



Conn. Science & Engineering Fair

Quinnipiac University

March 11 - 16, 2019

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

Special Awards

Air and Waste Management Association, Connecticut Chapter

Award \$100 Junior, Environmental Research, air pollution related

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

Project Title **It's Raining Acid**

Proj. No. **1016**

Student(s) **Bernadette McNamara** **Grade 8** **Town New Canaan**

Kelly Dunne **Grade 8** **Town Stamford**

Award \$100 Junior, Environmental Research, waste recycling related

School **Bethel Middle School** **Bethel** **Shellie Zancan**

Project Title **Biodegradable Trash Bag Test**

Proj. No. **5025**

Student(s) **Emily Turek** **Grade 7** **Town Bethel**

Award \$100 Senior, Environmental Research, air pollution related

School **Glastonbury High School** **Glastonbury** **Diane Pintavalle**

Project Title **Exploring a Novel Approach for Tackling Climate Change: Engineering Enzymes for Improved CO2 Removal and H2 Production**

Proj. No. **3084**

Student(s) **Leonard Liu** **Grade 11** **Town Glastonbury, CT**

Award \$100 Senior, Environmental Research, waste recycling related

School **Kent School** **Kent** **Sunny Kim**

Project Title **Microplastic: A Way to Collect and Reuse Microplastic**

Proj. No. **6055**

Student(s) **Da Hyun (Dianne) Choo** **Grade 12** **Town Kent**

Alumni Botany Awards

| | | | |
|----------------------|--|------------|-----------------|
| Award | Alumni High School Botany Award- \$100 Cash | | |
| School | Science and Technology Magnet High | New London | Mrs. Golden |
| Project Title | The impact of pesticides on the nutritional value of food plants | | |
| Proj. No. | 3032 | | |
| Student(s) | Laurelou Doyonnas | Grade 10 | Town Stonington |

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|----------------------|---|------------|-----------------|
| Award | Alumni Middle School Botany Award- \$100 Cash | | |
| School | Saint Joseph Catholic Academy | Brookfield | Mrs. Dimon |
| Project Title | THE EFFECT OF FIRE DURATION ON REFORESTATION RATE | | |
| Proj. No. | 2513 | | |
| Student(s) | Abigail Cristaudo | Grade 8 | Town Brookfield |

American Institute of Aeronautics & Astronautics - Connecticut Section

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|----------------------|---|-----------|---------------|
| Award | \$200 award, certificate | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Delivery of Medical Supplies using Autonomous Thrust Vectoring UAVs to 3rd World Countries Post Natural Disasters | | |
| Proj. No. | 6008 | | |
| Student(s) | Thomas Fouts | Grade 11 | Town Rye |

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|----------------------|--|----------|----------------------|
| Award | \$200 award, certificate | | |
| School | CT STEM Foundation | Redding | Catherine Piscitelli |
| Project Title | Designing a Ground Collision Avoidance System to Inhibit Controlled Flight Into Terrain Accidents For Single Engine Aircraft | | |
| Proj. No. | 6080 | | |
| Student(s) | Mason Beaudette | Grade 10 | Town Orange |

American Meteorological Society

| | | | |
|----------------------|--|------------|-------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Multicultural Magnet School | Bridgeport | Mrs. Corina Starn |
| Project Title | HUMIDITY IMPACT | | |
| Proj. No. | 2006 | | |
| Student(s) | Sofia Atehortua | Grade 7 | Town Bridgeport |

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|----------------------|---|-----------------|-------------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Environmental Sciences Magnet School | Hartford | Mrs Hays |
| Project Title | Now You Sea It | | |
| Proj. No. | 2012 | | |
| Student(s) | Isabella D'Agostino | Grade 7 | Town New Britain |

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|----------------------|---|-----------------|--------------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Environmental Sciences Magnet School | Hartford | ms. hays |
| Project Title | Ocean Acidification VS. Mussel Filtration | | |
| Proj. No. | 2019 | | |
| Student(s) | Jaydalize London | Grade 7 | Town Wethersfield |

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|----------------------|---|------------------|-----------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Predicting Droughts from Satellite Images using Novel Convolutional Neural Network Techniques | | |
| Proj. No. | 3076 | | |
| Student(s) | Ali Hindy | Grade 11 | Town Greenwich |

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|----------------------|---|-------------------|----------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Xavier High School | Middletown | Nick Grasso |
| Project Title | A Novel Computer-aided Cloud Type Classification Method Based on Convolutional Neural Network with Squeeze-and-Excitation | | |
| Proj. No. | 6032 | | |
| Student(s) | Jason Li | Grade 10 | Town Higganum |

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|----------------------|--|-----------------|---------------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Suffield High School | Suffield | Melanie Brown |
| Project Title | How will climate change affect the ecosystems of Connecticut | | |
| Proj. No. | 6056 | | |
| Student(s) | Oliver Kelsey | Grade 10 | Town Windsor Locks |

American Psychological Association

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|---------------|--|----------|-----------------|
| Award | Certificate, \$25 gift card given by CSEF | | |
| School | Greens Farms Academy | Westport | Mathieu Freeman |
| Project Title | Impacts of Blue Light on the Eye Structure and Brain Activity of Drosophila Melanogaster | | |
| Proj. No. | 3036 | | |
| Student(s) | Ava Ewing | Grade 12 | Town Darien |

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|---------------|--|-----------|-------------------|
| Award | Certificate, \$25 gift card given by CSEF | | |
| School | Sacred Heart Greenwich | Greenwich | Ms. Mary Musolino |
| Project Title | Music and Memory: The Ideal Dosage of Music for Improved Cognition and Quality of Life in Patients with Alzheimer's Disease and Dementia | | |
| Proj. No. | 3113 | | |
| Student(s) | Caroline Badagliacca | Grade 12 | Town North Salem |

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| Award | Certificate, \$25 gift card given by CSEF | | |
| School | Ridgefield High School | Ridgefield | Ryan Gleason |
| Project Title | The Evolution of People Pleasing in Canis lupus irremotus in Comparison to the Canis lupus familiaris | | |
| Proj. No. | 3521 | | |
| Student(s) | Laura Jeniski | Grade 12 | Town Ridgefield |
| | Savannah Bell | Grade 12 | Town Ridgefield |

American Society of Safety Professionals, CT Valley Chapter

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|---------------|--|---------|-----------------|
| Award | \$100 grade 7-8 project | | |
| School | Saint Joseph School | Danbury | Jennifer Reilly |
| Project Title | Hand Sanitizers and Wipes Against Bacteria | | |
| Proj. No. | 1003 | | |
| Student(s) | Melanie Riggs | Grade 8 | Town Danbury |
| | Catherine Baptiste | Grade 8 | Town danbury |

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|---------------|---|-----------|--------------|
| Award | \$100 grade 7-8 project | | |
| School | Saint Mark School | Stratford | Mrs. Olins |
| Project Title | The replication of food allergens on a hand from person to person | | |
| Proj. No. | 2031 | | |
| Student(s) | Shaelyn Averaimo | Grade 7 | Town Milford |

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|---------------|-----------------------------|---------|------------------|
| Award | \$100 grade 7-8 project | | |
| School | Thomas Edison Middle School | Meriden | Caitlin Lombardi |
| Project Title | Construction Catastrophe! | | |
| Proj. No. | 4039 | | |
| Student(s) | Michael Kline | Grade 7 | Town Middletown |
| | Jacob Jones | Grade 7 | Town Middletown |

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|---------------|--|----------|------------------------|
| Award | \$150 grade 9-12 project | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Michelle Bellinger |
| Project Title | Monitoring Infant Vital Signs Through a Car Seat Embedded Piezoelectric Sensor Network | | |
| Proj. No. | 6007 | | |
| Student(s) | Gianna Guzzo | Grade 12 | Town Suffield |

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|---------------|---|-----------|---------------|
| Award | \$150 grade 9-12 project | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Texting-and-Driving Safety Device: Utilizing a Hydraulic Braking System Activated by a Touch-Sensor Steering Wheel to Increase Driver Engagement. | | |
| Proj. No. | 6019 | | |
| Student(s) | Noah Levi | Grade 11 | Town Wilton |

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|---------------|---|----------|---------------|
| Award | \$150 grade 9-12 project | | |
| School | Cheshire High School | Cheshire | Julie Barker |
| Project Title | Object Detection Universal System [O.D.U.S] | | |
| Proj. No. | 6038 | | |
| Student(s) | Siddhant Bhardwaj | Grade 9 | Town Cheshire |

