



Connecticut Science & Engineering Fair

Quinnipiac University

March 6 - 18, 2023

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	Talcott Mountain Academy	Hannah Marye	5511	P8	1	Mitigating the Threat of Microplastics in Drinking Water: The Potential of Coconut Fiber and Activated Coconut Charcoal as Sustainable Filtration Materials		
			Student(s)		Rhea Doshi	Grade 8		Town Farmington
<ul style="list-style-type: none"> * 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 * Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100 								
Bethel	Bethel High School	Ray Turek	6046	PS	3	League of Legends Esports AI: Training a Machine Learning Model in a Dynamic Gameplay Environment from Professional Human Experience		
			Student(s)		Mashnoov Chowdhury	Grade 11		Town Bethel
<ul style="list-style-type: none"> * University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year) 								
Bethel	Bethel Middle School	Jason Maxwell	2533	L8	1	D.E.R.M.A. (Dermatologic Equipment for Rapid Medical Analysis)		
			Student(s)		Toshan Bhattacharya	Grade 8		Town Bethel
<ul style="list-style-type: none"> * 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 								
Bozrah	Fields Memorial School	Joshua Fish	5505	P8	1	Porosity, Permeability Rates, and Water Movement Through Various Commercial Crushed Rock Sizes as it Relates to Drainage Rock in the Excavation Trade		
			Student(s)		Leah Kozerefski	Grade 8		Town Gilman
<ul style="list-style-type: none"> * Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF * Connecticut College-Physics, Astronomy, & Geophysics Dept. --- Junior Award: Certificate, & teeshirt & \$25 Amazon Card from CSEF * Society of Women Engineers - Hartford Section --- Scientific Calculator 								
Bozrah	Fields Memorial School	Joshua Fish	5512	P8	2	Does Air Pressure Affect How Far A Soccer Ball Travels In The Air When Kicked?		
			Student(s)		Tyler Savoie	Grade 8		Town Gilman
<ul style="list-style-type: none"> * U.S. Air Force --- Certificate & USAF Merchandise Package * Demos R Us Award --- \$200 Cash Award- Clear Execution of Research- 8th Grade * John S. Kendall Memorial --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering - First Place 								

Conn. Science & Engineering Fair

Special Award Winners

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

Bridgeport Black Rock School Tejas Godbole
 4003 PT 1 Solar Powered Charger

Student(s) Nilah DeJesus **Grade 8** **Town** Bridgeport
 Karina Conde **Grade 8** **Town** Bridgeport

* Constellation Energy --- 1st: \$100.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy

Bridgeport Bridgeport Aquaculture Center Kirk Shadle
 3124 LS 1 Utilizing the Nematocysts of Cassiopea xamachana as a Bioactive Antiproliferative Compound

Student(s) Grace Kistner **Grade 12** **Town** Fairfield

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

Bridgeport Bridgeport Aquaculture Center Kirk Shadle
 6009 PS 1 Spiral Redirect of Heat Exchange Flow Through a Unique Centrifugal Baffle Coupling

Student(s) Erika Pinto **Grade 12** **Town** Bridgeport

- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- * Wisner Memorial Award --- \$ 1000 cash + Silver Bowl (\$2000 cash if a team) High School
- * 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, \$200 cash
- * Frederick Olender USC Award in Memory of G. Robert Wisner --- \$250 Cash Award for HS student in USC school

Bridgeport High Horizons Magnet School Daria Collins
 4006 PT 1 Horror of Waves

Student(s) Kelci Keddo **Grade 8** **Town** Bridgeport
 Benardette Kudaisi **Grade 8** **Town** Bridgeport

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

Brookfield Brookfield High School Jonathan Neuhausel
 6513 PST 1 ParkBD: A Novel Multi-Modal Deep Learning Framework for Biomarker Identification and Drug Repurposing in Parkinson's Disease

Student(s) Shriya Jonnalagadda **Grade 11** **Town** Brookfield
 Diya Girish Kumar **Grade 11** **Town** Brookfield

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

Cheshire Cheshire High School Ms. Julie Barker
 6001 PS 2 A Domestic Violence Alerting Device comprised of an Analog Sound Level Meter, OLED Display, GPS Sensor and iOS and Android Mobile App built using Flutter

Student(s) Suchita Srinivasan **Grade 9** **Town** Cheshire

- * Kathleen & David Smith Awards --- Kathleen & David Smith Award for Innovative Concept - \$100
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2023 Invention Convention, June 10

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Special Award Winners

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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Cheshire	St. Bridget School	Michelle Carroll	5506	P8	1	Improving a Homemade Livestock Identification System for all Farmers		
Student(s) Avery Fowler					Grade 8	Town Cheshire		

- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * Lemelson Early Inventor Award --- Certificate & \$100 cash award from Lemelson Foundation
- * National Center for Inquiry Learning --- Daniel & Maggie Award for Imagination - MS \$100
- * Robert Francoeur Memorial Awards --- Creative or innovative project in engineering, computer science or mathematics by female students - \$100
- * NYUC Pony Club Equine or Animal Science Award --- \$100 Cash Award or excellence in equine studies

