



# Connecticut Science & Engineering Fair

## Quinnipiac University

March 4 - 16, 2024

### 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)
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**Avon** Avon High School John Salerni

3508	LST	2	Defining the Significance of Inflammation in Atherosclerosis by Examining Cross-Cohort Transcriptomics Using R and Deep Learning Programs					
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<b>Student(s)</b>	<b>Phydena Liu</b>	<b>Grade 10</b>	<b>Town</b> Avon
	<b>Lauren Zhang</b>	<b>Grade 11</b>	<b>Town</b> Darien

\* CSEF Board of Directors Award --- Certificate and \$200 given by CSF

**Avon** Talcott Mountain Academy John Pellino

5009	P7	1	The Aura Project: Landing Rockets at a Model Scale					
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<b>Student(s)</b>	<b>Kwabena Addai - Boateng</b>	<b>Grade 8</b>	<b>Town</b> East Hartford
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\* U.S. Air Force --- Certificate & USAF Merchandise Package  
\* Christopher T. Borowiec Excellence in Innovation Awards --- \$100 Cash for Excellence in Planetary Science

**Avon** Talcott Mountain Academy John Pellino

2520	L8	1	The Boreabrush					
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<b>Student(s)</b>	<b>Oliver Lind</b>	<b>Grade 8</b>	<b>Town</b> Harwinton
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\* Lemelson Early Inventor Award --- Certificate & \$100 cash award from Lemelson Foundation

**Bridgeport** Blackham School Nancy Hovanec

4002	PT	2	Hovercraft The New Transportation					
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<b>Student(s)</b>	<b>Sebastian Suarez</b>	<b>Grade 7</b>	<b>Town</b> Bridgeport
	<b>Jayden Perez</b>	<b>Grade 7</b>	<b>Town</b> Bridgeport

\* U.S. Air Force --- Certificate & USAF Merchandise Package

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

3015	LS	1	Non-Thermal Induction of Heat Shock Protein 90 to Mitigate Early Oncogenesis With Preserved HSR					
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<b>Student(s)</b>	<b>Chloe Atkins</b>	<b>Grade 12</b>	<b>Town</b> Stratford
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\* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

6060	PS	2	Magnetohydrodynamic (MHD) Salt Water Generator: Harnessing energy from flowing salt water without moving parts					
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<b>Student(s)</b>	<b>Samuel DiVasto</b>	<b>Grade 12</b>	<b>Town</b> Trumbull
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\* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- HS School- Certificate, \$75.00 gift card given by ONR

# Conn. Science & Engineering Fair

## Special Award Winners

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Bridgeport</b>	Bridgeport Regional Aquaculture Center	Kirk Shadle	6070	PS	2	Synthesis of Conductive Optical Lenses with Variable Refractive Indices: The Kerr Effect		
	<b>Student(s)</b>	<b>Cole Galla</b>					<b>Grade 12</b>	<b>Town</b> Trumbull
	* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- HS School- Certificate, \$75.00 gift card given by ONR * Connecticut Association of Physics Teachers --- \$100 Senior project							
<b>Bridgeport</b>	Bridgeport Regional Aquaculture Center	Kirk Shadle	3077	LS	1	Utilizing Fucus distichus alginates to develop an enhanced aerosol treatment for Cystic Fibrosis		
	<b>Student(s)</b>	<b>Mia Nierenberg</b>					<b>Grade 12</b>	<b>Town</b> Stratford
	* J.A. Augustine and H. Glista Awards --- \$100 for excellence in Life Sciences							
<b>Bridgeport</b>	Bridgeport Regional Aquaculture Center	Kirk Shadle	3134	LS	2	Acoustic Noise Pollution Affecting Reproduction, Communication, and Behavior of Brine Shrimp		
	<b>Student(s)</b>	<b>Anne Taylor</b>					<b>Grade 12</b>	<b>Town</b> Fairfield
	* Bushnell Center for Performing Arts --- Pair of Tickets to Illuminate Dance - for top project involving technology and lights for Arts Applications, if possible							
<b>Bridgeport</b>	Fairchild Wheeler Biotechnology	Cynthia Crudale	3069	LS	2	Shoots vs. Roots: The Effect of Hormone Treated Media on Lettuce Growth		
	<b>Student(s)</b>	<b>Naomi Rosen</b>					<b>Grade 12</b>	<b>Town</b> Fairfield
	* Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to Awards Night Dinner with guest							
<b>Bridgeport</b>	Fairchild Wheeler Biotechnology	Marilyn Carolina	3520	LST	2	Testing the Efficacy of Biochar Source Materials in Filtering Heavy Metal Pollution from the Housatonic River in CT		
	<b>Student(s)</b>	<b>Angeline Tran</b>					<b>Grade 12</b>	<b>Town</b> Shelton
		<b>Phi Uanino</b>					<b>Grade 12</b>	<b>Town</b> Shelton
	* CSEF Board of Directors Award --- Certificate and \$200 given by CSF							
<b>Bridgeport</b>	Waltersville School	John Cunningham	4008	PT	2	Does Municipal/Household Infrastructure Affect the Quality of Drinking Water in Bridgeport, CT?		
	<b>Student(s)</b>	<b>Andrea Villatoro</b>					<b>Grade 7</b>	<b>Town</b> Bridgeport
		<b>Genesis Reilly</b>					<b>Grade 7</b>	<b>Town</b> Bridgeport
	* Aquarion Water Company --- 2nd. \$100.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management							
<b>Bristol</b>	St. Matthew School	Danielle Persichetti	5004	P7	2	Which Drink Has the Most Electrolytes?		
	<b>Student(s)</b>	<b>Lily Chou</b>					<b>Grade 7</b>	<b>Town</b> Bristol
	* Robert Francoeur Memorial Awards --- Creative or innovative project in engineering, computer science or mathematics by female students - \$100							