Arthur & Ruth Mensing Award

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|---------------|---|------------|----------------------|
| Award | Mensing Award Excellence in the Physical Sciences - \$500 | | |
| School | Amity Regional High School | Woodbridge | Catherine Piscitelli |
| Project Title | Creating and Implementing a Model that Predicts Concentrations of the Air Pollutant NO ₂ in Springfield, Massachusetts | | |
| Proj. No. | 6100 | | |
| Student(s) | Allison Su | Grade 11 | Town Woodbridge |

ASM Materials Education Foundation

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|----------------------|---|----------------|-------------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Chiaravale Academy | Enfield | Mr. Tim Coleman |
| Project Title | Fuel Efficiency of a Paper Brick Versus a Bio-Brick | | |
| Proj. No. | 4025 | | |
| Student(s) | Abigail Quinby | Grade 7 | Town Windsor |
| | Lincoln Marshaus | Grade 7 | Town Suffield |
| | Alexander Gumkowski | Grade 7 | Town North Haven |

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|----------------------|---|------------------|-----------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Creation of an Efficient Fluid Coolant System through the use of Ferrofluid | | |
| Proj. No. | 6503 | | |
| Student(s) | John Brown | Grade 10 | Town Greenwich |
| | Caleb Boateng | Grade 10 | Town New York |

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|----------------------|---|-----------------|----------------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Academy of Aerospace and Engineering | Windsor | Michelle, Bellinger |
| Project Title | Effect of Bamboo, plastic on the strength of concrete | | |
| Proj. No. | 4033 | | |
| Student(s) | Rawan Ibrahim | Grade 7 | Town Bristol |
| | Vikram Haran | Grade 12 | Town Ellington |

Association for Women Geoscientists

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|----------------------|---|-----------------|-------------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Environmental Sciences Magnet School | Hartford | Mrs Hays |
| Project Title | Now You Sea It | | |
| Proj. No. | 2012 | | |
| Student(s) | Isabella D'Agostino | Grade 7 | Town New Britain |

Award Certificate & \$25 gift card given by CSEF

School **Jonathan Law High School** **Milford** **Christine Bouchard**

Project Title Analyzing trends in Eastern Equine Encephalitis in order to understand why there are sudden outbreaks throughout the country.
 Proj. No. **3089**

Student(s) Rachna Vipparla **Grade 11** **Town** Milford

Award Certificate & \$25 gift card given by CSEF

School **Christian Heritage School** **Trumbull** **Daniel Cote**

Project Title Building a Biosphere
 Proj. No. **3019**

Student(s) Pria Williams **Grade 11** **Town** Trumbull

Banning Family Life Science Award

Award For excellence in invasive species research, \$100 cash

School **Watkinson School** **Hartford** **Jean Kracke**

Project Title Effect of Reproductive Maturity on Wing Loading in Spotted Lanternfly
 Proj. No. **3074**

Student(s) Tyler Andrews **Grade 9** **Town** Torrington

Biophysical Society

Award Biophysics Award- \$100

School **Greenwich High School** **Greenwich** **Andrew Bramante**

Project Title Carbon Nanowire Lab-on-Chip as a Rapid, Inexpensive, Lyme Disease Detection System
 Proj. No. **3094**

Student(s) Sofia Pronina **Grade 11** **Town** Greenwich

Broadcom MASTERS

Award The Lemelson Early Inventor Prize

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

Project Title Effectiveness of the Organic Polymers for Removing Microplastic in an Aqueous Solution
 Proj. No. **2007**

Student(s) Snigtha Mohanraj **Grade 7** **Town** Ansonia

Connecticut Academy of Audiology

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|---------------|---|-----------|-----------------|
| Award | \$200 Award HS- For Excellence in Audiology and Acoustics, oport. to shadow an audiologist | | |
| School | Greenwich High School | Greenwich | Andrew Bramante |
| Project Title | Development of Artificial Neural Networks That Can Process Acoustic Features in Order to Identify Toxic Speech Expressed Through Text | | |
| Proj. No. | 6086 | | |
| Student(s) | Mark Razanau | Grade 11 | Town Cos Cob |

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|---------------|--|---------------|-----------------|
| Award | \$200 Award MS- For Excellence in Audiology and Acoustics, oport. to shadow an audiologist | | |
| School | Kingswood Oxford School | West Hartford | Josh Garrison |
| Project Title | Communicaider App | | |
| Proj. No. | 5027 | | |
| Student(s) | Evan Poole | Grade 7 | Town Farmington |

Connecticut Association of Physics Teachers

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|---------------|--|------------|-----------------|
| Award | \$100 Senior project | | |
| School | Engineering and Science University Magnet | West Haven | Roger Rushworth |
| Project Title | The Effect of Axial Tilt of Hyperboloidal Gears on Mechanical Efficiency | | |
| Proj. No. | 6060 | | |
| Student(s) | Aiman-Imran Anuar | Grade 10 | Town West Haven |

Connecticut College-Physics, Astronomy, & Geophysics Dept.

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|---------------|---|-------------|------------------|
| Award | \$150 and Certificate, Junior Physics & T-shirt | | |
| School | St. Matthew School | Forestville | Mrs. Persichetti |
| Project Title | How Old is the Universe? | | |
| Proj. No. | 5529 | | |
| Student(s) | Grace Beyer | Grade 8 | Town Bristol |

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|---------------|--|---------------|---------------------|
| Award | \$150 and Certificate, Senior Physics & T-shirt | | |
| School | William H. Hall High School | West Hartford | Mr. Norman Burtness |
| Project Title | Multi-Wavelength Identification of Black Hole Candidates in the M13 Globular Cluster | | |
| Proj. No. | 6012 | | |
| Student(s) | Ashley Granquist | Grade 12 | Town West Hartford |

Connecticut Invention Convention “Next Step Inventors”

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|----------------------|---|---------|----------------|
| Award | Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2 | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Bellinger |
| Project Title | Transforming Ocean Wave Energy to Electrical Energy | | |
| Proj. No. | 4001 | | |
| Student(s) | Sujay Chava | Grade 7 | Town Ellington |
| | Atul Shreyas Konda | Grade 7 | Town Cromwell |

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|----------------------|---|---------|---------------|
| Award | Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2 | | |
| School | Fields Memorial School | Bozrah | Mrs. E. Brown |
| Project Title | Producing Renewable Energy With Rainwater Gutter Systems Using Micro Hydro-Turbines | | |
| Proj. No. | 5513 | | |
| Student(s) | Elle Okoney | Grade 8 | Town BOZRAH |

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|----------------------|---|---------|-----------------|
| Award | Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2 | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Bellinger |
| Project Title | Harvesting Energy From Rainwater With An Archimedean Screw. | | |
| Proj. No. | 5526 | | |
| Student(s) | Ronak Ramesh | Grade 8 | Town Middletown |

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|----------------------|---|----------|------------------------|
| Award | Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2 | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Michelle Bellinger |
| Project Title | Monitoring Infant Vital Signs Through a Car Seat Embedded Piezoelectric Sensor Network | | |
| Proj. No. | 6007 | | |
| Student(s) | Gianna Guzzo | Grade 12 | Town Suffield |

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|----------------------|---|-----------|---------------|
| Award | Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2 | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Texting-and-Driving Safety Device: Utilizing a Hydraulic Braking System Activated by a Touch-Sensor Steering Wheel to Increase Driver Engagement. | | |
| Proj. No. | 6019 | | |
| Student(s) | Noah Levi | Grade 11 | Town Wilton |

Award Next Step Inventor Trophy & Invitation to compete at the 2020 Invention Convention, May 2

School **Academy of Aerospace and Engineering** **Windsor** **Dr. Michelle Bellinger**

Project Title Optimization of Energy Production through Active Augmentation of Hydro-Turbine Body and Blade Design.

Proj. No. **6509**

Student(s) Avaneesh Sathish **Grade** 12 **Town** South Windsor

Nikhlesh Sivakumar **Grade** 12 **Town** Rocky Hill

Connecticut Science Supervisors Association

Award \$125 for a high school project

School **Amity Regional High School** **Woodbridge** **Catherine Piscitelli**

Project Title Optimization of a Real-Time Sinkhole Detection System Using Localization Methodology, Machine Learning Algorithms, and Limestone Dissolution Modeling

Proj. No. **6025**

Student(s) Sophia Wang **Grade** 12 **Town** Woodbridge

Award \$125 for a middle school project

School **Academy of Aerospace and Engineering** **Windsor** **Dr. Bellinger**

Project Title Harvesting Energy From Rainwater With An Archimedean Screw.

Proj. No. **5526**

Student(s) Ronak Ramesh **Grade** 8 **Town** Middletown

Constellation, an Exelon Company

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

School **Academy of Aerospace and Engineering** **Windsor** **Dr. Bellinger**

Project Title Harvesting Energy From Rainwater With An Archimedean Screw.