Cheshire	St. Bridget School	Michelle Carroll	5010	P7	3	Disaster Resilient Architecture: Experiments of Tower Design and Construction		
Student(s) Luke Machado					Grade 7	Town Hamden		

- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Otis Elevator Company --- MS Excellence Award - \$250
- * Demos R Us Award --- \$150 Cash Award-- Clear Execution of Research- 7th Grade

Clinton	The Morgan School	Abigail Walston	6058	PS	3	Producing Electricity with Water		
Student(s) Davis Walker					Grade 11	Town Clinton		

- * University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Engineering, or Technology, grade 11 only \$28,000 (\$7000/year)

Danbury	Saint Gregory the Great School	Mrs. Fahey	2017	L7	3	Soil Stability-		
Student(s) Claire Calomeni					Grade 7	Town danbury		

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

Danbury	Saint Gregory the Great School	Mrs. Fahey	2005	L7	2	How can water be filtered in an inexpensive way?		
Student(s) Riley Lamp					Grade 7	Town New Fairfield		

- * Aquarion Water Company --- 1st. \$100.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management

Danbury	Saint Gregory the Great School	Mrs. Fahey	2011	L7	1	effects of inhaling Peppermint aroma on reaction time		
Student(s) Piper Twedt					Grade 7	Town Norwalk		

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

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

1019 LT 1 The Benefit of the BioBroth Bubbler on Formaldehyde-Infected Air

Student(s) Briti Kaur **Grade 8** **Town** Danbury
 Nashla Giron **Grade 8** **Town** Danbury

* American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project

Danbury Westside Middle School Academy Ms.Barlow

4013 PT 2 A project to benefit all of the community, with dual-language stock market course and ML stock price predictor, focusing on the Latino and Hispanic community.

Student(s) Alejandro Mayorga **Grade 8** **Town** Danbury
 Matthew Guzman **Grade 8** **Town** Danbury CT 06810

* Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
 * Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp - \$875
 * Jon Chapitis Memorial Award --- John Chapitis Spirit of Innovation Award - MS \$100

Danbury Westside Middle School Academy Ms. Barlow

2518 L8 2 The Effect of Plant-Based Natural Pesticides on Tenebrio Molitors.

Student(s) Christopher Mladen **Grade 8** **Town** Danbury

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

Danbury Westside Middle School Academy Nancy Barlow

4010 PT 1 The Benefit of an Automatic Electricity Blocking Device on Preventing Waste of Electricity

Student(s) Lea Sanchez-Dubois **Grade 8** **Town** Danbury
 Shatarupa Mandal **Grade 8** **Town** Danbury
 Shezan Alladin **Grade 8** **Town** Danbury

* IEEE, Connecticut Section --- \$250 Honors Award – Junior
 * Zepke Awards --- \$100 - For the Best Use of Electronic Circuitry- Middle School
 * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2023 Invention Convention, June 10

Danbury Westside Middle School Academy Ms. Barlow

1002 LT 1 Promoting Outdoors Safety By Altering Pregnancy Tests to Detect Urushiol

Student(s) Alice Tran **Grade 8** **Town** Danbury
 Vianca Villacres **Grade 8** **Town** Danbury
 Thomas Lazo **Grade 8** **Town** Danbury

* American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project

Darien Darien High School David Lewis

3127 LS 1 Analysis of Comprehension Scores of Middle School Students Using Different Forms of Reading (Assisted Reading and Digital Texts)

Student(s) Lindsey Darby **Grade 12** **Town** Darien

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

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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Darien	Darien High School	Sarthak Kanodia	3055	LS	2	Prediction of Vegetation Dynamics in Wetlands using NDVI and Climate Time-series data with an LSTM Model		
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Student(s)	Anusha Narang	Grade	12	Town	Darien
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* Association for Women Geoscientists --- Certificate & \$25 gift card given by CSEF

Ellington	Ellington Middle School	Krista Brogle	5504	P8	1	Developing and Quantifying the Strength and Reliability of Soft Robotics Tubing Attachment Methods		
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Student(s)	Thomas Gerlach	Grade	8	Town	Ellington
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* 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
 * Otis Elevator Company --- MS Excellence Award - \$250

Enfield	Chiaravalle Academy	Tim Coleman	1021	LT	1	Which plant is more efficient at reducing carbon dioxide from the air, through photosynthesis?		
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Student(s)	Madeline Agrafojo	Grade	8	Town	Suffield
	Anna Burnham	Grade	8	Town	Suffield

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

Enfield	Chiaravalle Academy	Timothy Coleman	2007	L7	2	Determining the optimal mixture of chicken compost, or sand to grow beans.		
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Student(s)	Misha LaCroix	Grade	7	Town	Enfield
	Jayden Eldridge	Grade	7	Town	Somers

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

Enfield	Chiaravalle Academy	Timothy Coleman	1011	LT	3	How Lawn Chemicals Affect Soil Biodiversity		
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Student(s)	Delphine Lamattina	Grade	8	Town	West Hartford
	Carys Wilson	Grade	8	Town	Somers
	Sabrina Plaz	Grade	8	Town	Suffield

* J.A. Augustine and H. Glista Awards --- \$100 for excellence in biology

Enfield	Chiaravalle Academy	Tim Coleman	1016	LT	1	Recycling Greywater for Plant Growth		
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Student(s)	Delainey Pappas	Grade	8	Town	Enfield
	Hadley Buttrey	Grade	8	Town	Windsor Locks
	Caleb Quinby	Grade	8	Town	Windsor

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

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
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Enfield Chiaravalle Academy Timothy
 4009 PT 3 What water filtration method can be quickly produced, requires little process, and can provide clean water for less developed countries?

Student(s)	Holt Serrano	Grade 8	Town Somers
	John Donnelly	Grade 8	Town Suffield

* Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science

Fishers Island Fishers Island School Michelle Zimmerlin
 3018 LS 1 Mytilus edulis ability to control harmful algae blooms from nitrogen rich fertilizer and phosphorus rich fertilizer.

Student(s)	Madeleine Hatfield	Grade 12	Town Mystic
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* Aquarion Water Company --- 2nd. \$100.00 Cash - Grade 9-12 For Excellence in Water Quality or Environmental Management

Glastonbury Glastonbury High School Diane Pintavalle
 3090 LS 2 THE INDIRECT EFFECTS OF PHYTOHORMONES ON THE COMPOSITION OF COMMUNITIES OF INSECTS INTERACTING WITH Quercus alba (WHITE OAK) IN THE FORESTS OF CONNECTICUT

Student(s)	Kiernan Tierney	Grade 11	Town Glastonbury
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* Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash

Greenwich Brunswick School Dana Montanez
 6506 PST 1 Comparative analysis of the most efficient, accessible, and useful gasifiable biomatter

Student(s)	Thomas Armstrong	Grade 10	Town Greenwich
	Eric Lorenz	Grade 10	Town Greenwich

* J.A. Augustine and H. Glista Awards --- \$100 for excellence in physical sciences

Greenwich Brunswick School Dana Montanez
 3513 LST 1 Determining the relationship between sound frequencies and settlement rates in pediveliger oyster larvae to develop oyster-recruitment methods for the restoration of oyster reefs

Student(s)	Sebastian DeAngelis	Grade 11	Town Darien
	John Morningstar	Grade 11	Town Greenwich

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

Greenwich Brunswick School Dana Montanez
 3516 LST 1 The effects of cable bacteria on reducing methane production in microbial methanogen populations

Student(s)	Jack Degl	Grade 10	Town Mahopac
	Henry Johnson	Grade 10	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 Brunswick School Mrs. Montanez
 6011 PS 1 Development of Eco-Navigation System for Reducing Greenhouse Gas Emissions of Ships using Wind-Assisted Flettner Rotors

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

- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Innovative Concept Award - \$250
- * CSEF Board of Directors Award --- Certificate and \$100 given by CSF
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2023 Invention Convention, June 10

Greenwich Brunswick School Dana Montañez
 3519 LST 1 The effects of Light Pollution on the growth and health of stone corals Montipora Capricornia and Oxypora Coral.

Student(s) Grayson O'Hara **Grade** 10 **Town** Rye
 Tucker Spiess **Grade** 10 **Town** Old Greenwich

- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF

Greenwich Brunswick School Dana Montanez
 3526 LST 2 The Nostoc Effect: Creating the Ultimate Biofertilizer to Mitigate Climate Change

Student(s) Gabriel Trahanas **Grade** 10 **Town** Riverside
 Ryan Ahn **Grade** 10 **Town** White Plains

- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF

Greenwich Brunswick School Dana Montanez
 3061 LS 2 The Effectiveness of Ultraviolet Light Sterilization on Disinfecting Hydroponic Systems

Student(s) Oliver Velasco **Grade** 10 **Town** Greenwich

- * Kathleen & David Smith Awards --- Kathleen & David Smith Award for Laser Application - \$100

Greenwich Central Middle School Andrew Bramante
 2521 L8 1 Reducing Food Waste with Early, Visual Detection of Bread-Mold via BODIPY-Colorimetric Card Detection of 1-Octen-3-ol

Student(s) Amelia Foell **Grade** 8 **Town** Greenwich

- * U.S. Metric Association --- 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

Greenwich Central Middle School Andrew Bramante
 5507 P8 1 Demonstrating the Persistence of Long Island Sound Polyaromatic Hydrocarbon (PAH) Contamination

Student(s) Bridget Hadden **Grade** 8 **Town** Greenwich

- * 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

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

Greenwich Central Middle School Andrew J Bramante

2508 L8 2 Wavelength-Specific Illumination of Hydroponic Growth Systems, for Increased Crop Production

Student(s) Kate Wick **Grade 8** **Town** Greenwich, CT

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

Greenwich Eastern Middle School Andrew Bramante

2503 L8 2 Enhancement of Sleep Cycle Circadian Rhythms via the Introduction of Ambient Sounds

Student(s) Rachel Goldenberg **Grade 8** **Town** Greenwich

- * Bushnell Center for Performing Arts --- Pair of Tickets to Monterey Jazz Festival on tour for top project that is music-related

Greenwich Eastern Middle School Andrew Bramante

5510 P8 2 Does Our Desire for Convenient Spring Water Come at an Expense for Meaningful Microplastic Harm?

Student(s) Sara Rahimtula **Grade 8** **Town** Old Greenwich

- * Freeman Family Excellence in Chemistry Awards --- For Excellence in Chemistry or Chemical Engineering by a Middle School student, \$100 cash

Greenwich Eastern Middle School Andrew Bramante

2511 L8 1 Simple, Rapid Detection of Early Maturity-Onset Diabetes of the Young (MODY) via Random-C-Peptide Biomarkers

Student(s) Lula Wang **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

Greenwich Greenwich Country Day School Nathan Haag

3122 LS 3 Does diet soda help with weight loss in young teenagers

Student(s) Lucas Murray **Grade 12** **Town** Greenwich

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

Greenwich Greenwich High School Andrew Bramante

6028 PS 2 Development of an Efficient and Easily-Applicable Low-Energy Process for the Degradation of PFAS

Student(s) Zara Haque **Grade 10** **Town** Riverside

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

Greenwich Greenwich High School Andrew Bramante

3099 LS 2 Eco-Friendly Removal of Eutrophication-Initiating NH₄⁺ from Water via SAP-Enhanced, Activated Food Waste Biochar Adsorption Films

Student(s) Audrey Lin **Grade 11** **Town** Riverside

- * National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
- * Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Senior

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

Greenwich Greenwich High School Andrew Bramante

6043	PS	2	Reversible, Tunable Metal Electrodeposition on Pt-Functionalized, Indium Tin Oxide, Transparent Electrodes for Thermal Regulating and Dynamic Optical Properties of Smart Windows
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Student(s) Madeline Minichetti **Grade** 12 **Town** Greenwich

- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- * CT Architecture Foundation - The William M. Mack, AIA Award --- \$250 Amazon Gift Card from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- * Otis Elevator Company --- HS Excellence Award - \$250

Greenwich Greenwich High School Mr. Andrew Bramante

6008	PS	1	Concurrent Removal of Rising Soluble Ocean Carbon Dioxide and Oil-in-Water Contaminants via Multi-Functional Remediation Framework.
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Student(s) Naomi Park **Grade** 11 **Town** Riverside

- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card by CSEF, possible advance to further competition

Greenwich Greenwich High School Andrew Bramante

6016	PS	2	Synthesis and Investigation of Metal Organic Frameworks for the Purpose of Atmospheric Water Harvesting
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Student(s) Caitlin Tice **Grade** 10 **Town** Greenwich

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

Greenwich Greenwich High School Andrew Bramante

6022	PS	2	Use of Cryptomelane-Type Manganese Oxide Free Standing Membranes for Removal of Oil Contaminants in Water.
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Student(s) Ryan Wadhwa **Grade** 9 **Town** Greenwich

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

Greenwich Greenwich High School Andrew Bramante

3020	LS	2	A Zero-Waste Product; Pyrolytic Conversion of Walnut Shell Waste to Light-Hydrocarbon Fuels, Biopesticides, and Valuable Soil Additives
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Student(s) Keira Young **Grade** 12 **Town** Cos Cob

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

Greenwich Sacred Heart Greenwich Mary Musolino

3507	LST	2	Testing Mars Global Stimulant MGS-1 Enhancements including a Novel Water/Nutrient Delivery System for Growing Crops for a Mission to Mars
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Student(s) Charlotte Gannon **Grade** 12 **Town** Greenwich
 Isabella Leao **Grade** 12 **Town** Greenwich
 Robin Murphy **Grade** 12 **Town** Cos Cob

- * 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

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Greenwich Western Middle School Andrew Bramante
 2514 L8 3 Use of Simple, Home-Remedy Cleansers to Selectively Inhibit Harmful Bacteria on Classroom Surfaces
Student(s) Amaya Khwaja-Patel **Grade 8** **Town** Greenwich

* American Society of Safety Professionals, CT Valley Chapter --- \$150 grade 7-8 project

Guilford Guilford High School Kristie Whitcomb
 6037 PS 2 Removing the Ocean's Noose: Designing a Ropeless Solution to the Lobster Trap
Student(s) Michael Neiss **Grade 12** **Town** Guilford

* Southeastern New England Marine Educators (SEMEME) --- \$100 award and membership for student and teacher in SEMEME - 1st Place Senior

Guilford Guilford High School Kristie Whitcomb
 3066 LS 1 Sounds of Change: Music Therapy's Effect on Apathy in Parkinson's Disease Patients
Student(s) Zachary Neiss **Grade 12** **Town** Guilford

* Bushnell Center for Performing Arts --- Pair of Tickets to Broadway Show - Tina Turner Musical for top project that is behavioral or social sciences related

Hamden Hamden Hall Country Day School Paulomi Aldo
 2019 L7 2 Do human and dog saliva have special antibacterial properties and help heal wounds?
Student(s) Anna Aslan **Grade 7** **Town** Hamden

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

Hartford A.I. Prince Technical High School Sarah Wilby
 6006 PS 2 Thermacork Shelters
Student(s) Meranyelis Negron-Figueroa **Grade 11** **Town** Hartford

* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Engineering, or Technology, grade 11 only \$28,000 (\$7,000/year)

Hartford A.I. Prince Technical High School Sarah Wilby
 6511 PST 3 Bibby Socks - heating your feet with the power of your steps
Student(s) Essence Telford **Grade 11** **Town** New London
Brandon Sanchez **Grade 11** **Town** Hartford
Camille Edmondson **Grade 11** **Town** Hartford

* Constellation Energy --- 1st: \$150.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy

Hartford Environmental Sciences Magnet School Rebecca Hays
 2506 L8 2 How does the application of granular sodium chloride and liquid magnesium chloride before and during winter weather events affect the quality of nearby bodies of water?
Student(s) Elizabeth D'Agostino **Grade 8** **Town** New Britain

* National Oceanic and Atmospheric Administration --- Certificate and \$25 gift card given by CSEF
 * Southeastern New England Marine Educators (SEMEME) --- \$100 award and membership for student and teacher in SEMEME - 1st Place Junior
 * Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash

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

Kent Kent School Jesse Klingebiel
 3045 LS 1 Cell type-specific expression of the molecular players in mouse prefrontal cortex during cocaine addiction

Student(s) Eric Teng **Grade** 11 **Town** San Marino

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

Litchfield Wamogo Regional High School Fred Jaquin
 6041 PS 1 Measuring Our Place in the Solar System:

Student(s) Ryan Emanuel **Grade** 10 **Town** Morris

* 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

Manchester Manchester High School Jeffrey Labasi
 3019 LS 1 The Isolation And Identification Of Polystrene Degrading Bacteria From Zophobas Morio

Student(s) Paris Bazemore **Grade** 12 **Town** manchester

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

Manchester St. James School Ellen Oei
 5005 P7 1 Which Rock is more Porous?

Student(s) Nick Grace **Grade** 7 **Town** Manchester

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

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

Milford Platt Technical High School Sara Bruno
 3508 LST 3 Urban Hub Revitalization Project

Student(s) Ashley Ramos **Grade** 12 **Town** Bridgeport
 Bruno Valdivia **Grade** 12 **Town** West Haven
 Katelyn Zayas **Grade** 12 **Town** New Haven

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

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

New Haven Engineering and Science University Magnet School Roger Rushworth
 3073 LS 2 Assessing the Effectiveness of Different Flocculants on Algal and Agricultural Contamination in an Acidifying Ocean

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

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

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

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

New Haven Engineering and Science University Magnet School Roger Rushworth

6079	PS	1	An Analysis of the Efficient Blockage of RFID Readers Based on the Thickness, Distance, and Density of Each RFID Reader Obstruction Material
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Student(s) Nivrith Ananth Iyer **Grade 9** **Town** West Haven

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

New Haven Engineering and Science University Magnet School Roger Rushworth

2534	L8	1	Design and Implementation of a Novel Machine-Learning-Based System Utilizing Feature Extraction for Precise Cervical Cancer Detection via Biopsy Sample
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Student(s) Ethan Joseph **Grade 8** **Town** West Haven

- * Thermo Fisher Scientific Junior Innovators Challenge --- Nomination to compete in the Thermo Fisher Scientific JIC for selected top MS winners
- * 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)
- * GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2023 Invention Convention, June 10

New Haven Engineering and Science University Magnet School Ms. Alyssa Anderson

3016	LS	2	Investigating the Usage of Treated Nano-Clay Composites for the Efficient Removal of Emerging Contaminants in an Aqueous Solution
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Student(s) Snigtha Mohanraj **Grade 10** **Town** Ansonia

- * Aquarion Water Company --- 1st, \$150.00 Cash - Grade 9-12 For Excellence in Water Quality or Environmental Management
- * The Community Foundation for Greater New Haven Ecology, Environmental, and Alternative Energy Research Prize --- Urban Public School Environmental / Energy Award - \$500

New Haven Engineering and Science University Magnet School Roger Rushworth

2502	L8	2	The Effect of Ocean Acidification on Coral Reef Growth
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Student(s) Adithi Variar **Grade 8** **Town** Wallingford

- * U.S. Agency for International Development (USAID) --- Certificate and \$25 gift card given by CSEF
- * Project Oceanology --- Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Junior

New Haven Sound School Charles Mulligan

3520	LST	1	Potential role of proximity to creek source water on population dynamics of Eastern Oyster (Crassostrea Virginica)
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Student(s) Emma Bigman **Grade 10** **Town** Middlebury
 Sofia Roberts **Grade 10** **Town** Branford

- * 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)

New Haven Sound School Chuck Mulligan

3511 LST 3 Potential Impact of Heavy Rain Events on Coastal Bacterial Populations: Modeling Human Impact in Close Proximity to Wastewater Treatment Facilities

Student(s) Cora FitzGerald **Grade** 10 **Town** Guilford

Britney Xochipitecatl Cuahtepitzi **Grade** 10 **Town** New Haven

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

Newtown Newtown High School Timothy Dejulio

6010 PS 2 Line Follower Car

Student(s) Emily Li **Grade** 10 **Town** Newtown

* Dreams Unlimited Award --- \$150 cash award and certificate

Pawcatuck St. Michael School Anna Helene Grossomanides

2023 L7 3 Impact of Contaminants of Emerging Concern on Bean Seed Germination and Growth

Student(s) Addison Cadmus **Grade** 7 **Town** Pawcatuck

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

Pomfret Pomfret School Joshua Lake

6015 PS 3 Research on sound generation through mechanical design for pedestrian safety during low-speed driving

Student(s) Yuna Cho **Grade** 10 **Town** Pomfret

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

Pomfret Pomfret School Joshua Lake

3049 LS 1 Detection and Remediation of War Polluted Soil Using Deep Learning Robot and Soil Remediating Bioplastic (BioCore)

Student(s) Yuree Oh **Grade** 11 **Town** Seoul

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

Redding CT STEM Fair Catherine Piscitelli

3110 LS 1 Determining the Effects of Prolonged Starvation on the Survival, Growth, and Development of Lymantria dispar

Student(s) Sabrina Osowiecki **Grade** 10 **Town** Redding

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

Ridgefield Ridgefield High School Patrick Hughes

3036 LS 2 Assessing the Impact of Synthetic Sweeteners on Hunger Perception in Drosophila Melanogaster

Student(s) Aditi Gupta **Grade** 12 **Town** Ridgefield

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

Conn. Science & Engineering Fair

Special Award Winners

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]	Sponsor(s)	Award(s)
Ridgefield	Ridgefield High School	Patrick Hughes	3076	LS	2	Assessing grid and curvilinear neighborhood layouts for their impact on wildfire damage		
			Student(s)		Charlotte Kemp	Grade 12		Town RIDGEFIELD
* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project								
Ridgefield	Ridgefield High School	Patrick Hughes	6083	PS	3	Engineering a Methodology and Database to Efficiently and Effectively Discover and Classify Micrometeorites		
			Student(s)		Heather Wallace	Grade 12		Town Ridgefield
* Geology/Historic Project of Merit Award --- \$50 - Earth Science - Field work with Geologic or historic value HS								
Shelton	Shelton Intermediate School	Erica Napoli	2008	L7	2	Color VS Memory		
			Student(s)		Ava Hamlin	Grade 7		Town Shelton
* Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science								
South Windsor	South Windsor High School	Patti Stamper	6519	PST	1	Using organic dyes for a more economical approach to a Dye Sensitized Solar Cell		
			Student(s)		Pranay Kakkar	Grade 10		Town South Windsor
					Adithya Anand	Grade 10		Town South Windsor
* MIT Club of Hartford K-12 Initiative --- 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								
South Windsor	South Windsor High School	Independent	6088	PS	1	Predicting Solar Storms and Coronal Mass Ejections (CMEs) using novel Attention based Deep Learning algorithms		
			Student(s)		Pragyan Yadav	Grade 11		Town South Windsor
* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)								
Southington	Southington High School	Mr. Destefano	3112	LS	3	Can galleria mellonella larvae be utilized to decompose plastics faster?		
			Student(s)		Zeynep Agirman	Grade 11		Town Southington
* University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate								
Stamford	King School	Victoria Schulman	6036	PS	1	Environmental Remediation via Photocatalysis for Partial Methane Oxidation and Oil Photodegradation		
			Student(s)		Antonia Kolb	Grade 11		Town New Canaan
* Freeman Family Excellence in Chemistry Awards --- For Excellence in Chemistry or Chemical Engineering by a High School student, \$200 cash								

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

Stamford King School Victoria Schulman
 3048 LS 1 Knockdown of the essential 23S rRNA methyltransferase, rv3579c, increases the susceptibility of Mycobacterium tuberculosis to macrolides

Student(s) Yuriy Sandmeier **Grade** 12 **Town** New Rochelle

- * Regeneron Biomedical Science Award --- Certificate & \$375.00 cash
- * Biophysical Society --- Biophysics Award- \$100

Stamford King School Victoria Schulman
 6087 PS 2 Designing a Simulation for Aerothermodynamic Performance of Transatmospheric Vehicles and Ablative Heat Shield Designs for Space Exploration and Missile Defense Reentry

Student(s) Ryan Wempen **Grade** 11 **Town** Stamford

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

Storrs E. O. Smith High School Cheryl Granger
 6040 PS 2 Multi Temporal Analysis of Beaver Activity in Connecticut Forests Using Aerial Imagery

Student(s) Hiruni Witharana **Grade** 9 **Town** Storrs Mansfield

- * The Goodwin-Niering Center for the Environment --- \$100 for "Excellence in Environmental Conservation Studies"
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 1st Place HS Environmental Project

Stratford St. Mark School Alexander Kennedy
 2006 L7 1 The Stroop Effect

Student(s) Julianne Gonzalez **Grade** 7 **Town** Stratford

- * American Psychological Association --- 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

Suffield Suffield High School Melanie Brown
 3098 LS 3 The Impacts of the Permanent Implementation of Daylight Savings Time in Connecticut.

Student(s) Emma Conway **Grade** 11 **Town** Suffield

- * American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 9-12 project

Suffield Suffield Middle School Melanie Brown
 4012 PT 2 Technical and Economic Feasibility of Photovoltaic Window Shades

Student(s) Shaunak Ukidwe **Grade** 8 **Town** Suffield
 Arnav Ukidwe **Grade** 8 **Town** Suffield

- * Constellation Energy --- 2nd: \$50.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy
- * MIT Club of Hartford K-12 Initiative --- 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
- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2023 Invention Convention, June 10

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

Trumbull Christian Heritage School Dr. Daniel Cote
 6080 PS 3 Designing a Device to Charge a Cellphone Using Energy Created by a Bicycle for Underdeveloped Areas

Student(s) Abigail Nagel **Grade** 11 **Town** Trumbull

* J.A. Augustine and H. Glista Awards --- \$100 H. Glista Award for physical sciences

Trumbull Christian Heritage School Nicole Blaskewicz
 5502 P8 1 How Ice vs. No Ice Affects a Stirling Engine

Student(s) Charles Orban **Grade** 8 **Town** Norwalk

* IEEE, Connecticut Section --- \$100 Honorable Mention
 * John S. Kendall Memorial --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Second Place
 * Susan and Stanley Lessoff Memorial --- Susan and StanleyLessoff Memorial Award - \$250 Cash and Plaque MS

Trumbull Christian Heritage School Ms. Blaskewicz
 5509 P8 3 Solar Storms and Magnetometers: What is a solar storm, and how do magnetometers contribute to society today?

Student(s) Grace Rowe **Grade** 8 **Town** Trumbull

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

Trumbull Trumbull High School Steffanie Elkins
 3022 LS 3 The Effect of Different Concentrations of Caffeine on Acidophilic and Alkaliphilic Plants

Student(s) Shivashankar Subramanian **Grade** 12 **Town** Trumbull

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

Wallingford Choate Rosemary Hall Jan Cook
 6076 PS 2 Theoretical Investigation of Sodium Ion Adsorption on N-rich Graphene as a High-Rate Anode for Sodium-Ion Batteries

Student(s) Henry Ding **Grade** 11 **Town** Irvine

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

Wallingford Choate Rosemary Hall Jan Cook
 3007 LS 1 Development of Buoyant, Lignin-Based Fulvic Acid Supply Device (FASD) to Prevent Ocean Desertification

Student(s) Yoon Ha Lee **Grade** 11 **Town** Seoul

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

Wallingford Choate Rosemary Hall Jan Cook
 3040 LS 1 TopoCan: A Novel Histopathological System for Clinical Prediction with Topology- and Spatial Genome-Informed Deep Learning

Student(s) Isabella Wu **Grade** 11 **Town** Wallingford

* 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)
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Wallingford Choate Rosemary Hall Jan Cook

6064	PS	1	A Self-Stabilizing Haptic Accessibility Mouse for Parkinson's Disease Sufferers					
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Student(s) Jingyuan Zhang **Grade** 10 **Town** Wallingford

- * MTU Aero Engines North America, Inc. --- MTU Aero Engines Mechanical Engineering Applied Principles Award - \$250
- * IEEE, Connecticut Section --- \$250 Honors Award – Senior
- * Zepke Awards --- \$125 - For the Best Use of Electronic Circuitry- Senior High

Wallingford Choate Rosemary Hall Christopher Hogue

6069	PS	3	Probing Neural Networks for Visio-Linguistic Feature Binding					
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Student(s) Minzhi Zhang **Grade** 11 **Town** Wallingford

- * Maplesoft Awards for Applied Mathematics and Modeling --- Maple software, gift packs, & T-shirt - For Excellence in Mathematics

Waterbury ACES at Chase Anne Pember

2013	L7	3	Removing Sodium Nitrate from run off water					
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Student(s) Joel Brooks **Grade** 7 **Town** Naugatuck

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

Waterbury ACES at Chase Anne Pember

5513	P8	3	The Design and Experimentation of Creating a Cold Pack Out of Household Items					
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Student(s) Brock Dauber-Katz **Grade** 8 **Town** Thomaston

- * Connecticut Invention Convention "Next Step Inventors" --- Next Step Inventor Trophy & Invitation to compete at the 2023 Invention Convention, June 10

Waterbury ACES at Chase Anne Pember

5001	P7	1	Streaky Windows Experiment					
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Student(s) Andrew Daukas **Grade** 7 **Town** Middlebury

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

Westbrook Westbrook High School Mr. Zebrowski

6047	PS	2	Linear Particle Accelerator					
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Student(s) Enzo Adorno **Grade** 12 **Town** Westbrook

- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift card given by ONR
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * University of Connecticut - Early College Experience --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificate

Wilton Middlebrook School Kendra Norman

5002	P7	2	BlindSight					
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Student(s) Arav Gupta **Grade** 7 **Town** Wilton

- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * IEEE, Connecticut Section --- \$100 Honorable Mention

Conn. Science & Engineering Fair

Special Award Winners

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

Wilton Middlebrook School Jessica Garcia
 5517 P8 2 Identifying Skin Lesions with Artificial Intelligence

Student(s) Leonardo Kulon **Grade 8** **Town** Wilton

* American Society of Safety Professionals, CT Valley Chapter --- \$200 grade 7-8 project

Wilton Middlebrook School Kelly DePiano
 2525 L8 1 Preventing Hypoxia using Magnetism

Student(s) Anshika Saagi **Grade 8** **Town** Wilton

* Aquarion Water Company --- 2nd. \$50.00 Cash - Grade 7-8 For Excellence in Water Quality or Environmental Management

Wilton Middlebrook School Ms. Kelly Depiano
 5516 P8 2 How to See Beyond What the Eye Can See (How to build a Microscope to see objects smaller than 1 micrometer in size)

Student(s) Angela Varghese **Grade 8** **Town** Wilton

* Robert Francoeur Memorial Awards --- Creative or innovative project in engineering, computer science or mathematics by female students - \$100

Windsor Academy of Aerospace and Engineering Michelle Bellinger
 3024 LS 1 Non-Invasive Pre-screening Approach for Early Detection of The Human Papillomavirus (HPV) to Aid in Cervical Cancer Prevention in Underrepresented Demographics

Student(s) Ana-Lois Davis **Grade 11** **Town** Broad Brook

* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Science or Mathematics, grade 11 only \$28,000 (\$7,000/year)
 * Jon Stone Memorial Award --- Jon Stone Award for Innovative Engineering- \$100

Windsor Academy of Aerospace and Engineering Michelle Bellinger
 6512 PST 1 Harvesting Energy from the Wind by Combining Piezoelectrics and Turbines.

Student(s) Ronak Ramesh **Grade 11** **Town** Middletown
 Aarush Singh **Grade 11** **Town** South Windsor

* Constellation Energy --- 2nd: \$100.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy
 * Connecticut Association of Physics Teachers --- \$100 Senior project
 * Jon Chapis Memorial Award --- John Chapis Spirit of Innovation Award - HS \$200

Windsor Madina Academy Mrs.Sana Farooqi
 6063 PS 1 Investigating the effect of dimpled and tubercled geometries in conjunction on the drag and lift of airfoils.

Student(s) Tasneem Zoghol **Grade 10** **Town** Enfield

* U.S. Air Force --- Certificate & USAF Merchandise Paskage
 * American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate
 * Vanderbilt Chemicals, LLC --- \$150 Vanderbilt Chemicals Award for Excellence in Tribology and Sustainable Lubrication
 * 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 High School Physical Sciences - \$500

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

Windsor The Loomis Chaffee School Koby Osei-Mensah

6003	PS	1	Improving Photoelectric Conversion Efficiency of the Solar Cell with Silica-Based-Aerogel-Coated Surface
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Student(s) Yan Che **Grade** 11 **Town** Shanghai

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

Windsor The Loomis Chaffee School Koby Osei-Mensah

3002	LS	1	Classify Liver cancer using Uncertainty-aware CNN
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Student(s) Qiwu Jiang **Grade** 11 **Town** Windsor

* University of Hartford Scholarships --- University of Hartford Scholarship - For Excellence in Science or Mathematics, grade 11 only \$28,000 (\$7,000/year)

Woodbridge Amity Regional High School Catherine Piscitelli

6085	PS	1	Refining a Novel Pediatric Bionic Ankle Through Empirical Testing and Integration of an Intelligent Fluidic Joint Control Architecture
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Student(s) Aditi Bhattamishra **Grade** 11 **Town** Orange

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

Woodbridge Amity Regional High School Catherine Piscitelli

6061	PS	2	Creating and Testing a Novel Drone Swarm Mapping and Surveillance Algorithm
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Student(s) Francis Cavallaro **Grade** 12 **Town** Orange

* U.S. Air Force --- Certificate & USAF Merchandise Package
 * IEEE, Connecticut Section --- \$100 Honorable Mention
 * Otis Elevator Company --- HS Excellence Award - \$250.

Woodbridge Amity Regional High School Catherine Piscitelli

6077	PS	2	Developing a Machine-Learning Based Algorithm to Identify and Predict Alzheimer's Disease from Clinical Notes
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Student(s) Haseeb Chaudhry **Grade** 11 **Town** Orange

* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)

Woodbridge Amity Regional High School Catherine Piscitelli

6070	PS	2	Development of an Autonomous Device that uses Heart Rate and Vibrational Pulses to Reduce Stress
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Student(s) Sheehan Munim **Grade** 12 **Town** Orange

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

Woodbridge Amity Regional High School Catherine Piscitelli

6017	PS	2	Optimizing Reinforcement Learning Using Dynamic Environment Manipulation to More Efficiently Train Autonomous Navigation AI
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Student(s) Aarav Patel **Grade** 11 **Town** Orange

* University of New Haven Scholarship Awards --- University of New Haven 4 year scholarship - \$96,000 (\$24,000 per year)
 * Maplesoft Awards for Applied Mathematics and Modeling --- Maple software, gift packs, & T-shirt - For Excellence in Mathematics

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

6025	PS	2	Modeling Subcortical-Cortical Interactions During Reward-Based Decision Making Using a Hierarchical Temporal Memory Artificial Neural Network				
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Student(s) Annika Yun

Grade 11 **Town** Orange

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