



# Connecticut Science & Engineering Fair

## Quinnipiac University

### March 7 - 19, 2022

### Winning Projects

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

#### Awards Legend

Honors = 1st, 2nd, or 3rd honors  
(Projects with 1st honors are Finalists in Life or Physical Science)

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Avon	Avon Old Farms School	Myoung-Hoon Lee	3037	LS	2	Enhancing Microplastic Resistance of Honeybees to Combat Colony Collapse Disorder through Transformation of Their Enterobacteria		
			<b>Student(s)</b>		<b>Yunha Kim</b>	<b>Grade 12</b>	<b>Town</b>	Avon
Avon	Avon Old Farms School	Dan Ismailescu	6024	PS	3	On the smallest (n-1)-gon containing a convex n-gon		
			<b>Student(s)</b>		<b>Keun Hyong Kwak</b>	<b>Grade 11</b>	<b>Town</b>	Gangnam-gu
* Mathematics Awards --- 1st Place High School - \$500 and Plaque * Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF								
Avon	Farmington Valley Academy Montessori	Bobbi Jo Woodbury	2501	L8	3	Adjusting to Our Modernized World with Smart Farms		
			<b>Student(s)</b>		<b>Michael Guiliano</b>	<b>Grade 8</b>	<b>Town</b>	Canton
* Stanley Black & Decker Applied Technology Awards --- Middle School Finalist - Medallion								
Avon	Farmington Valley Academy Montessori	Bobbi Jo Woodbury	2508	L8	3	Spherification		
			<b>Student(s)</b>		<b>Christina Kostelni</b>	<b>Grade 8</b>	<b>Town</b>	Canton
Avon	Farmington Valley Academy Montessori	Bobbi Jo Woodbury	2505	L8	3	Potential Single-Use Plastic Substitute		
			<b>Student(s)</b>		<b>Sean Leahy</b>	<b>Grade 8</b>	<b>Town</b>	Simsbury
* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF								
Avon	Talcott Mountain Academy	Brigette Zacharczenko	2019	L7	1	How Ocean Acidification Affects Shelled Marine Life		
			<b>Student(s)</b>		<b>Rhea Doshi</b>	<b>Grade 7</b>	<b>Town</b>	Farmington
* PepsiCo Life Sciences Awards --- 2nd Place- Life Sciences 7th grade - \$100 & Plaque * Environmental Sciences Awards with CACIWC --- 1st Place MS - \$300 and Plaque * Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade - \$200 & Plaque * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF * Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS * TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award Middle School- For excellence in environmental sciences								

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Avon** Talcott Mountain Academy Brigette Zacharczenko  
 2003 L7 3 Amounts of bacteria on Organic and Non-Organic fruits and vegetables

**Student(s)** Ilana Mezheritskiy **Grade 7** **Town** Avon

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

**Avon** Talcott Mountain Academy Brigette Zacharczenko  
 2018 L7 1 Well-being in middle schoolers using intervention strategies

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

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

**Avon** Talcott Mountain Academy Lydia Gibb  
 5525 P8 1 Pellet-"O"-Trap: Capturing Plastic Pellets Through a Multi-Filter System & Analyzing Their Progression Using Binary Image Processing

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

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

**Avon** Talcott Mountain Academy Anya Jensen  
 2503 L8 1 Applications of Machine Learning in the Prediction and Clustering of COVID-19 Deaths

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

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

**Avon** Talcott Mountain Academy Anya Jensen  
 2515 L8 1 The RightSwitch: An Automatic Light Switch Sterilization Device

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

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

**Bethel** Bethel High School Ray Turek  
 3001 LS 3 Longitudinal Changes in Linguistic Complexity Among Professional Mixed Martial Artists

**Student(s)** Emily Cole **Grade 12** **Town** Bethel

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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<b>Bozrah</b>	Fields Memorial School	Mr. Fish	5521	P8	2	Alerting Drivers That a Child was Forgotten in a Vehicle With a Circuit Sequence Alert System (CSAS)		
			<b>Student(s)</b>		<b>Andrew Pagnotta</b>	<b>Grade 8</b>	<b>Town</b>	Bozrah

- \* Stanley Black & Decker Applied Technology Awards --- 1st Place Middle School - \$300 and Plaque, Medallion
- \* U.S. Air Force --- Certificate & \$25 gift card from CSEF
- \* IEEE, Connecticut Section --- \$100 Honorable Mention
- \* Society of Women Engineers - Hartford Section --- Scientific Calculator

<b>Bozrah</b>	Fields Memorial School	Mr. Fish	4002	PT	3	Measurement Techniques and Mathematical Analysis of Gum Bubbles		
			<b>Student(s)</b>		<b>Reagan Reid</b>	<b>Grade 7</b>	<b>Town</b>	Bozrah
					<b>Leah Kozerefski</b>	<b>Grade 7</b>	<b>Town</b>	Gilman

- \* Mathematics Awards --- 1st Place Middle School - \$300 and Plaque
- \* Petit Family Foundation Women in Science & Engineering Awards --- Middle School Finalist - Medallion

<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	3007	LS	3	Using Prytheruem extract from Chrysanthemum cinerariifolium as a natural insecticide against Grylloidea		
			<b>Student(s)</b>		<b>Albert Capodanno</b>	<b>Grade 12</b>	<b>Town</b>	Fairfield

- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* Susan and Stanley Lessoff Memorial --- Susan and Stanley Lessoff Memorial Award - \$250 Cash and Plaque HS

<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	6009	PS	2	The Use of Sodium Bicarbonate as a Local Buffer to Decrease Ocean Acidity in Localized Areas to Increase the Oyster Growth		
			<b>Student(s)</b>		<b>Kennedy Carr</b>	<b>Grade 12</b>	<b>Town</b>	Fairfield

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

<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	3061	LS	2	A novel mitigation technique to control the spread of the invasive Spotted Lanternfly (L. Delicatul) through cardiac glycoside extracts		
			<b>Student(s)</b>		<b>Cooper Carr</b>	<b>Grade 12</b>	<b>Town</b>	Fairfield

- \* Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500 and Plaque
- \* 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 with \$700 stipend
- \* Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School Student

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	3002	LS	1	Quantifying the interspecific impacts of the native relationships of the Long Island Sound		
					<b>Student(s)</b> Sarah Davis	<b>Grade</b> 12	<b>Town</b> Trumbull	
<ul style="list-style-type: none"> <li>* PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion</li> <li>* Petit Family Foundation Women in Science &amp; Engineering Awards --- High School Finalist - Medallion</li> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- 2nd Place High School - \$400 and Plaque, Medallion</li> <li>* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion</li> <li>* Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash</li> <li>* GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project with \$700 stipend</li> </ul>								
<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	6072	PS	2	Absorbing High Concentrations of Nitrogen using Biochar as a Preventative Measure to Mitigate the Dinoflagellate <i>Karenia brevis</i> .		
					<b>Student(s)</b> Kelsey Farber	<b>Grade</b> 12	<b>Town</b> Fairfield	
<ul style="list-style-type: none"> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion</li> </ul>								
<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	6017	PS	2	Developing A Plant Based Sustainable and Renewable Polychloroprene Fabrication		
					<b>Student(s)</b> Angela Ferraro	<b>Grade</b> 12	<b>Town</b> Fairfield	
<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	6057	PS	1	An Inexpensive, Simple and Effective Application of Off the Grid Solar Disinfection For Potable Water		
					<b>Student(s)</b> Allison Greenberg	<b>Grade</b> 12	<b>Town</b> Fairfield	
<ul style="list-style-type: none"> <li>* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion</li> <li>* Stanley Black &amp; Decker Applied Technology Awards --- Senior High Finalist - Medallion</li> </ul>								
<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	3006	LS	2	The Use of Secondary Plant Metabolites to Reduce <i>Pseudogymnoascus destructans</i> Transmission Among North American Bats		
					<b>Student(s)</b> Grace Hilton	<b>Grade</b> 12	<b>Town</b> Fairfield	
<ul style="list-style-type: none"> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- 5th Place High School - Plaque, Medallion</li> </ul>								
<b>Bridgeport</b>	Bridgeport Aquaculture Center	Kirk Shadle	6063	PS	2	Utilizing Rooftop Gardens as a Means of Geothermal Energy Through Ground to Air Heat Transfer Systems		
					<b>Student(s)</b> Aidan King	<b>Grade</b> 12	<b>Town</b> Milford	
<ul style="list-style-type: none"> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion</li> <li>* EnergizeCT Alternative/Renewable Energy Awards --- 1st Place High School - \$500 and Plaque</li> <li>* EnergizeCT Future Sustainability Awards --- 3rd Place High School - \$200 and Plaque</li> <li>* American Meteorological Society --- Certificate &amp; \$25 gift card given by CSEF</li> <li>* Frederick Olender USC Award in Memory of G. Robert Wisner --- \$250 Cash Award for HS student in USC school</li> </ul>								

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Bridgeport** Bridgeport Aquaculture Center Kirk Shadle

3109	LS	2	Utilizing micronutrient activity to facilitate metabolic reprogramming in Mucopolysaccharidosis Type IIIA
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**Student(s)** Kailey Smith **Grade** 12 **Town** Milford

**Bridgeport** Bridgeport Aquaculture Center Kirk Shadle

6067	PS	2	Optimizing Desalinization of Industrial Brine Through Temperature Swing Solvent Extraction
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**Student(s)** Jackson Warters **Grade** 12 **Town** Milford

\* CASE • The Jackson Laboratory Urban School Challenge Awards --- 3rd Place High School - \$ 300 and Plaque, Medallion

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

**Bridgeport** Fairchild Wheeler: Biotechnology Rachel Klem

3506	LST	3	The Effects of Stress on the Immune System
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**Student(s)** Kalaba Kibwe **Grade** 12 **Town** Stratford  
 Rebecca Tunes-Muniz-DeSouza **Grade** 12 **Town** Stratford

**Bridgeport** Fairchild Wheeler: Biotechnology Teresa Oliveira

3505	LST	3	Be Gone Shell Rot!
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**Student(s)** Phi Uanino **Grade** 10 **Town** Shelton  
 Angeline Tran **Grade** 10 **Town** Shelton

**Bridgeport** John Winthrop School Ms. Beres

4004	PT	2	How Does The Amount of Borax Affect The Bounce Height Of Homemade Bounce Balls?
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**Student(s)** Nancy Bonilla Rodriguez **Grade** 8 **Town** Bridgeport  
 Abril Garcia-Martinez **Grade** 8 **Town** Bridgeport

**Bridgeport** John Winthrop School Susan Beres

1017	LT	2	How do fears change with age?
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**Student(s)** Shiloh Gutierrez **Grade** 8 **Town** Bridgeport  
 Alyssa Cruz **Grade** 8 **Town** Bridgeport

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

**Bridgeport** John Winthrop School Ms. Beres

2516	L8	1	Which Filtration Material Leads to the Best Drinking Water?
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**Student(s)** Wayne Lewis **Grade** 8 **Town** Bridgeport

\* PepsiCo Life Sciences Awards --- 4th Place- Life Sciences 8th grade - Plaque

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

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

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Bridgeport** Park City Prep Charter School Mr. Jaekle

5522 P8 1 The Connection of Coronal Mass Ejections and Sunspots

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

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

**Bridgeport** Waltersville School John Cunningham

4012 PT 3 Does Potato Variety Affect Electrical Output in a Potato Battery?

**Student(s)** Luna Santiago **Grade 8** **Town** BRIDGEPORT  
 Delani Bailey **Grade 8** **Town** Bridgeport

- \* Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash

**Cheshire** Cheshire High School Julie Barker

6030 PS 2 How Raspberry Pi Microcomputers and Computer Vision Artificial Intelligence Can Be Utilized to Provide Aid to the Visually Impaired Community

**Student(s)** Siddhant Bhardwaj **Grade 11** **Town** Cheshire

- \* Stanley Black & Decker Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High
- \* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

**Cheshire** Cheshire High School Julie Barker

3058 LS 3 What is the Difference Between Expensive Surgical/Cloth Masks and Cheap Surgical/Cloth Masks? Should One Be Preferred Over the Other?