Proj. No. **5526**

Student(s) Ronak Ramesh **Grade** 8 **Town** Middletown

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

School **Greenwich High School** **Greenwich** **Andrew Bramante**

Project Title Creation of a CO2-free Energy via a Solar-Powered Cu2O Nanowire Microbial - Algae Photosynthetic Bioreactor

Proj. No. **6072**

Student(s) Madeline Minichetti **Grade** 9 **Town** Greenwich

Award 2nd: \$100.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy

School **E.O. Smith High School** **Storrs** **Cheryl Granger**

Project Title Improving Wind Turbine Efficiency by Maximizing Surface Area and Decreasing Attack Angle

Proj. No. 6070

Student(s) Mathew Chandy **Grade** 11 **Town** Storrs

Award 2nd: \$50.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy

School **St. Mary School** **Bethel** **Joanna Reech**

Project Title How do you create clean power....the answer is blowing in the wind

Proj. No. 5030

Student(s) Amalia Tuccinardi **Grade** 7 **Town** Bethel

CT Architecture Foundation - The William M. Mack, AIA Award

Award \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.

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

Project Title Effect of Bamboo, plastic on the strength of concrete

Proj. No. 4033

Student(s) Rawan Ibrahim **Grade** 7 **Town** Bristol

Vikram Haran **Grade** 12 **Town** Ellington

Award \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.

School **Fields Memorial School** **Bozrah** **Mrs. E. Brown**

Project Title Producing Renewable Energy With Rainwater Gutter Systems Using Micro Hydro-Turbines

Proj. No. 5513

Student(s) Elle Okoney **Grade** 8 **Town** BOZRAH

CT Technology Council / CT Center for Advanced Technology Young Woman

Award \$150 Cash Award for Technological Innovation by a female project

School **Greenwich Academy** **Greenwich** **Dr. Monica Ortiz**

Project Title Using Artificial Intelligence to Uncover the Connection between RNA Gene Expression and Cancer

Proj. No. 3016

Student(s) Natalie Shell **Grade** 10 **Town** Greenwich

Demos R Us Award

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|----------------------|---|---------|--------------------|
| Award | \$150 Cash Award-- Clear Execution of Research- 7th Grade | | |
| School | Madina Academy | Windsor | Mr.Timothy Coleman |
| Project Title | Developing a Novel Eco-Friendly System that Recovers Wasted Thermal and Kinetic Energy From a Dryer Exhaust | | |
| Proj. No. | 5023 | | |
| Student(s) | Tasneem Zoghol | Grade 7 | Town Enfield |

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|----------------------|--|----------|------------------|
| Award | \$200 Cash Award- Clear Execution of Research- 8th Grade | | |
| School | CT Experiential Learning Center Middle | Branford | Melinda Alcosser |
| Project Title | From Waste to Paper | | |
| Proj. No. | 5537 | | |
| Student(s) | Ethan Reynolds | Grade 8 | Town Durham |

Dreams Unlimited Award

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|----------------------|---|---------|--------------------|
| Award | \$100 Cash Award + Certificate to each student | | |
| School | Westside Middle School Academy | Danbury | Jonathan Neuhausel |
| Project Title | Making an Affordable Ozone Sensor and Proofing its Accuracy | | |
| Proj. No. | 5549 | | |
| Student(s) | Richard Parker | Grade 8 | Town danbury |

Environmental / Energy Award- Urban Public School Award

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|----------------------|--|------------|----------------|
| Award | Environmental / Energy Award- Urban Public School Award - \$300 | | |
| School | Bridgeport Regional Aquaculture Center | Bridgeport | Kirk Shadle |
| Project Title | Allelopathic Effects of Invasive Red Macroalga (Grateloupia turuturu) for the Mitigation of Harmful Algal Blooms | | |
| Proj. No. | 3030 | | |
| Student(s) | Lyle Given | Grade 12 | Town Fairfield |

Fox Pest Control Award for Environmental Management

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|----------------------|---|-----------|----------------|
| Award | \$150 Cash for Excellence in Environmental Management | | |
| School | Worthington Hooker Middle School | New Haven | Douglas Jones |
| Project Title | Soil Erosion | | |
| Proj. No. | 1004 | | |
| Student(s) | Bella Brown | Grade 7 | Town New Haven |
| | Sierra Miller | Grade 7 | Town New Haven |

Frank J. Link Family Award for Energy Related Research

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|----------------------|--|---------|-----------------|
| Award | Frank J. Link Award for Energy Related Research - \$50 | | |
| School | Amity Middle School - Bethany | Bethany | Kevin Berean |
| Project Title | A More Efficient Microbial Fuel Cell | | |
| Proj. No. | 5510 | | |
| Student(s) | Iris Yan | Grade 8 | Town Woodbridge |

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|----------------------|---|----------|--------------------|
| Award | Frank J. Link Award for Energy Related Research - \$50 | | |
| School | Academy of Aerospace and Engineering | Windsor | Michelle Bellinger |
| Project Title | Cyber Attack Identification in the Electric Power Grid by Anomaly Detection | | |
| Proj. No. | 6517 | | |
| Student(s) | Trevor Brunette | Grade 12 | Town Glastonbury |
| | Christopher Reed | Grade 12 | Town Enfield |

GENIUS Olympiad

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|----------------------|--|-----------|-----------------|
| Award | GENIUS Olympiad Competition for 1st Place HS Environmental Project | | |
| School | Greenwich High School | Greenwich | Andrew Bramante |
| Project Title | Improved Design and Field Verification of Varroa destructor Control with a Dual-function, Thymol-Emitting Honey Bee Hive Entranceway | | |
| Proj. No. | 3103 | | |
| Student(s) | Raina Jain | Grade 12 | Town Riverside |

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|----------------------|---|----------|---------------|
| Award | GENIUS Olympiad Competition for 1st Place Technical High School | | |
| School | Henry Abbott Technical High School | Danbury | A.S. Ipkovich |
| Project Title | Efficient Electricity Production through Temperature Differential | | |
| Proj. No. | 6052 | | |
| Student(s) | Yousef Masood | Grade 11 | Town Danbury |

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|----------------------|---|---------|--------------------|
| Award | GENIUS Olympiad Competition for Highest Placing USC 8th grade Project | | |
| School | Westside Middle School Academy | Danbury | Jonathan Neuhausel |
| Project Title | Making an Affordable Ozone Sensor and Proofing its Accuracy | | |
| Proj. No. | 5549 | | |
| Student(s) | Richard Parker | Grade 8 | Town danbury |

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|----------------------|---|----------|------------------------|
| Award | GENIUS Olympiad Competition for HS Environmental, Energy, Ecology, or Biodiversity Project | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Michelle Bellinger |
| Project Title | Optimization of Energy Production through Active Augmentation of Hydro-Turbine Body and Blade Design. | | |
| Proj. No. | 6509 | | |
| Student(s) | Avaneesh Sathish | Grade 12 | Town South Windsor |
| | Nikhlesh Sivakumar | Grade 12 | Town Rocky Hill |

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|----------------------|--|-----------|-----------------|
| Award | GENIUS Olympiad Competition for 1st Place HS Future Sustainability | | |
| School | Greenwich High School | Greenwich | Andrew Bramante |
| Project Title | Metal Oxide Nanoparticle Suppression of Coffee Rust Using a Alternaria, Stomata-Sporulating Model Fungus | | |
| Proj. No. | 3020 | | |
| Student(s) | Edgar Sosa | Grade 11 | Town Greenwich |

Geology/Historic Project of Merit Award

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|----------------------|---|------------|----------------------|
| Award | \$100 or 2 x \$50 - Earth Science - Field work with Geologic or historic value | | |
| School | Amity Regional High School | Woodbridge | Catherine Piscitelli |
| Project Title | Optimization of a Real-Time Sinkhole Detection System Using Localization Methodology, Machine Learning Algorithms, and Limestone Dissolution Modeling | | |
| Proj. No. | 6025 | | |
| Student(s) | Sophia Wang | Grade 12 | Town Woodbridge |

Award \$100 or 2 x \$50 - Earth Science - Field work with Geologic or historic value

School Sacred Heart Greenwich Greenwich Mary Musolino

Project Title The Effect of MGS-1 Mars Global Simulant Soil on the Growth Rates of Plants

Proj. No. 6034

Student(s) Piper Gilbert Grade 11 Town Greenwich

IEEE, Connecticut Section

Award \$100 Honorable Mention

School Rumsey Hall Washington Liz Butler

Project Title A Heart Rate Monitor to Predict Autistic Meltdowns

Proj. No. 2512

Student(s) Junting Wang Grade 8 Town Washingtin Depot

Award \$100 Honorable Mention

School Academy of Aerospace and Engineering Windsor Dr.Bellinger

Project Title Transforming Ocean Wave Energy to Electrical Energy

Proj. No. 4001

Student(s) Sujay Chava Grade 7 Town Ellington

Atul Shreyas Konda Grade 7 Town Cromwell

Award \$100 Honorable Mention

School Westside Middle School Academy Danbury Jonathan Neuhausel

Project Title Making an Affordable Ozone Sensor and Proofing its Accuracy

Proj. No. 5549

Student(s) Richard Parker Grade 8 Town danbury

Award \$100 Honorable Mention

School Cheshire High School Cheshire Julie Barker

Project Title Object Detection Universal System [O.D.U.S]

Proj. No. 6038

Student(s) Siddhant Bhardwaj Grade 9 Town Cheshire

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|---------------|---|----------|--------------------|
| Award | \$100 Honorable Mention | | |
| School | Academy of Aerospace and Engineering | Windsor | Michelle Bellinger |
| Project Title | Cyber Attack Identification in the Electric Power Grid by Anomaly Detection | | |
| Proj. No. | 6517 | | |
| Student(s) | Trevor Brunette | Grade 12 | Town Glastonbury |
| | Christopher Reed | Grade 12 | Town Enfield |

| | | | |
|---------------|--|----------|------------------------|
| Award | \$250 Honors Award -Senior | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Michelle Bellinger |
| Project Title | Monitoring Infant Vital Signs Through a Car Seat Embedded Piezoelectric Sensor Network | | |
| Proj. No. | 6007 | | |
| Student(s) | Gianna Guzzo | Grade 12 | Town Suffield |

| | | | |
|---------------|---|---------|---------------|
| Award | \$250 Honors Award -Junior | | |
| School | Fields Memorial School | Bozrah | Mrs. E. Brown |
| Project Title | Producing Renewable Energy With Rainwater Gutter Systems Using Micro Hydro-Turbines | | |
| Proj. No. | 5513 | | |
| Student(s) | Elle Okoney | Grade 8 | Town BOZRAH |

Institute of Food Technologists, Nutmeg Section

| | | | |
|---------------|--|-------------|------------------|
| Award | \$100 award + invitation to Awards Night Dinner with guest | | |
| School | Joseph A. Depaolo Middle School | Southington | Halime Agirman |
| Project Title | Anti-Bacterial Packaging For Foods Sourced From Natural Bee Propolis | | |
| Proj. No. | 2522 | | |
| Student(s) | Zeynep Agirman | Grade 8 | Town Southington |

| | | | |
|---------------|--|------------|-----------------|
| Award | \$150 award + invitation to Awards Night Dinner with guest | | |
| School | Science and Technology Magnet High | New London | Mrs. Golden |
| Project Title | The impact of pesticides on the nutritional value of food plants | | |
| Proj. No. | 3032 | | |
| Student(s) | Laurelou Doyonnas | Grade 10 | Town Stonington |

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|----------------------|--|------------|-----------------|
| Award | \$50 award + invitation to Awards Night Dinner with guest | | |
| School | Engineering and Science University Magnet | West Haven | Roger Rushworth |
| Project Title | Effectiveness of the Organic Polymers for Removing Microplastic in an Aqueous Solution | | |
| Proj. No. | 2007 | | |
| Student(s) | Snigtha Mohanraj | Grade 7 | Town Ansonia |

J.A. Augustine Award

| | | | |
|----------------------|--|------------|-----------------|
| Award | \$100 for excellence in biology | | |
| School | Engineering and Science University Magnet | West Haven | Roger Rushworth |
| Project Title | Effectiveness of the Organic Polymers for Removing Microplastic in an Aqueous Solution | | |
| Proj. No. | 2007 | | |
| Student(s) | Snigtha Mohanraj | Grade 7 | Town Ansonia |

| | | | |
|----------------------|---|---------|---------------|
| Award | \$100 for excellence in physical sciences | | |
| School | Fields Memorial School | Bozrah | Mrs. E. Brown |
| Project Title | Producing Renewable Energy With Rainwater Gutter Systems Using Micro Hydro-Turbines | | |
| Proj. No. | 5513 | | |
| Student(s) | Elle Okoney | Grade 8 | Town BOZRAH |

John S. Kendall Memorial Awards

| | | | |
|----------------------|--|---------|-----------------|
| Award | \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Middle School | | |
| School | Talcott Mountain Academy | Avon | Mr John Pellino |
| Project Title | Dampening, Quantifying, and Recording Tremor | | |
| Proj. No. | 5007 | | |
| Student(s) | Ariana Pourkavoos | Grade 7 | Town Avon |

| | | | |
|----------------------|--|-----------|----------------|
| Award | \$500 John S. Kendall Award for Excellence In Mechanical Engineering - High School | | |
| School | Sacred Heart Greenwich | Greenwich | Mary Musolino |
| Project Title | Creating and Testing Novel Plant-Based Bioplastics for Strength and Biodegradability | | |
| Proj. No. | 6515 | | |
| Student(s) | Piper Van Wagenen | Grade 12 | Town Darien |
| | Taylor O'Meara | Grade 12 | Town Purchase |
| | Arielle Uygur | Grade 12 | Town Greenwich |

Jon Chapitis Memorial Award

| | | | |
|----------------------|--|-----------|-----------------|
| Award | John Chapitis Spirit of Innovation Award - HS \$200 | | |
| School | Greenwich High School | Greenwich | Andrew Bramante |
| Project Title | Improved Design and Field Verification of Varroa destructor Control with a Dual-function, Thymol-Emitting Honey Bee Hive Entranceway | | |
| Proj. No. | 3103 | | |
| Student(s) | Raina Jain | Grade 12 | Town Riverside |

| | | | |
|----------------------|--|---------|--------------------|
| Award | John Chapitis Spirit of Innovation Award - MS \$100 | | |
| School | Madina Academy | Windsor | Timothy Coleman |
| Project Title | The Effects of Three Macro-nutrients on the Reaction Time of Human Subjects. | | |
| Proj. No. | 2503 | | |
| Student(s) | Ismael Shelbaya | Grade 8 | Town South Windsor |

Jon Stone Memorial Award

| | | | |
|----------------------|--|----------|------------------------|
| Award | Jon Stone Award for Innovative Engineering- \$100 | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Michelle Bellinger |
| Project Title | Monitoring Infant Vital Signs Through a Car Seat Embedded Piezoelectric Sensor Network | | |
| Proj. No. | 6007 | | |
| Student(s) | Gianna Guzzo | Grade 12 | Town Suffield |

| | | | |
|----------------------|---|------------|-------------|
| Award | Jon Stone Award for Innovative Engineering- \$100 | | |
| School | East Catholic High School | Manchester | Lesa Milas |
| Project Title | Biomimicry of Woodpecker Anatomy to Improve Helmet Design in Prevention of Chronic Traumatic Encephalopathy | | |
| Proj. No. | 6093 | | |
| Student(s) | John Oei | Grade 11 | Town Hebron |

Kathleen & David Smith Awards

| | | | |
|----------------------|---|---------|---------------|
| Award | Kathleen & David Smith Award for Innovative Concept - \$100 | | |
| School | Fields Memorial School | Bozrah | Mrs. E. Brown |
| Project Title | Producing Renewable Energy With Rainwater Gutter Systems Using Micro Hydro-Turbines | | |
| Proj. No. | 5513 | | |
| Student(s) | Elle Okoney | Grade 8 | Town BOZRAH |

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

School Greens Farms Academy Westport Mathieu Freeman

Project Title Impacts of Blue Light on the Eye Structure and Brain Activity of Drosophila Melanogaster

Proj. No. 3036

Student(s) Ava Ewing Grade 12 Town Darien

Lunch with a Patent Attorney

Award Lunch with a Patent Attorney

School Greenwich High School Greenwich Andrew Bramante

Project Title Early Diagnosis of Pancreatic Cancer via Urinary Biomarkers with a New, Rapid, and Simple Lateral Flow Assay

Proj. No. 3050

Student(s) Ana-Florina Galic Grade 10 Town Riverside

Maplesoft Awards for Applied Mathematics and Modeling

Award Maple software - For Excellence in Mathematics

School Ridgefield High School Ridgefield Xiaodi Wang

Project Title Differentially Private M-band Wavelet-Based Mechanisms in Machine Learning Environments

Proj. No. 6024

Student(s) Kenneth Choi Grade 11 Town Ridgefield

Award Maple software - For Excellence in Mathematics

School Westminster School Simsbury Peter Doucette

Project Title Biases in First and Second Moments of the Fourier Coefficients in One- and Two-Parameter Families of Elliptic Curves

