



# Connecticut Science & Engineering Fair

## Quinnipiac University

March 7 - 19, 2022

### Special Award Winners

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	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</b>	<b>11</b>	<b>Town</b> Gangnam-gu
* Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF								
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</b>	<b>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</b>	<b>7</b>	<b>Town</b> Farmington
* 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								
Avon	Talcott Mountain Academy	Brigette Zacharczenko	2018	L7	1	Well-being in middle schoolers using intervention strategies		
			<b>Student(s)</b>		<b>Nandini Panigrahi</b>	<b>Grade</b>	<b>7</b>	<b>Town</b> west hartford
* 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		
			<b>Student(s)</b>		<b>Sia Reddy</b>	<b>Grade</b>	<b>8</b>	<b>Town</b> Avon
* Society of Women Engineers - Hartford Section --- Scientific Calculator								
* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS								
Avon	Talcott Mountain Academy	Anya Jensen	2515	L8	1	The RightSwitch: An Automatic Light Switch Sterilization Device		
			<b>Student(s)</b>		<b>Samuel Wu</b>	<b>Grade</b>	<b>8</b>	<b>Town</b> Avon
* 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								

# Conn. Science & Engineering Fair

## Special Award Winners

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

**Bozrah** 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) Andrew Pagnotta</b>			<b>Grade 8 Town Bozrah</b>

- \* U.S. Air Force --- Certificate & \$25 gift card from CSEF
- \* IEEE, Connecticut Section --- \$100 Honorable Mention
- \* Society of Women Engineers - Hartford Section --- Scientific Calculator

**Bridgeport** Bridgeport Aquaculture Center Kirk Shadle

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

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

**Bridgeport** 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) Cooper Carr</b>			<b>Grade 12 Town Fairfield</b>

- \* 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

**Bridgeport** Bridgeport Aquaculture Center Kirk Shadle

3002	LS	1	Quantifying the interspecific impacts of the native relationships of the Long Island Sound
<b>Student(s) Sarah Davis</b>			<b>Grade 12 Town Trumbull</b>

- \* Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash
- \* GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project with \$700 stipend

**Bridgeport** 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) Aidan King</b>			<b>Grade 12 Town Milford</b>

- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* Frederick Olender USC Award in Memory of G. Robert Wisner --- \$250 Cash Award for HS student in USC school

**Bridgeport** John Winthrop School Ms. Beres

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

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

# Conn. Science & Engineering Fair

## Special Award Winners

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Bridgeport</b>	Waltersville School	John Cunningham	4012	PT	3	Does Potato Variety Affect Electrical Output in a Potato Battery?		
		<b>Student(s)</b> Luna Santiago					<b>Grade 8</b>	<b>Town</b> BRIDGEPORT
		Delani Bailey					<b>Grade 8</b>	<b>Town</b> Bridgeport
* Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash								
<b>Cheshire</b>	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		
		<b>Student(s)</b> Siddhant Bhardwaj					<b>Grade 11</b>	<b>Town</b> Cheshire
* Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High								
* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100								
<b>Cheshire</b>	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		
		<b>Student(s)</b> Suchita Srinivasan					<b>Grade 8</b>	<b>Town</b> Cheshire
* 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								
<b>Cheshire</b>	St. Bridget School	Michelle. Carroll	5011	P7	1	Coding an Affordable Goat Identification System for All Farmers		
		<b>Student(s)</b> Avery Fowler					<b>Grade 7</b>	<b>Town</b> Cheshire
* 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								
<b>Cheshire</b>	St. Bridget School	Mrs. Michelle Carol	5504	P8	2	Electrolyte Challenge		
		<b>Student(s)</b> Hailey Greasley					<b>Grade 8</b>	<b>Town</b> Naugatuck
* American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project								
<b>Danbury</b>	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> Ruth Pacheco					<b>Grade 11</b>	<b>Town</b> danbury
* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project								

# Conn. Science & Engineering Fair

## Special Award Winners

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Danbury	Westside Middle School Academy	Jon Neuhausel	5510	P8	1	The Effects of Ice Mitigation Strategies on Livestock Waterers		
			<b>Student(s)</b>		<b>Sophia Blumenreich</b>	<b>Grade 8</b>	<b>Town</b>	Danbury
<ul style="list-style-type: none"> <li>* J.A. Augustine Award --- \$100 for excellence in physical sciences</li> <li>* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS</li> </ul>								
Danbury	Westside Middle School Academy	Jon Neuhausel	5514	P8	1	Model System Design For Technology-Assisted Insulin Regulation		
			<b>Student(s)</b>		<b>Sydney Borst</b>	<b>Grade 8</b>	<b>Town</b>	Danbury
<ul style="list-style-type: none"> <li>* IEEE, Connecticut Section --- \$100 Honorable Mention</li> <li>* GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project with \$700 stipend</li> <li>* Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS</li> </ul>								
Danbury	Westside Middle School Academy	Jon Neuhausel	4013	PT	1	Benefit of Granular and Mesh Filters on Concentrations of Microplastics in Water		
			<b>Student(s)</b>		<b>Krrish Brahmkshatriya</b>	<b>Grade 8</b>	<b>Town</b>	Danbury
					<b>Benjamin Miller</b>	<b>Grade 8</b>	<b>Town</b>	Danbury
					<b>Alexander Herzegovitch</b>	<b>Grade 8</b>	<b>Town</b>	Danbury
<ul style="list-style-type: none"> <li>* John S. Kendall Memorial Awards --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Middle School</li> </ul>								
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>* 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	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
<ul style="list-style-type: none"> <li>* National Center for Inquiry Learning --- Danielle &amp; Maggie Award for Imagination - MS \$100</li> </ul>								
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>* 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>								

[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).

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

\* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Senior

**Darien** Darien High School David Lewis  
 6071 PS 1 Cloud Identification in Mars Daily Global Maps with Deep Learning

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

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

**Ellington** Ellington Middle School Scott Raiola  
 5007 P7 1 Wall climbing soft robot

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

\* 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 Czerwicz **Grade 8** **Town** Feeding Hills

Olivia Keise **Grade 8** **Town** South Windsor

Bridget Kelly **Grade 8** **Town** Enfield

\* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF

**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

\* 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

# Conn. Science & Engineering Fair

## Special Award Winners

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

**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

\* 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

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

**Farmington** Miss Porter's School Betty Wang

3078 LS 1 Using Single-Cell Analysis to Explore Prognostic Genes in Prostate Cancer

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

\* Regeneron Biomedical Science Award --- Certificate & \$500.00 cash

**Fishers Island** 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.

**Student(s)** Madeleine Hatfield **Grade 11** **Town** GROTON

\* CSEF Board of Directors Award --- certificate and \$25 Amazon gift card given by CSF

**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

\* 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

\* 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

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

# Conn. Science & Engineering Fair

## Special Award Winners

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

**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

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

**Greenwich** Greenwich Catholic School Mrs. Carol Lutz

5010 P7 3 House Elevation

**Student(s)** Ornella Saviano **Grade 7** **Town** 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?

**Student(s)** Isabella Brahmst **Grade 12** **Town** South Salem

\* Institute of Food Technologists, Nutmeg Section --- \$150 award + invitation to Awards Night Dinner with guest

**Greenwich** Greenwich Country Day School Nathan Haag

6070 PS 3 Prototype of a Cleaning Robot

**Student(s)** Ellie Hochberg **Grade 11** **Town** Rye

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

**Greenwich** Greenwich High School Andrew Bramante

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

\* 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

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

**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

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

**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

- \* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- \* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

**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

- \* 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

- \* 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

- \* GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project with \$700 stipend

**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

- \* 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  
 6082 PS 1 Biomimetic Removal of Microspheres Water Contaminants, via Calcite-Infused, Coral-like Melamine Sponges

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

- \* 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



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

**Greenwich** Greenwich High School Andrew Bramante

3063	LS	2	Design of a Wearable, Skin-Specific UVB Sensor for Instantaneous Detection of Skin-Damaging Radiation
------	----	---	---

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

- \* 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

6042	PS	1	Controlled Delivery of Sulfoxaflor Pesticide via Cinnamaldehyde-infused Hydrogels to Reduce Toxicity to Honey and Wild Bee Pollinators
------	----	---	--

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

- \* 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
------	----	---	---

**Student(s)** Abby Barnett **Grade** 12 **Town** Darien

- \* 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, & teshirt & \$25 Amazon Card from CSEF

**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

**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

- \* 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)

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

5507	P8	2	2009 MacBook Restoration
------	----	---	--------------------------

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

- \* Wisner Chairman's Award --- \$500 cash & Plaque MS

# Conn. Science & Engineering Fair

## Special Award Winners

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Hamden</b>	Hamden Hall Country Day School	Doctor Frank Gasparro	5515	P8	2	iAAA band (Impact-absorbing and alerting band)		
					<b>Student(s)</b>	<b>Ravindu Karunaratne</b>	<b>Grade 8</b>	<b>Town</b> Hamden
* Lemelson Early Inventor Award --- Certificate & \$100 cash award from Lemelson Foundation * American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project								
<b>Hamden</b>	Hamden Hall Country Day School	Brian Christman	2517	L8	1	The Latch		
					<b>Student(s)</b>	<b>Neev Makin</b>	<b>Grade 8</b>	<b>Town</b> Hamden
* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2								
<b>Hamden</b>	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)		
					<b>Student(s)</b>	<b>Sophia Vash</b>	<b>Grade 8</b>	<b>Town</b> Fairfield CT
* Fox Pest Control for Environmental Management --- \$150 Cash for Excellence in Environmental Management * Broadcom MASTERS --- Invitation to compete in Broadcom MASTERS								
<b>Hamden</b>	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								
<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 7</b>	<b>Town</b> Newington
* U.S. Air Force --- Certificate & \$25 gift card from CSEF								
<b>Hartford</b>	Renzulli Academy	Foifon Teawdatwan	2008	L7	2	Extracting DNA from strawberries		
					<b>Student(s)</b>	<b>Damaris Reynoso</b>	<b>Grade 7</b>	<b>Town</b> Hartford
* Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science								
<b>Kent</b>	Kent School	Jesse Klingebiel	6003	PS	1	Flexibility with Flying: Replicable and Attachable Aerial Robot with Multi-Degree-of-Freedom		
					<b>Student(s)</b>	<b>Siyi Lu</b>	<b>Grade 11</b>	<b>Town</b> Kent
* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)								

# Conn. Science & Engineering Fair

## Special Award Winners

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

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

6088 PS 3 The Effects of Environmental Buffers on Traffic-Related Noise Pollution

**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 Wendy Turek

3066 LS 2 The Effect of PLA and HDPE Microplastics on the Growth of Cherry Tomato Plants

**Student(s)** Jack Larson **Grade** 12 **Town** Manchester

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

**Manchester** St. James School Ellen Oei

5005 P7 1 Power to the Puck

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

\* 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

\* Wisner Memorial Award --- \$ 1000 cash + Silver Bowl (\$2000 cash if a team) High School

\* Jon Chapis Memorial Award --- John Chapis Spirit of Innovation Award - HS \$200

**Milford** Platt Technical High School Sara Bruno

3519 LST 1 The Palingogenesis Project

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

\* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place Technical High School with \$700 stipend

**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

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

2006 L7 1 Catalace

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

\* 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

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

**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
------	----	---	--

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

- \* American Meteorological Society --- Certificate & \$25 gift card given by CSEF
- \* ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF

**New Haven** 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
------	----	---	--

**Student(s)** Adithi Variar **Grade** 7 **Town** Wallingford

- \* 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

**New Haven** Hopkins School Dr. Phillip Stewart

6054	PS	1	Real-Time Motion Tracking System and Data Analytics for Live Insects Using Three-Wheeled Servosphere Robot
------	----	---	--

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

- \* Yale Science & Engineering Association, Inc. --- 1 Certificate, Medallion and 1- \$25 gift card given by CSEF
- \* IEEE, Connecticut Section --- \$100 Honorable Mention

**New Haven** Sound School Chuck Mulligan

6068	PS	3	Correlation between Rainfall and Suspended Sediment Levels in the Mill River System/ New Haven Waterways
------	----	---	--

**Student(s)** Cora FitzGerald **Grade** 9 **Town** Branford

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

**Norwich** Norwich Technical High School Tiffani Kaminski

3515	LST	1	Biodegradation of Polystyrene by Bacteria Found in The Gut of Tenebrio Molitor Larvae
------	-----	---	---

**Student(s)** Tori Simmons **Grade** 11 **Town** Norwich  
 Sara Smith **Grade** 11 **Town** New London

- \* 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)

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

2012	L7	1	American Juvenile Horseshoe Crab Aquaculture
------	----	---	--

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

- \* Ricoh Americas Corporation --- Certificate, \$25 gift card given by CSEF
- \* Southeastern New England Marine Educators (SENEME) --- \$100 award and membership in SENEME - 1st Place Junior & T-Shirt
- \* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Junior

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<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
* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate								
<b>Ridgefield</b>	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
* University of Hartford Scholarships --- University of Hartford Scholarship- For Excellence in Science or Mathematics \$30,000 (\$7,500 per year)								
<b>Ridgefield</b>	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
* Connecticut Association of Physics Teachers --- \$100 Senior project								
<b>Sandy Hook</b>	Newtown High School	Tim DeJulio	6077	PS	2	Modular Robotic System for Multipurpose Robots		
					<b>Student(s)</b>	<b>Benjamin Ochs</b>	<b>Grade 12</b>	<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	Timothy DeJulio	6086	PS	2	Accessible program and system to accurately align a star tracking mount using a camera.		
					<b>Student(s)</b>	<b>Sam Staubly</b>	<b>Grade 12</b>	<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>Shelton</b>	Shelton Intermediate School	Erica Napoli	1011	LT	3	Moon Madness?		
					<b>Student(s)</b>	<b>Kurtlene Dela Rosa</b>	<b>Grade 7</b>	<b>Town</b> Shelton
						<b>Enja Abo-Alaial</b>	<b>Grade 7</b>	<b>Town</b> shelton
* American Psychological Association --- Certificate, \$25 gift card given by CSEF								
<b>Stamford</b>	Bi-Cultural Hebrew Academy	Mr. Graseck	2014	L7	2	How Do Small Amounts of Sodium Chloride Affect the Growth of Brassica Rapa (Mustard Plants)		
					<b>Student(s)</b>	<b>Joshua Schwartz</b>	<b>Grade 7</b>	<b>Town</b> Stamford
* 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)
-----------	----------	-----------	---------	--------	----------	-----------------	------------	----------

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

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

<b>Stamford</b>	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		
			<b>Student(s)</b>		<b>Gouri Krishnan</b>	<b>Grade 11</b>	<b>Town</b>	<b>Darien</b>

\* 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

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

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

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

\* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

<b>Storrs</b>	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		
			<b>Student(s)</b>		<b>Mary Lynch</b>	<b>Grade 9</b>	<b>Town</b>	<b>Storrs</b>
					<b>Mackenzie Dahlen</b>	<b>Grade 9</b>	<b>Town</b>	<b>Mansfield Center</b>

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

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

\* Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF

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

\* 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>	<b>Jack Shanks</b>	<b>Grade 12</b>	<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>	<b>Noora Khaled</b>	<b>Grade 8</b>	<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>	<b>Aidan Bradley</b>	<b>Grade 11</b>	<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	Mr Daniel Cote	5508	P8	1	The Luboni		
					<b>Student(s)</b>	<b>Lucille Presbrey</b>	<b>Grade 8</b>	<b>Town</b> Ridgefield

\* 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.

<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>	<b>Maya Chiravuri</b>	<b>Grade 11</b>	<b>Town</b> Bridgeport

\* Society for In Vitro Biology --- Certificate and \$25 gift card given by CSEF

<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>	<b>Ryan Yoon Ha Lee</b>	<b>Grade 10</b>	<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

- \* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project
- \* IEEE, Connecticut Section --- \$100 Honorable Mention

**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

- \* 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

**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

- \* 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 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

- \* 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 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

- \* ASM Materials Education Foundation --- Certificate & \$25 gift card given by CSEF



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

**Windsor** Academy of Aerospace & Engineering Dr. Michelle Bellinger

6505	PST	1	Piezoelectric Wind Harvesting Electrical Energy Conversion
------	-----	---	--

<b>Student(s)</b>	<b>Dylan Pueschel</b>	<b>Grade 12</b>	<b>Town</b> Hebron
	<b>John Watrous</b>	<b>Grade 12</b>	<b>Town</b> Hartford

\* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Future Sustainability with \$700 stipend

**Windsor** Madina Academy Mr. Coleman

6059	PS	3	A Proposal to Use Cost Effective Eco-friendly and Stronger Bricks for Modern Construction:
------	----	---	--

<b>Student(s)</b>	<b>Yameen Ahmed</b>	<b>Grade 9</b>	<b>Town</b> Vernon, Rockville
-------------------	---------------------	----------------	-------------------------------

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

**Windsor** The Loomis Chaffee School Koby Osei-Mensah

6089	PS	2	Analysis of Leading-Edge Devices on Aerodynamic Lift at Different Angles of Attack
------	----	---	--

<b>Student(s)</b>	<b>Ting-Yo Tan</b>	<b>Grade 12</b>	<b>Town</b> 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 Koby Osei-Mensah

6079	PS	2	Introduction to Surreal Numbers: Exploring Real, Infinite and Infinitesimal Values and Their Hackenbush Games
------	----	---	---

<b>Student(s)</b>	<b>Yat Him Cyrus Wong</b>	<b>Grade 12</b>	<b>Town</b> Hong Kong
-------------------	---------------------------	-----------------	-----------------------

\* Mu Alpha Theta --- Certificate, \$25 gift card given by CSEF

**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
------	----	---	--

<b>Student(s)</b>	<b>Mason Beaudette</b>	<b>Grade 12</b>	<b>Town</b> Orange
-------------------	------------------------	-----------------	--------------------

\* 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
------	----	---	---

<b>Student(s)</b>	<b>Aditi Bhattamishra</b>	<b>Grade 10</b>	<b>Town</b> Orange
-------------------	---------------------------	-----------------	--------------------

\* 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 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
------	----	---	---

<b>Student(s)</b>	<b>Daniel Liu</b>	<b>Grade 11</b>	<b>Town</b> Woodbridge
-------------------	-------------------	-----------------	------------------------

\* 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

# Conn. Science & Engineering Fair

## Special Award Winners

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

**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

\* 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

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

\* 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

**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

**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

**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

**Student(s)** Iris Yan **Grade** 10 **Town** Woodbridge

\* 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