**Student(s)** Dipti Rajbongshi **Grade 9** **Town** Cheshire

**Cheshire** Cheshire High School Julie Barker

6048 PS 2 A Drunk-Driving Alerting Device using an HX711 Weight Sensor and MQ-3 Alcohol sensor

**Student(s)** Sagarika Srinivasan **Grade 11** **Town** Cheshire

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

**Cheshire** Cheshire High School Julie Barker

3050 LS 3 Effects of Lead on Gallus Gallus Embryonic Neurite Projections

**Student(s)** Tyler Tan **Grade 12** **Town** Cheshire

**Cheshire** Cheshire High School Julie Barker

3044 LS 3 Statistical Methods on Incorporating Protein Structure Information with Rare Variant Association Studies

**Student(s)** Shangyu Xu **Grade 11** **Town** Cheshire

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Cheshire** Dodd Middle School Clare Gonzalez  
 5509 P8 1 A Domestic Violence Alerting Device Comprised of an Analog Sound Level Meter OLED Display and iOS Mobile App built using Swift

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

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

**Cheshire** St. Bridget School Michelle. Carroll  
 5011 P7 1 Coding an Affordable Goat Identification System for All Farmers

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

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

**Cheshire** St. Bridget School Mrs. Michelle Carol  
 5504 P8 2 Electrolyte Challenge

**Student(s)** Hailey Greasley **Grade 8** **Town** Naugatuck

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

**Clinton** The Morgan School Lawrence Chapman  
 6083 PS 3 Neck and Head injuries in football

**Student(s)** Connor Loth **Grade 12** **Town** Clinton

**Clinton** The Morgan School Lawrence Chapman  
 6047 PS 3 The Effect of a Car's Age on Cabin Noise

**Student(s)** Davis Walker **Grade 10** **Town** Clinton

**Clinton** The Morgan School Lawrence Chapman  
 6045 PS 3 Marine Debris Collected From Hammonasset Beach State Park Between January 1, 2022 to February 28, 2022

**Student(s)** Julia Walker **Grade 12** **Town** Clinton

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Danbury	Danbury High School	Victoria McClelland	6064	PS	2	Comparing Various Machine Learning Models while Predicting Taxonomy using Codon Combinations		
			<b>Student(s)</b>		<b>Shriya Jonnalagadda</b>	<b>Grade 10</b>	<b>Town</b>	Danbury
* CASE • The Jackson Laboratory Urban School Challenge Awards --- Senior High Finalist - Medallion								
Danbury	Henry Abbott Technical High School	andrew ipkovich	3048	LS	3	ways to safely provide lightening service to cosmetology customers using safer chemicals or organic products		
			<b>Student(s)</b>		<b>Ruth Pacheco</b>	<b>Grade 11</b>	<b>Town</b>	danbury
* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project								
Danbury	St. Gregory the Great School	Mrs. Fahey	2004	L7	3	How Does Water Temperature Affect Yeast Fermentation and Pizza Dough Growth?		
			<b>Student(s)</b>		<b>Anthony Bruno</b>	<b>Grade 7</b>	<b>Town</b>	New Fairfield
Danbury	St. Gregory the Great School	Christine Fahey	2013	L7	2	The Affects of Antacid Tablets on Acidity		
			<b>Student(s)</b>		<b>Francesco Carr</b>	<b>Grade 7</b>	<b>Town</b>	Brookfield
Danbury	St. Gregory the Great School	Mrs,Fahey	1004	LT	1	Sun vs. Moon		
			<b>Student(s)</b>		<b>Briella Dunkle</b>	<b>Grade 8</b>	<b>Town</b>	Newtown
					<b>Nicole Dicello</b>	<b>Grade 8</b>	<b>Town</b>	Southbury
					<b>Sophia DaSilva</b>	<b>Grade 8</b>	<b>Town</b>	Danbury
* PepsiCo Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion								
* EnergizeCT Future Sustainability Awards --- 3rd Place Middle School - \$150 and Plaque								
Danbury	St. Gregory the Great School	Mrs. Fahey	2510	L8	2	Type of light on sweet corn		
			<b>Student(s)</b>		<b>Andrew Falcao</b>	<b>Grade 8</b>	<b>Town</b>	Danbury
Danbury	St. Gregory the Great School	Mrs. Fahey	5003	P7	2	Folds in Flight		
			<b>Student(s)</b>		<b>Albert Fenaroli</b>	<b>Grade 7</b>	<b>Town</b>	Danbury
Danbury	St. Gregory the Great School	Mrs. Fahey	5520	P8	3	The Effect Of A Parabola On Wi-Fi Speed		
			<b>Student(s)</b>		<b>Liswed Layog</b>	<b>Grade 8</b>	<b>Town</b>	Danbury



[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Danbury** St. Gregory the Great School Christine Fahey  
 2002 L7 2 Fertilizer Frenzy  
**Student(s)** Connor McMahon **Grade 7** **Town** Brookfield

**Danbury** St. Gregory the Great School Mrs. Fahey  
 4015 PT 3 Light it up with wind energy  
**Student(s)** Lukas Muy-cardenas **Grade 8** **Town** Danbury  
 David Perez **Grade 8** **Town** Danbury

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

**Danbury** Westside Middle School Academy Jon Neuhausel  
 5510 P8 1 The Effects of Ice Mitigation Strategies on Livestock Waterers  
**Student(s)** Sophia Blumenreich **Grade 8** **Town** Danbury

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

**Danbury** Westside Middle School Academy Jon Neuhausel  
 5514 P8 1 Model System Design For Technology-Assisted Insulin Regulation  
**Student(s)** Sydney Borst **Grade 8** **Town** Danbury

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

**Danbury** Westside Middle School Academy Jon Neuhausel  
 4013 PT 1 Benefit of Granular and Mesh Filters on Concentrations of Microplastics in Water  
**Student(s)** Krrish Brahmshatriya **Grade 8** **Town** Danbury  
 Benjamin Miller **Grade 8** **Town** Danbury  
 Alexander Herzegovitch **Grade 8** **Town** Danbury

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

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Danbury	Westside Middle School Academy	Jonathan Neuhausel	5009	P7	1	Impact of prediction methods on the percentage accuracy of a stock forecast.		
					<b>Student(s)</b>	<b>Alejandro Mayorga</b>	<b>Grade 7</b>	<b>Town</b> Danbury
<ul style="list-style-type: none"> <li>* Lockheed Martin Physical Sciences Awards --- 3rd Place - Physical Sciences 7th Grade Ind. - \$100 &amp; Plaque</li> <li>* Mathematics Awards --- 2nd Place Middle School - \$200 and Plaque</li> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion</li> <li>* Talcott Mountain Science Center &amp; Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science</li> </ul>								
Danbury	Westside Middle School Academy	Jon Neuhausel	5517	P8	3	The Impact of Acetic Acid and Citric Acid on the Integrity of Plastic		
					<b>Student(s)</b>	<b>Aiden McAllister</b>	<b>Grade 8</b>	<b>Town</b> Danbury
Danbury	Westside Middle School Academy	Jon Neuhausel	5501	P8	2	The effect that hours of the night have on magnitude per square arcsecond on a sky quality meter		
					<b>Student(s)</b>	<b>David Miller</b>	<b>Grade 8</b>	<b>Town</b> Danbury
* National Center for Inquiry Learning --- Danielle & Maggie Award for Imagination - MS \$100								
Danbury	Westside Middle School Academy	Jon Neuhausel	5523	P8	2	Environmental Impact on the Corrosion of Steel Nipples		
					<b>Student(s)</b>	<b>Emilia Schweitzer</b>	<b>Grade 8</b>	<b>Town</b> Danbury
Danbury	Westside Middle School Academy	Jonathan Neuhausel	5505	P8	1	Design and Testing of an Integrated 360 Degree Pi Camera System for Deep Well Rescue Mission		
					<b>Student(s)</b>	<b>Sandhya Sudarsanam</b>	<b>Grade 8</b>	<b>Town</b> Danbury
<ul style="list-style-type: none"> <li>* Lockheed Martin Physical Sciences Awards --- 4th Place - Physical Sciences 8th Grade Ind. - Plaque</li> <li>* Petit Family Foundation Women in Science &amp; Engineering Awards --- 2nd Place - Middle School- \$200 / Plaque</li> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- 4th Place Middle School - Plaque, Medallion</li> <li>* Stanley Black &amp; Decker Applied Technology Awards --- Middle School Finalist - Medallion</li> <li>* Computer Science Awards --- 1st Place Middle School - \$300, Plaque</li> <li>* Collins Aerospace Engineering Awards --- 2nd Place- Engineering MS- \$200 &amp; Plaque</li> <li>* Raytheon Corporation Awards --- \$500, Plaque</li> <li>* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF</li> <li>* IEEE, Connecticut Section --- \$250 Honors Award -Junior</li> <li>* Jon Chapis Memorial Award --- John Chapis Spirit of Innovation Award - MS \$100</li> <li>* Zepke Awards --- \$100 - For the Best Use of Electronic Circuitry- Middle School</li> <li>* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS</li> </ul>								
Danbury	Westside Middle School Academy	Jon Neuhausel	5002	P7	3	Citrus-based Super Absorbent Polymers (SAPs) for Remediation		
					<b>Student(s)</b>	<b>Allison Tran</b>	<b>Grade 7</b>	<b>Town</b> Danbury

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Darien	Darien High School	David Lewis	3097	LS	1	The effect of microplastic ingestion on the health of parasites (Cryptocotyle lingua) in periwinkles (Littorina littorea).		
			<b>Student(s)</b>		<b>Alison Enters</b>	<b>Grade 12</b>		<b>Town</b> Darien
<ul style="list-style-type: none"> <li>* PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion</li> <li>* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt &amp; cap, First Place Senior</li> </ul>								
Darien	Darien High School	Guy Pratt	3113	LS	2	BLAST-based Characterization of Protein Drug Targets in Protozoan Parasites		
			<b>Student(s)</b>		<b>Ryan Jones</b>	<b>Grade 12</b>		<b>Town</b> Darien
Darien	Darien High School	David Lewis	3011	LS	2	Selection of High-Affinity scFv for HPRT by Yeast Surface Display to Create an Antibody-Mediated Immunotherapy		
			<b>Student(s)</b>		<b>Stella Meier</b>	<b>Grade 12</b>		<b>Town</b> Darien
Darien	Darien High School	David Lewis	6071	PS	1	Cloud Identification in Mars Daily Global Maps with Deep Learning		
			<b>Student(s)</b>		<b>Sebastian Mengwall</b>	<b>Grade 12</b>		<b>Town</b> Darien
<ul style="list-style-type: none"> <li>* Lockheed Martin Physical Sciences Awards --- 5th Place - Physical Sciences Senior High Individual - Plaque</li> <li>* Mathematics Awards --- 2nd Place High School - \$300 and Plaque</li> <li>* Computer Science Awards --- Senior High Finalist - Medallion</li> <li>* Raytheon Corporation Awards --- \$500, Plaque</li> <li>* MapleSoft Awards for Applied Mathematics and Modeling --- For excellence in Mathematics and Modeling - Maple Software and T-shirt</li> </ul>								
Darien	Darien High School	Guy Pratt	3043	LS	2	Identification of Druggable Sites and Lead Compounds to Target ORF8 in SARS-CoV-2		
			<b>Student(s)</b>		<b>Sibi Satheeshkumar</b>	<b>Grade 12</b>		<b>Town</b> Darien
Darien	Darien High School	Guy Pratt	3047	LS	2	Positive Reinforcement of Invasive Species Populations Through Manipulation of Microclimate by Berberis thunbergii, Amynthus agrestis, and Lumbricus terrestris		
			<b>Student(s)</b>		<b>Charlotte Simari</b>	<b>Grade 12</b>		<b>Town</b> Darien
Darien	Darien High School	Mrs. Leventhal	3049	LS	2	To Shine or Not to Shine – How Does a Zebrafish Pigment Cell Decide to Turn Black or Silver?		
			<b>Student(s)</b>		<b>Sophie Xu</b>	<b>Grade 11</b>		<b>Town</b> Darien

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**East Lyme** East Lyme High School Frederic Clark  
 3523 LST 3 Effects of Deep Brain Stimulation Against Certain Malignant Tumors  
**Student(s)** **Nikhita Bolineni** **Grade 11** **Town** East Lyme  
**Yurina Shirai** **Grade 12** **Town** Niantic  
**Jenny Guo** **Grade 12** **Town** East Lyme

**East Lyme** East Lyme High School Fred Willson  
 6001 PS 2 The Hydrogen Motor  
**Student(s)** **Benjamin England** **Grade 12** **Town** salem

\* EnergizeCT Alternative/Renewable Energy Awards --- High School Finalist - Medallion

**East Lyme** East Lyme High School Frederic Clark  
 3024 LS 3 Pathoid - A Video Game that Teaches the Immune System  
**Student(s)** **Eric Yang** **Grade 9** **Town** East Lyme

**Ellington** Ellington Middle School Scott Raiola  
 5007 P7 1 Wall climbing soft robot  
**Student(s)** **Thomas Gerlach** **Grade 7** **Town** Ellington

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

**Enfield** Chiaravalle Academy Mrs. Quinby  
 1008 LT 2 How music affects pill bugs behaviors.  
**Student(s)** **Anna Burnham** **Grade 7** **Town** Suffield  
**Hadley Buttrey** **Grade 7** **Town** Windsor

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

**Enfield** Chiaravalle Academy Timothy Coleman  
 1014 LT 2 Sodium Bicarbonate as a Cost Effective Method for Raising the pH of Soil  
**Student(s)** **Lainey Czerwiec** **Grade 8** **Town** Feeding Hills  
**Olivia Keise** **Grade 8** **Town** South Windsor  
**Bridget Kelly** **Grade 8** **Town** Enfield

- \* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- \* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Enfield** Chiaravalle Academy Tim Coleman  
 1001 LT 3 Do Essential Oils Promote the Growth of Yeast Cells?

**Student(s)** John Donnelly **Grade 7** **Town** Suffield  
 John Pereira IV **Grade 7** **Town** Enfield

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

**Enfield** Chiaravalle Academy Tim Coleman  
 1016 LT 1 Improving Composting During the Winter Months

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

\* PepsiCo Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

\* Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade - Plaque

**Enfield** Chiaravalle Academy Mr. Coleman  
 1002 LT 2 Optimum Composting For Eisenia fetida

**Student(s)** Sage Pierce **Grade 8** **Town** Enfield  
 Catherine Wilcox **Grade 8** **Town** Enfield

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

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

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

**Enfield** Chiaravalle Academy Timothy Coleman  
 4014 PT 1 Can You Separate Solids and Liquids Going Down Your Sink

**Student(s)** Caleb Quinby **Grade 7** **Town** Windsor  
 Holt Serrano **Grade 7** **Town** Somers

\* Lockheed Martin Physical Sciences Awards --- 2nd Place - Physical Sciences MS Team- \$100 each & Plaque

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

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

**Enfield** Chiaravalle Academy Timothy Coleman  
 1003 LT 1 Comparing Kale Growth In Hydroponics Versus Potting Soil In Winter

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

\* PepsiCo Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

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

\* EnergizeCT Future Sustainability Awards --- 2nd Place Middle School - \$200 and Plaque

\* Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade - \$300 & Plaque

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

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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<b>Enfield</b>	Chiaravalle Academy	Timothy Coleman	4010	PT	1	Determining the Most Efficient and Effective Method of Filtration for the Purpose of Creating Potable Water		
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<b>Student(s)</b>	<b>Rhys Wilson</b>	<b>Grade 8</b>	<b>Town</b>	Somers
	<b>Oliver Kolb</b>	<b>Grade 8</b>	<b>Town</b>	Longmeadow
	<b>Jacek Cieslak</b>	<b>Grade 8</b>	<b>Town</b>	Monson

- \* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion
- \* Environmental Sciences Awards with CACIWC --- MS Finalist - CSF Medallion
- \* Alexion Biotechnology Awards --- 3rd Place- Biotechnology 8th grade - \$100 & Plaque

<b>Fairfield</b>	Fairfield College Preparatory School	Mrs. Kiel	3055	LS	3	Better Honey		
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<b>Student(s)</b>	<b>David Boudreau Jr</b>	<b>Grade 11</b>	<b>Town</b>	Ansonia
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<b>Farmington</b>	Miss Porter's School	Betty Wang	3078	LS	1	Using Single-Cell Analysis to Explore Prognostic Genes in Prostate Cancer		
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<b>Student(s)</b>	<b>Junyue Ma</b>	<b>Grade 11</b>	<b>Town</b>	Farmington
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- \* PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- \* Pfizer Computational Biology and Bioinformatics Awards --- 3rd Place High School - \$200, Plaque
- \* Regeneron Biomedical Science Award --- Certificate & \$500.00 cash

<b>Fishers Island</b>	Fishers Island School	Carol Giles	3083	LS	2	The Effects Ocean Acidification has on the Antimicrobial properties of Sulfur Nanoparticles from the Marine Sponge Species Halichondria Bowerbanki.		
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<b>Student(s)</b>	<b>Madeleine Hatfield</b>	<b>Grade 11</b>	<b>Town</b>	GROTON
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- \* CSEF Board of Directors Award --- certificate and \$25 Amazon gift card given by CSF

<b>Glastonbury</b>	Glastonbury High School	Diane Pintavalle	3085	LS	2	Potential Role of Filaggrin within Different Stages of Osteosarcoma		
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<b>Student(s)</b>	<b>Meghan Brink</b>	<b>Grade 12</b>	<b>Town</b>	South Glastonbury
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<b>Glastonbury</b>	Glastonbury High School	Diane Pintavalle	3102	LS	3	Investigating bipartite reaction of DNA polymerase iota with deubiquitinating enzyme usp7		
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<b>Student(s)</b>	<b>Zoe Gates</b>	<b>Grade 12</b>	<b>Town</b>	Glastonbury
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<b>Glastonbury</b>	Glastonbury High School	Diane Pintavalle	3027	LS	3	Changes in Resting State Electroencephalographic (EEG) Power in Children with Developmental Dyslexia Over the Course of a Five-Week Reading Intervention		
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<b>Student(s)</b>	<b>Ruviha Homma</b>	<b>Grade 12</b>	<b>Town</b>	Glastonbury
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[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Glastonbury** Glastonbury High School Diane Pintavalle  
 3020 LS 1 Machine Learning Analysis of EEG Signals to Predict Working Memory Performance in Healthy and Schizophrenic Adults

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

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

**Glastonbury** Glastonbury High School Diane Pintavalle  
 3081 LS 2 Investigation of RNA concentration in three layered or surgical masks among children with and without asthma

**Student(s)** Tyler Rogers **Grade** 11 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
 3046 LS 3 Longitudinal viability of a mixed community of microbes in two methods of preservation

**Student(s)** Arushi Sharma **Grade** 12 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
 3031 LS 3 Impact of Cationic Lysine Residues on the Endosomal Escape Rate of Nucleic Acid Nanocapsules

**Student(s)** Emily Szydio **Grade** 12 **Town** Glastonbury

**Greenwich** Brunswick School Dana Montanez  
 3033 LS 3 White-Nose Syndrome: A study of UV light on propagation and growth rate of a proxy for Pseudogymnoascus destructans.

**Student(s)** Cole Cline **Grade** 10 **Town** Greenwich

**Greenwich** Brunswick School Dana Montanez  
 3105 LS 2 Comparing the effectiveness of chemically derived chitin v. protease derived chitin, in increasing plant growth in low water areas.

**Student(s)** Luke Dougherty **Grade** 10 **Town** Bronxville

**Greenwich** Brunswick School Dana Montanez  
 3502 LST 3 Metal-Mediated Electromagnetic Radiation:

**Student(s)** Collin Eschricht **Grade** 11 **Town** OLD GREENWICH  
 Hunter Spiess **Grade** 11 **Town** Old Greenwich

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

**Greenwich** Brunswick School Dana Montanez  
 3516 LST 2 A Comparative Analysis of Denitrifying Bioreactors as an Abatement of Heightened Nitrous Oxide Levels

**Student(s)** Jackson Fels **Grade** 11 **Town** Riverside  
 William Klein **Grade** 11 **Town** Greenwich

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Greenwich** Brunswick School Dana Montanez  
 3508 LST 2 Microbial Fuel Cells: Generation of Clean Energy by Electrogenic Bacteria  
**Student(s)** Henry Ferguson **Grade** 10 **Town** Greenwich  
 Thomas Pope **Grade** 10 **Town** Darien

**Greenwich** Brunswick School Dana Montanez  
 6061 PS 2 Optimization of the Sleep Cycle by Activation of the Parasympathetic Nervous System Using Low-frequency Vibrations and Heart Rate Variability Analysis.  
**Student(s)** Ryan Kulsakdinun **Grade** 11 **Town** Armonk

- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* Lunch with a Patent Attorney --- Lunch with a Patent Attorney

**Greenwich** Brunswick School Dana Montanez  
 6501 PST 2 Thermal Desalination: A More Efficient and Sustainable Alternative to Reverse Osmosis  
**Student(s)** Robert MacNaughton **Grade** 10 **Town** Bronxville  
 Michael Yeager **Grade** 10 **Town** Greenwich

- \* EnergizeCT Future Sustainability Awards --- 2nd Place High School - \$300 and Plaque
- \* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- \* 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.

**Greenwich** Brunswick School Dana Montanez  
 3509 LST 1 Utilizing the Mycorrhizal relationship between plants as a biological control to prevent insect invasion and disease in plant populations.  
**Student(s)** Jack Morningstar **Grade** 10 **Town** Greenwich  
 Sebastian DeAngelis **Grade** 10 **Town** Darien

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

**Greenwich** Brunswick School Dana Montanez  
 3507 LST 1 Identification and purification of algal supplements as a means to reduce methane production within ruminants  
**Student(s)** James O'Connor **Grade** 10 **Town** Rye  
 Whip Gorman **Grade** 10 **Town** New Cannan

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

**Greenwich** Brunswick School Dana Montanez  
 3512 LST 1 Determining the optimal concentration of nitrogen in fertilizer by examining Wheat samples with NIR spectroscopy.  
**Student(s)** Campbell Officer **Grade** 11 **Town** Greenwich  
 Henry Sorbaro **Grade** 11 **Town** Greenwich

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



[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Greenwich** Brunswick School Dana Montanez  
 6512 PST 3 Utilization of Recycled Materials as an Efficient Insulator for Power Distribution Lines

**Student(s)** Casey Quinson **Grade** 10 **Town** Rye Brook  
 Connor Choy **Grade** 10 **Town** Greenwich

**Greenwich** Brunswick School Dana Montanez  
 3518 LST 2 Production and purification of luciferase via bacterial transformation: An effort to create a self-sustaining light cube

**Student(s)** Trip Williams **Grade** 11 **Town** Greenwich  
 Teddy Danforth **Grade** 11 **Town** Greenwich

**Greenwich** Brunswick School Dana Montanez  
 3510 LST 2 A comparative analysis of the presence of microplastics in soil and rainwater between rural areas, urban areas, and areas adjacent to trash burning facilities

**Student(s)** Jackson Wolfram **Grade** 11 **Town** Riverside  
 Tomas Delgado **Grade** 11 **Town** Riverside

\* American Meteorological Society --- Certificate & \$25 gift card given by CSEF

**Greenwich** Greenwich Academy Kristin Gannon  
 6052 PS 2 Developing and Testing Updated Geometric Structures to Model the Optical Properties of Spirulina, a Helical Photosynthetic Microorganism

**Student(s)** Natalie Shell **Grade** 12 **Town** Greenwich

**Greenwich** Greenwich Academy Dr. Monica Ortiz  
 6038 PS 3 Using Artificial Intelligence to Analyze the Changes in Opioid Prescriptions and Usages Brought by Efforts to Reduce Overdoses

**Student(s)** Karthika Siva **Grade** 11 **Town** Stamford

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

**Greenwich** Greenwich Catholic School Mrs. Carol Lutz  
 1007 LT 1 Ready, Set, Grow

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

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

**Greenwich** Greenwich Catholic School Carol Lutz  
 4011 PT 3 Flow Infinity

**Student(s)** Rebecca Conroy **Grade** 8 **Town** Stamford  
 Carlita Mannello **Grade** 8 **Town** Stamford

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Greenwich	Greenwich Catholic School	Carol Lutz	5502	P8	3	Fashion Frenzy		
					<b>Student(s)</b>	<b>Jaimie Corpuz</b>	<b>Grade 8</b>	<b>Town</b> Stamford
Greenwich	Greenwich Catholic School	Mrs. Carol Lutz	5010	P7	3	House Elevation		
					<b>Student(s)</b>	<b>Ornella Saviano</b>	<b>Grade 7</b>	<b>Town</b> Stamford
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF								
Greenwich	Greenwich Country Day School	Nathan Haag	3017	LS	3	Could Hydroponics be the Solution to a Sustainable Food System?		
					<b>Student(s)</b>	<b>Isabella Brahmst</b>	<b>Grade 12</b>	<b>Town</b> South Salem
* Institute of Food Technologists, Nutmeg Section --- \$150 award + invitation to Awards Night Dinner with guest								
Greenwich	Greenwich Country Day School	Nathan Haag	3075	LS	3	What Paint is Best: Finding the Most Effective Anti-Fouling Paint for Steel Hulled Boats.		
					<b>Student(s)</b>	<b>Leonardo Corsano-Leopizzi</b>	<b>Grade 11</b>	<b>Town</b> old Greenwich
Greenwich	Greenwich Country Day School	Nathan Haag	3026	LS	3	A DSM III, IV, and V Dissection of the Accuracy of Autism in Film Overtime		
					<b>Student(s)</b>	<b>Ellery Futch</b>	<b>Grade 11</b>	<b>Town</b> Greenwich
Greenwich	Greenwich Country Day School	Nathan Haag	6070	PS	3	Prototype of a Cleaning Robot		
					<b>Student(s)</b>	<b>Ellie Hochberg</b>	<b>Grade 11</b>	<b>Town</b> Rye
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR								
Greenwich	Greenwich Country Day School	Nathan Haag	3100	LS	3	The Effects of a Social-Emotional Education on Elementary Students: A Study of Past SEL Meta-Analyses and the Greenwich Country Day School SEL Curriculum		
					<b>Student(s)</b>	<b>Tessa Loverro</b>	<b>Grade 12</b>	<b>Town</b> Greenwich
Greenwich	Greenwich Country Day School	Dr. Nathan Haag	3062	LS	2	Comparison of the Cognitive Ability of Musically Trained Children		
					<b>Student(s)</b>	<b>Emily Moloney</b>	<b>Grade 12</b>	<b>Town</b> Rye

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Greenwich** Greenwich High School Andrew Bramante  
 3034 LS 3 Shedding Light on an Obscure Disorder; Highlighting the Psychological and Psychosocial Effects of Hidradenitis Suppurativa  
**Student(s)** Melisa Bayram **Grade** 11 **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante  
 6027 PS 1 Simple Remediation of Heavy Metal and Fertilizer Runoff Water Contaminants via Carbon Nanotube Infused Pinus strobus Xylem Filtration  
**Student(s)** Justin Bernstein **Grade** 9 **Town** Greenwich

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

**Greenwich** Greenwich High School Andrew Bramante  
 3025 LS 2 Rapid, Visual Detection of Benadryl Cocktails via Competitive, Amine-Responsive Fluorophores  
**Student(s)** Angelina Fogarty **Grade** 11 **Town** old greenwich

- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High - \$300 & Plaque
- \* Connecticut Science Supervisors Association --- \$125 for a high school project

**Greenwich** Greenwich High School Andrew Bramante  
 3040 LS 2 A Novel Drug Delivery System of Gold-Nanoparticle—Chaperone complex to successfully mitigate Drug-induced Nephrotoxicity, an unwanted Side Effect in Organ Transplant Medications  
**Student(s)** Ana-Florina Galic **Grade** 12 **Town** Riverside

**Greenwich** Greenwich High School Andrew Bramante  
 3012 LS 2 Synthesis of Polysaccharide-Encapsulated Hydroxyapatite Nanocomposites to Stimulate Plant Growth and Promote Phosphorus Absorption.  
**Student(s)** Isabella Gega **Grade** 11 **Town** Greenwich CT

- \* Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF

**Greenwich** Greenwich High School Andrew Bramante  
 3030 LS 1 Design of a Novel, Dual-Functioning Tissue Plasminogen Activator and Anticoagulant Therapeutic for Rapid Ischemic Stroke Treatment  
**Student(s)** Ambika Grover **Grade** 11 **Town** Riverside

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

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Greenwich** Greenwich High School Andrew Bramante

3059 LS 2 The Influence of Social Capital on Covid-19 Vaccine Hesitancy

**Student(s)** Zara Haque **Grade** 9 **Town** Riverside

- \* Mathematics Awards --- High School Finalist - Medallion
- \* MapleSoft Awards for Applied Mathematics and Modeling --- For excellence in Mathematics and Modeling - Maple Software and T-shirt

**Greenwich** Greenwich High School Andrew Bramante

6080 PS 1 Remediation of Fire-Foam PFAs from Contaminated Water Using an Eco-Friendly and Reusable Water Filtration System

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

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

**Greenwich** Greenwich High School Andrew Bramante

6039 PS 1 Eco-Friendly Remediation of Polycyclic Aromatic Hydrocarbons in Stormwater via Magnesium-Infused Calcite Crystal, Supramolecular Hydrogel Scaffolding

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

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

**Greenwich** Greenwich High School Andrew Bramante

3091 LS 1 Development of Readily Accessible Machine Learning Diagnostics for Early Stage Mild TBI using Eye Tracking Methods

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

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

**Greenwich** Greenwich High School Andrew Bramante

6060 PS 1 Increasing Elasticity, Durability, and Function of Wearable PANI-Sense pH Health Monitors via a Superhydrophobic, Textile Framework

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

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

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Greenwich** Greenwich High School Andrew Bramante

3107	LS	2	Inhibition of Covid-19 Induced Cell Inflammation via R-954 B1R Antagonist Disruption of the Bradykinin Storm
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**Student(s)** Ella Moore **Grade** 12 **Town** Greenwich

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

**Greenwich** Greenwich High School Andrew Bramante

3028	LS	3	The Role of Social-Media Addiction on Perception of Real vs. the Imagined; Who Suffers the Most?
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**Student(s)** Catherine O'Brien **Grade** 11 **Town** Old Greenwich

**Greenwich** Greenwich High School Andrew Bramante

6082	PS	1	Biomimetic Removal of Microspheres Water Contaminants, via Calcite-Infused, Coral-like Melamine Sponges
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**Student(s)** Naomi Park **Grade** 10 **Town** Riverside

- \* Lockheed Martin Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque
- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* Collins Aerospace Engineering Awards --- 2nd Place- Engineering Senior High- \$400 & Plaque
- \* H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, Invite to CASE Annual Mtg
- \* Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF
- \* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- \* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- \* Southeastern New England Marine Educators (SENEME) --- \$100 award and membership in SENEME - 1st Place Senior & T-Shirt

**Greenwich** Greenwich High School Andrew Bramante

3063	LS	2	Design of a Wearable, Skin-Specific UVB Sensor for Instantaneous Detection of Skin-Damaging Radiation
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**Student(s)** Yurika Sakai **Grade** 11 **Town** Greenwich

- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High - Plaque
- \* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- \* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project
- \* University of Connecticut Academic Excellence Scholarship --- Academic Excellence Life Sciences scholarship
- \* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

**Greenwich** Greenwich High School Andrew Bramante

6050	PS	2	On the machine learning-assisted generation of Alcubierre-like spacetime metrics with consideration for use in interstellar travel
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**Student(s)** Yuxuan Song **Grade** 11 **Town** Old Greenwich

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

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

3095	LS	2	Pre & Post Emergent Control of Invasive Amaranthus palmeri via Prolonged, Time-Release of Polymer Nano-herbicides
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**Student(s)** John Trudeau **Grade** 12 **Town** Greenwich

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Greenwich** Greenwich High School Andrew Bramante

6042	PS	1	Controlled Delivery of Sulfoxaflor Pesticide via Cinnamaldehyde-infused Hydrogels to Reduce Toxicity to Honey and Wild Bee Pollinators
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**Student(s)** Elizabeth Wallace **Grade** 11 **Town** Old Greenwich

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

**Greenwich** Sacred Heart Greenwich Joan Fei

6091	PS	2	Designing and Testing an Activated Carbon Cloth Storm Drain Filter to Reduce the Prevalence of Phosphates and Nitrates in the Long Island Sound
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**Student(s)** Abby Barnett **Grade** 12 **Town** Darien

- \* Petit Family Foundation Women in Science & Engineering Awards --- 3rd Place - High School- \$150 / Plaque
- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- \* Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Senior Award: Certificate, & teeshirt & \$25 Amazon Card from CSEF

**Greenwich** Sacred Heart Greenwich Joan Fei

3116	LS	2	Determining the Association Between Commercial Fishing Presence and Mako Shark Locations using GPS Tracking Data
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**Student(s)** Isabelle Berkery **Grade** 12 **Town** Harrison

**Greenwich** Sacred Heart Greenwich Ms. Joan Fei

3103	LS	2	Investigating the effect of moderate to intense aerobic and anaerobic exercise on oxygen saturation, visuospatial task performance: implications for female student athletes.
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**Student(s)** Isobel Costello **Grade** 11 **Town** Stamford

**Greenwich** Sacred Heart Greenwich Ms. Fei

3082	LS	2	Forest Restoration after Wildfire: The Effect of the Addition of Saccharides on Seedling Survival After Replanting in Burnt Soil
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**Student(s)** Regina Finn **Grade** 12 **Town** Old Greenwich

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

**Greenwich** Sacred Heart Greenwich Joan Fei

6509	PST	2	Developing a research tool to help determine the risk of Chronic Traumatic Encephalopathy in football players
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**Student(s)** Gabby Lauria **Grade** 12 **Town** Bedford  
 Caroline Hisler **Grade** 12 **Town** Cos Cob

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Greenwich** Sacred Heart Greenwich Joan Fei

3004 LS 2 Using NYC Parks Department "Report a Sighting" Data to Investigate the Relationship Between Emotional Response to Wildlife and Borough and Environmental Racism in New York City

**Student(s)** Annie O'Connor **Grade** 12 **Town** Rye

\* National Geographic That's Geography! - Cultivating Empathy for the Earth Award --- Certificate & \$100 Cash from Society for Science

**Greenwich** Sacred Heart Greenwich Joan Fei

6514 PST 1 Association between Aggressive Behavior and Allele 1820272961:A:C in Purebred and Mixed Breed Canines

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

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

**Guilford** Guilford High School Mary Mooradian

3042 LS 3 Did the Vaccination Quell COVID-19 Surge after Holidays: An Analysis of Real-World Data

**Student(s)** Jason Li **Grade** 10 **Town** Guilford

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

6065 PS 3 A New Hybrid: Harnessing the Power of Friction

**Student(s)** Michael Neiss **Grade** 11 **Town** Guilford

\* EnergizeCT Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 and Plaque  
 \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR  
 \* Vanderbilt Chemicals, LLC --- \$150 Vanderbilt Chemicals Award for Excellence in Tribology and Sustainable Lubrication  
 \* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)

**Guilford** Guilford High School James Carlson

3098 LS 3 Understanding Attention Span: The Changes, How it can be Manipulated, and its Importance Today

**Student(s)** Zachary Neiss **Grade** 11 **Town** Guilford

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

5507 P8 2 2009 MacBook Restoration

**Student(s)** Andrei Balas **Grade** 8 **Town** Cheshire

\* Stanley Black & Decker Applied Technology Awards --- 3rd Place Middle School - \$100 and Plaque, Medallion  
 \* Computer Science Awards --- Middle School Finalist - Medallion  
 \* Wisner Chairman's Award --- \$500 cash & Plaque MS

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

3023 LS 2 Research on Eye Movement Recognition of Early Childhood Autism Spectrum Disorder Based on Hybrid Timing Neural Network

**Student(s)** Liangtong Dong **Grade** 11 **Town** Hamden

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Hamden** Hamden Hall Country Day School Frank Gasparro  
 3099 LS 3 Impact of COVID Pandemic on College Applications for students with lower social economic status  
**Student(s) Evan Huang** **Grade 11** **Town** Guilford

**Hamden** Hamden Hall Country Day School Doctor Frank Gasparro  
 5515 P8 2 iAAA band (Impact-absorbing and alerting band)  
**Student(s) Ravindu Karunaratne** **Grade 8** **Town** Hamden

- \* Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- \* Lemelson Early Inventor Award --- Certificate & \$100 cash award from Lemelson Foundation
- \* American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project

**Hamden** Hamden Hall Country Day School Brian Christman  
 2517 L8 1 The Latch  
**Student(s) Neev Makin** **Grade 8** **Town** Hamden

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

**Hamden** Hamden Hall Country Day School Frank Gasparro  
 3015 LS 3 Testing the efficacy of an SiO2 mixture to Reduce Microplastics Dissolved Into the Oceans  
**Student(s) Leo Southam** **Grade 11** **Town** Shelton

**Hamden** Hamden Hall Country Day School Paulomi Aldo  
 2509 L8 1 Copper Contamination of Freshwater sources which pollute and harm the ecosystem and its consumers (Phytoremediation)  
**Student(s) Sophia Vash** **Grade 8** **Town** Fairfield CT

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

**Hamden** Hamden Hall Country Day School Kelly Ryan  
 6043 PS 3 Miniature intelligent marine garbage collection ship combined with digital intelligent manufacturing technology  
**Student(s) Yuhan Wan** **Grade 12** **Town** Hamden



[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Hamden	Hamden Hall Country Day School	Frank Gasparro	3527	LST	1	Determining Carbon Dioxide Levels in Classroom Settings		
		<b>Student(s)</b>				<b>Yue Zhuo</b>	<b>Grade 10</b>	<b>Town</b> Woodbridge
						<b>Huiwen Zeng</b>	<b>Grade 10</b>	<b>Town</b> Cheshire
		* PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion						
Hamden	Sacred Heart Academy	Paula Napychank	3090	LS	3	Growth of Organic VS. Nonorganic Green Bean Seeds		
		<b>Student(s)</b>				<b>Emma Bausch</b>	<b>Grade 9</b>	<b>Town</b> Cheshire
Hamden	Sacred Heart Academy	Paula Napychank	3014	LS	3	The Dark Side of Dance: Are Ballet Dancers More at Risk for Eating Disorders and Negative Self Image?		
		<b>Student(s)</b>				<b>Elizabeth Blair</b>	<b>Grade 9</b>	<b>Town</b> Cheshire
Hamden	Sacred Heart Academy	Paula Napychank	3064	LS	2	Retracing Evolution: The Venus Flytrap		
		<b>Student(s)</b>				<b>Tess Borowski</b>	<b>Grade 9</b>	<b>Town</b> Oxford
Hamden	Sacred Heart Academy	Dr. Sibani Sengupta	3054	LS	1	Anti-Viral Properties within Ayurvedic Remedies and their Potential COVID-19 Applications		
		<b>Student(s)</b>				<b>Mehr Chhatre</b>	<b>Grade 12</b>	<b>Town</b> Hamden
		* PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion						
Hamden	Sacred Heart Academy	Pamela Brownell	6507	PST	3	Grass vs. Turf Fields: The Effects of Heat		
		<b>Student(s)</b>				<b>Addison Galaski</b>	<b>Grade 10</b>	<b>Town</b> North Haven
						<b>Rebecca Zelaya</b>	<b>Grade 10</b>	<b>Town</b> Wallingford
		* Samantha Freeman Award for Excellence in Sports Science or Engineering --- For Excellence in Sports Science or Engineering by a High School student, \$150 cash						
Hamden	Sacred Heart Academy	Pam Brownell	3088	LS	2	Noise Pollution's (decibels) Affect on the Heart Rate of Daphnia Magna		
		<b>Student(s)</b>				<b>Danyella Lanche-Flores</b>	<b>Grade 10</b>	<b>Town</b> West Haven
Hamden	Sacred Heart Academy	Pamela Brownell	6085	PS	3	The Separation of Polycotton		
		<b>Student(s)</b>				<b>Mary McNulty</b>	<b>Grade 10</b>	<b>Town</b> Wallingford

# Conn. Science & Engineering Fair

## Winning Projects

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Hamden</b>	Sacred Heart Academy	Elizabeth Christophy	3053	LS	3	The Relationship Between Handedness and Emotions		
			<b>Student(s)</b>		<b>Madison Rossetti</b>	<b>Grade</b>	<b>10</b>	<b>Town</b> Hamden
<b>Hartford</b>	Environmental Sciences Magnet School	Ms. Hays	2010	L7	1	Mealybug Management 101 A Study of Household Plant Pest Treatment Options		
			<b>Student(s)</b>		<b>Avni Manish</b>	<b>Grade</b>	<b>7</b>	<b>Town</b> Newington
<ul style="list-style-type: none"> <li>* PepsiCo Life Sciences Awards --- 4th Place- Life Sciences 7th grade - Plaque</li> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- 5th Place Middle School - Plaque, Medallion</li> <li>* EnergizeCT Future Sustainability Awards --- Middle School Finalist - Medallion</li> <li>* Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade - \$100 &amp; Plaque</li> </ul>								
<b>Hartford</b>	Renzulli Academy	Foifon Teawdatwan	2514	L8	2	Do Dead Leaves Help Plants Grow?		
			<b>Student(s)</b>		<b>Dorian Ciscel</b>	<b>Grade</b>	<b>8</b>	<b>Town</b> Hartford
<b>Hartford</b>	Renzulli Academy	Foifon Teawdatwan	5006	P7	2	It's not a pro, It's a robot?		
			<b>Student(s)</b>		<b>Gavin Dusel</b>	<b>Grade</b>	<b>7</b>	<b>Town</b> Newington
<ul style="list-style-type: none"> <li>* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion</li> <li>* U.S. Air Force --- Certificate &amp; \$25 gift card from CSEF</li> </ul>								
<b>Hartford</b>	Renzulli Academy	Foifon Teawdatwan	4005	PT	2	What household materials will clean pennies the best?		
			<b>Student(s)</b>		<b>Jackson Miller</b>	<b>Grade</b>	<b>8</b>	<b>Town</b> Hartford, CT
					<b>Zihao Zhou</b>	<b>Grade</b>	<b>8</b>	<b>Town</b> Hartford
<b>Hartford</b>	Renzulli Academy	Foifon Teawdatwan	2008	L7	2	Extracting DNA from strawberries		
			<b>Student(s)</b>		<b>Damaris Reynoso</b>	<b>Grade</b>	<b>7</b>	<b>Town</b> Hartford
<ul style="list-style-type: none"> <li>* Talcott Mountain Science Center &amp; Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science</li> </ul>								
<b>Kensington</b>	St. Paul School	Mr Fredricks	5004	P7	3	Magic of the Evidence		
			<b>Student(s)</b>		<b>Alexis Bourque</b>	<b>Grade</b>	<b>7</b>	<b>Town</b> berlin
<b>Kent</b>	Kent School	Jesse Klingebiel	3016	LS	2	A comprehensive study to reprogram senescent cells for treatment of age-related diseases		
			<b>Student(s)</b>		<b>Siwen Cui</b>	<b>Grade</b>	<b>11</b>	<b>Town</b> Kent

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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**Kent** Kent School Jesse Klingebiel

6003	PS	1	Flexibility with Flying: Replicable and Attachable Aerial Robot with Multi-Degree-of-Freedom					
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**Student(s)** Siyi Lu **Grade** 11 **Town** Kent

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

**Kent** Kent School Jesse Klingebiel

6033	PS	2	Using U-Nets and Semantic Segmentation on Satellite Imagery for Crop Growth Prediction					
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**Student(s)** Aryan Saha **Grade** 11 **Town** Southington

**Manchester** Manchester High School Wendy Turek-Hernandez

3079	LS	2	The Effects of Temperature on Tobramycin and Perfluorocarbon Emulsions on Bacteria					
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**Student(s)** Leila Affini **Grade** 12 **Town** Manchester

**Manchester** Manchester High School Wendy Turek-Hernandez

6053	PS	2	The Design And Development Of A Point Of Care Device For The Detection of Enteric Diseases					
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**Student(s)** Paris Bazemore **Grade** 11 **Town** Manchester

**Manchester** Manchester High School Wendy Turek-Hernandez

6088	PS	3	The Effects of Environmental Buffers on Traffic-Related Noise Pollution					
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**Student(s)** Emma Greenfield **Grade** 12 **Town** Manchester

- \* Connecticut Academy of Audiology --- \$200 Award HS- For Excellence in Audiology and Acoustics, opport. to shadow an audiologist

**Manchester** Manchester High School Ms. Wendy Turek-Hernandez

3008	LS	2	The Effect of Azospirillum lipoferum on the Microbial Recovery of Corn Soil after a Moderate-Intensity Fire					
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**Student(s)** Alexandra Hamza **Grade** 12 **Town** Manchester

- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion

**Manchester** Manchester High School Wendy Turek

3066	LS	2	The Effect of PLA and HDPE Microplastics on the Growth of Cherry Tomato Plants					
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**Student(s)** Jack Larson **Grade** 12 **Town** Manchester

- \* Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Manchester** St. James School Ellen Oei

5005 P7 1 Power to the Puck

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

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

**Middlebury** Westover School Sydney Kadiyala

6032 PS 2 Flexible mechanical worm based on steering gear

**Student(s)** Xinyi Xie **Grade 11** **Town** Middlebury

- \* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque
- \* Wisner Memorial Award --- \$ 1000 cash + Silver Bowl (\$2000 cash if a team) High School
- \* Jon Chapitis Memorial Award --- John Chapitis Spirit of Innovation Award - HS \$200

**Milford** Platt Technical High School Sara Bruno

3519 LST 1 The Palingenesis Project

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

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

**New Canaan** St. Aloysius School Deborah Phillips

2005 L7 3 Grow Plants Grow - Position of Light and Plant Growth

**Student(s)** Lillian Gayer **Grade 7** **Town** Norwalk

**New Canaan** St. Aloysius School Deborah Philips

2016 L7 1 Are You "Bready" For Some Mold?

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

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

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

5001 P7 2 What do different baking ingredients do?

**Student(s)** Titiladeoluwa Adeniran **Grade 7** **Town** Seymour

- \* Institute of Food Technologists, Nutmeg Section --- \$100 award + invitation to Awards Night Dinner with guest

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**New Haven** Engineering and Science University Magnet School Alyssa Anderson

3501	LST	3	How Can Changing or Adding a Habit to a Daily Routine Reduce Stress and Improve the Overall Well-being of Adolescent Brains?
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<b>Student(s)</b>	<b>Temi Adeniran</b>	<b>Grade 9</b>	<b>Town</b> Seymour
	<b>Mari Arnold</b>	<b>Grade 9</b>	<b>Town</b> Stratford

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

1005	LT	1	Flocculants to Mitigate Harmful Algal Blooms (HABS)
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<b>Student(s)</b>	<b>Saket Aliminate</b>	<b>Grade 8</b>	<b>Town</b> Milford
	<b>Sahithi Aliminate</b>	<b>Grade 7</b>	<b>Town</b> Milford

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

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

4006	PT	2	Which Type of Rocket FlN will affect a Rocket's Time, Height, and Distance the Greatest?
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<b>Student(s)</b>	<b>Nivriith Ananth Iyer</b>	<b>Grade 8</b>	<b>Town</b> West Haven
	<b>Parth Gokhale</b>	<b>Grade 8</b>	<b>Town</b> Milford

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque

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

2006	L7	1	Catalace
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<b>Student(s)</b>	<b>Ethan Joseph</b>	<b>Grade 7</b>	<b>Town</b> West Haven
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- \* PepsiCo Life Sciences Awards --- 1st Place- Life Sciences 7th grade - \$200 & Plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 1st Place Middle School - \$300 and Plaque, Medallion
- \* Computer Science Awards --- 2nd Place Middle School - \$200, Plaque
- \* Connecticut Academy of Science and Engineering Middle School Urban School Challenge Award --- Urban School Challenge 1st MS - \$250 Cash Award, Invite to attend CASE's Annual Meeting
- \* Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp
- \* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS

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

3009	LS	1	Implementing Nontoxic Modified Magnetic Metal Oxide Nanoparticle Enhanced Biochar Filtration for the Efficient Removal of Emerging Contaminants in an Aqueous Solution
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<b>Student(s)</b>	<b>Snigtha Mohanraj</b>	<b>Grade 9</b>	<b>Town</b> Ansonia
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- \* PepsiCo Life Sciences Awards --- 2nd Place- Life Sciences Senior High - \$300 & Plaque
- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- 1st Place High School - \$500 and Plaque, Medallion
- \* H. Joseph Gerber Award of Excellence presented by the Connecticut Academy of Science and Engineering --- \$500 to 1st HS Urban School Challenge Science Department for Equipment/Supplies
- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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<b>New Haven</b>	Engineering and Science University Magnet School	Roger Rushworth	2001	L7	2	The Effects of Run-off Pollutants on the Harmful Algal Bloom (HAB) model C. Vulgaris		
<b>Student(s)</b> Adithi Variar					<b>Grade</b> 7	<b>Town</b> Wallingford		

- \* CASE • The Jackson Laboratory Urban School Challenge Awards --- Middle School Finalist - Medallion
- \* Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash
- \* The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award- \$459

<b>New Haven</b>	Hopkins School	Murali Chiravuri	2512	L8	2	Rapid Screening for Hypertrophic Cardiomyopathy in Athletes		
<b>Student(s)</b> Bodhan Chiravuri					<b>Grade</b> 8	<b>Town</b> Bridgeport		

- \* Pfizer Computational Biology and Bioinformatics Awards --- 2nd Place Middle School - \$200, Plaque
- \* Alexion Biotechnology Awards --- 4th Place- Biotechnology 8th grade - Plaque

<b>New Haven</b>	Hopkins School	Dr. Phillip Stewart	6054	PS	1	Real-Time Motion Tracking System and Data Analytics for Live Insects Using Three-Wheeled Servosphere Robot		
<b>Student(s)</b> Nicholas Lee					<b>Grade</b> 11	<b>Town</b> Trumbull		

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

<b>New Haven</b>	Sound School	Chuck Mulligan	6068	PS	3	Correlation between Rainfall and Suspended Sediment Levels in the Mill River System/ New Haven Waterways		
<b>Student(s)</b> Cora FitzGerald					<b>Grade</b> 9	<b>Town</b> Branford		

- \* CSEF Board of Directors Award --- Certificate and \$200 cash from CT Science and Engineering Fair

<b>New Haven</b>	Sound School	Charles Mulligan	3504	LST	2	Potential Impact of Acidity in Culture on Early Stage Artemia Sp. Nauplii		
<b>Student(s)</b> Ruby Hoffman-Blustajn					<b>Grade</b> 11	<b>Town</b> Hamden		
<b>Student(s)</b> Gabriella Spata					<b>Grade</b> 11	<b>Town</b> New Haven		

<b>New Haven</b>	Sound School	Charles Mulligan	6092	PS	2	Correlation Between Rainfall and Dissolved Oxygen in Local New Haven Waterways: A Predictive Model for Human Impact on this System		
<b>Student(s)</b> Tamzin Maines					<b>Grade</b> 9	<b>Town</b> Old Saybrook		

<b>New Milford</b>	Canterbury School	Kelli Darrin	6046	PS	3	3-D Printing Mechanic Prosthetic Arm For Children		
<b>Student(s)</b> Yijie Wang					<b>Grade</b> 11	<b>Town</b> New Milford		

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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<b>Norwich</b>	Norwich Technical High School	Tiffani Kaminski	3503	LST	2	Comparing the effects of sugar-beet juice on river microenvironments against traditional ice salt runoff		
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<b>Student(s)</b>	<b>Damian Diaz</b>	<b>Grade 11</b>	<b>Town</b> Moosup
	<b>Jay Podziewski</b>	<b>Grade 11</b>	<b>Town</b> Montville

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

<b>Norwich</b>	Norwich Technical High School	Tiffani Kaminski	3522	LST	1	Using Different Compounds to Reduce Hydrophobicity in Soil After a Forest Fire		
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<b>Student(s)</b>	<b>Janelle Lambert</b>	<b>Grade 11</b>	<b>Town</b> Scotland
	<b>Hailey Ruddock</b>	<b>Grade 11</b>	<b>Town</b> Oakdale

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

<b>Norwich</b>	Norwich Technical High School	Tiffani Kaminski DeAngelis	3517	LST	2	Heat shocking Caenorhabditis Elegans with Congo Red Dye to Show buildup of Plaque leading to Alzheimer's		
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<b>Student(s)</b>	<b>Jasmine Martinez</b>	<b>Grade 11</b>	<b>Town</b> colchester
	<b>Joshua Lavender</b>	<b>Grade 11</b>	<b>Town</b> Moosup

<b>Norwich</b>	Norwich Technical High School	Tiffani Kaminski	3513	LST	2	The Juvenile Hormone from Tenebrio molitor Affects Larvae Development and May Decrease Growth of Tumors in Humans		
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<b>Student(s)</b>	<b>Mason Netopski</b>	<b>Grade 11</b>	<b>Town</b> Norwich
	<b>Kaylee Gray</b>	<b>Grade 11</b>	<b>Town</b> Norwich

<b>Norwich</b>	Norwich Technical High School	Tiffani Kaminski	3515	LST	1	Biodegradation of Polystyrene by Bacteria Found in The Gut of Tenebrio Molitor Larvae		
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<b>Student(s)</b>	<b>Tori Simmons</b>	<b>Grade 11</b>	<b>Town</b> Norwich
	<b>Sara Smith</b>	<b>Grade 11</b>	<b>Town</b> New London

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

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Pawcatuck</b>	St. Michael School	Anna-Helene Grossomanides	2012	L7	1	American Juvenile Horseshoe Crab Aquaculture		
					<b>Student(s)</b>	<b>Gianna Giovanelli</b>	<b>Grade 7</b>	<b>Town</b> Westerly
<ul style="list-style-type: none"> <li>* PepsiCo Life Sciences Awards --- 3rd Place- Life Sciences 7th grade - \$100 &amp; Plaque</li> <li>* Petit Family Foundation Women in Science &amp; Engineering Awards --- Middle School Finalist - Medallion</li> <li>* Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade - Plaque</li> <li>* Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF</li> <li>* Southeastern New England Marine Educators (SENEME) --- \$100 award and membership in SENEME - 1st Place Junior &amp; T-Shirt</li> <li>* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt &amp; cap, First Place Junior</li> </ul>								
<b>Pawcatuck</b>	St. Michael School	Anna-Helene Grossomanides	5008	P7	1	Underground Life		
					<b>Student(s)</b>	<b>Owen Nicholas</b>	<b>Grade 7</b>	<b>Town</b> Pawcatuck
<ul style="list-style-type: none"> <li>* Lockheed Martin Physical Sciences Awards --- 4th Place - Physical Sciences 7th Grade Ind. - Plaque</li> <li>* EnergizeCT Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 and Plaque</li> </ul>								
<b>Pawcatuck</b>	St. Michael School	Anna-Helene Grossomanides	2513	L8	2	The DNA of Fruit		
					<b>Student(s)</b>	<b>May Serraro</b>	<b>Grade 8</b>	<b>Town</b> Westerly
<b>Pawcatuck</b>	St. Michael School	Anna-Helene Grossomanides	5512	P8	2	Energized		
					<b>Student(s)</b>	<b>Connor Walsh</b>	<b>Grade 8</b>	<b>Town</b> Pawcatuck
<b>Pomfret</b>	Pomfret School	Tae Ryu	3045	LS	3	Development of Oil Spill Detection Technology using Video Image Processing by Deep Neural Network		
					<b>Student(s)</b>	<b>Yuree Oh</b>	<b>Grade 10</b>	<b>Town</b> Pomfret
<b>Pomfret</b>	Pomfret School	Deary Timothy	6073	PS	2	A novel vascular 3D-printing approach assisted by cardiac single cell transcriptomics		
					<b>Student(s)</b>	<b>Zhoutong Qi</b>	<b>Grade 10</b>	<b>Town</b> Montgomery
<ul style="list-style-type: none"> <li>* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate</li> </ul>								
<b>Redding</b>	CT STEM Foundation	Catherine Piscitelli	3052	LS	2	Determining the Availability of Effective Online Triage Resources for Patients at Musculoskeletal Urgent Care Centers		
					<b>Student(s)</b>	<b>Anchal Bahel</b>	<b>Grade 11</b>	<b>Town</b> Woodbridge



[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Redding	CT STEM Foundation	Catherine Piscitelli	3121	LS	3	Effects of Cannabinoids on Verbal Learning and Memory: Relationship to Biological Sex		
			<b>Student(s)</b>		<b>Emily Gu</b>	<b>Grade 10</b>		<b>Town</b> Woodbridge
Redding	CT STEM Foundation	Cathrine Piscitelli	3041	LS	3	Determining Position Preference of Different Species of Insect Galls in Relation to Each Other on the Solidago altissima		
			<b>Student(s)</b>		<b>Sophia Liu</b>	<b>Grade 11</b>		<b>Town</b> Orange
* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion								
Redding	CT STEM Foundation	Catherine Piscitelli	6025	PS	3	Developing a Graphical User Interface to Organize Ecommerce Product Attributes		
			<b>Student(s)</b>		<b>Haoyue Yang</b>	<b>Grade 11</b>		<b>Town</b> Woodbridge
* Computer Science Awards --- Senior High Finalist - Medallion								
Ridgefield	Ridgefield High School	Aine Kapell	3106	LS	1	Assessing the efficacy of botanical repellents against blacklegged ticks		
			<b>Student(s)</b>		<b>Ava Anderson</b>	<b>Grade 11</b>		<b>Town</b> Ridgefield
* PepsiCo Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion								
* University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Science or Mathematics \$30,000 (\$7,500 per year)								
Ridgefield	Ridgefield High School	Patrick Hughes	6056	PS	2	A Wavelet-based Method for Generalizing Molecular Latent Spaces for Assisted Traversal		
			<b>Student(s)</b>		<b>Ian Murdock</b>	<b>Grade 12</b>		<b>Town</b> Ridgefield
* Mathematics Awards --- 3rd Place High School - \$200 and Plaque								
* Connecticut Association of Physics Teachers --- \$100 Senior project								
Ridgefield	Ridgefield High School	Aine Kapell	3076	LS	2	Determining the Risk of Future Forest Fires due to Fuel Flammability		
			<b>Student(s)</b>		<b>Allison Price</b>	<b>Grade 12</b>		<b>Town</b> Ridgefield
Ridgefield	Ridgefield High School	Aine Kapell	3019	LS	3	The Probability of a Shark Attack Across the East Coast		
			<b>Student(s)</b>		<b>Riley Riebling</b>	<b>Grade 12</b>		<b>Town</b> Ridgefield
Ridgefield	Ridgefield High School	Ryan Gleason	6069	PS	2	Short-Term Biodegradation Analysis of Greener Alternatives to Plexiglass Pilot Study		
			<b>Student(s)</b>		<b>Evia Rodriguez</b>	<b>Grade 12</b>		<b>Town</b> Ridgefield
* Collins Aerospace Engineering Awards --- Finalist - Engineering High School - CSF Medallion								

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Ridgefield</b>	Ridgefield High School	Ryan Gleason	3029	LS	2	The Effect of Computer Light on Caenorhabditis Elegans Development		
<b>Student(s)</b> Tiffany Yin					<b>Grade</b> 11	<b>Town</b> Ridgefield		
<b>Sandy Hook</b>	Newtown High School	Tim DeJulio	6055	PS	2	Bird Image Recognition Using Pytorch		
<b>Student(s)</b> Iucca lapierre					<b>Grade</b> 12	<b>Town</b> Newtown		
<b>Sandy Hook</b>	Newtown High School	Tim DeJulio	6008	PS	3	Track System for Safe and Effective Lifeboat Launches		
<b>Student(s)</b> Hannah Lucian					<b>Grade</b> 12	<b>Town</b> Oxford		
<b>Sandy Hook</b>	Newtown High School	Tim DeJulio	6077	PS	2	Modular Robotic System for Multipurpose Robots		
<b>Student(s)</b> Benjamin Ochs					<b>Grade</b> 12	<b>Town</b> Sandy Hook		
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR								
<b>Sandy Hook</b>	Newtown High School	Mr.DeJulio	3013	LS	2	Data mining on efflux pump LmrS for either the MIC's of antibiotics or fluorecence of Ethidium bromide.		
<b>Student(s)</b> Tyler Saunders					<b>Grade</b> 11	<b>Town</b> newtown		
<b>Sandy Hook</b>	Newtown High School	Timothy DeJulio	6086	PS	2	Accessible program and system to accurately align a star tracking mount using a camera.		
<b>Student(s)</b> Sam Staubly					<b>Grade</b> 12	<b>Town</b> Newtown		
* Astronomical Society of Greater Hartford - The Charles Hammond Award for Excellence in Astronomy --- Senior Project-\$150, subscription to Sky and Telescope, ASGH membership and meeting invitation								
<b>Sandy Hook</b>	Newtown High School	Timothy DeJulio	3093	LS	2	The Effect of Placebos and Nocebos on Pain Perception		
<b>Student(s)</b> Anna White					<b>Grade</b> 11	<b>Town</b> Sandy Hook		
<b>Shelton</b>	Shelton Intermediate School	Erica Napoli	1011	LT	3	Moon Madness?		
<b>Student(s)</b> Kurtlene Dela Rosa					<b>Grade</b> 7	<b>Town</b> Shelton		
<b>Student(s)</b> Enja Abo-Alaial					<b>Grade</b> 7	<b>Town</b> shelton		
* American Psychological Association --- Certificate, \$25 gift card given by CSEF								

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Shelton** Shelton Intermediate School Erica Napoli  
 4007 PT 1 Sheets that Dry, Which one is Fly?

**Student(s)** Sailor Martin **Grade 8** **Town** Shelton  
 Quinn Wherley **Grade 8** **Town** Shelton CT

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

**Shelton** Shelton Intermediate School Erica Napoli  
 2504 L8 1 The Power of Teeth Whitening

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

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

**Simsbury** Simsbury High School Golden Heather  
 3051 LS 2 Computational Identification of miRNAs associated with Heart Tumor and Cardiovascular Disease

**Student(s)** Jeslyn Gao **Grade 11** **Town** Simsbury

**South Windsor** South Windsor High School Dr. Rama Balasubramanian  
 6076 PS 2 A Spectroscopic Study of Iron-Based Minerals on Earth and Mars

**Student(s)** Pranav Shankar **Grade 11** **Town** South Windsor

**Stamford** Bi-Cultural Hebrew Academy Christopher Graseck  
 1009 LT 3 Best Plants For Short Term Growth

**Student(s)** Elliot Nerenberg **Grade 7** **Town** Stamford  
 Sheldon Heyman **Grade 7** **Town** Westport

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

**Stamford** Bi-Cultural Hebrew Academy Christopher Graseck  
 2009 L7 2 Salt Effect on the Plant Growth of Raphanus sativus

**Student(s)** Sadie Palker **Grade 7** **Town** Stamford

**Stamford** Bi-Cultural Hebrew Academy Mr. Graseck  
 2014 L7 2 How Do Small Amounts of Sodium Chloride Affect the Growth of Brassica Rapa (Mustard Plants)

**Student(s)** Joshua Schwartz **Grade 7** **Town** Stamford

\* Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion  
 \* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF

**Stamford** King School Victoria Schulman  
 3096 LS 2 Drosophila melanogaster locomotion, myonuclei size, and myonuclei position are affected by differential gene expression

**Student(s)** Giovanna Armetta **Grade 12** **Town** Stamford

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

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Stamford** King School Victoria Schulman  
 3067 LS 2 Structure Determination of Novel Non-Canonical Base Pairs and Mismatches  
**Student(s) William Bernfeld** **Grade 12** **Town Stamford**

**Stamford** King School Victoria Schulman  
 3032 LS 2 A Convolutional Neural Network for Real-Time Tick Classification and Disease Risk Analysis  
**Student(s) Antonia Kolb** **Grade 10** **Town New Canaan**

- \* Pfizer Computational Biology and Bioinformatics Awards --- 1st Place High School - \$400, Plaque
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

**Stamford** King School Victoria Schulman  
 6028 PS 1 Electrochromism paired with Finite Difference Time Domain Modeling allows for the Successful Prediction of Color Change Achieved by Electrochromic Reactions  
**Student(s) Gouri Krishnan** **Grade 11** **Town Darien**

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

**Stamford** King School Victoria Schulman  
 6026 PS 2 Passive Thermal Energy Storage for Air Conditioning Systems Utilizing Phase Change Material  
**Student(s) Adam Nomani** **Grade 12** **Town Stamford**

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

**Stamford** King School Victoria Schulman  
 3038 LS 1 The use of Prime Editing to Induce and Correct the CFTR-F508del mutation in iPSCs.  
**Student(s) Benjamin Persily** **Grade 11** **Town Scarsdale**

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

**Stamford** King School Victoria Schulman  
 6040 PS 2 Biocement Bricks for Negative Emissions: Electrochemical Ocean Carbon Capture  
**Student(s) John Russell** **Grade 12** **Town Riverside**

**Stamford** King School Victoria Schulman  
 3071 LS 2 The essential 23S rRNA methyltransferase rv3579c confers intrinsic macrolide resistance in Mycobacterium tuberculosis  
**Student(s) Yuriy Sandmeier** **Grade 11** **Town New Rochelle**

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

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Storrs** E.O. Smith High School Cheryl Granger  
 6515 PST 3 Developing Deep Learning Methods to Enable Environment Recognition for Autonomous Cars  
**Student(s)** Riley Francis **Grade 11** **Town** Mansfield  
 Kanishk Tihaiya **Grade 11** **Town** Storrs-Mansfield  
 Anthony Song **Grade 11** **Town** Mansfield Center

**Storrs** E.O. Smith High School Dr. Granger  
 3526 LST 3 Effect of Lesson Delivery Media on Student Learning Outcome and Information Retention  
**Student(s)** Yafee Khan **Grade 9** **Town** Storrs Mansfield  
 Hudson Shi **Grade 9** **Town** Mansfield

**Storrs** E.O. Smith High School Cheryl Granger  
 3521 LST 3 How Cooking Different Kinds of Poultry at Different Temperatures Affects the Growth of E. Coli  
**Student(s)** Mary Lynch **Grade 9** **Town** Storrs  
 Mackenzie Dahlen **Grade 9** **Town** Mansfield Center

\* Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to Awards Night Dinner with guest

**Suffield** Suffield Academy Suika Liu  
 6014 PS 3 On the Casas-Alvero's Conjecture  
**Student(s)** Jiaxuan Su **Grade 10** **Town** Shanghai

\* Mathematics Awards --- High School Finalist - Medallion  
 \* Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF

**Suffield** Suffield High School Melanie Brown  
 6005 PS 2 Designing and Developing an Affordable intelligent (Manned/Unmanned) VTOL Aircraft for Transportation, Search and Rescue  
**Student(s)** Hassan Aljafar **Grade 12** **Town** Suffield

**Suffield** Suffield High School Melanie Brown  
 6023 PS 3 The Effectiveness of Different Structures at Limiting Beach Erosion  
**Student(s)** Peter Danise **Grade 12** **Town** Suffield

**Suffield** Suffield High School Melanie Brown  
 3036 LS 2 The Anticoagulant blood mixer and anti-stress device for patients donating blood  
**Student(s)** Ana-Lois Davis **Grade 10** **Town** Broad Brook

\* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Suffield</b>	Suffield High School	Melanie Brown	6074	PS	3	Post FDM 3D Printing Processes to Improve Layer Adhesion.		
					<b>Student(s)</b> Jack Shanks	<b>Grade</b> 12	<b>Town</b> Suffield	
* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificat								
<b>Suffield</b>	Suffield Middle School	Melanie Brown	5511	P8	2	Converting Excess Heat Generated From Furnaces Into Usable Energy		
					<b>Student(s)</b> Noora Khaled	<b>Grade</b> 8	<b>Town</b> Suffield	
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF * Society of Women Engineers - Hartford Section --- Scientific Calculator * 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 * Frank J. Link Family Award for Energy Related Research --- Frank J. Link Award for Energy Related Research - \$50 * Robert Francoeur Memorial Award --- Creative or innovative project in engineering or computer science by female students - \$100 * Demos R Us Award --- \$200 Cash Award- Clear Execution of Research- 8th Grade								
<b>Trumbull</b>	Christian Heritage School	Daniel Cote	6037	PS	3	Combating Covid-19 through Programming using Scratch Software		
					<b>Student(s)</b> Aidan Bradley	<b>Grade</b> 11	<b>Town</b> Ansonia	
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR								
<b>Trumbull</b>	Christian Heritage School	Daniel Cote	6018	PS	3	"How the Amount of Air Pressure in Bike Tires Affects a Bicycle's Efficiency and the Fuel Economy"		
					<b>Student(s)</b> Nathanael Mack	<b>Grade</b> 11	<b>Town</b> West Haven	
<b>Trumbull</b>	Christian Heritage School	Dr. Daniel Code	5516	P8	2	Are LED's affected by heat?		
					<b>Student(s)</b> Alessandro Ochoa	<b>Grade</b> 8	<b>Town</b> Wilton	
* EnergizeCT Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion * EnergizeCT Future Sustainability Awards --- Middle School Finalist - Medallion								
<b>Trumbull</b>	Christian Heritage School	Mr Daniel Cote	5508	P8	1	The Luboni		
					<b>Student(s)</b> Lucille Presbrey	<b>Grade</b> 8	<b>Town</b> Ridgefield	
* Lockheed Martin Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion * EnergizeCT Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 and Plaque * IEEE, Connecticut Section --- \$100 Honorable Mention * Robotics And Beyond --- Middle School- For excellence in engineering design; \$200 toward Robotics And Beyond STEM and Design summer camp, \$50 cash if cannot attend camp. Certificate.								

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Trumbull</b>	Christian Heritage School	Dr. Dan Cote	5506	P8	3	Building an Electric Skateboard		
					<b>Student(s)</b> Elijah Teixeira	<b>Grade</b> 8	<b>Town</b> Bridgeport	
* EnergizeCT Alternative/Renewable Energy Awards --- 3rd Place Middle School - \$100 and Plaque								
<b>Trumbull</b>	Christian Heritage School	Daniel Cote	6020	PS	3	Portable Green Energy Generator and Storing Unit		
					<b>Student(s)</b> Laura Wertalik	<b>Grade</b> 11	<b>Town</b> Milford	
<b>Wallingford</b>	Choate Rosemary Hall	Murali Chiravuri	3117	LS	1	Development of a Home N-Terminal Pro-Brain Natriuretic Peptide Assay for the Diagnosis of Congestive Heart Failure.		
					<b>Student(s)</b> Maya Chiravuri	<b>Grade</b> 11	<b>Town</b> Bridgeport	
* PepsiCo Life Sciences Awards --- 3rd Place- Life Sciences Senior High - \$200 & Plaque								
* Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High - \$500 & Plaque								
* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF								
<b>Wallingford</b>	Choate Rosemary Hall	Jan Cook	3018	LS	2	Modeling Predator-Prey Relationships of Brine Shrimp and Invasive Waterboatmen to Optimize Ecological Stability		
					<b>Student(s)</b> Stanley Cho	<b>Grade</b> 9	<b>Town</b> Wallingford	
<b>Wallingford</b>	Choate Rosemary Hall	Todd Currie	3060	LS	2	Purification of Contaminated Water Using Natural Coagulants		
					<b>Student(s)</b> Nilan Kathir	<b>Grade</b> 9	<b>Town</b> Cheshire	
<b>Wallingford</b>	Choate Rosemary Hall	Dr. Chris Hogue	6049	PS	2	JARVITS: A Novel Deep Learning IoT Traffic Control System for Real-time Detection and Signal Optimization		
					<b>Student(s)</b> Ryan Kim	<b>Grade</b> 11	<b>Town</b> New Haven	
* Computer Science Awards --- 3rd Place High School- \$200, Plaque								
* Collins Aerospace Engineering Awards --- 3rd Place- Engineering Senior High- \$200 & Plaque								
* Raytheon Corporation Awards --- \$500, Plaque								
* Quinnipiac University Scholarships --- \$30,000, 4 year scholarship (\$7,500 per year) to Quinnipiac University for HS Student								
<b>Wallingford</b>	Choate Rosemary Hall	Sunny Kim	3119	LS	3	Development of LMMD (Lower Methane, More Degradable) Bag Using Marine Bio-Waste Sargassum		
					<b>Student(s)</b> Ryan Yoon Ha Lee	<b>Grade</b> 10	<b>Town</b> Wallingford	
* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF								

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Wallingford** Choate Rosemary Hall Jan Cook

6011 PS 2 Application of Soft Robots in Building Collapse Rescues

**Student(s)** Ann Song **Grade 9** **Town** Farmington

- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project
- \* IEEE, Connecticut Section --- \$100 Honorable Mention

**Wallingford** Choate Rosemary Hall Xin Wang

3101 LS 1 A clinicogenomic prediction model for the early diagnosis of lung cancer

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

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

**Waterbury** ACES at Chase Angela Langlais

5513 P8 3 Rube Goldberg Machine: Observing Gravity In Action

**Student(s)** Zanri Barnett **Grade 8** **Town** Meriden

**Waterbury** ACES at Chase Ms. Langlais

1006 LT 2 Bean Maze

**Student(s)** Tyler Brennan **Grade 8** **Town** Waterbury  
 Tylon Lott **Grade 8** **Town** Waterbury,CT  
 My Le Le Delacruz **Grade 8** **Town** Waterbury

**Waterbury** ACES at Chase Ms Langlais

1018 LT 2 Hand sanitizer vs Hand soap

**Student(s)** Avianna Foster **Grade 8** **Town** Meriden  
 Jamile Valiente **Grade 8** **Town** Meriden

**Waterbury** ACES at Chase Ms. Langlais

4001 PT 2 Substances vs Ice: Which will melt an ice cube first?

**Student(s)** Dynasia NiiAryee **Grade 8** **Town** Middletown  
 Ya'Nyza Plummer **Grade 8** **Town** Meridian  
 Kristina Valentin **Grade 8** **Town** Meriden

**Waterbury** ACES at Chase Angela Langlais

1013 LT 3 The volcano experiment

**Student(s)** Sarah Persaud **Grade 8** **Town** waterbury  
 Alana Haynes **Grade 8** **Town** waterbury  
 kimora woodson **Grade 8** **Town** meriden



[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Westport** Greens Farms Academy Mathieu Freeman  
 3010 LS 2 The Comparative Effects of Fuhc Immunosuppressants and Allotransplanted Blood Plasma Transfusion on Allotransplant Acceptance in Botryllus Schlosseri  
**Student(s) Shealeigh Crombie** **Grade 12** **Town** Westport

**Westport** Greens Farms Academy Freeman  
 6022 PS 2 Combating the Better Than Average Effect by Using Perceived Driving Ability.  
**Student(s) Grant Miller** **Grade 12** **Town** Darien

**Westport** Greens Farms Academy Mathieu Freeman  
 3089 LS 2 The Effect of Diphenhydramine on the Progression of Parkinson's Disease in Drosophila Melanogaster  
**Student(s) Danielle Mirin** **Grade 12** **Town** New Canaan

**Westport** Greens Farms Academy Mathieu Freeman  
 3005 LS 2 The Effects of Green Tea on  $\beta$ -Amyloid-Induced Alzheimer's Disease in Lymnaea Stagnalis  
**Student(s) Avery Woodworth** **Grade 12** **Town** Fairfield

\* Petit Family Foundation Women in Science & Engineering Awards --- 1st Place - High School \$500 / Plaque

**Westport** Staples High School Amy Parent  
 3110 LS 1 Alzheimer's Disease Identification with Machine Learning Based on Wavelet Transform  
**Student(s) Aalok Bhattacharya** **Grade 11** **Town** Westport

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

**Westport** Staples High School Dr. Dharmadhikari  
 3039 LS 2 Computational Study on the Effects of Granzyme A on Follicular Lymphoma Microenvironment During CAR T Cell Therapy  
**Student(s) Tanvi Gorre** **Grade 11** **Town** Westport

**Westport** Staples High School Nick Morgan  
 6016 PS 2 Finding Gravitationally Lensed Quasar Systems by using a Polar Shapelet Decomposition Approach  
**Student(s) Ishan Prasad** **Grade 12** **Town** Westport

- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Astronomical Society of Greater Hartford - The Charles Hammond Award for Excellence in Astronomy --- Senior Project-\$150, subscription to Sky and Telescope, ASGH membership and meeting invitation
- \* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Frontiers in Science - Co-Op \$100 Gift Certificate
- \* Arthur & Ruth Mensing Award --- Mensing Award Excellence in the Physical Sciences - \$500

**Westport** Staples High School Amy Parent  
 3118 LS 2 Essential Oils from Thyme and Rosemary in Combination as an Antibiotic-Sparing Agent to Treat Escherichia coli-caused Urinary Tract Infections  
**Student(s) Mallika Subramanian** **Grade 11** **Town** Westport

# Conn. Science & Engineering Fair

## Winning Projects

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Wilton** Middlebrook School Ms. Norman  
 2011 L7 2 Sugar Content of Fruit using a Refractometer  
**Student(s)** Megan Dragunat **Grade 7** **Town** Wilton

**Wilton** Middlebrook School Kendra Norman  
 4003 PT 1 School Bus Approach Alert System  
**Student(s)** Leonardo Kulon **Grade 7** **Town** Wilton  
 Sanaka Dash **Grade 7** **Town** Wilton

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

**Wilton** Middlebrook School Carol Festa  
 5503 P8 3 Revolutionary 3D-Printed Shoes to Change the Way We Think about Footwear  
**Student(s)** William Olmstead **Grade 8** **Town** Wilton

- \* Susan and Stanley Lessoff Memorial --- Susan and StanleyLessoff Memorial Award - \$250 Cash and Plaque MS

**Wilton** Middlebrook School Deborah Mallozzi  
 4009 PT 1 Illusion v. Reality  
**Student(s)** Arista Sullivan **Grade 8** **Town** Wilton  
 Meredith Sullivan **Grade 8** **Town** Wilton

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

**Wilton** Middlebrook School Carol Festa  
 1012 LT 1 A novel way to solve coral bleaching  
**Student(s)** Preethi Vijay **Grade 8** **Town** Wilton  
 Trisha Prabhu **Grade 8** **Town** Wilton

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

**Windsor** Academy of Aerospace & Engineering Lili Aramli  
 3003 LS 3 An Investigation on the Multi-Generational Effect of Acidic Soil on the Growth of Brassica rapa  
**Student(s)** Casey Campellone **Grade 11** **Town** Vernon

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Windsor** Academy of Aerospace & Engineering Michelle Bellinger  
 6504 PST 2 Beyond Sunshine: Robotic Optimization for Maximum Efficiency of Solar Energy Production

**Student(s)** Aiden Christy **Grade 12** **Town** Glastonbury  
 Neel Vachhani **Grade 11** **Town** South Windsor

- \* EnergizeCT Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- \* EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion

**Windsor** Academy of Aerospace & Engineering Dr. Michelle Bellinger  
 6502 PST 1 The Effect Of Altering The Material Composition in Ultra High-Performance Concrete (UHPC) With Regional Materials On Compressive Strength

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

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

**Windsor** Academy of Aerospace & Engineering Dr. Lili Aramli  
 3072 LS 3 Examining the Use of Navicula sp. as an Organic Fertilizer for Brassica Rapa

**Student(s)** Devon Mansfield **Grade 11** **Town** East Hampton

**Windsor** Academy of Aerospace & Engineering Dr. Michelle Bellinger  
 6505 PST 1 Piezoelectric Wind Harvesting Electrical Energy Conversion

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

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

**Windsor** Academy of Aerospace & Engineering Michelle Bellinger  
 3514 LST 2 Computational Hydroponics

**Student(s)** Zahrion Watson **Grade 11** **Town** bloomfield  
 Vanessa Weir **Grade 11** **Town** Hartford  
 Khaley-shai Wyndham **Grade 11** **Town** windsor

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

**Windsor** Madina Academy Mr. Coleman  
 6059 PS 3 A Proposal to Use Cost Effective Eco-friendly and Stronger Bricks for Modern Construction:

**Student(s)** Yameen Ahmed **Grade 9** **Town** Vernon, Rockville

- \* Geology/Historic Project of Merit Award --- \$100 - Earth Science - Field work with Geologic or historic value

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Windsor** Madina Academy Mr. Coleman  
 5524 P8 3 Converting Sound Into Electricity  
**Student(s)** Hamza Alsaleh **Grade 8** **Town** Windsor Locks

**Windsor** Madina Academy Mr. Timothy Coleman  
 3524 LST 3 The Liquid Bulk Viscosity Effect on the Dynamics of a Single Cavitation Bubble  
**Student(s)** Tasneem Zoghol **Grade 9** **Town** Enfield  
 Deana Khatib **Grade 9** **Town** Windsor

**Windsor** The Loomis Chaffee School Koby Osei-Mensah  
 3068 LS 1 Computational Psychiatry: Application of Machine Learning Methods to Analyze Marijuana Addictions and Craving  
**Student(s)** Sean Lee **Grade 12** **Town** Los Altos

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

**Windsor** The Loomis Chaffee School Mr. Osei-Mensah  
 3057 LS 2 The effects of different soil environments on the rate of HDPE and LDPE degradation by Bacillus subtilis  
**Student(s)** Edward Park **Grade 11** **Town** Windsor

**Windsor** The Loomis Chaffee School Koby Osei-Mensah  
 6021 PS 1 NeRF-UAV: Inexpensive 3-D Colored Video Reconstruction Using RGB Camera Equipped Drone Swarms and Neural Radiance Fields  
**Student(s)** Eric Sun **Grade 11** **Town** Flushing

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

**Windsor** The Loomis Chaffee School Koby Osei-Mensah  
 6089 PS 2 Analysis of Leading-Edge Devices on Aerodynamic Lift at Different Angles of Attack  
**Student(s)** Ting-Yo Tan **Grade 12** **Town** Taipei

\* U.S. Air Force --- Certificate & \$25 gift card from CSEF  
 \* American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate

**Windsor** The Loomis Chaffee School Mr. Osei-Mensah  
 6078 PS 2 Host Galaxies of High Redshift Quasar Absorbers  
**Student(s)** Benson Wang **Grade 11** **Town** Concord

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Windsor** The Loomis Chaffee School Koby Osei-Mensah  
 6079 PS 2 Introduction to Surreal Numbers: Exploring Real, Infinite and Infinitesimal Values and Their Hackenbush Games

**Student(s)** Yat Him Cyrus Wong **Grade** 12 **Town** Hong Kong

- \* Mathematics Awards --- High School Finalist - Medallion
- \* Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF

**Woodbridge** Amity Regional High School Catherine Piscitelli  
 3115 LS 3 Applying an Integrated Diffusion Framework to Identify interactions Between Chromatin Regions and Gene Expression using a Multimodal Embryoid Developmental Dataset

**Student(s)** Anushka Acharya **Grade** 11 **Town** Bethany

**Woodbridge** Amity Regional High School Catherine Piscitelli  
 6087 PS 2 Developing an Inductive Stent to Accurately Detect the Occurrence of In Stent Restenosis

**Student(s)** Piyush Bahel **Grade** 11 **Town** Woodbridge

**Woodbridge** Amity Regional High School Catherine Piscitelli  
 6090 PS 2 The Optimization of a Ground Collision Avoidance System and Application to Inhibit Controlled Flight Into Terrain Accidents For Single Engine Aircraft

**Student(s)** Mason Beaudette **Grade** 12 **Town** Orange

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

**Woodbridge** Amity Regional High School Catherine Piscitelli  
 6031 PS 1 Theoretical Modelling and Parameterization of a Novel-Actuator-Based Transtibial Pediatric Prosthetic

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

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

**Woodbridge** Amity Regional High School Mrs. Catherine Piscitelli  
 3022 LS 2 Developing and Testing a Novel Acne Reducing Spray for Face Masks and Accessories

**Student(s)** Francis Cavallaro **Grade** 11 **Town** Orange

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Woodbridge** Amity Regional High School Catherine Piscitelli

3021 LS 2 Creating a Frequency-Emitting Program to Enhance Mosquito Capture and Surveillance Efforts in Response to the Spread of Mosquito-Borne Diseases

**Student(s) Daniel Liu** **Grade 11** **Town** Woodbridge

- \* Environmental Sciences Awards with CACIWC --- HS Finalist - CSF Medallion
- \* University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Science or Mathematics \$30,000 (\$7,500 per year)
- \* 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

6058 PS 1 The Manufacture and Expanded Function of a Locking Container to Eliminate the Distraction of Phones While Driving

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

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

**Woodbridge** Amity Regional High School Catherine Piscitelli

6013 PS 2 Optimizing a Portable Vertical Axis Wind Turbine with Improved Construction Methods and Testing of Various Airfoils

**Student(s) Brodey Lu** **Grade 12** **Town** Orange

- \* EnergizeCT Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 and Plaque
- \* EnergizeCT Future Sustainability Awards --- High School Finalist - Medallion
- \* Raytheon Corporation Awards --- \$500, Plaque

**Woodbridge** Amity Regional High School Catherine Piscitelli

3520 LST 3 Development of an Autonomous WatchOS Application that uses HRV and Vibrational Pulses to Reduce Stress

**Student(s) Sheehan Munim** **Grade 11** **Town** Orange  
**Allen Liu** **Grade 11** **Town** Woodbridge

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

**Woodbridge** Amity Regional High School Catherine Piscitelli

6015 PS 3 Creating a Systematic ESG (Environmental Social Governance) Scoring System using Social Network Analysis and Machine Learning to Influence Company Practices to be More Sustainable

**Student(s) Aarav Patel** **Grade 10** **Town** Orange

- \* Stanley Black & Decker Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
- \* Kathleen & David Smith Awards --- Kathleen & David Smith Award for Innovative Concept - \$100

**Woodbridge** Amity Regional High School Catherine Piscitelli

6044 PS 3 Designing and Optimizing a More Efficient Optical Component for Thermal Cameras

**Student(s) Anthony Sharonov** **Grade 11** **Town** Bethany

- \* ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF
- \* Kathleen & David Smith Awards --- Kathleen & David Smith Award for Laser Application - \$100

[SchTown] [School] [Teacher]  
 [Proj#] [FCat] [Honors] [Project Title] Sponsor(s) Award(s)

**Woodbridge** Amity Regional High School Catherine Piscitelli

6041	PS	3	Modeling Investigation on Amines and Sea-salt Aerosol Interactions to Assess Their Potential Climate Impacts
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**Student(s)** Pranav Sundararajan **Grade** 12 **Town** Orange

- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- \* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEFF

**Woodbridge** Amity Regional High School Catherine Piscitelli

3073	LS	2	Analyzing the Mechanisms of Bacteriophage P22 Genome Ejection
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**Student(s)** Aiden Tischer **Grade** 12 **Town** Bethany

- \* Biophysical Society --- Biophysics Award- \$100

**Woodbridge** Amity Regional High School Catherine Piscitelli

6081	PS	2	Developing a Machine Learning Algorithm to Accurately Predict Geomagnetic Storms
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**Student(s)** Iris Yan **Grade** 10 **Town** Woodbridge

- \* Petit Family Foundation Women in Science & Engineering Awards --- High School Finalist - Medallion
- \* Stanley Black & Decker Applied Technology Awards --- Senior High Finalist - Medallion
- \* NASA EARTH System Science Award --- Certificate and \$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

**Woodbridge** Amity Regional High School Catherine Piscitelli

6066	PS	2	Using an Artificial Neural Network Modelled After the Human Neocortex to Gain a Better Understanding of How the Neocortex Creates New Ideas
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**Student(s)** Annika Yun **Grade** 10 **Town** Orange

- \* Pfizer Computational Biology and Bioinformatics Awards --- Senior High Finalist - Medallion
- \* Computer Science Awards --- Senior High Finalist - Medallion
- \* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion