



# Conn. Science & Engineering Fair

## Quinnipiac University

### March 8 - 20, 2021

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 Bridgette Zacharczenko

2503 Circadian Rhythms with Manduca Sexta Caterpillars

**Student(s)** Soleil Asano **Grade 8** **Town** Torrington

\* Alexion Biotechnology Awards --- 2nd Place- Biotechnology 8th grade- \$200 & plaque

**Avon** Talcott Mountain Academy Brigette Zacharczenko

2509 The Use of "Essential Oils" as Punishing Stimuli on Dubia Roaches

**Student(s)** Oliver Morrison **Grade 8** **Town** Farmington

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

**Avon** Talcott Mountain Academy John Pellino

5014 Tennis Ball Disinfectant

**Student(s)** Sia Reddy **Grade 7** **Town** Avon

- \* Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences 7th Grade Ind. - \$200 & plaque
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- \* Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for MS Student & \$250 cash
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- \* Samantha Freeman Award for Excellence in Sports Science or Engineering --- For Excellence in Sports Science or Engineering by a Middle School student, \$100 cash
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Avon** Talcott Mountain Academy John Pellino

5015 Secure Stove

**Student(s)** Elias Starr **Grade 8** **Town** AVON

- \* Collins Aerospace Engineering Awards --- 1st Place- Engineering Middle School- \$400 & plaque
- \* American Society of Safety Professionals, CT Valley Chapter --- \$100 grade 7-8 project
- \* IEEE, Connecticut Section --- \$100 Honorable Mention
- \* John S. Kendall Memorial Awards --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Middle School
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Bozrah** Fields Memorial School Evelyn Brown

2504 Does personality type correlate to types of emotional responses to the Covid-19 pandemic?

**Student(s)** Kali Kaporitis **Grade 8** **Town** Bozrah

- \* PepsiCo / Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 8th grade- \$100 & plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- \* American Psychological Association --- Certificate, \$25 gift card given by CSEF

**Bozrah** Fields Memorial School Evelyn Brown

2004 How efficient is aquaponics compared to traditional soil-based farming?

**Student(s)** Sarah Martin **Grade 7** **Town** Bozrah

- \* Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place- Middle School- \$200 / plaque
- \* Future Sustainability Awards --- Middle School Finalist - Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF
- \* National Center for Inquiry Learning --- Danielle & Maggie Award for Imagination - MS \$100

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

**Bozrah** Fields Memorial School Mrs. Brown

5007 Electrical Testing Board For Energy Consumption

**Student(s)** Andrew Pagnotta **Grade** 7 **Town** Bozrah

- \* Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & plaque
- \* Alternative/Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and plaque
- \* Future Sustainability Awards --- Middle School Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering Middle School - CSF Medallion
- \* U.S. Air Force --- Certificate & \$25 gift card from CSEF
- \* CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- \* MIT Club of Hartford K-12 Initiative  
C/O Leon Kaatz; 111 Oak Street; Hartford, CT 06106 --- For excellence in science & technology of energy related research, middle school, \$100 cash award
- \* Susan Lessoff Award for Excellence In Chemistry --- Susan Lessoff Excellence In Chemistry Award -\$100 Cash and Plaque- Middle School
- \* Frank J. Link Family Award for Energy Related Research --- Frank J. Link Award for Energy Related Research - \$50

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Kirk Shadle

3027 Investigating the Efficacy of Cannabidiol on the Elongation Time of the Coagulation Cascade to Mitigate Intravascular Clots.

**Student(s)** Maria Elena Dos Santos **Grade** 12 **Town** Bridgeport

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Kirk Shadle

3024 Developing an Adhesive Constructed from a Maize starch-based matrix Mixed with Chondrus crispus Carrageenan and Determining the Biodegradability of the Adhesive

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

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 4th Place High School - Plaque, Medallion
- \* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Kirk Shadle

6078 Development of a Novel Classification Model to Determine Vegetation Habitability of Exoplanet Atmospheres Via Random Forest Machine Learning Algorithms.

**Student(s)** Joseph Gottlieb **Grade** 12 **Town** Stratford

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 5th Place High School - Plaque, Medallion
- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

3089 Determining the Efficacy of Zingiber Officinale to Promote the Degradation of Bioplastics Through Amylase Hydrolysis

**Student(s)** Sienna Matregrano **Grade** 12 **Town** Fairfield

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 3rd Place High School - \$ 300 and Plaque, Medallion
- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project

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

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Kirk Shadle  
3052 The Social Interactions and Learning Abilities Between Dogfish, Observed Using Two Different Methods of Target Training.

**Student(s)** Clayton Nyiri **Grade** 12 **Town** Fairfield

- \* PepsiCo / Pfizer Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 1st Place High School - \$500 and Plaque, Medallion
- \* H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- \$500 to 1st HS Urban School Challenge Science Department for Equipment/Supplies
- \* American Psychological Association --- Certificate, \$25 gift card given by CSEF

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle  
6019 Yielding High Value Secondary Products from fossil fuel waste utilizing electrolysis

**Student(s)** Dylan Steer **Grade** 12 **Town** Stratford

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

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle  
6016 Harnessing Bio-Kinetic Energy Through A Wearable Non-Invasive Generator

**Student(s)** Alexander Vassallo **Grade** 12 **Town** Fairfield

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion
- \* Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque
- \* Wisner Memorial Award --- \$1,000 cash + Silver Bowl (\$2,000 cash if a team) High School

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle  
6088 A Novel Technique to Mitigate Harmful Algal Blooms by Utilizing Electromagnetic Pulses.

**Student(s)** Savoy Volcy **Grade** 12 **Town** Stratford

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion

**Bridgeport** Interdistrict Discovery Magnet Helena Coatsworth  
5508 Crystal Current

**Student(s)** Arden Mauborgne **Grade** 8 **Town** Easton

- \* Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- \* Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 Cash and plaque
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Bridgeport** Multicultural Magnet School Corina Starn  
2517 Microplastic Concentration in Four Harbor Locations in Fairfield County, CT

**Student(s)** Sofia Atehortua **Grade** 8 **Town** Bridgeport

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 5th Place Middle School - plaque, Medallion
- \* Environmental Sciences Awards with CACIWC --- 3rd Place MS- \$100, plaque
- \* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- \* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Junior

**Bridgeport** Multicultural Magnet School Corina Starn  
2008 Will it Survive?

**Student(s)** Stephanie Cuaya **Grade** 7 **Town** Bridgeport

- \* PepsiCo / Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 7th grade- \$100 & plaque

**Bridgeport** Park City Prep Charter School Mrs. Boudreau  
2014 Worms, Not Just For Composting Anymore

**Student(s)** Stacy Sanchez-luna **Grade** 7 **Town** Bridgeport

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion

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

**Canton** Canton High School Marsha Jorgensen

3044 Allelopathic Effects of Invasive Species Garlic Mustard (*Alliaria petiolata*) on Germination of Black Eyed Susan (*Rudbeckia hirta*)

**Student(s)** Lauren Marze **Grade 9** **Town** Canton

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF
- \* Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash

**Cheshire** Cheshire Academy Anthony Ferraro

6047 Artificial Intelligence Medical Question-answering Robot

**Student(s)** Yiya Qi **Grade 11** **Town** China

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

**Cheshire** Cheshire High School Julie Barker

6027 Project Regrow: Cutting-Edge Technology to Fight Deforestation

**Student(s)** Siddhant Bhardwaj **Grade 10** **Town** Cheshire

- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion

**Cheshire** Cheshire High School Julie Barker

6064 VISTA: a device that measures temperature and humidity levels, by using a complex set of algorithms to calculate the temperature variance and heat index of its environment.

**Student(s)** Sagarika Srinivasan **Grade 10** **Town** Cheshire

- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

**Cheshire** Dodd Middle School Clare Gonzalez

5005 Separation of Food Dyes Via Column Chromatography

**Student(s)** Adwitha Gadhachanda **Grade 7** **Town** Cheshire

- \* 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 Phys Science

**Cheshire** Dodd Middle School Clare Gonzalez

5002 A Covid-19 Social Distancing Device Using a PIR Motion Sensor and a US-100 Ultrasonic Distance Sensor

**Student(s)** Suchita Srinivasan **Grade 7** **Town** Cheshire, CT

- \* Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences 7th Grade Ind. - \$100 & plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place- Middle Schools- \$100 / plaque
- \* Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- \* Computer Science Awards --- 1st Place Middle School - \$300, plaque
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- \* American Society of Safety Professionals, CT Valley Chapter --- \$100 grade 7-8 project
- \* IEEE, Connecticut Section --- \$100 Honorable Mention
- \* Robert Francoeur Memorial Award --- Creative or innovative project in engineering or computer science by female students - \$200
- \* Zepke Awards --- \$100 - For the Best Use of Electronic Circuitry- Middle School
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Cheshire** St. Bridget School Mrs. Michelle Carroll

2508 No To Nanosilver: A Natural Approach to Nanosilver Filtration

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

- \* PepsiCo / Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 8th grade- \$200 & plaque
- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* J.A. Augustine Award --- \$100 for excellence in biology
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

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

**Coventry** Captain Nathan Hale Middle School Mrs. Chelsea Long

5012 Metal Hardening: Heating, Hammering and Holding Atoms Together

**Student(s)** Alexander Campbell **Grade 7** **Town** Coventry

\* Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade- plaque

**Danbury** Saint Joseph School Mrs. Reilly

2514 Light 'Em Up

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

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

\* Alexion Biotechnology Awards --- 4th Place- Biotechnology 8th grade- plaque

**Danbury** Saint Joseph School Jennifer Reilly

2513 Effectiveness of Whitening Toothpastes

**Student(s)** Charles Doran **Grade 8** **Town** Danbury

\* PepsiCo / Pfizer Life Sciences Awards --- 4th Place- Life Sciences 8th grade- plaque

**Danbury** Saint Joseph School Mrs. Reilly

2520 Heart Rate Recovery Time

**Student(s)** Tatiana Frouge **Grade 8** **Town** Danbury

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

**Danbury** Saint Joseph School Jennifer Reilly

5004 Purifying Water with Activated Charcoal

**Student(s)** Adeline Gibowicz **Grade 7** **Town** Danbury

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

**Danbury** Westside Middle School Academy Jonathan Neuhausel

2011 The Effect of UV Light on Bacteria From a Horse Blt

**Student(s)** Sophia Blumenreich **Grade 7** **Town** Danbury

\* PepsiCo / Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 7th grade- \$100 & plaque

\* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion

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

\* NYUC Pony Club Equine Award --- \$100 Cash Award or excellence in equine studies

\* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Danbury** Westside Middle School Academy Jonathan Neuhausel

5009 Using Snell's Law to Calculate Index of Refraction of Solutions

**Student(s)** Sydney Borst **Grade 7** **Town** Danbury

\* Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences 7th Grade Ind. - plaque

\* Mathematics Awards - with ATOMIC --- 1st Place Middle School- \$300 and Plaque

\* CASE • The Jackson Laboratory Urban School Challenge Awards --- 2nd Place Middle School - \$200 and plaque, Medallion

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

\* Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Junior Award: Certificate, & teeshirt & \$25 Amazon Card from CSEF

\* Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp

\* Demos R Us Award --- \$150 Cash Award-- Clear Execution of Research- 7th Grade

\* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

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

**Danbury** Westside Middle School Academy Jonathan Neuhausel

2005 The effects of a clinostat on Garden Cress

**Student(s)** Zachariah Colon **Grade 7** **Town** Danbury

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

**Danbury** Westside Middle School Academy Jonathan Neuhausel

5511 The Effects of Concentrations of Acetone on the Tensile Strength of Bioplastics

**Student(s)** Eric Guo **Grade 8** **Town** Danbury

- \* Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. - plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- 3rd Place- Engineering MS \$100 & plaque
- \* Alexion Biotechnology Awards --- 5th Place- Biotechnology 8th grade- plaque
- \* ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF
- \* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF

**Danbury** Westside Middle School Academy Jon Neuhausel

2007 The Effect of Bee Box Volume Size on Temperature and Humidity of a Wintering Bee Hive.

**Student(s)** Luca LaRosa **Grade 7** **Town** Danbury

- \* PepsiCo / Pfizer Life Sciences Awards --- 1st Place- Life Sciences 7th grade- \$200 & plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 3rd Place Middle School - \$100 and plaque, Medallion
- \* Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade- plaque
- \* Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF
- \* National Center for Inquiry Learning --- Danielle & Maggie Award for Imagination - MS \$100
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Danbury** Westside Middle School Academy Jon Neuhausel

5006 Thermoelastic energy generation using variable temperature gradients

**Student(s)** Kiran Suri **Grade 7** **Town** Danbury

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- \* Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 Cash and plaque
- \* U.S. Air Force --- Certificate & \$25 gift card from CSEF
- \* Constellation, an Exelon Company --- 2nd: \$50.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy
- \* Society of Women Engineers - Hartford Section --- Scientific Calculator
- \* Wisner Chairman's Award --- \$500 cash & plaque MS

**Danbury** Westside Middle School Academy Jonathan Neuhausel

4002 The Benefits of Debris Deflectors on Preventing Debris Buildup in Culverts

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

Cody Zhu **Grade 8** **Town** Danbury

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion
- \* Environmental Sciences Awards with CACIWC --- MS Finalist - CSF Medallion
- \* Future Sustainability Awards --- Middle School Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- 2nd Place- Engineering MS- \$200 & plaque
- \* Lemelson Early Inventor Award --- Certificate & \$100 cash award from Lemelson Foundation

**Danbury** Westside Middle School Academy Walter Mayhew

5504 The Effect of an Insulator with Styrofoam on the Temperature Difference Between Two Pieces of Cardboard

**Student(s)** Christopher Tomas Borges **Grade 8** **Town** Danbury

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 4th Place Middle School - plaque, Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

[SchTown] [School] [Teacher]  
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**Danbury** Danbury High School Karen Lamb

6079 Utilizing Machine learning to Analyze Twitter posts and Predict the Election Outcome

**Student(s)** **Shriya Jonnalagadda** **Grade 9** **Town** Danbury

- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Susan and Stanley Lessoff Memorial Award --- Susan and Stanley Lessoff Memorial Award - \$250 Cash and Plaque HS

**Darien** Darien High School Ting Wang

3073 Identification of Epigenetic Determinants of Zebrafish Pigment Cell Fate.

**Student(s)** **Sophie Xu** **Grade 10** **Town** Darien

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

**Darien** Darien High School Christine Leventhal

6071 Robotic Pancreatoduodenectomy (PD) vs. Open PD: A Meta-analysis-driven Algorithm to Enhance Surgical Decision Making

**Student(s)** **Ethan Zhang** **Grade 12** **Town** Darien

- \* Mathematics Awards - with ATOMIC --- 3rd Place High School - \$200 and Plaque
- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

**East Lyme** East Lyme High School Frederic Clark

6010 Two Speed Mechanical BMX Race Gearbox

**Student(s)** **Jacob Hatt** **Grade 10** **Town** Salem

- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* Samantha Freeman Award for Excellence in Sports Science or Engineering --- For Excellence in Sports Science or Engineering by a High School student, \$150 cash

**Ellington** Ellington Middle School Victoria Schilling

2512 Role Of Macronutrients (NPK) In Plant Growth and Development

**Student(s)** **Saisuruth Choppakatta** **Grade 8** **Town** Ellington

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

**Enfield** Chiaravalle Academy Timothy Coleman

4001 The Filtration of Soot and Carbon Molecules From Smoke

**Student(s)** **Lainey Czerwiec** **Grade 7** **Town** Feeding Hills

**Bridget Kelly** **Grade 7** **Town** Enfield

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion
- \* Future Sustainability Awards --- Middle School Finalist - Medallion

**Enfield** Chiaravalle Academy Timothy Coleman

1008 A Comparison of Three Types of Honey on CO2 Emissions from Yeast Fermentation

**Student(s)** **Alexander Gumkowski** **Grade 8** **Town** North Haven

**Tyler Salisbury** **Grade 8** **Town** South Windsor

- \* PepsiCo / Pfizer Life Sciences Awards --- 3rd Place- Life Sciences MS Team- plaque

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

**Enfield** Chiaravalle Academy Tim Coleman

4003 Toilet Power: Capturing Wasted Energy From Home Fixtures

<b>Student(s)</b>	<b>Lincoln Marshaus</b>	<b>Grade 8</b>	<b>Town</b> Suffield
	<b>Chloe Walker</b>	<b>Grade 8</b>	<b>Town</b> Somers
	<b>Francesca Lamattina</b>	<b>Grade 8</b>	<b>Town</b> Somers

- \* Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences MS Team- \$100 each & plaque
- \* Stanley Black & Decker Applied Technology Awards --- 2nd Place Middle School - \$200 and Plaque, Medallion
- \* Future Sustainability Awards --- Middle School Finalist - Medallion
- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* Constellation, an Exelon Company --- 1st: \$100.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Enfield** Chiaravalle Academy Mr. Timothy Coleman

5513 Can Diodes Be Used to Reduce the Negative Impacts of Road Salt on Streams?

**Student(s)** **Abigail Quinby** **Grade 8** **Town** Windsor

- \* Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- \* Demos R Us Award --- \$200 Cash Award- Clear Execution of Research- 8th Grade
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Enfield** Chiaravalle Academy Mr. Coleman

1004 Agricultural Plants reaction to Climate Change

<b>Student(s)</b>	<b>Maya Serrano</b>	<b>Grade 8</b>	<b>Town</b> Somers
	<b>Joella Asapokhai</b>	<b>Grade 8</b>	<b>Town</b> South Windsor
	<b>Alexandria Croal</b>	<b>Grade 8</b>	<b>Town</b> Enfield

- \* PepsiCo / Pfizer Life Sciences Awards --- 2nd Place- Life Sciences MS Team- \$100 each
- \* Alexion Biotechnology Awards --- 1st Place- Biotechnology 8th grade- \$300 & plaque
- \* Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Enfield** Chiaravalle Academy Timothy Coleman

4004 How the science of thermoelectricity can improve warmth in colder climates.

<b>Student(s)</b>	<b>Rhys Wilson</b>	<b>Grade 7</b>	<b>Town</b> Somers
	<b>Jacek Cieslak</b>	<b>Grade 7</b>	<b>Town</b> Monson
	<b>Oliver Kolb</b>	<b>Grade 7</b>	<b>Town</b> East Longmeadow

- \* Stanley Black & Decker Applied Technology Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion

**Fishers Island** Fishers Island School Carol Giles

3046 Ocean Acidification: How it effects population growth in the phytoplankton species Nannochloropsis oculata

**Student(s)** **Arabella Hatfield** **Grade 12** **Town** Groton, CT

- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion

**Fishers Island** Fishers Island School Carol Giles

3009 Exploring Earthworm Ecotypes: Carbon Source or Sink?

**Student(s)** **Lillian Kane** **Grade 12** **Town** Groton

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Future Sustainability Awards --- High School Finalist - Medallion
- \* Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High- \$300 & plaque
- \* NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- \* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate



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

**Glastonbury** Glastonbury High School Diane Pintavalle

3061 The Role of Alternative Splicing in Metastatic Osteosarcoma

**Student(s)** **Sonia Ghoshal** **Grade 11** **Town** Glastonbury

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

**Greenwich** Brunswick School Dana Montanez

6044 Towards Clean Energy via Radioactivity: An Investigation of the Dissipation of Electrons in an Ultra High Vacuum Environment

**Student(s)** **Luke Apostolides** **Grade 11** **Town** Greenwich

- \* Mathematics Awards - with ATOMIC --- High School Finalist - Medallion
- \* Future Sustainability Awards --- 3rd Place High School - \$200 Cash and Plaque
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- \* Westinghouse Electric Company/New England Chapter of North American Young Generation in Nuclear --- 1st place, Excellence in Energy Research, \$100 cash award
- \* Maplesoft Awards for Applied Mathematics and Modeling --- Maple software - For Excellence in Mathematics

**Greenwich** Brunswick School Dana Montanez

6516 An Investigation of Current-Powered, Aquatic Turbines as Alternative Energy Source

**Student(s)** **Teddy Danforth** **Grade 10** **Town** Greenwich  
**Trip Williams** **Grade 10** **Town** Greenwich

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion
- \* Future Sustainability Awards --- High School Finalist - Medallion
- \* Constellation, an Exelon Company --- 2nd: \$100.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy

**Greenwich** Brunswick School Dana Montanez

3506 Density of Microplastics: An investigation to determine concentration in the dorsal tissue of *Morone saxatilis*

**Student(s)** **Tomas Delgado** **Grade 10** **Town** Riverside  
**Jackson Wolfram** **Grade 10** **Town** Riverside

- \* Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque

**Greenwich** Brunswick School Dana Montanez

6512 Harnessing and Repurposing Processing Heat Gradient Produced by a Computer to Reduce the Battery Lost to a Cooling Fan

**Student(s)** **Gregory Kapp** **Grade 11** **Town** Greenwich  
**Michael Montgomery** **Grade 11** **Town** Greenwich

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion
- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* John S. Kendall Memorial Awards --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering - High School

**Greenwich** Brunswick School Dana Montanez

3514 Regenerating Transformed Plant Cells Expressing Algal Cytochrome c6 to Increase Photosynthetic Yield in Plants

**Student(s)** **Maximilian Konzerowsky** **Grade 11** **Town** Darien  
**Ashton Arjomand** **Grade 11** **Town** Greenwich

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

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**Greenwich** Brunswick School Dana Montanez

6034 Designing a Data-collecting Robotic System to Negate the Effects of Eutrophication

**Student(s)** **Ryan Kulsakdinun** **Grade** 10 **Town** Armonk

- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

**Greenwich** Brunswick School Dana Montanez

6508 The Development of an Auto-Disable Syringe to Combat the Spread of Bloodborne Diseases via Intravenous Injection Drug Use

**Student(s)** **Aidan Marks** **Grade** 11 **Town** Riverside  
**Samuel Guadalupe** **Grade** 11 **Town** Greenwich

- \* Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Team- \$300(split) & Plaque
- \* Stanley Black & Decker Applied Technology Awards --- 1st Place High School - \$500 and Plaque, Medallion

**Greenwich** Brunswick School Dana Montanez

6515 Reduction of Atmospheric Carbon Dioxide via production of Ammonium Carbonate by way of aqueous carbon sink.

**Student(s)** **Henry Sorbaro** **Grade** 10 **Town** Greenwich  
**Campbell Officer** **Grade** 10 **Town** Greenwich

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

**Greenwich** Brunswick School Dana Montanez

6517 Creating a Renewable Energy System Powered by Pressurized Gas to Limit Production of Greenhouse Gases

**Student(s)** **Hunter Spiess** **Grade** 10 **Town** Old Greenwich  
**Collin Eschricht** **Grade** 10 **Town** Old Greenwich

- \* Future Sustainability Awards --- 2nd Place High School - \$300 Cash and Plaque

**Greenwich** Brunswick School Dana Montanez

6501 Recirculating Shower Filtration System: Utilizing Natural, Cost-Efficient, and Effective Materials to Consolidate The Purification of Water

**Student(s)** **Myles Spiess** **Grade** 11 **Town** Old Greenwich  
**Nicholas Altman** **Grade** 11 **Town** Mount Kisco

- \* Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- \* Future Sustainability Awards --- 1st Place High School - Plaque & \$800 Stipend to Compete at GENIUS Olympiad
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Future Sustainability

**Greenwich** Greenwich Academy Dr. Patrick Ashby

6008 Using Fractal Metamaterials with Non-Integer Dimensionality to Manipulate the Propagation of Acoustic Waves

**Student(s)** **Natalie Shell** **Grade** 11 **Town** Greenwich

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque

**Greenwich** Greenwich High School Andrew Bramante

3075 Colorimetric Smartphone-Based Detection of Salivary SOD2 on Photonic Opal Structures for the Rapid Diagnosis of Hepatocellular Carcinoma

**Student(s)** **Halla Clausi** **Grade** 12 **Town** Cos Cob

- \* Collins Aerospace Engineering Awards --- 1st Place- Engineering Senior High- \$500 & plaque,

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**Greenwich** Greenwich High School Andrew Bramante

6040 Increasing Aerofoil Lift via Artificial Amplification of the Coanda Effect using Heat

**Student(s)** Timothy Drinkall **Grade** 12 **Town** Old Greenwich

- \* Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- \* American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate
- \* Connecticut Association of Physics Teachers --- \$100 Senior project
- \* Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Senior Award: Certificate, & teeshirt & \$25 Amazon Card from CSEF

**Greenwich** Greenwich High School Andrew Bramante

6086 Generalized Correction of Spatially and X-Z Correlated Errors through Adaptive Minimum-Weight Perfect Matching Topological Algorithms

**Student(s)** Samuel Florin **Grade** 12 **Town** Greenwich

- \* Mathematics Awards - with ATOMIC --- 1st Place High School- \$500 and Plaque

**Greenwich** Greenwich High School Andrew Bramante

3018 Linking Continued Exposure to E-cigarette Vapor Constituents with Chronic Obstructive Pulmonary Disease

**Student(s)** Hannah Goldenberg **Grade** 12 **Town** Old Greenwich

- \* PepsiCo / Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- plaque

**Greenwich** Greenwich High School Andrew Bramante

3037 Rapid, Noninvasive, Fluorescence-Based Detection for Elevated Levels of Nitric Oxide in Exhaled Breath, As a Marker for Hazardous PM2.5 Exposure

**Student(s)** Ambika Grover **Grade** 10 **Town** Riverside

- \* PepsiCo / Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque
- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Life Sciences Senior 1st HS- \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- \* Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- \$500 & plaque
- \* Connecticut Science Supervisors Association --- \$125 for a high school project
- \* Susan Lessoff Award for Excellence In Chemistry --- Susan Lessoff Excellence In Chemistry Award -\$200 Cash and Plaque - High School
- \* Biophysical Society --- Biophysics Award- \$100
- \* Lunch with a Patent Attorney --- Lunch with a Patent Attorney

**Greenwich** Greenwich High School Andrew Bramante

6058 Design of a MFe<sub>2</sub>O<sub>4</sub>/Bentonite/Graphite Coated Polyurethane Sponge for Economical and Eco-Friendly Oil Spill Recovery

**Student(s)** Autumn Kim **Grade** 12 **Town** Greenwich

- \* Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque
- \* Stanley Black & Decker Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* Future Sustainability Awards --- High School Finalist - Medallion
- \* H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- \* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEFF
- \* The Goodwin-Niering Center for the Environment --- \$100 for "Excellence in Environmental Conservation Studies"

**Greenwich** Greenwich High School Andrew Bramante

3100 Identification of Irrationality and Risk Preference Variation In Generational Cohorts Using Proposed Risk Scenarios

**Student(s)** Adam Kleshchelski **Grade** 10 **Town** Riverside

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

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**Greenwich** Greenwich High School Andrew Bramante

3085 Role of ICAM-1 in Facilitating Leukocyte Migration Across the Blood-Brain Barrier in the Progression of Multiple Sclerosis

**Student(s)** Prathit Kurup **Grade** 11 **Town** Riverside

- \* Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High- \$300 & plaque
- \* University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Science or Mathematics \$27,000

**Greenwich** Greenwich High School Andrew Bramante

3107 Inhibition of Covid-19 Respiratory Complications Via an R-954 Peptide Bradykinin 1 Receptor Antagonist

**Student(s)** Ella Moore **Grade** 11 **Town** Greenwich

- \* PepsiCo / Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Yale Science & Engineering Association, Inc. --- 1 Certificate, Medallion and 1- \$25 gift card given by CSEF
- \* Lunch with a Patent Attorney ---

**Greenwich** Greenwich High School Andrew Bramante

3025 Low-Pressure Application of Metal Nanoparticles to Soybean Seeds to Provide Increased

**Student(s)** Uma Pendkar **Grade** 12 **Town** Old Greenwich

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Environmental Sciences Awards with CACIWC --- 1st Place HS- Plaque & \$800 Stipend to Compete at GENIUS Olympiad
- \* Future Sustainability Awards --- High School Finalist - Medallion
- \* Institute of Food Technologists, Nutmeg Section --- \$100 award + invitation to Awards Night Dinner with guest
- \* TurnKey Compliance Solutions Environmental Awards --- \$300 Cash Award High School- For excellence in environmental sciences
- \* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Environmental Project

**Greenwich** Greenwich High School Mr. Andrew Bramante

3111 Prolonged, Smart Treatment of Multi-Drug Resistant Bacteria of Chronic Wounds via an EGCG-AgNP HydroMed Dressing

**Student(s)** Yurika Sakai **Grade** 10 **Town** Greenwich

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- 2nd Place- Engineering Senior High- \$400 & plaque
- \* Regeneron Biomedical Science Award --- Certificate & \$500.00 cash

**Greenwich** Sacred Heart Greenwich Joan Fei

6041 Testing an Activated Carbon Cloth Filter to Reduce the Prevalence of Phosphates and Nitrates in the Long Island Sound

**Student(s)** Abby Barnett **Grade** 11 **Town** Darien

- \* Lockheed Martin Physical Sciences Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- \* University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Engineering, or Technology, \$27,000
- \* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Senior

**Greenwich** Sacred Heart Greenwich Joan Fei

3054 Surveying Adolescent Public Opinion and Knowledge on Nuclear Energy

**Student(s)** Emma Rose Connolly **Grade** 12 **Town** Yonkers

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* American Psychological Association --- Certificate, \$25 gift card given by CSEF

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**Greenwich** Sacred Heart Greenwich Ms. Fei

3043 The Effect of Applied Glucose on Moisture Retention and Growth of Saplings After Simulated Forest Fires.

**Student(s)** Regina Finn **Grade** 11 **Town** Old Greenwich

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

**Guilford** Guilford High School Luke Rosnick

6001 Assessing the relationship between COVID-19 prevalence and optimal pool testing size

**Student(s)** Jerry Li **Grade** 11 **Town** Guilford

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF

**Guilford** Guilford High School Dr. James Carlson

6023 Developing a More Consistent Renewable Energy Source

**Student(s)** Michael Neiss **Grade** 10 **Town** Guilford

- \* Alternative/Renewable Energy Awards --- 1st Place High School - \$500 Cash and Plaque
- \* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- \* Fox Pest Control Award for Environmental Management --- \$150 Cash for Excellence in Environmental Management

**Hamden** Hamden Hall Country Day School Frank Gasparro

6077 Using SiO<sub>2</sub> Spray to Reduce Microplastics Dissolved Into the Oceans

**Student(s)** Leo Southam **Grade** 10 **Town** Shelton

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

**Hartford** Environmental Sciences Magnet School Mrs. Hays

2510 COVID-19's Impact on Water Quality in Recreational Areas Along the Long Island Sound Coastline

**Student(s)** Isabella D'Agostino **Grade** 8 **Town** New Brittan

- \* PepsiCo / Pfizer Life Sciences Awards --- 5th Place- Life Sciences 8th grade- plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- 1st Place- Middle School \$300 / plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- \* Environmental Sciences Awards with CACIWC --- 2nd Place MS- \$200, plaque
- \* Southeastern New England Marine Educators (SENEME) --- \$100 award and membership in SENEME - 1st Place Junior & T-Shirt
- \* Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash

**Hartford** Environmental Sciences Magnet School MS. HAYS

2511 Dog- Be Gone- Plastic: An evaluation of dog waste bag materials and biodegradation

**Student(s)** Patroklos Pitsoulis **Grade** 8 **Town** EAST HARTFORD

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
- \* Connecticut Science Supervisors Association --- \$125 for a middle school project

**Hartford** Environmental Sciences Magnet School Rebecca Hays

2516 The impacts of the presence of Canada Geese (Branta Canadensis) on the water quality in local ponds and lakes.

**Student(s)** Eva Quijada **Grade** 8 **Town** Middletown

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- \* Environmental Sciences Awards with CACIWC --- MS Finalist - CSF Medallion

**Kent** Kent School Kevin Saxton

6075 Wildlife Recognition from Camera Trap Data using Computer Vision Algorithms

**Student(s)** Yuanqin (Albert) Dai **Grade** 11 **Town** Newton

- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Kathleen & David Smith Awards --- Kathleen & David Smith Award for Innovative Concept - \$100

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**Kent** Kent School Jesse Klingebiel

3086 Examining the energy efficiency of variations of Synechocystis nigrescens and Shewanella oneidensis bioinks in biophotovoltaic cells

**Student(s)** Youngju Jang **Grade** 11 **Town** Holbrook

- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

**Kent** Kent School Jesse Klingebiel

6072 Exoskeleton Hand Based on MMG Signals for Partially Paralyzed Patients

**Student(s)** Siyi Lu **Grade** 10 **Town** Kent

- \* Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- \* IEEE, Connecticut Section --- \$100 Honorable Mention

**Manchester** Manchester High School Wendy Turek

3072 The Effect of Dissolved Flavonoid Supplements on the Chelation of Iron in a Solution

**Student(s)** Paige Gagnon **Grade** 12 **Town** Manchester

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 2nd Place High School - \$400 and Plaque, Medallion

**Manchester** Manchester High School Wendy Turek

3032 The Effects of Bacillus and Trichoderma Inoculant and Lepidium Sativum on

**Student(s)** Alexandra Hamza **Grade** 11 **Town** Manchester

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion
- \* Future Sustainability Awards --- High School Finalist - Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- \* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$80,000 (\$20,000 per year)

**Manchester** Manchester High School Wendy Turek

6033 Lego Prosthetic Arm

**Student(s)** Hina Naeem **Grade** 12 **Town** Manchester

- \* Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place- High School- \$150 / plaque
- \* Robert Francoeur Memorial Award --- Creative or innovative project in engineering or computer science by female students - \$200

**New Haven** Engineering & Science University Magnet School Roger Rushworth

6032 Gravity-Assisted Energy Conversion: Improving the Feasibility of Mechanically Powered Electricity Generators

**Student(s)** Aiman-Imran Anuar **Grade** 11 **Town** West Haven

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion
- \* Jon Chapis Memorial Award --- John Chapis Spirit of Innovation Award - HS \$200
- \* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$80,000, \$20,000 per year)
- \* Fred Olender Urban School Challenge Award --- \$250 Cash Award for HS student in USC school

**New Haven** Engineering & Science University Magnet School Roger Rushworth

6066 Natural Function Restrictions, Identities, and Properties to Determine Finite Cardinalities of Solutions for Real-Valued Functions Projected onto Natural Space

**Student(s)** Praneeth Chitirala **Grade** 10 **Town** Milford

- \* Mathematics Awards - with ATOMIC --- High School Finalist - Medallion
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion
- \* Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF
- \* Maplesoft Awards for Applied Mathematics and Modeling --- Maple software - For Excellence in Mathematics

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**New Haven** Engineering & Science University Magnet School Roger Rushworth

5501 Implementation of Metal-Oxide-Induced Agglomeration and Electromagnetic Filtration for Removal of Microplastics

**Student(s)** **Snigtha Mohanraj** **Grade 8** **Town** Ansonia

- \* Lockheed Martin Physical Sciences Awards --- 1st Place- Physical Sciences 8th Grade Ind.- \$300 & plaque, invitation to compete in Broadcom Masters
- \* Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 1st Place Middle School - \$300 and plaque, Medallion
- \* Stanley Black & Decker Applied Technology Awards --- 1st Place Middle School - \$300 and Plaque, Medallion
- \* Environmental Sciences Awards with CACIWC --- 1st Place MS - \$300, plaque
- \* Future Sustainability Awards --- 3rd Place Middle School - \$100 Cash and plaque
- \* Connecticut Academy of Science and Engineering Middle School Urban School Challenge Award --- Urban School Challenge 1st MS- \$250 Cash Award, Invite to attend CASE's Annual Meeting
- \* Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- \* Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF
- \* Society of Women Engineers - Hartford Section --- Scientific Calculator
- \* Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 8th grader- Project Oceanology's Ocean Camp
- \* TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award Middle School- For excellence in environmental sciences
- \* GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project
- \* Environmental / Energy Award- Urban Public School Award --- Environmental / Energy Award- Urban Public School Award - \$431.40

**New Haven** Hopkins School Nathaniel Peters

6076 Developing Tetherless Motion Tracking System for Wandering Insects Using an Omni-directional Servosphere Robot

**Student(s)** **Nicholas Lee** **Grade 10** **Town** Trumbull

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* Mathematics Awards - with ATOMIC --- 2nd Place High School- \$300 and Plaque
- \* Computer Science Awards --- 2nd Place High School - \$300, Plaque
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* IEEE, Connecticut Section --- \$100 Honorable Mention

**Norwich** Norwich Technical High School Aleatha Pelloni

3518 Purifying protein in C. Elegans to match the human protein

**Student(s)** **Kyle Caswell** **Grade 11** **Town** Gales ferry

**madison tweedy** **Grade 11** **Town** Gales ferry

- \* Technical High School Science & Technology Awards --- 3rd Place- Technical High School , \$200, Plaque

**Norwich** Norwich Technical High School Aleatha Pelloni

3505 The Effects of Sugar Diets in Drosophila melanogaster

**Student(s)** **Ava Johnson** **Grade 11** **Town** oakdale

**Elkin Garcia** **Grade 11** **Town** newlondon

- \* Technical High School Science & Technology Awards --- Technical High School Finalist - medallion

**Norwich** Norwich Technical High School Aleatha Pelloni

6503 Sucrose vs Drosophila Melanogaster Hyperactivity

**Student(s)** **Janessa Reels** **Grade 11** **Town** Taftville

**CaitlyInne Howard** **Grade 11** **Town** Oakdale

- \* Technical High School Science & Technology Awards --- Technical High School Finalist - medallion

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**Norwich** Norwich Technical High School Aleatha Pelloni

3509 Converting Natural Byproducts Into Soil Compost For Crops Using The Bokashi Method

**Student(s)** **Luis Salazar** **Grade 11** **Town** Willimantic  
**Nina Mendez** **Grade 11** **Town** Sterling  
**Gabriella Fedus** **Grade 11** **Town** Oakdale

- \* Technical High School Science & Technology Awards --- 1st Place- Technical High School, Plaque & Stipend to Compete at GENIUS Olympiad
- \* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place Technical High School

**Norwich** Norwich Technical High School Aleatha Pelloni

3519 Testing GMO Crops for Continued RNAi Ampicillin-Resistant.

**Student(s)** **Richard Savoie** **Grade 11** **Town** Colchester  
**Ryan Riley** **Grade 11** **Town** Lisbon

- \* Technical High School Science & Technology Awards --- Technical High School Finalist - medallion

**Norwich** Norwich Technical High School Aleatha Pelloni

3508 The antimicrobial effects of copper on antibiotic resistant strains of bacteria.

**Student(s)** **Nola Smith** **Grade 11** **Town** Salem  
**Georgia Fowler** **Grade 11** **Town** Scotland

- \* Technical High School Science & Technology Awards --- 2nd Place- Technical High School , \$300, Plaque

**Orange** Southern CT Hebrew Academy Theresa Pearce

2518 Let's Get Scrubbing!

**Student(s)** **Chaya'le Wilhelm** **Grade 8** **Town** Milford

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

**Pawcatuck** St. Michael School Anna-Helene Grossomanides

2505 Farmer's Market vs. Supermarket Vegetables: Who has Higher Nutrient Content?

**Student(s)** **Emerson Baltrukonis** **Grade 8** **Town** Pawcatuck

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

**Pawcatuck** St. Michael School Anna-Helene Grossomanides

5008 Remote Learning on a Budget

**Student(s)** **Joseph Benin** **Grade 7** **Town** Pawcatuck

- \* Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences 7th Grade Individual - plaque
- \* Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion
- \* Computer Science Awards --- 2nd Place Middle School - \$200, plaque
- \* IEEE, Connecticut Section --- \$250 Honors Award -Junior
- \* Susan and Stanley Lessoff Memorial Award --- Susan and Stanley Lessoff Memorial Award - \$250 Cash and Plaque MS

**Pawcatuck** St. Michael School Anna-Helene Grossomanides

5001 Oxidation Proclamation

**Student(s)** **John Bennett** **Grade 7** **Town** Stonington

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

**Pawcatuck** St. Michael School Anna Grossomanides

5509 Are All Masks Equal?

**Student(s)** **Katelyn Cadmus** **Grade 8** **Town** Pawcatuck

- \* Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences 8th Grade Ind. - plaque
- \* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100



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**Redding** CT-STEM Catherine Piscitelli

3504 Development of a WatchOS Application that uses HRV and Vibrational Pulses to Reduce Stress

**Student(s)** **Sheehan Munim** **Grade** 10 **Town** Orange

**Allen Liu** **Grade** 10 **Town** Woodbridge

- \* PepsiCo / Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque
- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion

**Redding** CT-STEM Catherine Piscitelli

6061 Creating an Algorithm that Automatically Scores Tissue Images Like a Pathologist

**Student(s)** **Iris Yan** **Grade** 9 **Town** Woodbridge

- \* Computer Science Awards --- 3rd Place High School- \$200, Plaque

**Redding** Joel Barlow High School Paul Testa

3004 The Use of Pleurotus Ostreatus As Mycoremediation for Poly-Lactic Acid Plastic In Landfills.

**Student(s)** **Alexis Ogrinz** **Grade** 11 **Town** Easton

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Future Sustainability Awards --- High School Finalist - Medallion
- \* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

**Ridgefield** Ridgefield High School Ryan Gleason

6511 Analyzing the Ability of the SCiO Spectrometer to Detect the Presence of Nutrients in Soil

**Student(s)** **Megan Dunphy** **Grade** 12 **Town** Ridgefield

**Kelsi Wilkenloh** **Grade** 12 **Town** Ridgefield

- \* Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque
- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* Future Sustainability Awards --- High School Finalist - Medallion

**Ridgefield** Ridgefield High School Patrick Hughes

3510 A Simple Model of guideRNA for CRISPR-Cas9

**Student(s)** **Claire Griffin** **Grade** 12 **Town** Ridgefield

**Isabel Voellmick** **Grade** 12 **Town** Ridgefield

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

**Ridgefield** Ridgefield High School Ryan Gleason

3012 Analysis of regenerated mouse digit tips following modulation of Amphiregulin expression

**Student(s)** **Luke Hisiger** **Grade** 12 **Town** Ridgefield

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

**Ridgefield** Ridgefield High School Mr. Gleason

6002 Comparing wood/plastic composite & hemp/PLA composite to natural materials to determine the best moisture resistant bioplastic

**Student(s)** **Samantha McLemore** **Grade** 12 **Town** Ridgefield

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

**Ridgefield** Ridgefield High School Ryan Gleason

3002 Exploring p53 Mutation Status and Clinical Outcome in Ovarian Cancer

**Student(s)** **Devansi Sinha** **Grade** 12 **Town** Ridgefield

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

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**Riverside** Eastern Middle School Ms. Iannacone

2519 Can trust kill? Covid-19 and Social Capital

**Student(s)** **Zara Haque** **Grade 8** **Town** Riverside

- \* PepsiCo / Pfizer Life Sciences Awards --- 1st Place- Life Sciences 8th grade- \$300 & plaque
- \* Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

**Stamford** Bi-Cultural Hebrew Academy Christopher Graseck

1005 Droughts Effect on Plants

**Student(s)** **Hannah Cohen** **Grade 7** **Town** Stamford  
**Rebecca Forti** **Grade 7** **Town** Woodbridge

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

**Stamford** Bi-Cultural Hebrew Academy Christopher Graseck

1006 Studying Four Climate Change Factors that Impact Plant Growth

**Student(s)** **David Isaacs** **Grade 7** **Town** Stamford  
**Gabriel Haron** **Grade 7** **Town** Stamford

- \* PepsiCo / Pfizer Life Sciences Awards --- 1st Place- Life Sciences MS Team- \$100 each & plaque
- \* Future Sustainability Awards --- 2nd Place Middle School - \$200 Cash and plaque
- \* Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade- \$300 & plaque
- \* NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS for 1st - 4th MS winners

**Stamford** King School Victoria Schulman

3084 Non-Canonical Base Pairing in Self-Assembling DNA Crystals

**Student(s)** **William Bernfeld** **Grade 11** **Town** Stamford

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

**Stamford** King School Victoria Schulman

3007 Genes Dysregulated in Obesity Increase the Likelihood of Breast Cancer Development

**Student(s)** **Jacob Boyar** **Grade 12** **Town** Ridgefield

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

**Stamford** King School Victoria Schulman

6073 The Electrochemical Oxidation of Methane in a Fuel Cell Utilizing Carbon Sequestration

**Student(s)** **Samuel Hillenmeyer** **Grade 12** **Town** Stamford

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

**Stamford** King School Victoria Schulman

3088 Feraheme® works synergistically with several ROS-inducing drugs for the treatment of pancreatic adenocarcinoma

**Student(s)** **Wafa Nomani** **Grade 12** **Town** STAMFORD

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- plaque

**Stamford** Bi-Cultural Hebrew Academy Christopher Graseck

1003 The Effect of Pollutants on Brine Shrimp [Artemia salina] Hatching

**Student(s)** **Asher Marcus** **Grade 7** **Town** Westport  
**Eddie Janush** **Grade 7** **Town** Stamford

- \* Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade- \$200 & plaque

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

**Suffield** Suffield High School Melanie Brown

3513 Creating Energy with Household Food Waste

**Student(s)** **John-Henry Burke** **Grade 11** **Town** Suffield  
**Isabella Hinkle** **Grade 11** **Town** Suffield

- \* Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- \* Institute of Food Technologists, Nutmeg Section --- \$150 award + invitation to Awards Night Dinner with guest

**Suffield** Suffield High School Melanie Brown

3099 The Study of Demodex Folliculorum and Demodex Brevis Mite Population and Bacteria Growth in Relation to Wearing a Face Mask

**Student(s)** **Ana-Lois Davis** **Grade 9** **Town** Broad Brook

- \* Petit Family Foundation Women in Science & Engineering Awards --- 2nd Place High School \$250 / plaque

**Suffield** Suffield High School Melanie Brown

3507 The Effects of Extra Exposure to Blue Light, due to Distance Learning, on Different Age Groups

**Student(s)** **Noor Sharaf** **Grade 11** **Town** Suffield  
**Emma Conway** **Grade 9** **Town** Suffield

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

**Suffield** Suffield High School Melanie Brown

6007 Utilization of Self- Sanitizing Hydraulic Arm for Reduction of Illness Transmission

**Student(s)** **Haley Young** **Grade 12** **Town** West Suffield

- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

**Trumbull** Christian Heritage School Dr. Dan Cote

3108 Using Virtual Screening to Identify Drug Candidates to Target SARS-CoV-2

**Student(s)** **Luke Audie** **Grade 11** **Town** Cheshire

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

**Trumbull** Christian Heritage School Dan Cote

6060 Building a Machine to Test Whether Certain Facemasks Are Protective or Not

**Student(s)** **Maxwell Barbagallo** **Grade 11** **Town** Sandy Hook

- \* Lockheed Martin Physical Sciences Awards --- 5th Place- Physical Sciences Senior High Individual - Plaque
- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 9-12 project

**Trumbull** Christian Heritage School Dan Cote

6020 Design and Fabrication of a Thermoelectric Generator to Charge a Phone Using Simple Fuels for Remote Areas

**Student(s)** **Nathan Nagel** **Grade 11** **Town** Caucasian/White

- \* Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 Cash and Plaque
- \* University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Engineering, or Technology, \$27,000

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

**Uncasville** Saint Bernard School Nicole Nelson

6087 The Hat and the Mouse: A Practical Hands-Free Method to Control a Personal Computer

**Student(s)** Payton Noe **Grade** 10 **Town** East Lyme

- \* Petit Family Foundation Women in Science & Engineering Awards --- 1st Place- High School \$500 / plaque
- \* Computer Science Awards --- 1st Place High School - \$400, Plaque
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- \* Dreams Unlimited Award --- \$100 Cash Award + Certificate to each student

**Wallingford** Choate Rosemary Hall Kyle Di Tieri

6063 Development of an autonomously driving robot which can remotely scan body temperature to screen for COVID-19

**Student(s)** Ryan Kim **Grade** 10 **Town** Wallingford

- \* Collins Aerospace Engineering Awards --- 3rd Place- Engineering Senior High- \$200 & plaque
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- \* IEEE, Connecticut Section --- \$250 Honors Award -Senior

**Wallingford** Choate Rosemary Hall Jan Cook

3014 Combatting Nitrogen Pollution and Eutrophication Using Denitrifying Bioreactors

**Student(s)** Jessica Wu **Grade** 11 **Town** Wilton

- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- \* University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Science or Mathematics \$27,000

**Westport** Greens Farms Academy Dr. Mathieu Freeman

3096 The Impact of Essential Oils on Food Preservation Throughout the Fast Food Industry

**Student(s)** Zoe Koskinas **Grade** 12 **Town** Fairfield

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

**Westport** Greens Farms Academy Dr. Mathieu Freeman

6096 Exploring the Rate of Photodegradation of Different Microplastics

**Student(s)** Hannah MacDonald **Grade** 12 **Town** Stamford

- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion

**Westport** Greens Farms Academy Mathieu Freeman

6021 The Fabrication of a Cost-Effective Paper LIB with Increased Voltage and Longevity

**Student(s)** Jackson Rassias **Grade** 12 **Town** Fairfield

- \* Stanley Black & Decker Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR

**Windsor** Madina Academy Mr. Timothy Coleman

4005 Self-Sustaining Indoor Garden

**Student(s)** Noora Khaled **Grade** 7 **Town** Suffield

Bayan Abed **Grade** 7 **Town** Rocky Hill

Zainah Khaliq **Grade** 7 **Town** Windsor

- \* Lockheed Martin Physical Sciences Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & plaque
- \* Future Sustainability Awards --- 1st Place Middle School - \$300 Cash and plaque
- \* Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade- \$100 & plaque

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

**Windsor** Madina Academy Mr. Tim Coleman

4006 The Better Solar Panel

**Student(s)** **Hamza Mhaidat** **Grade 7** **Town** Windsor Locks  
**Shah Sheikh** **Grade 7** **Town** West Hartford  
**Adam Afolabi** **Grade 7** **Town** Windsor

\* Lockheed Martin Physical Sciences Awards --- 3rd Place- Physical Sciences MS Team- plaque

**Windsor** Madina Academy Mr. Timothy Coleman

2515 Building and Testing a Simple Portable Constructed Wetland to Purify Greywater

**Student(s)** **Tasneem Zoghol** **Grade 8** **Town** Enfield

\* Environmental Sciences Awards with CACIWC --- MS Finalist - CSF Medallion  
\* Future Sustainability Awards --- Middle School Finalist - Medallion  
\* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion  
\* Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science

**Windsor** The Loomis Chaffee School Mark LeBlanc

3005 Probing Wolbachia Genomes with Machine Learning Algorithms

**Student(s)** **Sean Lee** **Grade 11** **Town** Los Altos

\* PepsiCo / Pfizer Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque

**Windsor** The Loomis Chaffee School Mark LeBlanc

6091 Comparison of Machine Learning Models for Short-Term Forecasting of Solar Power Generation Output: A Case Study

**Student(s)** **Derek Yuan** **Grade 11** **Town** Branchburg

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

**Woodbridge** Amity Regional High School Catherine Piscitelli

6057 Designing a Ground Collision Avoidance System to Inhibit Controlled Flight Into Terrain Accidents For Single Engine Aircraft

**Student(s)** **Mason Beaudette** **Grade 11** **Town** Orange

\* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion  
\* U.S. Air Force --- Certificate & \$25 gift card from CSEF  
\* IEEE, Connecticut Section --- \$100 Honorable Mention  
\* Wisner Chairman's Award --- \$500 cash & plaque HS  
\* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

**Woodbridge** Amity Regional High School Catherine Piscitelli

6024 Development of a Low-Cost, Expandable Boot Aimed to Adjust to Multiple Sizes and Last Multiple Years.

**Student(s)** **Aditi Chalasani** **Grade 11** **Town** Orange

\* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion  
\* ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF  
\* University of Connecticut Academic Excellence Scholarship --- Academic Excellence Physical Sci. scholarship - \$7,500 /year, four academic years- (\$30,000 total)  
\* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

**Woodbridge** Amity Regional High School Catherine Piscitelli

6513 Creating an Optical Fiber Daylighting System for Hydroponics With Raspberry Pi Active Dual Axis Solar Tracking

**Student(s)** **Philip London** **Grade 12** **Town** Orange

**Adarsh Kongani** **Grade 12** **Town** Orange

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

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

**Woodbridge** Amity Regional High School Catherine Piscitelli

6039	Creating a Smaller and More Portable Vertical Axis Wind Turbine to Increase Accessibility and Usage of Wind Energy Harvesting Devices
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**Student(s)** Brodey Lu **Grade** 11 **Town** Orange

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* Constellation, an Exelon Company --- 1st: \$150.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy
- \* CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- \* MIT Club of Hartford K-12 Initiative  
C/O Leon Kaatz; 111 Oak Street; Hartford, CT 06106 --- For excellence in science & technology of energy related research, high school, \$100 cash award
- \* Frank J. Link Family Award for Energy Related Research --- Frank J. Link Award for Energy Related Research - \$50
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

**Woodbridge** Amity Regional High School Catherine Piscitelli

3028	The Biofilm Promoting Nature of Bacteriophages in In-Vitro Escherichia coli (E. coli) Biofilms
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**Student(s)** Aiden Tischer **Grade** 11 **Town** Bethany

- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

**Woodbridge** Amity Regional High School Catherine Piscitelli

6037	Designing a Novel Social Distancing Device
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**Student(s)** Shyam Viswanathan **Grade** 12 **Town** Woodbridge

- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash

**Woodbridge** Amity Regional High School Catherine Piscitelli

3078	Using Deep Learning to Efficiently Quantify the Impact of Road Salt Runoff on the Swim Performance of Wood Frog Tadpoles
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**Student(s)** Mason Zhang **Grade** 12 **Town** Woodbridge

- \* PepsiCo / Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque