CASE • PepsiCo Urban School Challenge Awards with IBM --- Senior High Finalist - Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * National Oceanic and Atmospheric Administration --- Certificate and medallion, , and \$25 Amazon gift card given by CSEFF

Bridgeport Central High School Leeford Dufe
6092 Salty Fuel Energy
Student(s) Carlos Guzman **Grade** 9 **Town** Bridgeport

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion

Bridgeport Fairchild Wheeler Magnet High School Keli Veillette
3009 Comparing Biofilm Formation on Naturally Occurring Antimicrobial Nanostructures from Squalus acanthias, Cicadidae sp., and Nelumbo nucifera
Student(s) Mariam Dobosz **Grade** 12 **Town** Shelton

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

Bridgeport Fairchild Wheeler Magnet High School Keli Veillette
3102 Echinacea's Effect on Stress Induced Immunodeficiency in Crickets
Student(s) Olivia Wallon **Grade** 12 **Town** Shelton

- * Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place- High School- \$150 / plaque

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

Bridgeport Geraldine Claytor Magnet Academy Logan Whitley

4026 How does the type of cup affect how long the coffee will stay hot?

Student(s) **Iris Rivera** **Grade 7** **Town** Bridgeport
Clementine Gnoto **Grade 7** **Town** Bridgeport
Ahkiriah Johnson **Grade 7** **Town** Bridgeport

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

Bridgeport Multicultural Magnet School Corina Ciuflea

2031 To grow or not to grow

Student(s) **Savannah Guzman** **Grade 7** **Town** Bridgeport

* Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS

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

Bridgeport Park City Magnet School Ms. Daria Collins

5552 Wat(H)er Spin if Off

Student(s) **Thu Do** **Grade 8** **Town** Bridgeport

* Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion

Bridgeport Park City Prep Charter School Vasiliki Boudreau

2511 Organisms in an Ecosystem

Student(s) **April Almeida** **Grade 8** **Town** Bridgeport

* Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion

Bridgeport Park City Prep Charter School Vasiliki Boudreau

5557 The Novel Method Of Oil Spill clean up using biomasses

Student(s) **Alyssa Hall** **Grade 8** **Town** Bridgeport

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

* Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF

bridgeport Park City Prep Charter School Mrs.Boudreau

2028 The Force To Seperate

Student(s) **Jeremiah Hernandez** **Grade 7** **Town** Bridgeport

* Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Bridgeport Park City Prep Charter School Mr. Jaekle

2536 Seed Germination With Different Liquid

Student(s) **Isabelle Patrick-Oliveira** **Grade 8** **Town** Bridgeport

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

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

Cheshire St. Bridget School Mrs. Carroll

2537 Transforming Trash Into Treasure: A Sustainable Approach To Oil Spill Cleanup

Student(s) **Kavin Kathir** **Grade 8** **Town** Cheshire

- * Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 8th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- 2nd Place Middle School - \$200 Cash and Trophy
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF
- * National Oceanic and Atmospheric Administration --- Certificate and medallion, ,and \$25 Amazon gift card given by CSEF
- * Southeastern New England Marine Educators --- \$100 award and membership in SENEME - 1st Place Junior & T-Shirt
- * Air and Waste Management Association, Connecticut Chapter --- \$100 Junior, Environmental Research, waste recycling related
- * TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award Middle School- For excellence in environmental sciences

Danbury Immaculate High School Mrs. Bridget Henry

6008 Effective Catalytic Conversion of Plastic Waste into Fuel

Student(s) **Elias Haddad** **Grade 9** **Town** Danbury

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 1st Place High School - \$500 Cash and Plaque
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, high school, \$100 cash award
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Alternative/Renewable Energy Project

Danbury St. Gregory the Great School Christine Fahey

5034 The Efficiency of Different Types of Algae in Creating Self-Sustaining Microbial Fuel Cells

Student(s) **Max Coisman** **Grade 7** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 Cash and Trophy
- * Future Sustainability Awards - Eversource /energizeCT --- 1st Place Middle School - \$300 Cash and Trophy
- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade- \$100 & trophy and Invitation Compete in Broadcom MASTERS
- * The Children's Museum --- 1 family 4-Pack of Admission Passes to the Children's Museum

Danbury St. Gregory the Great School Christine Fahey

4004 "Perpetual Motion" Or "Perpetual Failure"

Student(s) **Thomas Fanelli** **Grade 7** **Town** Danbury

Daniel Goetz **Grade 7** **Town** Danbury

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

Danbury St. Gregory the Great School Christine Fahey

4025 Wind vs Water

Student(s) **Anna Flaherty** **Grade 8** **Town** New Fairfield

Arshei Flores **Grade 8** **Town** New Milford

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion
- * Association for Women Geoscientists --- Certificate & \$25 gift card to Amazon given by CSEF
- * Constellation, an Exelon Company --- 1st: \$100.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy
- * Frank J. Link Family Award for Energy Related Research --- Frank J. Link Award for Energy Related Research - \$50

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

Danbury St. Gregory the Great School Christine Fahey

1013 Now you "C" it, now you don't

Student(s)	Mary Grace Fontana	Grade 7	Town Danbury
	Sarina Steinerd	Grade 7	Town Danbury

* Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

Danbury St. Gregory the Great School Christine Fahey

2514 Bloom of Doom

Student(s)	Melanie Seaman	Grade 8	Town New Fairfield
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- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- * Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash

Danbury St. Joseph School Mrs. Reilly

2512 Stunted Growth: How Do Cell phones Affect Plant Growth and Can Certain Materials Prevent It?

Student(s)	Bronwyn Hyland	Grade 8	Town New Fairfield
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- * Alexion Biotechnology Awards --- 5th Place- Biotechnology 8th grade- trophy
- * American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- * Sister Mary Christine Life Sciences Award --- \$100 for excellence in the life sciences by a catholic middle school project

Danbury St. Joseph School Jennifer Reilly

1001 Growing, Growing, Gone! A Fertilizer Experiment

Student(s)	Christian Jeffers	Grade 7	Town Danbury
	Georen Chirayil	Grade 7	Town Danbury

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

Danbury St. Joseph School Jennifer Reilly

1014 Water you drinking?

Student(s)	Talia Pereira	Grade 7	Town Brookfield
	Sadie Jarboe	Grade 7	Town Danbury

* Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

Danbury Westside Middle School Academy Jonathan Neuhausel

5523 Effect of Spiral Spacing on Conversion Efficiency of Horizontal Axis Spiral Wind Turbine

Student(s)	Timothy Chen	Grade 8	Town Danbury
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- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- * UTC Aerospace Systems Engineering Awards --- 1st Place- Engineering Middle School- \$400 & trophy and Invitation Compete in Broadcom MASTERS

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

Danbury Westside Middle School Academy Jonathon Neuhausel

5527 Stormwater Pollution: The Effectiveness of Zeolites in Decreasing Levels of Nitrate in Runoff

Student(s) Paloma Lenz **Grade 8** **Town** Danbury

- * 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
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 2nd Place Middle School - \$200 and Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- 2nd Place MS- \$200, Trophy, CACIWC gifts
- * UTC Aerospace Systems Engineering Awards --- 2nd Place- Engineering MS- \$200 & trophy and Invitation Compete in Broadcom MASTERS
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology 8th grade- \$500 & trophy and Invitation Compete in Broadcom MASTERS
- * Association for Women Geoscientists --- Certificate, \$25 gift card to Amazon given by CSEF, possible advance to further competition

Danbury Westside Middle School Academy Jonathan Neuhausel

2525 Impact of natural and chemical preservatives to extend the shelf life of apple cider.

Student(s) Mathew Mathew **Grade 8** **Town** Danbury

- * Pfizer Life Sciences Awards --- 4th Place- Life Sciences 8th grade- trophy and Invitation Compete in Broadcom MASTERS
- * Institute of Food Technologists, Nutmeg Section --- \$100 award + invitation to dinner

Danbury Westside Middle School Academy Jonathan Neuhausel

5547 Image Recognition to Diagnose Lyme Disease

Student(s) Khushi Parikh **Grade 8** **Town** Danbury

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences 8th Grade Ind.- \$300 & trophy, invite to compete 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
- * 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
- * Computer Science Awards --- 2nd Place Middle School - \$200, Trophy and Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * 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
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Urban School Challenge 1st Place Middle School Awards --- Highest Placing 8th grader- GENIUS-Olympiad Competition -\$500 travel stipend
- * GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project
- * Maplesoft Awards for Applied Mathematics and Modeling --- Maple software - For Excellence in Mathematics

Danbury Westside Middle School Academy Jonathan Neuhausel

2530 How does Bacteriophage Phi x 174 affect with E. coli differently than Bacteriophage MS2?

Student(s) Stephanie Queiroz **Grade 8** **Town** Danbury

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Danbury Westside Middle School Academy Jonathan Neuhausel

2504 A Study on Angiosperm Xylem Based Sucrose Filtration Systems

Student(s) Vincent Trombetta **Grade 8** **Town** Danbury

- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 5th Place Middle School - Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

[SchTown] [School] [Teacher]
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Danielson Ellis Tech - Green STEP Cassandra Green

3512 Solar Powered Golf Cart

Student(s)	Dylan Bonneau	Grade 10	Town Thompson
	Aaron Breen	Grade 10	Town Brooklyn
	Michael Page	Grade 10	Town Brooklyn

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

Danielson Ellis Tech - Green STEP Cassandra Green

3530 Heated Soil: Does Soil Temperature Effect Plant Growth?
A Solar Greenhouse with Radiant Heat

Student(s)	Colby Loisel	Grade 10	Town Pomfret
	Macory Merrill	Grade 10	Town Danielson
	Matthew Bellavance	Grade 10	Town Moosup

* Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion

* Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion

Darien Darien High School David Lewis

6014 Fast Point-based Raytracing with Sphere Bounding Volume Hierarchies

Student(s)	Daniel Pfrommer	Grade 12	Town Darien
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* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion

* Computer Science Awards --- 1st Place High School - \$400, Plaque, Medallion

* United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report

* Intel Excellence in Computer Science Award --- \$200 & certificate

East Lyme East Lyme High School Frederic Clark

3543 Investigation of Spatial Learning in Apteris Drosophila Melanogaster Using a Novel Behavioral Assay

Student(s)	Andrew Zhang	Grade 12	Town East Lyme
	Mingfei Duan	Grade 12	Town East Lyme
	Alexa Stewart	Grade 12	Town Niantic

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

Ellington Ellington High School Liz Cole

6101 A natural cooling system for the last mile of vaccine delivery

Student(s)	Tina Ma	Grade 11	Town Ellington
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* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion

* University of Hartford --- University of Hartford Scholarship- For Excellence in Engineering, Science or Mathematics \$26,000

* The Connecticut Technology Council Young Woman Innovation Award --- \$150 Cash Award for Technological Innovation

* Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash

* John S. Kendall Memorial Awards --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering - High School

Fairfield Assumption Catholic School Laurie Strazza

4007 The Nexu Helmet

Student(s)	Joseph Grabowski	Grade 8	Town Fairfield
	Bronson Vo	Grade 8	Town Bridgeport

* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion

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

Fairfield Assumption Catholic School Mrs. Strazza

2008 Plants Jammin!

Student(s) **Cadae Thomas** **Grade 7** **Town** Bridgeport

* Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion

Fairfield Fairfield Ludlowe High School Mr. Mirrer

6083 Options Pricing Models Using Machine Learning

Student(s) **Srihita Mediboina** **Grade 12** **Town** Fairfield

* People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion

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

Fairfield St. Thomas Aquinas Catholic School Philip Flynn

4014 Desalination: A Clean Water Alternative

Student(s) **Andrew Cimmino** **Grade 7** **Town** Fairfield

Joshua Dixon **Grade 7** **Town** Bridgeport

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

* Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion

* National Oceanic and Atmospheric Administration --- Certificate and medallion, ,and \$25 Amazon gift card given by CSEF

Falls Village Lee H. Kellogg School Joseph Markow

2527 How Distance from Compost Affects Soil Nutrient Levels

Student(s) **Avery Tripp** **Grade 8** **Town** Falls Village

* Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion

* Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion

Glastonbury Glastonbury High School Diane Pintavalle

6025 Electronic Stethoscope System for Monitoring and Analyzing Bowel Sounds

Student(s) **Abhi Mohnani** **Grade 11** **Town** Glastonbury

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

* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

* Computer Science Awards --- Senior High Finalist - Medallion

* UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion

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

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

Glastonbury Glastonbury High School Diane Pintavalle

6022 ENGINEERING AN ENZYME RESPONSIVE GENETIC DELIVERY VEHICLE

Student(s) **Tushar Sondhi** **Grade 12** **Town** South Glastonbury

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

Glastonbury Smith Middle School Mary Coburn

5024 Cure For The Blues: A green, low cost adsorbent for removal of dye from aqueous solutions

Student(s) **Anika Ahilan** **Grade 7** **Town** Glastonbury

* Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS

* Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place- Middle Schools- \$100 / trophy

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

* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt, First Place Junior

* Connecticut Science Supervisors Association --- \$125 for a middle school project

* Jon Stone Memorial Award --- \$150 cash for Innovative Engineering

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

Greens Farms Greens Farms Academy Joachim Kuhn

6015 Combining digital interfaces with smart robots to easily make images in fields

Student(s) **William King** **Grade 12** **Town** Old Greenwich

* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

Greens Farms Greens Farms Academy Modupe Oshin

2534 The Effect of Bacteriophage on E.coli Bacteria

Student(s) **Kavya Krishnamurthy** **Grade 8** **Town** Westport

* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Greens Farms Greens Farms Academy Mrs. Oshin

5036 The Traft

Student(s) **William McGonagle** **Grade 7** **Town** Southport

* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion

* John B. Trevor Award in Electrical Engineering --- \$500 cash award for an innovative electronic or electrical project

Greens Farms Greens Farms Academy Dr. Mathieu Freeman

3016 Finding and Comparing the Ethanol Yield of Connecticut Invasive Plant Species

Student(s) **Grace McGonagle** **Grade 11** **Town** Southport

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

* Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash

* University of Connecticut - Physics Department --- UCONN Early College Experience Program: Frontier in Science-Co-Op \$100 Gift Certificate

Greenwich Brunswick School Jarrett Shine

3515 Improving Durability and Strength of Bombyx mori Silk by Fortifying Primary Food Source

Student(s) **Lucas Delgado** **Grade 10** **Town** Riverside

Alexander Burdick **Grade 10** **Town** Riverside

* Pfizer Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque

Greenwich Brunswick School Dana Lee Montanez

3546 A Lense to Explore Life on Other Planets: Using Targeted Genome Editing Technologies to Test Survival in Extraterrestrial Environments

Student(s) **Thomas Foley** **Grade 11** **Town** Greenwich

Thomas Kimberlin **Grade 11** **Town** Greenwich

* Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High Team- \$300 (split) & Plaque

* The Jackson Laboratory --- \$500 - The Jackson Laboratory Award for Excellence in Genomics Related Research

Greenwich Brunswick School Dana Montanez

6503 Utilization of Vertical Tidal Range to Generate and Store Electrical Current

Student(s) **William George** **Grade 11** **Town** Greenwich

Harold Barringer **Grade 11** **Town** Greenwich

* Barnes Aerospace Applied Technology Awards --- 1st Place High School - \$500 and Plaque, Medallion

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

* IEEE, Connecticut Section --- \$100 Honorable Mention

Greenwich Brunswick School Dana Montanez

6082 Solar Geoengineering: The Capacity of Aerosols to Reflect Light and Reduce Temperature

Student(s) **Ryan Glanville** **Grade 10** **Town** Greenwich

* UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion

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

Greenwich Brunswick School Dana Montanez

6532 Examination of the Magnetic Levitation Wind Turbine and its Conventional Counterpart

Student(s) **Peter Lehrman** **Grade** 10 **Town** Greenwich
Alexander Morgan **Grade** 10 **Town** Greenwich

- * Barnes Aerospace Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion

Greenwich Brunswick School Dana Montanez

3040 A comparative analysis of the efficiencies of hydroponic and aeroponic systems

Student(s) **William McLaren** **Grade** 10 **Town** Greenwich

- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card

Greenwich Brunswick School Dana Montanez

3049 Use of Regression Analysis to Predict Future Outbreaks of Malaria

Student(s) **Jamison Meindl** **Grade** 10 **Town** Riverside

- * People's United Bank Mathematics Awards - with ATOMIC --- 3rd Place High School - Plaque, \$200 from People's United Bank
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * Computer Science Awards --- Senior High Finalist - Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * Mu Alpha Theta --- Certificate, \$25 Amazon gift card given by CSEF
- * American Society for Quality - Thames Valley Section --- \$250 Cash Award
- * Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum

Greenwich Brunswick School Dana Montanez

6001 Diagnosing Knee Osteoarthritis using Artificial Neural Networks

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

- * Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences Senior High Individual - Plaque

Greenwich Greenwich Catholic School Mrs. Lutz

4005 Creamalicious

Student(s) **Sofia Caracciolo** **Grade** 7 **Town** Stamford
Morgan Adamson **Grade** 7 **Town** Stamford
Maria Profili **Grade** 7 **Town** Greenwich

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Greenwich Greenwich Catholic School Lutz

2020 Hydrogen Power

Student(s) **Sebastian Henao** **Grade** 7 **Town** Stamford

- * Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- * American Meteorological Society --- Certificate & \$25 Amazon gift card given by CSEF

Greenwich Greenwich Catholic School Carol Lutz

2517 Music Therapy APPLIED

Student(s) **Ella Ann Woei** **Grade** 8 **Town** Greenwich

- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * Connecticut Association for the Gifted --- Leonardo Davinci 7-8 Grade \$50 Gift Certificate

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

Greenwich Greenwich Country Day School Sam Rosenfeld

5031 A computer can use machine learning to teach itself to be as good or better at blackjack than the experts.

Student(s) C. Brooks Harris **Grade** 7 **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences 7th Grade Ind. - trophy and Invitation Compete in Broadcom MASTERS
- * People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place Middle School- \$100 from ATOMIC, and Trophy, \$200 from People's United Bank
- * Computer Science Awards --- 1st Place Middle School - \$300, Trophy and Medallion

Greenwich Greenwich High School Andrew Bramante

3103 From Tobacco to a Chemical Cocktail: A Smoker's E-cigarette Alternative May Lead to Bronchiolitis Obliterans

Student(s) Hannah Goldenberg **Grade** 9 **Town** Old Greenwich

- * Pfizer Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque
- * American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
- * TurnKey Compliance Solutions Environmental Awards --- \$300 Cash Award High School- For excellence in environmental sciences

Greenwich Greenwich High School Andrew Bramante

3106 Magnesium Micromotor-Enabled Delivery of Oral, All-Natural Antibacterials for the Effective Targeting and Treatment of Urinary Tract Infection Causality in Infant Mortality

Student(s) Charlotte Hallisey **Grade** 10 **Town** Greenwich

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion

Greenwich Greenwich High School Andrew Bramante

3064 Biomimetic Degradation of Persistent Pollutants Using Common Wax Worm Sakaiensis Bacteria

Student(s) Bennett Hawley **Grade** 11 **Town** Cos Cob

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- \$100 & plaque
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card to Amazon by CSEF, possible advance to further competition
- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- * Mystic Aquarium - Sea Research Foundation --- \$100 and 4 Admission Tickets to Mystic Aquarium
- * University of Hartford --- University of Hartford Scholarship- For Excellence in Engineering, Science or Mathematics \$26,000
- * Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, waste recycling related
- * University of Connecticut - Physics Department --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate
- * Yale Peabody Museum --- Family "six pack" of free passes to the Yale Peabody Museum

Greenwich Greenwich High School Mr. Bramante

3087 Non-Invasive, Low Cost Diagnosis of Chronic Obstructive Pulmonary Disease (COPD) via Smartphone Breath Analysis

Student(s) Hiba Hussain **Grade** 10 **Town** Old Greenwich

- * Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF
- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion

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

Greenwich Greenwich High School Andrew Bramante

6051 Magnetically-induced, Visual Detection of Trace Arsenic Contaminants in Water Using Fe₃O₄ Photonic Crystal Structures

Student(s) Raina Jain **Grade** 10 **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque, trip to compete at Intel ISEF
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500, Plaque, CACIWC gifts
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Environmental Project

Greenwich Greenwich High School Andrew Bramante

3095 Ultrasensitive, Lab-on-a-Chip Detection of HIV via a Fluorescence-based, Europium-Doped Silica Nanoparticle Immunoassay

Student(s) Joe Konno **Grade** 11 **Town** Greenwich

- * Pfizer Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Society for In Vitro Biology --- Certificate and \$25 Amazon gift card given by CSEF

Greenwich Greenwich High School Andrew Bramante

6029 New Abundant and Sodium-Free Metakaolin Solid Electrolyte Ceramic for Power Grid Na-Ion Batteries

Student(s) Alexander Kosyakov **Grade** 11 **Town** Riverside

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque,
- * Future Sustainability Awards - Eversource /energizeCT --- High School 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
- * Yale Science & Engineering Association, Inc. --- Certificate, \$25 gift card to Amazon given by CSEF

Greenwich Greenwich High School Andrew Bramante

6033 Open-source, In-field Smartphone Detection and Mapping of Waterborne Diseases via Time-Based Spectroscopic Sensing with a New 3D Printable Optical Interface

Student(s) Nicholas Liu **Grade** 11 **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * The Goodwin-Niering Center for the Environment --- \$100 for "Excellence in Environmental Conservation Studies"
- * Robotics And Beyond Award for Excellence in Physics- High School and Engineering Design- Middle School --- High School- For Excellence in Physics- \$200 for for Robotics And Beyond STEM Design Academy in July
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2018 Invention Convention, April 28

Greenwich Greenwich High School Andrew Bramante

3035 Autonomously Killing Cancerous Cells by the Detection of up to Single Nucleotide Mutations

Student(s) Collin Marino **Grade** 11 **Town** Greenwich

- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High- \$300 & plaque
- * The Jackson Laboratory --- \$1,000 - The Jackson Laboratory Award for Excellence in Genomics Related Research

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

Greenwich Greenwich High School Andrew Bramante

3070 Honeybee Melittin Apitherapy for Targeted Cancer Suppression and Decimation

Student(s) Dante Minichetti **Grade** 12 **Town** Greenwich

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

Greenwich Greenwich High School Mr. Bramante

3075 Design and Fabrication of a Smart, Medicated Gel Bandage to Deliver Antibiotics to a Draining Wound

Student(s) Romano Orlando **Grade** 12 **Town** Greenwich

- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Society for In Vitro Biology --- Certificate and \$25 Amazon gift card given by CSEF
- * Connecticut Association for the Gifted --- Leonardo Davinci Award 9-12 Grade \$50 Gift Certificate
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2018 Invention Convention, April 28

Greenwich Greenwich High School Andrew Bramante

3042 Controlled-Release Delivery of Ovarian Anticancer Paclitaxel via Vortex Ring, Donut-shaped Hydrogels

Student(s) Emily Philippides **Grade** 12 **Town** Greenwich

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque, Trip to compete at Intel ISEF
- * 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
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High- \$500 & plaque

Greenwich Greenwich High School Andrew Bramante

6090 Simple Gold Nanoparticle-based Colorimetric Detection of Escherichia coli in a Tap Water Matrix via Microfluidic Chip Assay

Student(s) Amit Ramachandran **Grade** 12 **Town** Stamford

- * Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque

Greenwich Greenwich High School Andrew Bramante

3060 Non-Invasive Colorimetric Biosensor for Early Diagnosis of Prostate Cancer Through DNA-Mediated MicroRNA Detection

Student(s) Rahul Subramaniam **Grade** 11 **Town** Cos Cob

- * Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- \$200 & plaque
- * Society for In Vitro Biology --- Certificate and \$25 Amazon gift card given by CSEF

Greenwich Greenwich High School Andrew Bramante

3057 Detection of Early-Stage Alzheimer's Disease via Hierarchical Classification of Proteomic and Clinical Profiles

Student(s) Shobhita Sundaram **Grade** 12 **Town** Greenwich

- * Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place High School \$250 / plaque
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- Trip to compete at Intel ISEF, \$1000 & plaque,

Greenwich Greenwich High School Andrew Bramante

6079 Ambient Carbon Dioxide Capture and Purified Gas Release Using Asphalt-Waste Derived, Porous Carbon Filtration

Student(s) Melissa Woo **Grade** 10 **Town** Riverside

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * UTC Aerospace Systems Engineering Awards --- 2nd Place- Engineering Senior High- \$400 & plaque
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, air pollution related

[SchTown] [School] [Teacher]
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Greenwich Greenwich High School Mr. Bramante

6058 Remediation of Heavy Metal and Fertilizer-Runoff Contaminants using High Throughput, Silk Nanofiber Biomimetic Multilayer Membranes

Student(s) Nicholas Woo **Grade** 11 **Town** Greenwich

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card to Amazon by CSEF, possible advance to further competition
- * Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt, First Place Senior

Greenwich Greenwich High School Andrew Bramante

6098 Cost-Effective and Fully Recycled Filtration of Heavy Metals from Drinking Water Using Used Coffee Grounds Embedded in Discarded Polyurethane Sponges

Student(s) Verna Yin **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 --- 1st Place- High School \$500 / plaque
- * Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card to Amazon by CSEF, possible advance to further competition
- * Institute of Food Technologists, Nutmeg Section --- \$100 award + invitation to dinner
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Southeastern New England Marine Educators --- \$100 award and membership in SENEME - 1st Place Senior & T-Shirt
- * University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - \$6,500 a year for four academic years- (\$26,000 total)

Groton Sacred Heart School Dr. Juan Pacheco

5009 How Do Mixtures of Chiral Substances Affect the Rotation of Plane Polarized Light

Student(s) Payton Noe **Grade** 7 **Town** East Lyme

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion

Hartford Environmental Sciences Magnet School at Mary Mrs. Hays

2022 Memorizing With Music

Student(s) Maria Amisano **Grade** 7 **Town** East Granby

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- * American Psychological Association --- Certificate, \$25 gift card to Amazon given by CSEF

Hartford Environmental Sciences Magnet School at Mary Mrs. Hays

2005 It's Brine Time: A Study of How Salinity Affects the Hatching Rate of Brine Shrimp

Student(s) Brianna Sanchez **Grade** 7 **Town** Enfield

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

[SchTown] [School] [Teacher]
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Hartford Environmental Sciences Magnet School at Mary Becca Hays

2029 Informal Soldiers

Student(s) **William Visalga** **Grade 7** **Town** Newington

* Pfizer 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

Hartford Renzulli Academy Ms.Howe

4027 C-9: Project Solar Drone Project XD3

Student(s) **Anthony Lessor** **Grade 7** **Town** Bloomfeild

Raphael Burgos **Grade 7** **Town** Hartford

Alano Oquendo **Grade 7** **Town** Hartford

* Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion

Hebron RHAM High School Alexa Mitchell

3030 A Computer Model of The Effect of Familial Structure on the Spread of the Influenza Virus

Student(s) **Isabelle Benson-Clarke** **Grade 10** **Town** Marlborough

* Computer Science Awards --- Senior High Finalist - Medallion

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

Kent Kent School Jesse Klingebiel

6017 Deep neural network based subspace learning of robotic manipulator workspace mapping

Student(s) **Peiyuan Liao** **Grade 10** **Town** Kent

* Computer Science Awards --- Senior High Finalist - Medallion

* UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion

Manchester East Catholic High School Lesa Milas

6040 Relation between different types of water turbine and the level of hydroelectric power produced

Student(s) **Madison Lee** **Grade 9** **Town** Rocky Hill

* Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion

Manchester East Catholic High School Lesa Milas

6091 Prototype Cotton Based Poly(N-isopropylacrylamide) Smart Hydrogel that Undergoes Hydrophilic-to-Hydrophobic Transition to Capture and Release Fresh Water from Humid Air

Student(s) **John Oei** **Grade 9** **Town** Hebron

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

* Future Sustainability Awards - Eversource /energizeCT --- 3rd Place High School - \$200 Cash and Plaque

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

Manchester Manchester High School Megan Rader

6005 Effect of Various Ambient Gases on Stability of Perovskite Solar Cells

Student(s) **Khundker Hossain** **Grade 12** **Town** Manchester

* Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion

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

[SchTown] [School] [Teacher]
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Milford Platt Tech - Green Step Jessica Stamp

6515 Domestic Water Reuse System

Student(s) **Christian Haupt** **Grade** 11 **Town** West Haven
Taylor Krieder **Grade** 11 **Town** Stratford
Christian Ramos **Grade** 11 **Town** Stratford

- * Future Sustainability Awards - Eversource /energizeCT --- 1st Place High School - \$500 Cash, Plaque
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Future Sustainability

New Haven Betsy Ross Arts Magnet School Roisin Macdonald

2509 Brushing Bacteria

Student(s) **Kendall Evans** **Grade** 8 **Town** Ansonia

- * Pfizer Life Sciences Awards --- 5th Place- Life Sciences 8th grade- trophy

New Haven Betsy Ross Arts Magnet School Mrs Macdonald

5539 Hovercraft

Student(s) **Kaylee Fitzgerald** **Grade** 8 **Town** Naugatuck

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate

New Haven Betsy Ross Arts Magnet School Roisin Macdonald

5011 From Biomass To Biogas

Student(s) **Matilda Pethrick** **Grade** 7 **Town** Stratford

- * Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences 7th Grade Individual - trophy
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 4th Place Middle School - Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- 3rd Place MS- \$100, Trophy, CACIWC gifts
- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 Cash and Trophy
- * Future Sustainability Awards - Eversource /energizeCT --- 3rd Place Middle School - \$100 Cash and Trophy
- * Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF
- * Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School, Physical Sciences
- * Frank J. Link Family Award for Energy Related Research --- Frank J. Link Award for Energy Related Research - \$50

New Haven Betsy Ross Arts Magnet School K.Cichus

2014 Clean up your act

Student(s) **Josiah Williamson** **Grade** 7 **Town** New Haven

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- Middle School Finalist - Medallion

New Haven Wilbur Cross High School Nick Farrell & Joseph Zebrowski

3059 Do rewards affect neuro-electrical resistance?

Student(s) **Carlín Eswarakumar** **Grade** 11 **Town** New Haven

- * Pfizer 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 to Amazon given by CSEF
- * IEEE, Connecticut Section --- \$100 Honorable Mention

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

New Haven Wilbur Cross High School Dr. Bernard Hulin

6061 Synthesis and Separation Of a Chiral Compound In Preparation Of a Positron Emission Tomography (PET) Radiotracer

Student(s) **Maya Geradi** **Grade 12** **Town** New Haven

- * Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque, trip to compete at Intel ISEF
- * Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 2nd Place High School - \$400 and Plaque, Medallion
- * 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

New Haven Worthington Hooker Middle School Mr. Jones

2010 Underwater Battle: The Effect of Pollution on Brine Shrimp

Student(s) **Athena Brown** **Grade 7** **Town** New Haven

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences 7th grade- \$200 & trophy and Invitation to Compete Broadcom MASTERS
- * Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 3rd Place Middle School - \$100 and Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- * Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp
- * Environmental / Energy Award- New Haven Public School Award --- \$100 Award for top environmental or alternative energy project from a New Haven public school

New London Bennie Dover Jackson Middle School Willie Barber

1015 Eins

Student(s) **Evangeline Baez** **Grade 8** **Town** New London

Estefany Almanzar **Grade 8** **Town** New London

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

New London Bennie Dover Jackson Middle School Willie Barber

5507 Green Step

Student(s) **Jennifer Fiestas** **Grade 8** **Town** New London

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion
- * Constellation, an Exelon Company --- 2nd: \$50.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy

New London Science and Technology Magnet High School David Brown

6522 Temperature-Viscosity Relationship in Predicting Seasonal Motor Function

Student(s) **Zachary Bachofner** **Grade 9** **Town** North Stonington

Zachary Stock **Grade 9** **Town** North Stonington

- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion

New London Science and Technology Magnet High School Moniz

3092 Implications for Increased Acidity for Metabolic Function of Freshwater Microinvertebrates (Daphnia magna)

Student(s) **Pedro Camacho-Leon** **Grade 11** **Town** Norwich

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

New London Science and Technology Magnet High School Charles Mulligan

6039 Natural vs Synthetic Drinks Compared by Electrolyte Concentration

Student(s) **Owen George** **Grade 10** **Town** Uncasville

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

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

New London Science and Technology Magnet High School Karen Napolitano

3072 Seaweed Bio-extraction: Influence of Green Algae (Ulva spp) and Sugar Kelp (Saccharina spp) on Carbon Dioxide Levels in the Atmosphere

Student(s) Kiera McCord **Grade** 10 **Town** Norwich

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

Newtown Newtown Middle School Jeffery Shupp

2521 Design and Testing of a Chitin-based Filter for Bio-remediation of Nitrates

Student(s) Marguerite LaBanca **Grade** 8 **Town** Sandy Hook

* Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion

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

* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF

* Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner

Newtown St. Rose of Lima School Mrs. Anastasia Damalas

2019 Does PH affect the growth of grass?

Student(s) Julia Cirone **Grade** 7 **Town** Newtown

* Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion

Newtown St. Rose of Lima School Mrs. Damalas

5026 Effect Of Energy Drinks on Tooth Enamel

Student(s) Nicholas Prieto **Grade** 7 **Town** Newtown

* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion

Newtown St. Rose of Lima School Ms Damalas

5008 Battery Life

Student(s) Isabella Thomas **Grade** 7 **Town** Oxford

* UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion

Norwich Norwich Technical High School Dr. Morin

3017 Can probiotic yeast be used to decrease the severity of Type 2 Diabetes symptoms in a Drosophila melanogaster disease model?

Student(s) Gianpierre Roche **Grade** 12 **Town** Willimantic

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

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

Norwich Norwich Technical High School Dr. Morin

3089 The Effect of the FAAH Gene on Alcohol Consumption and Inhibition in C. elegans

Student(s) Ryan Stollman **Grade** 12 **Town** Colchester

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

Ridgefield Ridgefield High School Ryan Gleason

3018 Testing the Effectiveness of Various Shading Materials on Mock Leatherback Sea Turtle Nests

Student(s) Annabelle Colao **Grade** 12 **Town** Ridgefield

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

* Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum

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

Shelton Shelton Intermediate School Tina Genova

4006 Lets Bounce

Student(s) **Alexa Civale** **Grade 8** **Town** Shelton
Isabella Silvis **Grade 8** **Town** Shelton

* Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS

Stamford Bi-Cultural Day School Christopher Graseck

1005 Studying The Impact Of Acid Rain And Gutter Water On The Growth Of Three Plants

Student(s) **Zachary Isaacs** **Grade 7** **Town** Stamford
David Klein **Grade 7** **Town** Stamford

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

* Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion

Stamford Bi-Cultural Day School Chris Graseck

2538 The Impact of Antibacterial Soap on Daphnia Magna: Implications for the Environment

Student(s) **Anna Lichtenberg** **Grade 8** **Town** Stamford

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

* Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion

Stamford Independent - The Harvey School, Katonah, NY Ms. Marcie Hajem

2507 Sugars in foods: implications for Diabetics

Student(s) **Wendy Lichtenberg** **Grade 8** **Town** Stamford

* Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion

Stratford St. Mark School Mrs.Olins

5540 Are you a 'fan' of wind turbines?

Student(s) **Kaitlyn Szczepanski** **Grade 8** **Town** Stratford

* Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy and Invitation Compete in Broadcom MASTERS

* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF

Suffield Suffield High School Mitchell Charkiewicz

6089 The Anti-Overdose Pill Bottle Stemming the Opiod Epidemic

Student(s) **Ziad Hassan** **Grade 11** **Town** Suffield

* Barnes Aerospace Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion

* Unilever Trumbull R&D --- Shadow Day at Unilever Trumbull R&D Centre

* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2018 Invention Convention, April 28

Suffield Suffield High School Mr. Charkiewicz

3029 How Water Chemistry Varies Spatially Across Congamond Lake

Student(s) **Brooke Tillotson** **Grade 11** **Town** Windsor Locks

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

Suffield Suffield Middle School Mitchell Charkiewicz

4001 Creating Electricity using Gravity

Student(s) **John-Henry Burke** **Grade 8** **Town** Suffield
Alexander Litvak **Grade 8** **Town** Suffield

* Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion

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

Suffield Suffield Middle School Mr. Mitchell Charkiewicz

2502 The Effect of Musicianship to Speed of Learning Languages

Student(s) **Isabella Jiang** **Grade 8** **Town** Suffield

* Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 8th grade- \$200 & trophy and Invite to Compete Broadcom MASTERS

Suffield Suffield Middle School Mr Mitch Charkiewicz

4019 Converting Sound Energy into an Electrical Energy

Student(s) **Ayush Mehta** **Grade 8** **Town** Suffield
Cole Cutler **Grade 8** **Town** Suffield
Jack Shanks **Grade 8** **Town** Suffield

* Future Sustainability Awards - Eversource /energizeCT --- Middle School Finalist - Medallion

Trumbull Christian Heritage School Daniel Cote

5531 D.I.Y. Hovercraft: Lift and Propulsion

Student(s) **Maxwell Barbagallo** **Grade 8** **Town** Sandy Hook

* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
* UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
* John S. Kendall Memorial Awards --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Middle School

Trumbull Christian Heritage School Daniel Cote

6020 The Design of a Self-Funding Heating System

Student(s) **Miles Meade** **Grade 11** **Town** Shelton

* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
* Westinghouse Electric Company/New England Chapter of North American Young Generation in Nuclear --- 1st place, Excellence in Energy Research, \$100 cash award

Trumbull Christian Heritage School Theresa Miller

5510 Aqua-Safe: Helping the World, One Bucket at a Time

Student(s) **Alec Mota** **Grade 8** **Town** Derby

* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
* American Meteorological Society --- Certificate & \$25 Amazon gift card given by CSEF

Trumbull Christian Heritage School Daniel Cote

6054 Carbon Emission-Free Power Generation Using Wave Energy and a Robust Generator

Student(s) **Ranita Muriel** **Grade 11** **Town** Shelton

* Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
* University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Sustainability
* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2018 Invention Convention, April 28

Wallingford Choate Rosemary Hall Richard Kyung

6067 Noise Removal Analysis Using Proposed LPF(Low Pass Filter) and Windows

Student(s) **Se Ri Lee** **Grade 11** **Town** Wallingford

* People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place High School- \$100 from ATOMIC, Plaque, \$300 from People's United Bank
* Mu Alpha Theta --- Certificate, \$25 Amazon gift card given by CSEF
* IEEE, Connecticut Section --- \$250 Honors Award -Senior

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

Waterford Waterford High School Michael O'Connor

3096 Development of a Novel Copepod-Based Mosquito Ovitrap

Student(s) Sophie Wang **Grade** 12 **Town** Waterford

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque, CACIWC gifts
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * J.A. Augustine Award --- \$100 for excellence in biology
- * Fox Pest Control Award for Environmental Management --- \$150 Cash for Excellence in Environmental Management
- * Yale Peabody Museum --- Family "six pack" of free passes to the Yale Peabody Museum

West Hartford King Philip Middle School Robert Felekey

5512 Slip Hazard Alarm Robot H2OhNoBot

Student(s) Theodore Zhang **Grade** 8 **Town** West Hartford

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * IEEE, Connecticut Section --- \$100 Honorable Mention

West Hartford St. Timothy Middle School Danielle Locke

5002 Pineapple Punch

Student(s) Thomas Baldini **Grade** 7 **Town** West Hartford

- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS

West Hartford St. Timothy Middle School Mrs. Locke

5511 Don't Rock The Boat

Student(s) Brooke Barry **Grade** 8 **Town** West Hartford

- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF

West Hartford St. Timothy Middle School Danielle Locke

2528 Saving Crops from Cold Snaps – The Effect of Gamma-Aminobutyric Acid (GABA) on Freeze Tolerance in Wheatgrass

Student(s) Grace Flynn **Grade** 8 **Town** West Hartford

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences 8th grade- \$300 & trophy and Invite to Compete Broadcom MASTERS
- * Environmental Sciences Awards with CACIWC --- 1st Place MS - \$300, Trophy, CACIWC gifts
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology 8th grade- trophy and Invitation Compete in Broadcom MASTERS
- * **The Karen J. Howell Middle School Award for "Learning and Serving"**
 --- The Karen J. Howell Middle School Award for "Learning and Serving" - \$1000

Weston Weston Middle School Melanie Welsh

1004 How Can Climate Change Affect the Rate of Evolution on Baker's Yeast's

Student(s) Lecia Sun **Grade** 8 **Town** Weston

Brynne McGee **Grade** 8 **Town** Weston

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

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

Westport Staples High School Karen Thompson

3062 Using a Machine Learning Algorithm to Predict if a Breast Tumor is Malignant or Benign

Student(s) Aniruddha Murali **Grade** 11 **Town** Westport

- * People's United Bank Mathematics Awards - with ATOMIC --- 1st Place High School- \$150 from ATOMIC, Plaque, \$500 from People's United Bank
- * Computer Science Awards --- 3rd Place High School- \$200, Plaque, Medallion
- * Intel Excellence in Computer Science Award --- \$200 & certificate
- * U.S. Metric Association --- Certificate & \$25 Amazon gift card given by CSEF
- * Mu Alpha Theta --- Certificate, \$25 Amazon gift card given by CSEF

Wilton Middlebrook School Paige Randall

5017 The Buzzing Eye - Helping The Blind
(school submitted title - Supersonic Blind Helper)

Student(s) Varun Vadhera **Grade** 7 **Town** Wilton

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences 7th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- * Barnes Aerospace Applied Technology Awards --- 1st Place Middle School - \$300 and Trophy, Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * IEEE, Connecticut Section --- \$250 Honors Award -Junior
- * Zepke Award --- \$100 - For the Best Use of Electronic Circuitry- Middle School

Windsor Academy of Aerospace and Engineering Dr. Bellinger

6501 Effect of Experimental Parameters on Forming Prince Rupert's Drops for Maximum Strength and Toughness.

Student(s) Srikar Godilla **Grade** 11 **Town** Newington

Cristian Rodriguez **Grade** 11 **Town** East Hartford

- * Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Team- \$300(split) & Plaque
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 1st Place High School - \$500 and Plaque, Medallion and trip to compete at Intel Int. Sci. & Eng. Fair
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering in partnership with CCAT --- Urban School Challenge 1st HS- \$1,000 (split for teams), Invite to CASE Annual Mtg
- * 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
- * University of Connecticut - Physics Department --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificat
- * Arthur Mensing Award --- \$1000 cash award for excellence in the physical sciences
- * American Society for Metals - Hartford Chapter --- \$100 Check

Windsor Academy of Aerospace and Engineering dr. Bellinger

6533 Combinations of Polyethylene Glycol and Silica Nanoparticles as a Dilatant on Shock Absorption and Unequal Shear Transfer Rate

Student(s) Nicolas McMahon **Grade** 10 **Town** Windsor

Emily Ngo **Grade** 10 **Town** South Windsor

- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * Garg Consulting Services Award for Excellence in Transportation Engineering --- \$250 cash and plaque

[SchTown] [School] [Teacher]
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Windsor Academy of Aerospace and Engineering Dr. Bellinger

6516 The Effects of Positioning of Micro Vertical Axis Wind Turbines in a Network on Efficiency and Power Output

Student(s) **Chris Rinaldi** **Grade** 11 **Town** Enfield
Jean Pasato **Grade** 11 **Town** Middletown
Vishakh Talanki **Grade** 11 **Town** South Windsor

- * Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- 2nd Place High School - \$300 Cash and Plaque
- * UTC Aerospace Systems Engineering Awards --- 3rd Place- Engineering Senior High- \$200 & plaque
- * Ct Architecture Foundation Award - The William M. Mack, AIA Award --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.

Windsor Academy of Aerospace and Engineering Dr. Michelle Bellinger

6066 Undulated Leading-Edge Airfoils in Low to Medium Reynolds Number Regime

Student(s) **Keshav Vedula** **Grade** 12 **Town** Windsor

- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 4th Place High School - Plaque, Medallion
- * UTC Aerospace Systems Engineering Awards --- 1st Place- Engineering Senior High- Trip to compete at Intel ISEF, \$500 & plaque,
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR
- * American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate
- * Connecticut Association of Physics Teachers --- \$100 Senior project

Windsor Greater Hartford Academy of Math and Science Michelle Bellinger

6517 Effect of Adding Reclaimed Polylactic Acid (PLA) to Virgin PLA on the Mechanical Properties

Student(s) **Michael Stefano** **Grade** 12 **Town** Wethersfield
Jacob Manente **Grade** 12 **Town** Southington

- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion

Windsor Greater Hartford Academy of Math and Science Michelle Bellinger

6530 Effect of Increasing the Poly(ethylene) Oxide in Bombyx mori Silk Fibroin on Mechanical Properties of the Polymer Blend Systems

Student(s) **Alexa Wilson** **Grade** 12 **Town** Rocky Hill
Preksha Gupta **Grade** 12 **Town** Rocky Hill
Sana Kasmani **Grade** 12 **Town** Rocky Hill

- * Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque
- * CASE • PepsiCo Urban School Challenge Awards with IBM --- 3rd Place High School - \$ 300 and Plaque, Medallion
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion

Windsor Madina Academy Zaide Ibic

2009 An Easy and Economic Way of Filtering Salt Water

Student(s) **Abdulmalik Ajdinoski** **Grade** 7 **Town** Windsor Locks

- * Pfizer Life Sciences Awards --- 5rd Place- Life Sciences 7th grade- trophy
- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- * Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade- trophy

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

Windsor Madina Academy Zaide Ibic

6518 Using Wasted Heat from Hot Showers to Recycle Energy

Student(s)	Ahmad Mohammed	Grade 9	Town Windsor
	Muaz Sharaf	Grade 9	Town Windsor Lock
	Samir Khan	Grade 9	Town Wethersfield

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- * Constellation, an Exelon Company --- 2nd: \$100.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy

Windsor Madina Academy Zaide Ibic

1009 Investigating short-term effect of different video games on the body.

Student(s)	Ahmad Zoghoh	Grade 7	Town Enfield
	Amer Kabatilo	Grade 7	Town Windsor
	Zain Kabatilo	Grade 7	Town Windsor

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

Windsor Madina Academy Zaide Madina

6523 Harnessing ocean wave kinetic energy in an eco-friendly way to generate electricity applying Faraday's law of induction

Student(s)	Al-Yaman Zoghoh	Grade 9	Town Enfield
	Ahmed Zeinalabdin	Grade 9	Town Windsor

- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- * ISA - International Society for Automation - Ct. Valley Section --- 2nd - \$75 award

Windsor The Loomis Chaffee School Richard Kyung

6071 A Study on the Alternative Space Filling Curve

Student(s)	Jae Hyung Lee	Grade 10	Town Windsor
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- * Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion

Windsor The Loomis Chaffee School Koby Osei-Mensah

3005 Combating Food Deserts with Bean Urban Agriculture

Student(s)	Julianna Lee	Grade 11	Town Windsor
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- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * Future Sustainability Awards - Eversource /energizeCT --- High School Finalist - Medallion
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting

Windsor The Loomis Chaffee School Koby Osei-Mensah

6018 The Consonance of Alternative Tuning Systems

Student(s)	Aresh Pourkavoos	Grade 9	Town Avon
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- * People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion
- * Computer Science Awards --- 2nd Place High School - \$300, Plaque, Medallion
- * Intel Excellence in Computer Science Award --- \$200 & certificate
- * U.S. Metric Association --- Certificate & \$25 Amazon gift card given by CSEF
- * Leask/Francoeur Family Awards --- 1st Place High School- For innovation electrical engineering or computer science - \$200 cash

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

Woodbridge Amity Regional High School Catherine Piscitelli

6047 The Impacts of pH on Ethene Degradation and Growth of Ethenotrophs

Student(s) **Jacob Feuerstein** **Grade** 11 **Town** Woodbridge

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

Woodbridge Amity Regional High School Mrs. Day

6057 The Effectiveness of Ceramic Membranes with a Manganese Oxide Coating in Filtering Dyes from Industrial Wastewater

Student(s) **Ella Marin** **Grade** 10 **Town** Woodbridge

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- * UTC Aerospace Systems Engineering Awards --- Finalist - Engineering High School - CSF Medallion
 - * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Mechanical
 - * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Environmental Science
-