Proj. No. 6073

Student(s) Michelle(Jiefei) Wu Grade 11 Town Simsbury

Meyerand Young Woman Scientist Awards

Award \$300 cash - High School, Life Sciences

School Bridgeport Regional Aquaculture Center Bridgeport Kirk Shadle

Project Title Determining the Efficacy of Dexamethasone Infused Polypropylene Mesh to Prevent Post Surgical Abdominal Adhesion

Proj. No. 3045

Student(s) Jordan Macdonald Grade 12 Town Milford

Award \$300 cash - High School, Physical Sciences

School Academy of Aerospace & Engineering Windsor Dr. Michelle Bellinger

Project Title Optimization of Energy Storage of Capacitors with Hydrogel Electrolyte

Proj. No. 6016

Student(s) Emily Ngo **Grade** 12 **Town** South Windsor

Award \$300 cash - Middle School Life Sciences

School Westside Middle School Academy Danbury Jonathan Neuhausel

Project Title Kombucha SCOBY Infused Hydrogels as a Natural Bandaid Stopping the Growth of Escherichia coli

Proj. No. 2527

Student(s) Ella Brown **Grade** 8 **Town** Danbury

Award \$300 cash - Middle School, Physical Sciences

School Talcott Mountain Academy Avon Mr John Pellino

Project Title Dampening, Quantifying, and Recording Tremor

Proj. No. 5007

Student(s) Ariana Pourkavoos **Grade** 7 **Town** Avon

Milton Fisher Science Fair Award for Innovation and Creativity

Award For Excellence in Creativity and Innovation by a High School student, \$200 cash

School The Loomis Chaffee School Windsor Koby Osei-Mensah

Project Title Novel Wound Dressing Facilitates Rapid Detection of Infections

Proj. No. 3102

Student(s) Mitali Vedula **Grade** 11 **Town** Windsor

Award For Excellence in Creativity and Innovation by a Middle School student, \$100 cash

School Talcott Mountain Academy Avon Mr John Pellino

Project Title Dampening, Quantifying, and Recording Tremor

Proj. No. 5007

Student(s) Ariana Pourkavoos **Grade** 7 **Town** Avon

MIT Club of Hartford K-12 Initiative

Award For excellence in science & technology of energy related research, high school, \$75 cash award

School **Greenwich High School** **Greenwich** **Andrew Bramante**

Project Title Creation of a CO₂-free Energy via a Solar-Powered Cu₂O Nanowire Microbial - Algae Photosynthetic Bioreactor

Proj. No. **6072**

Student(s) Madeline Minichetti **Grade** 9 **Town** Greenwich

Award For excellence in science & technology of energy related research, middle school, \$75 cash award

School **Amity Middle School - Bethany** **Bethany** **Kevin Berean**

Project Title A More Efficient Microbial Fuel Cell

Proj. No. **5510**

Student(s) Iris Yan **Grade** 8 **Town** Woodbridge

MTU Aero Engines North America, Inc.

Award MTU Aero Engines Mechanical Engineering Applied Principles Award - \$100

School **Greenwich High School** **Greenwich** **Andrew Bramante**

Project Title Scale-up of Water-Splitting Hydrogen Production Using Piezo-Electrochemical Nanostructures and Ambient Processes

Proj. No. **6059**

Student(s) Zachary Mester **Grade** 12 **Town** Cos Cob

Award MTU Aero Engines Mechanical Engineering Innovative Concept Award - \$100

School **Greenwich High School** **Greenwich** **Andrew Bramante**

Project Title Improved Design and Field Verification of Varroa destructor Control with a Dual-function, Thymol-Emitting Honey Bee Hive Entranceway

Proj. No. **3103**

Student(s) Raina Jain **Grade** 12 **Town** Riverside

Mu Alpha Theta

Award Certificate, \$25 gift card given by CSEF

School **Guilford High School** **Guilford** **Fangyong Li**

Project Title The Academic Gender Gap in High School: Are Boys Being Left Behind?

Proj. No. **6015**

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

Award Certificate, \$25 gift card given by CSEF

School Westminster School

Simsbury

Peter Doucette

Project Title Biases in First and Second Moments of the Fourier Coefficients in One- and Two-Parameter Families of Elliptic Curves

Proj. No. 6073

Student(s) Michelle(Jiefei) Wu **Grade** 11 **Town** Simsbury

Award Certificate, \$25 gift card given by CSEF

School The Loomis Chaffee School

Windsor

Koby Osei-Mensah

Project Title RandGAN: Testing the Limits of Small Neural Networks

Proj. No. 6084

Student(s) Aresh Pourkavoos **Grade** 11 **Town** Avon

Mystic Aquarium - Sea Research Foundation

Award \$100 and 4 Admission Tickets to Mystic Aquarium

School Science and Technology Magnet High

New London

Amy Golden

Project Title Kelp-ing our Oceans: Sustainable Natural Biopolymer Alternatives for Plastic Utilized in Oyster Reef Restoration

Proj. No. 3080

Student(s) Sean Raymond **Grade** 10 **Town** Mystic

NASA EARTH System Science Award

Award Certificate and \$25 gift card given by CSEF

School Park City Prep Charter School

Bridgeport

Vicky Boudreau

Project Title How To Make Saltwater Drinkable

Proj. No. 1013

Student(s) Rania Aboutayeb **Grade** 7 **Town** Fairfield

Karla Dominguez **Grade** 7 **Town** Bridgeport

Abril Galicia **Grade** 7 **Town** Bridgeport

Award Certificate and \$25 gift card given by CSEF

School Sound School

New Haven

Charles Mulligan

Project Title Potential of Ocean Acidification to Interfere with Predator Prey Relationships of Coastal Invertebrates (Carcinus maenas).

Proj. No. 3502

Student(s) Ruby Hoffman Blustajn **Grade** 9 **Town** Hamden

Gabriella Spata **Grade** 9 **Town** New Haven

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|----------------------|---|-------------------|----------------------|
| Award | Certificate and \$25 gift card given by CSEF | | |
| School | Xavier High School | Middletown | Nick Grasso |
| Project Title | A Novel Computer-aided Cloud Type Classification Method Based on Convolutional Neural Network with Squeeze-and-Excitation | | |
| Proj. No. | 6032 | | |
| Student(s) | Jason Li | Grade 10 | Town Higganum |

National Center for Inquiry Learning

| | | | |
|----------------------|--|-------------------|------------------------|
| Award | Daniel & Maggie Award for Imagination - MS \$100 | | |
| School | William J. Johnston Middle School | Colchester | Mrs. Ngai |
| Project Title | Low-pressure conversion of carbon dioxide to methanol. | | |
| Proj. No. | 4003 | | |
| Student(s) | Frank Dobek | Grade 7 | Town Colchester |
| | John Marks | Grade 7 | Town Colchester |

| | | | |
|----------------------|--|----------------|------------------------|
| Award | Daniel & Maggie Award for Imagination - MS \$100 | | |
| School | Amity Middle School - Bethany | Bethany | Kevin Berean |
| Project Title | Constructing a Homemade Radon Detector | | |
| Proj. No. | 5501 | | |
| Student(s) | Gregory Hofstatter | Grade 8 | Town Woodbridge |

National Oceanic and Atmospheric Administration

| | | | |
|----------------------|--|-----------------|----------------------|
| Award | Certificate and \$25 gift card given by CSEF | | |
| School | Christian Heritage School | Trumbull | Daniel Cote |
| Project Title | Building a Biosphere | | |
| Proj. No. | 3019 | | |
| Student(s) | Pria Williams | Grade 11 | Town Trumbull |

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|----------------------|--|--------------------|-----------------------------|
| Award | Certificate and \$25 gift card given by CSEF | | |
| School | Glastonbury High School | Glastonbury | Diane Pintavalle |
| Project Title | Exploring a Novel Approach for Tackling Climate Change: Engineering Enzymes for Improved CO2 Removal and H2 Production | | |
| Proj. No. | 3084 | | |
| Student(s) | Leonard Liu | Grade 11 | Town Glastonbury, CT |

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|---------------|---|-----------|------------------|
| Award | Certificate and \$25 gift card given by CSEFF | | |
| School | Sound School | New Haven | Charles Mulligan |
| Project Title | Potential of Ocean Acidification to Affect Physiology and Mortality of Marine Diatoms | | |
| Proj. No. | 3088 | | |
| Student(s) | Jahmani Agard | Grade 9 | Town New Haven |

NYUC Pony Club Equine Award

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|---------------|---|----------|--------------------|
| Award | \$100 Cash Award or excellence in equine studies | | |
| School | Jonathan Law High School | Milford | Christine Bouchard |
| Project Title | Analyzing trends in Eastern Equine Encephalitis in order to understand why there are sudden outbreaks throughout the country. | | |
| Proj. No. | 3089 | | |
| Student(s) | Rachna Vipparla | Grade 11 | Town Milford |

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|---------------|--|---------|-----------------|
| Award | \$100 Cash Award or excellence in equine studies | | |
| School | Amity Middle School - Bethany | Bethany | Kevin Berean |
| Project Title | Miniature Horse Prosthetic | | |
| Proj. No. | 5551 | | |
| Student(s) | Moorea Santulli | Grade 8 | Town Woodbridge |

Office of Naval Research- U.S. Navy / U.S. Marine Corps

| | | | |
|---------------|---|----------|---------------|
| Award | High School- Certificate, \$75.00 gift certificate given by ONR | | |
| School | Cheshire Academy | Cheshire | Mariam Aboian |
| Project Title | Quantitative molecular imaging of brain tumors using Positron Emission Tomography (PET) | | |
| Proj. No. | 3035 | | |
| Student(s) | Julia Shatalov | Grade 11 | Town Cheshire |

| | | | |
|---------------|---|-------------|------------------|
| Award | High School- Certificate, \$75.00 gift certificate given by ONR | | |
| School | Glastonbury High School | Glastonbury | Diane Pintavalle |
| Project Title | Characterization of a Thermo-Responsive Crosslinker for Controlling Micelle Degradation | | |
| Proj. No. | 3039 | | |
| Student(s) | Nicholas Bassett | Grade 12 | Town Glastonbury |

Award Middle School- Certificate, \$25 gift card given by CSEF

School **Greens Farms Academy** **Westport** **Mrs. Modupe Oshin**

Project Title Water Filter and Water Turbine

Proj. No. **5512**

Student(s) Jakob Zapanta **Grade 8** **Town** Bridgeport

Award Middle School- Certificate, \$25 gift card given by CSEF

School **Amity Middle School - Bethany** **Bethany** **Kevin Berean**

Project Title Heatstroke Monitor

Proj. No. **5557**

Student(s) Mark Sheehe **Grade 8** **Town** Bethany

Otero Family Award

Award The Otero Family Award; \$200 cash

School **Greenwich High School** **Greenwich** **Bramante**

Project Title Non-Invasive Augmentation of Modern Depression Phototherapy through Targeting

Proj. No. **3018**

of the Suprachiasmatic Nucleus via Spectroscopic Techniques

Student(s) Charlie Decker **Grade 11** **Town** Old Greenwich

Project Oceanology

Award Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Junior

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

Project Title Now You Sea It

Proj. No. **2012**

Student(s) Isabella D'Agostino **Grade 7** **Town** New Britain

Award Individual - 1 Ocean Camp slot + T-Shirt & cap, First Place Senior

School **Bridgeport Regional Aquaculture Center** **Bridgeport** **Kirk Shadle**

Project Title Development of Vibrio sp. Detection in Crassostrea virginica for the Consumer Market

Proj. No. **3001**

Student(s) Charlotte Hickey **Grade 12** **Town** Fairfield

Ricoh Americas Corporation

| | | | |
|---------------|---|---------|--------------------|
| Award | Certificate, \$25 gift card given by CSEF | | |
| School | Chiaravale Academy | Enfield | Timothy Coleman |
| Project Title | Using Charcoal as a Fertilizer Supplement | | |
| Proj. No. | 1005 | | |
| Student(s) | Joella Asapokhai | Grade 7 | Town South Windsor |
| | Alexandria Croal | Grade 7 | Town Enfield |
| | Jordan Roy | Grade 7 | Town Enfield |

| | | | |
|---------------|---|---------|-----------------|
| Award | Certificate, \$25 gift card given by CSEF | | |
| School | Amity Middle School - Bethany | Bethany | Kevin Berean |
| Project Title | There's a Plastic-Eating Fungus Among-Us | | |
| Proj. No. | 1007 | | |
| Student(s) | Angela He | Grade 8 | Town Woodbridge |
| | Alice Xu | Grade 8 | Town Bethany |

| | | | |
|---------------|--|------------|-----------------|
| Award | Certificate, \$25 gift card given by CSEF | | |
| School | Engineering and Science University Magnet | West Haven | Roger Rushworth |
| Project Title | Effectiveness of the Organic Polymers for Removing Microplastic in an Aqueous Solution | | |
| Proj. No. | 2007 | | |
| Student(s) | Snigtha Mohanraj | Grade 7 | Town Ansonia |

Robert Francoeur Memorial Award

| | | | |
|---------------|--|---------|---------------|
| Award | Creative or innovative project in engineering or computer science by female students - \$200 | | |
| School | Fields Memorial School | Bozrah | Mrs. E. Brown |
| Project Title | The Power of a Wind Turbine | | |
| Proj. No. | 5521 | | |
| Student(s) | Felicia Silva | Grade 8 | Town Bozrah |

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|---------------|--|---------|--------------------|
| Award | Creative or innovative project in engineering or computer science by female students - \$200 | | |
| School | Westside Middle School Academy | Danbury | Jonathan Neuhausel |
| Project Title | Designing an Automatic Watering Device using an Arduino | | |
| Proj. No. | 5538 | | |
| Student(s) | Shriya Jonnalagadda | Grade 8 | Town Danbury |

Robotics And Beyond

| | | | |
|----------------------|--|------------|-----------------------|
| Award | Middle School- For excellence in engineering design; \$200 toward Robotics And Beyond STEM and Design summer camp, \$50 cash if cannot attend camp. Certificate. | | |
| School | Rumsey Hall | Washington | Liz Butler |
| Project Title | A Heart Rate Monitor to Predict Autistic Meltdowns | | |
| Proj. No. | 2512 | | |
| Student(s) | Junting Wang | Grade 8 | Town Washingtin Depot |

Samantha Freeman Award for Excellence in Sports Science or Engineering

| | | | |
|----------------------|--|-----------|--------------------|
| Award | For Excellence in Sports Science or Engineering by a High School student, \$150 cash | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Optimization of the Insoles: Material Testing to Maximize Athletic Results | | |
| Proj. No. | 6529 | | |
| Student(s) | Myles Spiess | Grade 10 | Town Old Greenwich |
| | Nicholas Altman | Grade 10 | Town Mount Kisco |

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|----------------------|--|---------------|-----------------|
| Award | For Excellence in Sports Science or Engineering by a Middle School student, \$100 cash | | |
| School | Kingswood Oxford School | West Hartford | Josh Garrison |
| Project Title | Low-cost golf swing analysis to minimize injury based on analyzing motion images/videos using software | | |
| Proj. No. | 5040 | | |
| Student(s) | Ryan Wang | Grade 7 | Town unionville |

Schoepfer Award for Excellence in Local Aquatic Science

| | | | |
|----------------------|---|----------|------------------|
| Award | For excellence in a local water quality study, \$100 cash | | |
| School | Environmental Sciences Magnet School | Hartford | Mrs Hays |
| Project Title | Now You Sea It | | |
| Proj. No. | 2012 | | |
| Student(s) | Isabella D'Agostino | Grade 7 | Town New Britain |

Sister Mary Christine Life Sciences Award

Award \$100 for excellence in the life sciences by a catholic middle school project

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

Project Title **Showdown of the Sugars: The Effect of Sugar Substitutes on Yeast Growth**

Proj. No. **2029**

Student(s) **Emerson Baltrukonis** **Grade 7** **Town Pawcatuck**

Award \$150 for excellence in the life sciences by a catholic high school project

School **Sacred Heart Academy** **Hamden** **Katherine Tubis**

Project Title **Trickling Triclosan**

Proj. No. **3110**

Student(s) **Maeve McConnell** **Grade 9** **Town Branford**

Society for In Vitro Biology

Award Certificate and \$25 gift card given by CSEF

School **Greenwich High School** **Greenwich** **Andrew Bramante**

Project Title **Metal Oxide Nanoparticle Suppression of Coffee Rust Using a Alternaria, Stomata-Sporulating Model Fungus**

Proj. No. **3020**

Student(s) **Edgar Sosa** **Grade 11** **Town Greenwich**

Award Certificate and \$25 gift card given by CSEF

School **Amity Regional High School** **Woodbridge** **Catherine Piscitelli**

Project Title **Analyzing the Role of Sonic Hedgehog Signaling in Germinal Center B-Cell Differentiation**

Proj. No. **3070**

Student(s) **Wendy Zhang** **Grade 11** **Town Woodbridge**

Award Certificate and \$25 gift card given by CSEF

School **Glastonbury High School** **Glastonbury** **Diane Pintavalle**

Project Title **Exploring a Novel Approach for Tackling Climate Change: Engineering Enzymes for Improved CO2 Removal and H2 Production**

Proj. No. **3084**

Student(s) **Leonard Liu** **Grade 11** **Town Glastonbury, CT**

Society of Women Engineers - Hartford Section

| | | | |
|---------------|---|---------|----------------|
| Award | Scientific Calculator | | |
| School | Academy of Aerospace and Engineering | Windsor | Dr. Bellinger |
| Project Title | Transforming Ocean Wave Energy to Electrical Energy | | |
| Proj. No. | 4001 | | |
| Student(s) | Sujay Chava | Grade 7 | Town Ellington |
| | Atul Shreyas Konda | Grade 7 | Town Cromwell |

| | | | |
|---------------|--|----------|------------------|
| Award | Scientific Calculator | | |
| School | CT Experiential Learning Center Middle | Branford | Melinda Alcosser |
| Project Title | Repurposing Plastic Into A Tiny House | | |
| Proj. No. | 4027 | | |
| Student(s) | Avyay Yarlagadda | Grade 8 | Town Guilford |
| | Natalia Brown | Grade 8 | Town North Haven |

Southeastern New England Marine Educators (SEMEME)

| | | | |
|---------------|---|---------|---------------|
| Award | \$100 award and membership in SEMEME - 1st Place Junior & T-Shirt | | |
| School | Canton Middle School | Canton | Ashley LaPane |
| Project Title | Concentration of Microplastics in Four Farmington River Locations | | |
| Proj. No. | 2501 | | |
| Student(s) | Lauren Marze | Grade 8 | Town Canton |

| | | | |
|---------------|--|----------|---------------------|
| Award | \$100 award and membership in SEMEME - 1st Place Senior & T-Shirt | | |
| School | Joel Barlow High School | Redding | Dr. Katherine Nuzzo |
| Project Title | Designing and Programming a Robot that Collects Plastic from Various Bodies of Water | | |
| Proj. No. | 6078 | | |
| Student(s) | Kelly Weng | Grade 11 | Town Easton |

Stockholm Junior Water Prize

Award Certificate, \$25 gift card by CSEF, possible advance to further competition

School Joel Barlow High School Redding Dr. Katherine Nuzzo

Project Title The Effect of Identification Software on the Ability to Recognize Harmful Algae Blooms

Proj. No. 3029

Student(s) Eva Boyce **Grade** 11 **Town** Easton

Award Certificate, \$25 gift card by CSEF, possible advance to further competition

School Sacred Heart Greenwich Greenwich Mary Musolino

Project Title Testing Natural and Synthetic Substances for Oil Spill Cleanup

Proj. No. 3063

Student(s) Zoe Kassapidis **Grade** 12 **Town** Greenwich

Award Certificate, \$25 gift card by CSEF, possible advance to further competition

School Joel Barlow High School Redding Dr. Katherine Nuzzo

Project Title Applications of Coral Mucus Released by Acropora cervicornis in Collecting Microparticle Pollutants

Proj. No. 3105

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

Award Certificate, \$25 gift card by CSEF, possible advance to further competition

School Sacred Heart Greenwich Greenwich Mary Musolino

Project Title Using Microbiome Analysis to Determine the Effectiveness of a Unique Ceramic Water Filter

Proj. No. 3503

Student(s)

| | | |
|-------------------|-----------------|------------------------|
| Avery McCloskey | Grade 12 | Town Bronxville |
| Kellie Ulmer | Grade 12 | Town Rye |
| Gabriella DiBiase | Grade 12 | Town Greenwich |

Talcott Mountain Science Center & Academy

Award Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science

School CT Experiential Learning Center Middle Branford Melinda Alcosser

Project Title Let Them Eat Cake!

Proj. No. 5005

Student(s) Harper Reed **Grade** 7 **Town** Guilford

| | | | |
|----------------------|---|----------------|----------------------|
| Award | Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science | | |
| School | Canton Middle School | Canton | Ashley LaPane |
| Project Title | Concentration of Microplastics in Four Farmington River Locations | | |
| Proj. No. | 2501 | | |
| Student(s) | Lauren Marze | Grade 8 | Town Canton |

The Children's Museum

| | | | |
|----------------------|--|--------------------|-------------------------|
| Award | 1 family 4-Pack of Admission Passes to the Children's Museum | | |
| School | Joseph A. Depaolo Middle School | Southington | Halime Agirman |
| Project Title | Anti-Bacterial Packaging For Foods Sourced From Natural Bee Propolis | | |
| Proj. No. | 2522 | | |
| Student(s) | Zeynep Agirman | Grade 8 | Town Southington |

The Goodwin-Niering Center for the Environment

| | | | |
|----------------------|--|-----------------|------------------------|
| Award | \$100 for "Excellence in Environmental Conservation Studies" | | |
| School | Norwich Technical High School | Norwich | Aleatha Pelloni |
| Project Title | The Effects of Alternating Red Wiggler Worms Gut Microbes to Degrade Lignin in Plants for Biofuels | | |
| Proj. No. | 3520 | | |
| Student(s) | Jessie Adams | Grade 11 | Town Killingly |
| | Ontasia Perry | Grade 11 | Town Norwich |

TurnKey Compliance Solutions Environmental Awards

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|----------------------|--|-------------------|------------------------|
| Award | \$200 Cash Award Middle School- For excellence in environmental sciences | | |
| School | Engineering and Science University Magnet | West Haven | Roger Rushworth |
| Project Title | Effectiveness of the Organic Polymers for Removing Microplastic in an Aqueous Solution | | |
| Proj. No. | 2007 | | |
| Student(s) | Snigtha Mohanraj | Grade 7 | Town Ansonia |

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|----------------------|--|----------------|-----------------------|
| Award | \$300 Cash Award High School- For excellence in environmental sciences | | |
| School | CT STEM Foundation | Redding | Nicholas Shamp |
| Project Title | Creating a Wearable Device that Reduces Stress by using Vibrational Pulses | | |
| Proj. No. | 3017 | | |
| Student(s) | Sheehan Munim | Grade 9 | Town Orange |

U.S. Agency for International Development (USAID)

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|---------------|--|------------|--------------------|
| Award | Certificate and \$25 gift card given by CSEF | | |
| School | Science and Technology Magnet High | New London | Isabela Dos Santos |
| Project Title | Alternative Natural Water Purifier | | |
| Proj. No. | 3042 | | |
| Student(s) | Essoha Kadambaya | Grade 11 | Town Norwich |

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|---------------|--|---------|-----------------|
| Award | Certificate and \$25 gift card given by CSEF | | |
| School | Amity Middle School - Bethany | Bethany | Kevin Berean |
| Project Title | A More Efficient Microbial Fuel Cell | | |
| Proj. No. | 5510 | | |
| Student(s) | Iris Yan | Grade 8 | Town Woodbridge |

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|---------------|---|-----------|---------------|
| Award | Certificate and \$25 gift card given by CSEF | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Delivery of Medical Supplies using Autonomous Thrust Vectoring UAVs to 3rd World Countries Post Natural Disasters | | |
| Proj. No. | 6008 | | |
| Student(s) | Thomas Fouts | Grade 11 | Town Rye |

U.S. Air Force

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|---------------|--|-------------|------------------|
| Award | Certificate & \$25 gift card from CSEF | | |
| School | Joseph A. Depaolo Middle School | Southington | Halime Agirman |
| Project Title | Anti-Bacterial Packaging For Foods Sourced From Natural Bee Propolis | | |
| Proj. No. | 2522 | | |
| Student(s) | Zeynep Agirman | Grade 8 | Town Southington |

| | | | |
|---------------|--|-------------|----------------------|
| Award | Certificate & \$25 gift card from CSEF | | |
| School | Glastonbury High School | Glastonbury | Diane Pintavalle |
| Project Title | Exploring a Novel Approach for Tackling Climate Change: Engineering Enzymes for Improved CO2 Removal and H2 Production | | |
| Proj. No. | 3084 | | |
| Student(s) | Leonard Liu | Grade 11 | Town Glastonbury, CT |

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|---------------|--|----------|---------------|
| Award | Certificate & \$25 gift card from CSEF | | |
| School | Suffield Middle School | Suffield | Melanie Brown |
| Project Title | Carbon Emission: Calculate and Reduce | | |
| Proj. No. | 5546 | | |
| Student(s) | Joseph Colangelo | Grade 8 | Town Suffield |

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|---------------|--|-------------|------------------|
| Award | Certificate & \$25 gift card from CSEF | | |
| School | Glastonbury High School | Glastonbury | Diane Pintavalle |
| Project Title | Determining the Efficiency of Machine Learning in Missile Detection and Tracking | | |
| Proj. No. | 6102 | | |
| Student(s) | Jacob Krucinski | Grade 12 | Town Glastonbury |

U.S. Metric Association

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|---------------|--|---------|---------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Fields Memorial School | Bozrah | Mrs. E. Brown |
| Project Title | The Power of a Wind Turbine | | |
| Proj. No. | 5521 | | |
| Student(s) | Felicia Silva | Grade 8 | Town Bozrah |

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|---------------|--|------------|------------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Science and Technology Magnet High | New London | Karen Napolitano |
| Project Title | The Effect of Acid Solutions on the Abrasion Resistance , Percussion Resistance, and the weight of a Snail's Shell | | |
| Proj. No. | 3028 | | |
| Student(s) | Akheena Farrior-Parcak | Grade 10 | Town Quaker Hill |

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|---------------|--|------------|----------------|
| Award | Certificate & \$25 gift card given by CSEF | | |
| School | Bridgeport Regional Aquaculture Center | Bridgeport | Kirk Shadle |
| Project Title | The Use of Trehalose as an Additive to the Antimicrobial Tetracycline in order to Increase Thermal Stability and Longevity | | |
| Proj. No. | 3051 | | |
| Student(s) | Matthew Brander | Grade 12 | Town Stratford |

University of Connecticut - Early College Experience

| | | | |
|----------------------|--|-----------------|---------------------|
| Award | UCONN Early College Experience Program: Frontiers in Science - Co-Op \$100 Gift Certificate | | |
| School | Kent School | Kent | Ben Nadire |
| Project Title | Accounting for discrepancies in galaxy rotational curves using dark matter halo density profiles | | |
| Proj. No. | 6033 | | |
| Student(s) | Dagny Peters | Grade 11 | Town Atlanta |

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|----------------------|--|------------------|---------------------|
| Award | UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate | | |
| School | Fairfield College Preparatory School | Fairfield | Deborah Kiel |
| Project Title | Energy Production From Backyard Septic Systems. | | |
| Proj. No. | 3067 | | |
| Student(s) | Antonios Boudreau | Grade 11 | Town Ansonia |

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|----------------------|--|------------------|------------------------|
| Award | UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificat | | |
| School | Greenwich High School | Greenwich | Andrew Bramante |
| Project Title | Decoding Algorithms for Correction of X-Z and Spacially Correlated Errors in Topological Quantum Computing | | |
| Proj. No. | 6026 | | |
| Student(s) | Sam Florin | Grade 11 | Town Greenwich |

University of Connecticut Academic Excellence Scholarship

| | | | |
|----------------------|---|------------------|---------------------------|
| Award | Academic Excellence Life Sciences scholarship - \$7,500/year, four academic years- (\$30,000 total) | | |
| School | Greenwich High School | Greenwich | Bramante |
| Project Title | Non-Invasive Augmentation of Modern Depression Phototherapy through Targeting | | |
| Proj. No. | 3018 | | |
| Student(s) | Charlie Decker | Grade 11 | Town Old Greenwich |

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|----------------------|---|------------------|----------------------|
| Award | Academic Excellence Physical Sci. scholarship - \$7,500 /year, four academic years- (\$30,000 total) | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Texting-and-Driving Safety Device: Utilizing a Hydraulic Braking System Activated by a Touch-Sensor Steering Wheel to Increase Driver Engagement. | | |
| Proj. No. | 6019 | | |
| Student(s) | Noah Levi | Grade 11 | Town Wilton |

University of Hartford Scholarships

Award University of Hartford Scholarship- For Excellence in Engineering, or Technology, \$27,000

School Immaculate High School Danbury Daniel Baluha

Project Title Effective Removal of Systemic Pesticides from Fresh Fruits

Proj. No. 6013

Student(s) Elias Haddad Grade 11 Town Danbury

Award University of Hartford Scholarship- For Excellence in Engineering, or Technology, \$27,000

School Henry Abbott Technical High School Danbury A.S. Ipkovich

Project Title Efficient Electricity Production through Temperature Differential

Proj. No. 6052

Student(s) Yousef Masood Grade 11 Town Danbury

Award University of Hartford Scholarship- For Excellence in Science or Mathematics \$27,000

School Greenwich High School Greenwich Andrew Bramante

Project Title Metal Oxide Nanoparticle Suppression of Coffee Rust Using a Alternaria, Stomata-Sporulating Model Fungus

Proj. No. 3020

Student(s) Edgar Sosa Grade 11 Town Greenwich

Award University of Hartford Scholarship- For Excellence in Science or Mathematics \$27,000

School Amity Regional High School Woodbridge Catherine Piscitelli

Project Title Analyzing the Role of Sonic Hedgehog Signaling in Germinal Center B-Cell Differentiation

Proj. No. 3070

Student(s) Wendy Zhang Grade 11 Town Woodbridge

University of New Haven Scholarship Awards

Award University of New Haven 4 year scholarship - \$80,000 (\$20,000 per year)

School Christian Heritage School Trumbull Daniel Cote

Project Title Design of a Novel Carbon Free Power Generation Source Capable of Capturing Wind Energy

Proj. No. 6045

Student(s) Lauren Marshall Grade 11 Town Stratford

Award University of New Haven 4 year scholarship - \$80,000 (\$20,000 per year)

School **East Catholic High School** **Manchester** **Lesa Milas**

Project Title Biomimicry of Woodpecker Anatomy to Improve Helmet Design in Prevention of Chronic Traumatic Encephalopathy

Proj. No. **6093**

Student(s) John Oei **Grade** 11 **Town** Hebron

Urban School Challenge 1st Place Middle School Awards

Award Highest Placing 8th grader- GENIUS-Olympiad Competition -\$800 travel stipend (See Sponsor 421)

School **Westside Middle School Academy** **Danbury** **Jonathan Neuhausel**

Project Title Making an Affordable Ozone Sensor and Proofing its Accuracy

Proj. No. **5549**

Student(s) Richard Parker **Grade** 8 **Town** danbury

Award USC Highest Placing 7th grader- Project Oceanology's Ocean Camp

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

Project Title Effectiveness of the Organic Polymers for Removing Microplastic in an Aqueous Solution

Proj. No. **2007**

Student(s) Snigtha Mohanraj **Grade** 7 **Town** Ansonia

Vanderbilt Chemicals, LLC

Award Vanderbilt Chemicals Award for Excellence in Tribology and Sustainable Lubrication

School **St. Gregory the Great School** **Danbury** **Mrs. Fahey**

Project Title Exploring the Forces of Friction

Proj. No. **5031**

Student(s) Brendan J Kelly **Grade** 7 **Town** Danbury

Westinghouse Electric Company/New England Chapter of North American Young

Award 1st place, Excellence in Energy Research, \$100 cash award

School **Brunswick School** **Greenwich** **Dana Montanez**

Project Title Condensation and Collection of Cooling Tower Steam:

Proj. No. **6520**

An Effort to Recycle Usable Water

Student(s) Ashton Arjomand **Grade** 10 **Town** Greenwich

Max Konzerowsky **Grade** 10 **Town** Darien

Wisner Award

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|----------------------|--|---------------|-----------------|
| Award | Wisner Award for Innovation– \$350 cash | | |
| School | Kingswood Oxford School | West Hartford | Josh Garrison |
| Project Title | Low-cost golf swing analysis to minimize injury based on analyzing motion images/videos using software | | |
| Proj. No. | 5040 | | |
| Student(s) | Ryan Wang | Grade 7 | Town unionville |

Yale Science & Engineering Association, Inc.

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|----------------------|---|------------|-------------|
| Award | 1 Certificate, Medallion and 1- \$25 gift card given by CSEF | | |
| School | East Catholic High School | Manchester | Lesa Milas |
| Project Title | Biomimicry of Woodpecker Anatomy to Improve Helmet Design in Prevention of Chronic Traumatic Encephalopathy | | |
| Proj. No. | 6093 | | |
| Student(s) | John Oei | Grade 11 | Town Hebron |

Zepke Awards

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|----------------------|---|---------|-----------------|
| Award | \$100 - For the Best Use of Electronic Circuitry- Middle School | | |
| School | Amity Middle School - Bethany | Bethany | Kevin Berean |
| Project Title | Auto Guitar Tuner | | |
| Proj. No. | 4018 | | |
| Student(s) | Aiden Ahmed | Grade 8 | Town Woodbridge |
| | Benjamin Aviad | Grade 8 | Town Woodbridge |

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|----------------------|---|-----------|---------------|
| Award | \$125 - For the Best Use of Electronic Circuitry- Senior High | | |
| School | Brunswick School | Greenwich | Dana Montanez |
| Project Title | Texting-and-Driving Safety Device: Utilizing a Hydraulic Braking System Activated by a Touch-Sensor Steering Wheel to Increase Driver Engagement. | | |
| Proj. No. | 6019 | | |
| Student(s) | Noah Levi | Grade 11 | Town Wilton |