# Conn. Science & Engineering Fair

## Special Award Winners

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

**Bristol** St. Matthew School Danielle Persichetti  
 2002 L7 1 Which Moisturizer is Best?

**Student(s)** Lauren Gillis **Grade 7** **Town** Bristol

\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

**Brookfield** Brookfield High School JonathanNeuhausel  
 6077 PS 3 GeoCool: A Novel Approach to Sustainable Residential Cooling Using Underground Soil Temperatures

**Student(s)** Arjun Parimi **Grade 11** **Town** Brookfield

\* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year) for exemplary 11th grade project

**Cheshire** Cheshire High School Julie Barker  
 6045 PS 2 A Torticollis Tilt Alerting Device using MPU6050 Sensor, Vibration motor, and iOS and Android App Built Using Flutter

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

\* Robert Francoeur Memorial Awards --- Creative or innovative project in engineering, computer science or mathematics by female students - \$100  
 \* Dreams Unlimited Award --- \$150 cash award and certificate  
 \* Lunch with a Patent Attorney --- Lunch with a Patent Attorney

**Cheshire** Dodd Middle School Katie Kearney  
 5509 P8 3 The Irrigator- a sustainable solution for gardening

**Student(s)** Olivia Dixon **Grade 8** **Town** Cheshire

\* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF  
 \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8

**Danbury** Westside Middle School Academy Nancy Barlow  
 1025 LT 1 The Effect of Different Types of Grass on Soil Erosion

**Student(s)** Sayam Dand **Grade 8** **Town** Danbury  
 Kylie Capone **Grade 8** **Town** Danbury  
 Ayme Calero **Grade 8** **Town** danbury

\* Geology/Historic Project of Merit Award --- \$150 or 3 x \$50 - Earth Science - Field work with Geologic or historic value

**Danbury** Westside Middle School Academy Nancy Barlow  
 4007 PT 1 The Effectiveness of Different Distillation Methods for Desalination

**Student(s)** Siddanth Ramakrishnan **Grade 7** **Town** Danbury  
 Patrick Madden **Grade 7** **Town** Danbury

\* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF  
 \* Freeman Family Excellence in Chemistry Awards --- \$100 For Excellence in Chemistry or Chemical Engineering - Middle School

# Conn. Science & Engineering Fair

## Special Award Winners

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

**Danbury** Westside Middle School Academy Nancy Barlow

4012 PT 2 Building a Versatile Air Sensor That Can Detect PM10 & PM2.5 in the Air

**Student(s)** Sarvesh Ram Sankarnarayan **Grade 8** **Town** Danbury  
 Gabrielle Anderson **Grade 8** **Town** Danbury  
 Eleftherios Amperidis **Grade 8** **Town** Danbury, Ct

- \* ISA - International Society for Automation - Ct. Valley Section --- 2nd - \$75 award
- \* The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award - \$250
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8

**Darien** Darien High School Christine Leventhal

6082 PS 1 Simulating CMB temperature signal to analyze the effects of noise

**Student(s)** Bo-Jun Qin **Grade 12** **Town** Darien

- \* Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Senior Award: Certificate, \$100 Cash

**Darien** Darien High School Guy Pratt

6064 PS 3 An Investigation of Stone Reusual Construction Techniques Used in the Anasazi Community From 800 -1200 AD In Southwestern United States Based on Stone Length-Width Ratios

**Student(s)** Evelyn Trudel **Grade 12** **Town** Darien

- \* CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Amazon Gift Ccard from the Connecticut Architecture Foundation, William M. Mack, AIA Award for Innovation in Building Sustainability.

**Ellington** Ellington High School David Gerlach

6074 PS 2 Developing an Adaptable Metal Casting Mold Using Soft Robotics

**Student(s)** Thomas Gerlach **Grade 9** **Town** Ellington

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

**Enfield** Chiaravalle Academy Tim Coleman

4022 PT 2 Using Solar to Generate Electricity.

**Student(s)** Keenan Cieslak **Grade 8** **Town** Monson  
 Beau Dugas **Grade 8** **Town** Enfield  
 Michael Bielanski **Grade 8** **Town** Enfield

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

**Enfield** Chiaravalle Academy Timothy Coleman

1026 LT 1 How Does Different Types of Food Affect A Chicks' Growth and Learning Ability?

**Student(s)** Zoha Shamsi **Grade 7** **Town** Suffield  
 Leah Caswell **Grade 7** **Town** Enfield  
 Marin Czerwec **Grade 7** **Town** Agawam

- \* U.S. Agency for International Development (USAID) --- Certificate and \$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)

**Farmington** Farmington High School Alexandra Raymunt

6054 PS 1 Steeping Towards Safety: Addressing Mycotoxin Risks in Coffee and Tea

**Student(s)** Rhea Doshi **Grade 9** **Town** Farmington

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

**Farmington** Farmington High School Alexandra Raymunt

3511 LST 2 The impact of different levels of spf on the pigmentation of one's skin

**Student(s)** Lauren Jeong **Grade 11** **Town** Farmington  
 Lydia Kim **Grade 11** **Town** Farmington

\* CSEF Board of Directors Award --- Certificate and \$200 given by CSF

**Farmington** Farmington High School Alexandra Raymunt

6068 PS 1 Origami-Inspired Paper-Based Multiplex Device for Water Contamination Monitoring

**Student(s)** Jiayi Liu **Grade 11** **Town** Farmington

- \* ISA - International Society for Automation - Ct. Valley Section --- 1st - \$125 award
- \* Southeastern New England Marine Educators (SEMEME) --- \$100 award and membership for student and teacher in SENEME - 1st Place Senior
- \* Aquarion Water Company --- 3rd \$100.00 Cash - Grade 9-12 For Excellence in Water Quality or Environment Management
- \* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year) for exemplary 11th grade project

**Greenwich** Brunswick School Dana Montanez

6015 PS 2 Inertial Navigation Control System: Use of Reaction Wheels as an in-flight Steering Mechanism for Rockets

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

- \* Yale Science & Engineering Association, Inc. --- 1 Certificate, Medallion and 1- \$25 gift card given by CSEF
- \* U.S. Air Force --- Certificate & USAF Merchandise Package
- \* American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate
- \* 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

**Greenwich** Brunswick School Dana Montanez

6522 PST 1 The Efficiency of Toroidal Propellers on Plane Engines and Boat Propellers

**Student(s)** Thomas Carney **Grade 10** **Town** New Canaan  
 Pierce Crosby **Grade 10** **Town** Greenwich

- \* Vanderbilt Chemicals, LLC --- \$150 Vanderbilt Chemicals Award for Excellence in Tribology and Sustainable Lubrication
- \* ISA - International Society for Automation - Ct. Valley Section --- 3rd - \$50 award

**Greenwich** Brunswick School Dana Montanez

3507 LST 2 Using Mineral Packed Liposomes to Increase Plant Growth in Arid Environments

**Student(s)** Henry Johnson **Grade 11** **Town** Riverside  
 Tucker Spiess **Grade 11** **Town** Old Greenwich

\* 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)
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**Greenwich** Brunswick School Dana Montanez

6510	PST	2	Biodegradable Mylar: A Materials Investigation to Reduce Marine Life Fatalities.					
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<b>Student(s)</b>	<b>Sean Mensi</b>	<b>Grade 9</b>	<b>Town</b>	Katonah
	<b>Lincoln O'Donohue</b>	<b>Grade 10</b>	<b>Town</b>	Old Greenwich

\* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8

**Greenwich** Brunswick School Dana Montanez

6516	PST	2	Water Testing with Ease: Creation of a handheld device for Water Analysis in Recently Flooded Areas.					
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<b>Student(s)</b>	<b>William Pallone</b>	<b>Grade 10</b>	<b>Town</b>	Rye
	<b>Townsend Bancroft</b>	<b>Grade 10</b>	<b>Town</b>	Greenwich

\* Aquarion Water Company --- 2nd. \$150.00 Cash - Grade 9-12 For Excellence in Water Quality or Environmental Management

**Greenwich** Central Middle School Andrew Bramante

5514	P8	1	The Synergistic Improvement of Indoor Air HEPA-Filtration using Concurrent Dehumidification					
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<b>Student(s)</b>	<b>Mikah Kaalund</b>	<b>Grade 8</b>	<b>Town</b>	Greenwich
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\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners  
 \* Society of Women Engineers - Hartford Section --- Scientific Calculator

**Greenwich** Central Middle School Andrew Bramante

2507	L8	2	Modeling of Fairfield County Fresh-water and Estuary Waterways, to Highlight Contamination of their Ecosystems/Environments					
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<b>Student(s)</b>	<b>Briar Lissauer</b>	<b>Grade 8</b>	<b>Town</b>	Greenwich
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\* Southeastern New England Marine Educators (SENEME) --- \$100 award and membership for student and teacher in SENEME - 1st Place Junior

**Greenwich** Central Middle School Andrew Bramante

2516	L8	1	Development of a Simple Salivary Rapid Diagnostic for the Detection of Iodine Deficiencies					
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<b>Student(s)</b>	<b>Tyler Malkin</b>	<b>Grade 8</b>	<b>Town</b>	Greenwich
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\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

**Greenwich** Central Middle School Andrew Bramante

5504	P8	1	Simple Filtration of Fertilizer-ion Water Contaminants via Implementation of Phosphate and Nitrate Absorbency Pads					
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<b>Student(s)</b>	<b>Caroline Stowe</b>	<b>Grade 8</b>	<b>Town</b>	Greenwich
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\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners  
 \* Aquarion Water Company --- 3rd. \$50.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management

# Conn. Science & Engineering Fair

## Special Award Winners

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

**Greenwich** Eastern Middle School Andrew Bramante  
 2501 L8 1 Design of a Smart-Bandage to provide lasting Itch-Relief and Healing for an Insect Bite.

**Student(s)** Lily Bittman **Grade 8** **Town** Greenwich

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

**Greenwich** Eastern Middle School Andrew Bramante  
 5502 P8 2 Shedding Light on the Prevalence of Harmful Butylated Hydroxytoluene Preservative in Artificially Formulated Dog Foods.

**Student(s)** Mackensy Wilson **Grade 8** **Town** Old Greenwich

\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners  
 \* Wisner Chairman's Award --- \$500 cash & Plaque MS

**Greenwich** Greenwich Country Day School Nathan Haag  
 3016 LS 2 Antidepressant-response biomarkers in adolescents: a confirmational study using EEG

**Student(s)** Solomon Hochman **Grade 12** **Town** Riverside

\* Bushnell Center for Performing Arts --- Pair of Tickets to Bushnell Center for top project that is behavioral or social sciences related

**Greenwich** Greenwich High School Andrew Bramante  
 6053 PS 2 Reduced Carbon Dioxide Emission and Increased Energy Efficiency Via a Newly-Designed Superconductive Cryogenic Brushless DC Motor

**Student(s)** Ishan Ambastha **Grade 11** **Town** Riverside

\* Frederick Olender USC Award in Memory of G. Robert Wisner --- \$250 Cash Award for HS student in USC school

**Greenwich** Greenwich High School Andrew Bramante  
 3113 LS 2 Implementation of a Multi-Objective Genetic Algorithm to Optimize Resource Allocation in Disease Prevention

**Student(s)** Isaac Bell **Grade 10** **Town** Riverside

\* Otero Family Award --- The Otero Family Award; \$250 cash

**Greenwich** Greenwich High School Andrew Bramante  
 3025 LS 2 Sonic Repulsion of Purple Sea Urchins to Reduce Degradation of Nascent Nereocystis luetkeana Forests

**Student(s)** Owen Benison **Grade 11** **Town** riverside

\* Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap (swag), First Place 8, 9, 10 grader  
 \* GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project  
 \* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year) for exemplary 11th grade project

**Greenwich** Greenwich High School Andrew Bramante  
 6081 PS 2 Genetic Engineering of Cryobacterium to Increase Silica Content and Enhance the Glacial Albedo of Black Arctic Oceans

**Student(s)** Justin Bernstein **Grade 11** **Town** Greenwich

\* NASA EARTH System Science Award --- 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  
 3122 LS 2 Rapid Detection of Pulmonary Fibrosis via Eu(TTA)<sub>3</sub> Phen, and Rhodamine-6G-Cinnamaldehyde, Dual-Sensor Luminescent Diagnostic

**Student(s)** Lauren Huang **Grade** 11 **Town** Old Greenwich

\* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF

**Greenwich** Greenwich High School Andrew Bramante  
 3071 LS 1 Fabrication of a Europium-based Magnetic Nanosensor for the Detection of D-Serine in Early-onset Alzheimers

**Student(s)** Ava Jackson **Grade** 11 **Town** Old Greenwich

\* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF  
 \* Connecticut Science Supervisors Association --- \$125 for a high school project

**Greenwich** Greenwich High School Andrew Bramante  
 6058 PS 1 Detection of Nanoplastics within Complex Environmental and Food Resource Matrices via Machine Learning

**Student(s)** Henry Jin **Grade** 10 **Town** Greenwich

\* Aquarion Water Company --- 1st, \$250.00 Cash - Grade 9-12 For Excellence in Water Quality or Environmental Management

**Greenwich** Greenwich High School Andrew Bramante  
 3003 LS 2 Iron-Fortified Cornhusk Biochar Flocculation of Pondwater Phosphates, to Reduce Invasive Macrophyte Growth

**Student(s)** Neil Pendkar **Grade** 9 **Town** Old Greenwich

\* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

**Greenwich** Greenwich High School Andrew Bramante  
 3020 LS 1 Oral Delivery of Anticoagulant Dabigatran via a Mg-Micromotor Encapsulant Within a Gastric-Resistant Tablet for Ischemic Stroke Treatment

**Student(s)** Lula Wang **Grade** 9 **Town** Old Greenwich

\* Regeneron Biomedical Science Award --- Certificate & \$375.00 cash

**Greenwich** Greenwich High School Andrew Bramante  
 6019 PS 3 Reinforcement Learning Optimization of Placement of Public Vehicle Charging Stations using a Novel Parking Demand Model

**Student(s)** Marley Wies **Grade** 10 **Town** Old Greenwich

\* Society of Women Engineers - Hartford Section --- Scientific Calculator  
 \* Maplesoft Awards for Applied Mathematics and Modeling --- Maple software, gift packs, & T-shirt - For Excellence in Mathematics

**Hamden** Hamden Hall Country Day School Daniel Cuneo  
 3096 LS 2 Edhelper: The Application of Artificial Intelligence in the Aid of Neurodivergent Children

**Student(s)** Andrei Balas **Grade** 10 **Town** Cheshire

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



[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
<b>Hamden</b>	Hamden Hall Country Day School	Daniel Cuneo	6512	PST	2	Using Quantum-assisted Machine Learning in Maize Yield Prediction through Environmental Patterns.		
		<b>Student(s)</b>					<b>Grade</b>	<b>Town</b>
		Helena Chaine					11	Orange
		Yue Zhuo					12	Hamden
		Linda Chen					10	Woodbridge
		* Biophysical Society --- Biophysics Award- \$100						
<b>Hamden</b>	Hamden Hall Country Day School	Gina D'Angelo	6025	PS	1	Deep learning based drug response prediction algorithm about synergistic and antagonistic responses of cell lines and drug combos.		
		<b>Student(s)</b>					<b>Grade</b>	<b>Town</b>
		Jiahui Chen					11	New Haven
		* Lunch with a Patent Attorney --- Lunch with a Patent Attorney						
<b>Hamden</b>	Hamden Hall Country Day School	Sarrah Gavin	3061	LS	3	The effect of deforestation on soil erosion at Sleeping Giant Park		
		<b>Student(s)</b>					<b>Grade</b>	<b>Town</b>
		Kaleb Fiore					10	Southington, CT
		* Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash						
<b>Hamden</b>	Hamden Hall Country Day School	Frank Gasparro	3017	LS	1	Effect of Hydroxyapatite Encapsulation on the Transdermal Diffusion and Photodegradation of Avobenzone and Octinoxate to Enhance Sunscreen Safety		
		<b>Student(s)</b>					<b>Grade</b>	<b>Town</b>
		Sophia Vash					10	Fairfield CT
		* Freeman Family Excellence in Chemistry Awards --- \$200 For Excellence in Chemistry or Chemical Engineering - High School						
<b>Hamden</b>	Sacred Heart Academy	Sibani Sengupta	3117	LS	2	The Effect of Sound Pollution on the Physical Behavior of Armadillidium Vulgare		
		<b>Student(s)</b>					<b>Grade</b>	<b>Town</b>
		Danyella Lanche-Flores					12	West Haven
		* Connecticut Academy of Audiology Awards --- \$200 Award HS- For Excellence in Audiology and Acoustics, oport. to shadow an audiologist						
<b>Kent</b>	Kent School	Jesse Klingebiel	6032	PS	1	CardioXNet: Representation Learning for Accurate Cardiovascular Disease Diagnosis from X-ray Images		
		<b>Student(s)</b>					<b>Grade</b>	<b>Town</b>
		Jiwon Hwang					10	Kent
		* J.A. Augustine and H. Glista Awards --- \$100 H. Glista Award for Physical Sciences						
<b>Manchester</b>	Manchester High School	Wendy Turek-Hernandez	3138	LS	2	Determining the incidence of Beech Leaf Disease symptom severity based on overwintering nematode abundance in Fagus grandifolia buds		
		<b>Student(s)</b>					<b>Grade</b>	<b>Town</b>
		Dina Watson					12	Manchester
		* Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash						

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

**Manchester** Saint James School Ellen Oei  
 5017 P7 1 Crusty n' Rusty

**Student(s)** Brendan Abbamonte **Grade 7** **Town** Vernon

\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

**Manchester** Saint James School Ellen Oei  
 5007 P7 2 Affect of Color on Heat Absorption

**Student(s)** Saanvi Sethi **Grade 7** **Town** Manchester

\* Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Junior Award: Certificate, \$100 Cash  
 \* J.A. Augustine and H. Glista Awards --- \$100 for excellence in Physical Sciences

**Mansfield** Edwin O Smith High School Cheryl Granger  
 6005 PS 2 Why Does My Neighborhood Have Less Trees Than Yours? Geospatial Modeling of Urban Tree Cover Inequalities in Connecticut Cities

**Student(s)** Hiruni Witharana **Grade 10** **Town** Storrs

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

**Milford** Platt Technical High School Lori Grace  
 3502 LST 2 NatureCare Project

**Student(s)** Diogo Gaudencio **Grade 12** **Town** bridgeport  
 Yossias Muluaem **Grade 12** **Town** ansonia  
 Maritza Portillo **Grade 12** **Town** west haven

\* CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Amazon Gift Card from the Connecticut Architecture Foundation, William M. Mack, AIA Award for Innovation in Building Performance.

**Montville** Saint Bernard School Alexandros Mathioudakis  
 6011 PS 2 Making Football Safer With The Smart Helmet

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

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

**New Haven** Engineering and Science University Magnet School Roger Rushworth  
 3118 LS 2 Implementing the Usage of Nontoxic Sand and Bacterial Filtration in the Enhanced Degradation of Emerging Contaminants in Aqueous Solutions

**Student(s)** Sahithi Aliminate **Grade 9** **Town** Milford

\* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

**New Haven** Engineering and Science University Magnet School Roger Rushworth  
 3126 LS 1 Advanced Hybrid Water Treatment Systems: A Comparative Study of Membrane Filtration, Adsorption, and Photocatalysis for Comprehensive Contaminant Removal

**Student(s)** Saket Aliminate **Grade 10** **Town** Milford

\* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

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

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

6052	PS	1	Synthesis of Porous Polymer Sponge Matrix using Modified Sodium Alginate Clay Compound for Adsorptive Removal of Microplastics and Oil from Contaminated Water
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**Student(s)** Snigtha Mohanraj **Grade** 11 **Town** Ansonia

- \* U.S. Metric Association --- Certificate & \$25 gift card given by CSEF
- \* Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition
- \* The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award - \$250

**New Haven** Hopkins School Phillip Stewart

6055	PS	3	Profit from stock pricing
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**Student(s)** Christina Cao **Grade** 11 **Town** Trumbull

- \* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Science or mathematics, Grade 11 only - \$30,000 (\$7,500/year)

**New Haven** Sound School Charles Mulligan

6511	PST	2	Potential Impact of Watershed Runoff and Tidal Inundation on the Hydrologic Profile of a Coastal March
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**Student(s)** Cora FitzGerald **Grade** 11 **Town** Guilford  
 Tamzin Maines **Grade** 11 **Town** Old Saybrook

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

**New Haven** Worthington Hooker School Douglas Jones

1020	LT	1	Biodegradable Hydrogels: Improving our Agriculture's Sustainability
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**Student(s)** Sofia Janiga **Grade** 8 **Town** New Haven  
 Azalea Deener **Grade** 8 **Town** New Haven

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

**Newtown** Newtown High School Timothy Dejullo

3083	LS	2	Using Sunscreen as a way to distribute Beneficial Microorganisms for Corals (BMCs)
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**Student(s)** Lydia Cox **Grade** 11 **Town** newtown

- \* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year) for exemplary 11th grade project

**Norwich** Norwich Technical High School Aleatha Pelloni

3526	LST	2	Cultivating Green Growth: Harnessing Electroculture for Sustainable Gardening Practices
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**Student(s)** Sophia Caballero **Grade** 11 **Town** Norwich  
 Alejandra Cardona **Grade** 11 **Town** New London

- \* Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF
- \* Society for In Vitro Biology --- Certificate and \$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)
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<b>Norwich</b>	Norwich Technical High School	Aleatha Pelloni	3509	LST	1	Renewable fuel using anaerobic digestion		
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<b>Student(s)</b>	<b>Jasmine Coulombe</b>	<b>Grade 11</b>	<b>Town</b> Chaplin
	<b>Tessa Lambert</b>	<b>Grade 11</b>	<b>Town</b> Scotland

\* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place Technical High School

<b>Norwich</b>	Norwich Technical High School	Suzanne Edwards	6066	PS	3	A Mathematical Analysis of the Variables Impacting the Performance of Wind Turbines as the Energy Converts from Kinetic to Mechanical to Electrical		
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<b>Student(s)</b>	<b>Leah Kozerefski</b>	<b>Grade 9</b>	<b>Town</b> Gilman
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\* U.S. Air Force --- Certificate & USAF Merchandise Package  
 \* Society of Women Engineers - Hartford Section --- Scientific Calculator

<b>Redding</b>	CT STEM Fair	Joyce Reed	3052	LS	1	Determining the Ability of Different Mosses and Plants to Remove Algae Causing Phosphates and Nitrates From Water		
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<b>Student(s)</b>	<b>Emma Cannon</b>	<b>Grade 11</b>	<b>Town</b> New Canaan
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\* Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF  
 \* NYUC Pony Club Equine or Animal Science Award --- \$100 Cash Award or excellence in equine studies

<b>Salisbury</b>	The Hotchkiss School	Sid Yenugu	6103	PS	2	A Resilient & Cost-Effective Prosthetic Device Tailored for the Accelerated Growth of Children		
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<b>Student(s)</b>	<b>Sia Reddy</b>	<b>Grade 10</b>	<b>Town</b> Avon
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\* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- HS School- Certificate, \$75.00 gift card given by ONR  
 \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8  
 \* Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High

<b>Simsbury</b>	Westminster School	Suzanne Bailey	6043	PS	1	Dual-Degree-of-Freedom Pneumatic Shoulder Rehabilitation Device Based on Flexible Materials		
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<b>Student(s)</b>	<b>Meiyin Ren</b>	<b>Grade 11</b>	<b>Town</b> Simsbury
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\* Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High

<b>South Windsor</b>	South Windsor High School	Danel Eitel	6501	PST	1	The Use of Piezoelectric Technology for a more Efficient and Cost-Effective Approach to Electronics Cooling		
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<b>Student(s)</b>	<b>Adithya Anand</b>	<b>Grade 11</b>	<b>Town</b> South Windsor
	<b>Jason Thokchom</b>	<b>Grade 11</b>	<b>Town</b> South Windsor

\* IEEE, Connecticut Section --- \$100 Honorable Mention  
 \* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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**South Windsor** South Windsor High School Danel Eitel

3524	LST	1	MushBox: In Situ Biodegradation of Municipal Solid Waste through Mycoremediation via Mycelium and Cellulosic Waste Integration					
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<b>Student(s)</b>	<b>Samarth Basanth</b>	<b>Grade</b>	10	<b>Town</b>	South Windsor
	<b>Tejbir Litt</b>	<b>Grade</b>	10	<b>Town</b>	South Windsor

\* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Environmental Project

**South Windsor** South Windsor High School Joshua Kraus

6035	PS	3	A novel approach to a biomimetic undersea generator aided by triboelectric nanogenerators to harness natural ocean currents					
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<b>Student(s)</b>	<b>Pranay Kakkar</b>	<b>Grade</b>	11	<b>Town</b>	South Windsor
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\* Electric Boat Management Association Science and Engineering Research Awards --- Top Prize in Nautical Research - \$100 Cash for top project that has innovative nautical applications

**South Windsor** South Windsor High School Kevin Snyder

6013	PS	1	Scientific understanding of solar physics with image based neural networks					
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<b>Student(s)</b>	<b>Pragyan Yadav</b>	<b>Grade</b>	12	<b>Town</b>	South Windsor
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\* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificate

**Southington** Joseph A. Depaolo Middle School Halime Agirman

2514	L8	2	Global Warming Management through Utilization of naturally occurring resources such as Eggshell-Derived Calcium Carbonate in Global Warming Reduction					
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<b>Student(s)</b>	<b>Esra Agirman</b>	<b>Grade</b>	8	<b>Town</b>	Southington
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\* NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF  
 \* Talcott Mountain Science Center & Academy --- TMSC Founder's Award - Middle School Life Science - Scholarship to one Summer or Saturday Program at TMSC - Value \$435  
 \* National Center for Inquiry Learning --- Daniel & Maggie Award for Imagination - MS \$100

**Stamford** King School Victoria Schulman

6097	PS	1	DETICKT IT: A Machine Learning-Based Application for Real-Time Tick Identification and Spatiotemporal Disease Risk Assessment					
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<b>Student(s)</b>	<b>Antonia Kolb</b>	<b>Grade</b>	12	<b>Town</b>	New Canaan
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\* Christopher T. Borowiec Excellence in Innovation Awards --- \$100 Cash for Excellence in Innovation with emphasis in Artificial Intelligence

**Stamford** King School Erik Rutyna

6078	PS	3	Utilizing Ground and Space-Based Sensors to Track Trajectories of Vehicles/Dangerous Objects and Monitor Climate Change/Environmental Issues					
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<b>Student(s)</b>	<b>Ryan Wempen</b>	<b>Grade</b>	12	<b>Town</b>	Stamford
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\* NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF

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

5501	P8	2	Determining the Impact of pH on Seashell Dissolution					
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<b>Student(s)</b>	<b>Addison Cadmus</b>	<b>Grade</b>	8	<b>Town</b>	Pawcatuck
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\* National Oceanic and Atmospheric Administration --- Certificate and \$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)

**Stonington** St. Michael School Anna-Helene Grossomanides  
 5008 P7 3 Expensive Fails or, Long Lasting Nails

**Student(s) Maeve Nicholas** **Grade 7** **Town** Stonington

\* Talcott Mountain Science Center & Academy --- TMSC Founder's Award - Middle School Physical Science - Scholarship to one Summer or Saturday Program at TMSC - Value \$435

**Stratford** St. Mark School Alexander Kennedy  
 2513 L8 2 Implicit Gender Bias

**Student(s) Julianne Gonzalez** **Grade 8** **Town** Stratford

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

**Stratford** St. Mark School Alexander Kennedy  
 4020 PT 3 Does Color Affect the Way taste is perceived?

**Student(s) Maeve McCloskey** **Grade 7** **Town** Stratford  
**Stella Testo** **Grade 7** **Town** Stratford

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

**Trumbull** Christian Heritage School Daniel Cote  
 6102 PS 3 Vision Through AI: Assisting the Visually Impaired By Building AI Smart Glasses

**Student(s) Daylin Jerome** **Grade 11** **Town** Bridgeport

\* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- HS School- Certificate, \$75.00 gift card given by ONR  
 \* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Science or mathematics, Grade 11 only - \$30,000 (\$7,500/year)  
 \* Wisner Chairman's Award --- \$500 cash & Plaque HS  
 \* Susan and Stanley Lessoff Memorial --- Susan and StanleyLessoff Memorial Award - \$250 Cash and Plaque HS

**Trumbull** Christian Heritage School Nicole Camacho  
 2517 L8 2 Do Storm drains keep trash out of water ways?

**Student(s) Juliette Schwartz** **Grade 8** **Town** Shelton

\* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF  
 \* Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash

**Trumbull** Christian Heritage School Daniel Cote  
 6037 PS 3 Text to Speech and Speech to Text App for the Hearing Impaired

**Student(s) Noah Scrofani** **Grade 11** **Town** Trumbull

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

**Wallingford** Choate Rosemary Hall Jan Cook  
 6051 PS 2 Properties of Certain Quadrilaterals of Triangle Centers

**Student(s) Kay Yeon Lee** **Grade 11** **Town** Wallingford

\* Maplesoft Awards for Applied Mathematics and Modeling --- Maple software, , gift packs, & T-shirt - For Excellence in Mathematics  
 \* Susan and Stanley Lessoff Memorial --- Susan and StanleyLessoff Memorial Award - \$250 Cash and Plaque HS

# Conn. Science & Engineering Fair

## Special Award Winners

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

**Wallingford** Choate Rosemary Hall Selena Gell

6502	PST	2	Construction of a Low-cost, Accurate Liquid Handling Device with 3D Printing for Polymerase Chain Reaction
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<b>Student(s)</b>	<b>Calvin Moon</b>	<b>Grade</b> 12	<b>Town</b> Wallingford
	<b>Jeffrey Moon</b>	<b>Grade</b> 11	<b>Town</b> Wallingford

- \* Jon Chapitis Memorial Award --- Jon Chapitis Spirit of Innovation Award - HS \$200
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8

**Wallingford** Choate Rosemary Hall Andrew Murgio

6525	PST	1	AgriBotanical: An Intelligent Continuum-Maneuver Robot for Monitoring and Managing Arboreal Wild Bee Colonies
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<b>Student(s)</b>	<b>Jingyuan Zhang</b>	<b>Grade</b> 11	<b>Town</b> Wallingford
	<b>Xiyin Yang</b>	<b>Grade</b> 11	<b>Town</b> Wallingford

- \* MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Applied Principles Award - \$250
- \* IEEE, Connecticut Section --- \$250 Honors Award -Senior
- \* Arthur & Ruth Mensing Awards --- Mensing Award Excellence in the High School Physical Sciences - \$500

**Waterbury** ACES at Chase Lisa Debany

1007	LT	2	Creating Safe Sunscreens For Coral Reefs With The Best U.V. Protection.
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<b>Student(s)</b>	<b>Emily Ambrosini</b>	<b>Grade</b> 7	<b>Town</b> Watertown
	<b>Taylor Boscarino</b>	<b>Grade</b> 7	<b>Town</b> Thomaston

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

**Waterbury** ACES at Chase Sandra Solimene

5503	P8	1	The Bag that Saved the Homeless
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<b>Student(s)</b>	<b>Evaleise Diaz</b>	<b>Grade</b> 8	<b>Town</b> Meriden
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- \* Demos R Us Awards --- \$200 Cash Award- Clear Execution of Research- 8th Grade
- \* Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2024 Invention Convention, June 8

**Waterbury** ACES at Chase Kelly Horan

5005	P7	3	What Design of Mesh Water Filtration Device Most Effectively Removes Microplastics?
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<b>Student(s)</b>	<b>Jacob Godfrey</b>	<b>Grade</b> 7	<b>Town</b> Waterbury
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- \* U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF
- \* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- \* National Center for Inquiry Learning --- Daniel & Maggie Award for Imagination - MS \$100
- \* Aquarion Water Company --- 1st. \$150.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management
- \* Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp - \$900

# Conn. Science & Engineering Fair

## Special Award Winners

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

**Waterbury** ACES at Chase Waterbury  
 2511 L8 3 Leaf Light Chlorophyll light bulb  
**Student(s) Toren Lott** **Grade 8** **Town** Waterbury

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

**Waterbury** ACES at Chase Lisa Debany  
 2005 L7 1 Reducing Lycorma delicatula, Lantern Fly, Infestation: Using Essential Oils to Address Crop Damage and Food Shortages.  
**Student(s) Besjana Veliu** **Grade 7** **Town** Waterbury

\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

**Westport** Greens Farms Academy Mathieu Freeman  
 5014 P7 1 Novel Radiation Shielding for Radiation Therapy and Arabidopsis on Mars  
**Student(s) Dylan Karpf** **Grade 7** **Town** Westport

\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

\* Astronomical Society of Greater Hartford - The Charles Hammond Award for Excellence in Astronomy --- Junior Project-\$150, subscription to Sky and Telescope, ASGH membership and meeting invitation

\* Electric Boat Management Association Science and Engineering Research Awards --- Top Prize in Nuclear Energy - \$100 Cash for top project that has innovative nuclear applications

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

**Wilton** Middlebrook School Nancy Wakeham  
 5010 P7 3 Wireless Power Transfer - Future of Energy  
**Student(s) Ishan Chugh** **Grade 7** **Town** Wilton

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

**Wilton** Middlebrook School William Desroches  
 1017 LT 1 BEAT THE PEAT - RICE HUSK, THE SUSTAINABLE AND ECO-FRIENDLY ALTERNATIVE TO PEAT MOSS  
**Student(s) Kabir Rokkam** **Grade 7** **Town** WILTON  
**Shushruth Balaji** **Grade 7** **Town** Wilton

\* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

**Wilton** Wilton High School Matthew Hoyt  
 3059 LS 1 A Novel AI-Driven Approach for Tracking and Managing Invasive Plant Species  
**Student(s) Shriya Natarajan** **Grade 10** **Town** Wilton

\* Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash

**Wilton** Wilton High School Matthew Hoyt  
 3065 LS 2 The Influence of Natural and Man-Made Substrata on Intertidal Community Structure  
**Student(s) Nandan Raman** **Grade 11** **Town** Wilton

\* 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)

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

6009	PS	1	Reinforcing the Cybersecurity of Medical Data via Software Countermeasures against Malware in Heart Monitoring Technology
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**Student(s)** **Sujay Chava** **Grade 11** **Town** Ellington

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

\* Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

6002	PS	1	Integrating Piezoelectric Sensors and Photovoltaic Material in an Artificial Energy-Harvesting Model Tree
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**Student(s)** **Laasya Chintapalli** **Grade 11** **Town** Farmington

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

\* Society of Women Engineers - Hartford Section --- Scientific Calculator

\* Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

4019	PT	1	Using Vortex Hydropower Turbines to Harvest Electrical Energy
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**Student(s)** **Marcus Davis** **Grade 8** **Town** Broad Brook  
**Dylan Gao** **Grade 7** **Town** Coventry

\* Robotics And Beyond --- Middle School- For excellence in engineering design; \$230 toward Robotics And Beyond STEM and Design summer camp, \$50 cash if cannot attend camp, Certificate.

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

3004	LS	1	Therapeutic Potential of Antibody Drug Conjugates Targeting The Expression of Trophoblast Cell-Surface Antigen 2 (TROP-2) On High Grade Serous Epithelial Ovarian Carcinoma
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**Student(s)** **Ana-Lois Davis** **Grade 12** **Town** Broad Brook

\* The Community Foundation for Greater New Haven's Milton Fisher Awards for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$100 cash

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

3054	LS	1	Optimizing Laterite Soil Microbial Fuel Cells for Community-Centric Electricity Generation in Tropical Underdeveloped Regions
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**Student(s)** **Namyanzi Edwards** **Grade 11** **Town** New Britain

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

\* IEEE, Connecticut Section --- \$250 Honors Award -Senior

\* GENIUS Olympiad --- GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project

\* The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award - \$250

\* University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - (amount undefined) to a junior)

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

6079	PS	2	Using Biomimicry to Harvest Energy from the Sinusoidal Motion of an Eel
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**Student(s)** **Vikram Haran** **Grade 11** **Town** Ellington

\* GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Future Sustainability

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

4011	PT	2	Using Piezoelectric Sensors to Harvest Energy from Automobile Tires and the Road Surface					
<b>Student(s)</b>			<b>Palaniappan Manikandan</b>	<b>Grade 8</b>	<b>Town</b>	Ellington		
			<b>Duke Clotney</b>	<b>Grade 8</b>	<b>Town</b>	Hartford		

- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- \* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- \* IEEE, Connecticut Section --- \$100 Honorable Mention
- \* The Community Foundation for Greater New Haven's Milton Fisher Awards for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash
- \* Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 8th grader - GENIUS Olympiad Competition with stipend (421)
- \* Jon Chapitis Memorial Award --- Jon Chapitis Spirit of Innovation Award - MS \$100
- \* GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

4004	PT	2	Integrating Pelton Turbines Into Industrial Pipes to Harvest Energy					
<b>Student(s)</b>			<b>Aaditya Sadhvani</b>	<b>Grade 8</b>	<b>Town</b>	Ellington		
			<b>Roshan Kumar</b>	<b>Grade 8</b>	<b>Town</b>	Ellington		

- \* Zepke Awards --- \$100 - For the Best Use of Electronic Circuitry- Middle School

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

4001	PT	1	Combining Optical Wireless Communications (OWC) and Neuromorphic Architecture for Large-Scale Computations					
<b>Student(s)</b>			<b>Rithvik Suren</b>	<b>Grade 8</b>	<b>Town</b>	Ellington		
			<b>Aarav Chevva</b>	<b>Grade 8</b>	<b>Town</b>	Ellington		

- \* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- \* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners

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

6044	PS	1	A Deep Semi-Supervised Domain Generalization Approach for Epileptic Seizure Prediction using Electroencephalography (EEG)					
<b>Student(s)</b>			<b>Sunwoo An</b>	<b>Grade 9</b>	<b>Town</b>	Seoul		

- \* MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Innovative Concept Award - \$250

**Woodbridge** Amity Regional High School Catherine Piscitelli

6010	PS	1	Creation of an Environment-Adaptive Reaction Algorithm Implemented on a Novel Smart Fluidic Servo Actuator to Provide a Sense of Pseudo-Exproprioception and Exteroception					
<b>Student(s)</b>			<b>Aditi Bhattamishra</b>	<b>Grade 12</b>	<b>Town</b>	Orange		

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

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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**Woodbridge** Amity Regional High School Catherine Piscitelli

6020	PS	2	Developing and Testing a Laminar Airfoil Utilizing Computational Fluid Dynamics to Implement Into General Aviation					
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**Student(s)** Alejandro Huber **Grade** 12 **Town** Woodbridge

\* American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate

**Woodbridge** Amity Regional High School Catherine Piscitelli

6503	PST	3	Development of a Novel Spray Mechanism Using Real-Time Bee Auditory Data to Trigger an Entomopathogenic Fungal Miticide in Beehives to Control Varroa Destructor Infestations					
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**Student(s)** Sophia Messina **Grade** 11 **Town** Woodbridge

Nikhil Petrov **Grade** 11 **Town** Woodbridge

\* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Engineering or Technology, Grade 11 only - \$30,000 (\$7,500/year)

**Woodbridge** Amity Regional High School Catherine Piscitelli

6098	PS	1	Modeling Interactions Between the Neocortex and the Basal Ganglia During Temporal Sequential Learning Using a Hierarchical Temporal Memory Artificial Neural Network					
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**Student(s)** Annika Yun **Grade** 12 **Town** Orange

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