



# Conn. Science & Engineering Fair

## Quinnipiac University

### March 10 - 14, 2015

### Regular Fair Awards

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

Sorted by:

- Fair Category
- Finalist standing in regular fair (1st, 2nd, etc)
- Project number

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

## Life Sciences - High School Individual

**Greenwich** Greenwich High School Andy Bramante

3096 Temperature-Independent, Portable, and Rapid Field Detection of Ebola via a Silk-Derived Lateral-Flow System

**Student(s)** Olivia Hallisey **Grade** 10 **Town** Greenwich

- Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque, Trip to compete at Intel ISEF
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering in partnership with CCAT --- Life Sci. Senior 1st HS- \$1,000, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
- Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- Trip to compete at Intel ISEF, \$1000 & plaque,
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

**Greenwich** Greenwich High School Andrew Bramante

3031 Chocolate's Theobromine, and not Caffeine, significantly reduces sleep in Drosophila

**Student(s)** Reid Radulovacki **Grade** 11 **Town** Greenwich

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF
- Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award Souvenir

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

3110 Hybridized Manganese Dioxide & Gold-Iron Oxide Nanoparticle Inhibition of Tumor Growth via Radiosensitization and Tumor Microenvironment Control

**Student(s)** William Yin **Grade** 10 **Town** Greenwich

- Pfizer Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award Souvenir
- Otero Family Award --- The Otero Family Award; \$200 cash

**Greenwich** Greenwich High School Andy Bramante

3020 Effective Optimization of Biogas Production through Alpha-Amylase Utilization

**Student(s)** Bryce Anderson **Grade** 11 **Town** Cos Cob

- Pfizer Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque
- Energize CT/eesmarts Future Sustainability Awards --- 2nd Place High School - \$500 Cash and Plaque, Trip to Compete at GENIUS Olympiad, Oswego, NY
- Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, waste recycling related

**Greenwich** Brunswick School Mrs. Montanez

3091 An Investigation of Drone Downdraft as a Viable Alternative for Insect Pollination of Essential Crops

**Student(s)** Andreas Kern **Grade** 11 **Town** Greenwich

- Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**Glastonbury** Glastonbury High School Ms.Pintavalle

3005 Investigating Inhibitors of Dihydrofolate Reductase Enzymes of Streptococcus pyogenes and Staphylococcus aureus

**Student(s)** Sara Tavakoli **Grade** 11 **Town** Glastonbury

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Microbiology

**Bridgeport** Bridgeport Regional Aquaculture School Kirk Shadle

3032 Enhancing the Collagen Yield from Aurelia aurita through Bio Encapsulated Highly Saturated Fatty Acid Feed

**Student(s)** Marissa Prizio **Grade** 12 **Town** Milford

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award

**Storrs** E.O. Smith High School Jon Swanson

3037 The Effect of Iron Levels on Marine Algal Growth

**Student(s)** Luke Stover **Grade** 10 **Town** Columbia

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award

**Bridgeport** Bridgeport Regional Aquaculture School Mr. Kirk P. Shadle

3040 Utilizing Piscivorous Birds as Low-Impact Primary Biological Indicators

**Student(s)** Sophie Kay **Grade** 12 **Town** Fairfield

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- Senior High Finalist - Medallion and acrylic award
- Project Oceanology --- Individual - Book + 2 tickets, First Place Senior, check for \$100, t-shirt
- Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum

**Greens Farms** Greens Farms Academy Dr. Freeman

3047 The Effect of Cold Stress on the Frequency of CD8+ T Cells in Aged Mice

**Student(s)** Elizabeth McGonagle **Grade** 12 **Town** Southport

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award

**Bridgeport** Bridgeport Regional Aquaculture School Mr. Kirk Shadle

3052 The Analysis of Clay Flocculation's Effect on the Benthic Zone Used as a Mitigation Technique for Harmful Algal Blooms (HABs)

**Student(s)** Julia Ennis **Grade** 12 **Town** Fairfield

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition

**Cheshire** Cheshire High School Casey King

3072 Development of a Prescient Warning Model for Cholera Utilizing an Epidemiological Identification of Risk Factors

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

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion & Acrylic Award
- Cell Analysis and Modeling Award - Center for Cell Analysis and Modeling at UCHC --- \$100 monetary prize- and Tour of the Cell and Genome Sciences Institute at UCONN Health Center

**Bridgeport** Bridgeport Regional Aquaculture School Mr. Kirk Shadle

3073 Determining the Effect of Biofouling on a Restocking System for Homarus americanus

**Student(s)** Shana Isidoro **Grade** 12 **Town** Monroe

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- 2nd Place High School - \$400 and Plaque, Medallion
- Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- Mystic Aquarium --- \$100 and 4 Admission Tickets to Mystic Aquarium

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**Danbury** Immaculate High School Mrs. Bridget Henry

3088 Unprecedented Glycerol-Free Biodiesel Production using Enzyme Catalysis

**Student(s)** **Martha Haddad** **Grade** 10 **Town** Danbury

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award

**Fairfield** Fairfield College Preparatory School Mrs. Kiel

3095 How Grey Oyster Mushrooms Can Be Used To Break Down Oil And Reduce Waste In The Environment.

**Student(s)** **Jonathan Siveyer** **Grade** 10 **Town** Monroe

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition

**Hartford** University High School of Sci & Eng Michael Fromerth

3098 A Self-Sustaining Electrical Shoe Insert for Treatment of Diabetic Neuropathy

**Student(s)** **Gabriel Mesa** **Grade** 9 **Town** Canton

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- Fred Bailey Memorial Award --- \$250 for innovative research- Hartford Urban High School Project
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

**Greenwich** Greenwich High School Andy Bramante

3114 A Novel Antibody-Functionalized Graphene Transistor Lab-On-A-Chip for Selective Detection of Malaria Pathogens

**Student(s)** **Paul Hansel** **Grade** 11 **Town** Old Greenwich

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- \$100 & plaque
- Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash

**Greenwich** Brunswick School Dana Montanez

3116 An Investigation of Superparamagnetic Iron Nanoparticle Hyperthermia to Inhibit Growth of Agrobacterium tumefaciens

**Student(s)** **Andrew Mellert** **Grade** 10 **Town** Greenwich

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award

**Bridgeport** Bridgeport Regional Aquaculture School Mr. Shadle

3118 Development of Non-toxic Photostabilized Phycoerythrin for Application in Dye Sensitized Solar Cells

**Student(s)** **Eunsun Hong** **Grade** 12 **Town** Shelton

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- 1st Place High School - \$500 and Plaque, Medallion and trip to compete at Intel Int. Sci. & Eng. Fair
- H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering in partnership with CCAT --- Urban School Challenge 1st HS- \$1,000, Silver Medal of Excellence, Invite to CASE Annual Mtg & \$500 cash award to School Science Department for equipment/supplies
- Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award Souvenir
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Biochemistry

**New Haven** Engineering & Science University Magnet School Heather Toothaker

3124 The Optimization of Conditions for an Enzymatic Bio-Battery

**Student(s)** **Lauren Low** **Grade** 10 **Town** Hamden

- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- Senior High Finalist - Medallion and acrylic award
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award

[SchTown] [School] [Teacher]  
 [Proj#] [Project Title]

## Life Sciences - High School Teams

**Greenwich** Brunswick School Dana Montañez

3508 Target Identification: Frequency of the PV92 Alu Insertion within a Given Population

<b>Student(s)</b> <b>Jamie MacFarlane</b>	<b>Grade</b> 11	<b>Town</b> Greenwich
<b>Nick VanBelle</b>	<b>Grade</b> 11	<b>Town</b> Stamford
<b>Eric Ganshaw</b>	<b>Grade</b> 11	<b>Town</b> Greenwich

- Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque

**Putnam** Putnam Science Academy Caron Quantick

3520 A Natural Way to Keep Insects Away by Using Various Essential Plant Oils as an Organic Insect Repellent

<b>Student(s)</b> <b>Omer Tekin</b>	<b>Grade</b> 12	<b>Town</b> Putnam
<b>Abidin Emhan</b>	<b>Grade</b> 12	<b>Town</b> Putnam
<b>Taha Cangoz</b>	<b>Grade</b> 12	<b>Town</b> Putnam

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High Team- \$300 (split) & Plaque
- Jon Stone Memorial Award --- \$150 cash for Innovative Engineering

**Putnam** Putnam Science Academy Serdar Haytiyev

3507 Use of Saccharomyces Cerevisiae and Biosorption in the Purification of Industrially Polluted Waters

<b>Student(s)</b> <b>Enes Cicek</b>	<b>Grade</b> 11	<b>Town</b> Putnam
<b>Murat Acar</b>	<b>Grade</b> 10	<b>Town</b> Putnam
<b>Amir Edris</b>	<b>Grade</b> 10	<b>Town</b> Putnam

- Pfizer Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition

## Life Sciences - Middle School 7th Grade

**Plantville** J.F. Kennedy Middle School Mrs.Pepin

2010 "Pore" My Way to Cleaner Water: The use of flocculants and porous ceramic pots for purifying drinking water in developing countries

<b>Student(s)</b> <b>Matthew Maciejewski</b>	<b>Grade</b> 7	<b>Town</b> Plantville
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- Pfizer Life Sciences Awards --- 1st Place- Life Sciences 7th grade- \$200 & trophy and Invitation to Compete Broadcom MASTERS
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- 1st Place Middle School - \$500 Cash and Trophy
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade- \$300 & trophy
- Ricoh Corporation/Society for Science & the Public --- Certificate, Lapel Pin,\$50 gift card to Amazon given by CSEF
- Talcott Mountain Science Center --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science
- The Children's Museum --- 1 family 4-Pack of Admission Passes to the Children's Museum
- Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash

**West Hartford** St. Timothy Middle School Ms. Breen

2041 A Study of the Relationship between Apple Price and Vitamin C

<b>Student(s)</b> <b>Benjamin Lee</b>	<b>Grade</b> 7	<b>Town</b> West Hartford
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- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**Groton** Sacred Heart School Mrs. Sheryl McCarthy

2014 Operation Jason

**Student(s)** Lauren O'Donnell **Grade 7** **Town** Mystic

- Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS

**Cheshire** St. Bridget School Mrs. Michelle Carroll

2019 The Stroop Effect

**Student(s)** Brendan Canning **Grade 7** **Town** Wallingford

- Pfizer Life Sciences Awards --- 4th Place- Life Sciences 7th grade- trophy and Invite to Compete Broadcom MASTERS

**Avon** Talcott Mountain Academy Alyson Tockstein

2039 Novel Bioluminescent Display using *Aliivibrio fischeri* for efficiency and low cost

**Student(s)** Yusuf Zaidi **Grade 7** **Town** Avon

- Pfizer Life Sciences Awards --- 5rd Place- Life Sciences 7th grade- trophy
- Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade- \$200 & trophy

**West Hartford** Solomon Schechter Day School Sue Prihar

2016 Music and Memory

**Student(s)** Ariel Gordon **Grade 7** **Town** Woodbridge

- Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award
- American Psychological Association --- Certificate, \$50 gift card to Amazon given by CSEF

**Guilford** E.C. Adams Middle School Lynn Arnold

2020 How sweet is it really? Tracking down hidden sugar in drinks.

**Student(s)** Sequoia Kessler **Grade 7** **Town** Guilford

- Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award

**Newtown** St. Rose of Lima School Mrs. Marde Dimon

2024 The Effects of Cell Phones on *Narcissus Papyraceus* Growth and Color

**Student(s)** Michael Bachmann **Grade 7** **Town** Redding

- Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award

**Avon** Talcott Mountain Academy Alyson Tockstein

2026 Killing Blackspot: An Organic Struggle

**Student(s)** Julia Hoffman **Grade 7** **Town** Windsor

- Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF

## Life Sciences - Middle School 8th Grade

**Newtown** St. Rose of Lima School Mardi Dimon

2524 An Investigation of the Ingestion of Microscopic Plastic Particles by the Blue Mussel, *Mytilus edulis*

**Student(s)** Catherine Herrick **Grade 8** **Town** Sandy Hook

- Pfizer Life Sciences Awards --- 1st Place- Life Sciences 8th grade- \$300 & trophy and Invite to Compete Broadcom MASTERS
- Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
- Project Oceanology --- Individual - Book + 2 tickets, First Place Junior, check for \$100, t-shirt

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**West Hartford** Solomon Schechter Day School Sue Prihar

2546 The Effect of Brain Dominance on Memory

**Student(s)** Olivia Rotter **Grade 8** **Town** West Hartford

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 8th grade- \$200 & trophy and Invite to Compete Broadcom MASTERS

**Hartford** Environmental Sciences Magnet School at Mary Kirsten Devlin

2544 Fruit Fly Fatality

**Student(s)** Hunter Rego **Grade 8** **Town** Winsted

- Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 8th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- CASE Urban School Challenge Awards with Travelers --- 3rd Place Middle School - \$100 and Trophy, Medallion
- Fred Bailey Memorial Award --- \$250 for innovative research- Hartford Urban Middle School Project

**Orange** Southern CT Hebrew Academy Karen Howell

2516 Effects of different levels of electromagnetic fields on a variety of grasses and their nutrient content

**Student(s)** Ariella Snyder **Grade 8** **Town** West Hartford

- Pfizer Life Sciences Awards --- 4th Place- Life Sciences 8th grade- trophy and Invite to Compete Broadcom MASTERS
- Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash

**Plantsville** J.F. Kennedy Middle School Mrs. Pepin

2518 Nutrient Comparison of Lettuce Grown Hydroponically and in Soil

**Student(s)** Hannah Platt **Grade 8** **Town** Southington

- Pfizer Life Sciences Awards --- 5th Place- Life Sciences 8th grade- trophy and Invite to Compete Broadcom MASTERS
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF

**Danbury** St. Joseph School Mrs. Reilly

2506 The Effect of Dextrose and Fructose on Daphnia.

**Student(s)** Daniel Villalona **Grade 8** **Town** Danbury

- Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion & Acrylic Award

**Danbury** Westside Middle School Academy Neuhausel

2539 The Impact of Different Water Pollutants on Biological Health Indices

**Student(s)** Kiara Kaltschnee **Grade 8** **Town** Danbury

- Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion & Acrylic Award

## Life Sciences - Middle School Teams

**Orange** Southern CT Hebrew Academy Karen Howell

1008 Analysis of Moisture and Retention of Body Lotions and Correlation to Microbial Growth

**Student(s)** Sarah Yaffe **Grade 7** **Town** Madison

Mindel Yaffe **Grade 7** **Town** Madison

- Pfizer Life Sciences Awards --- 1st Place- Life Sciences MS Team- \$100 each & trophy and Invite to Compete Broadcom MASTERS
- Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade- \$100 & trophy

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**Orange** Southern CT Hebrew Academy Karen Howell

1016 Analysis of Silicon's Effect On Bone Health, "Cell" Bioavailability, and "Skin" Absorption.

**Student(s)** **Miriam Kantor** **Grade 8** **Town** Westport  
**Chana Katz** **Grade 8** **Town** New Haven

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences MS Team- \$100 each & trophy and Invite Compete Broadcom MASTERS
- Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award Souvenir

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

1026 Got Gas?

**Student(s)** **Royce Maxwell** **Grade 8** **Town** Danbury  
**Bart Flaherty** **Grade 8** **Town** New Fairfield  
**Ryan Niland** **Grade 8** **Town** Brookfield

- Pfizer Life Sciences Awards --- 3rd Place- Life Sciences MS Team- trophy and Invite to Compete Broadcom MASTERS

### Physical Sciences - High School Individual

**Greenwich** Greenwich High School Andrew Bramante

6101 Low Grade Waste Heat Recovery and Carbon Sequestration using an Innovative Reverse Electrodialysis (RED) and Pressure Retarded Osmosis (PRO) System

**Student(s)** **Ethan Novek** **Grade 10** **Town** Greenwich

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque, trip to compete at Intel ISEF
- Energize CT/eesmarts Future Sustainability Awards --- 1st Place High School - \$800 Cash, Plaque, and Trip to Compete I-SWEEEP, Houston
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering in partnership with CCAT --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, high school, \$100 cash award

**Greenwich** Greenwich High School Andrew Bramante

6015 Synthesis of an Electromagnetically-Controlled Corn-Starch/PVA Biopolymer Microstructure for Extended and Targeted Drug Delivery

**Student(s)** **Margaret Cirino** **Grade 10** **Town** Greenwich

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque, trip to compete at Intel ISEF
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High- \$300 & plaque
- U.S. Metric Association --- Certificate & \$50 gift card to Amazon given by CSEF
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate1

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**Greenwich** Greenwich High School Andrew Bramante

6087 Application of Manganese-Based Ionic Liquid for Optimized Performance of Non-aqueous / Aqueous Redox Flow Batteries

**Student(s)** Nicholas Szabo **Grade** 11 **Town** Glenville

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- Barnes Aerospace Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate

**Redding** Joel Barlow High School Dr. Katherine Nuzzo

6098 The Development of an Immunosorbant Assay (ELISA) for detection of IgG and IgA antibodies against Tissue Transglutaminase for the diagnosis of Celiac disease.

**Student(s)** Andrea McGowan **Grade** 12 **Town** Redding

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque
- Lunch with a Patent Attorney --- Lunch with a Patent Attorney

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

6005 An Optically Self-Healing Metallo-Supramolecular Polymer Encapsulated UV-NIR Organic Solar Cell for Transparent Energy-Harvesting and Electronic Skin Applications

**Student(s)** Maxmillian Minichetti **Grade** 12 **Town** Greenwich

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 5th Place- Physical Sciences Senior High Individual - Plaque
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

**Greenwich** Brunswick School Dana Montanez

6001 Drone-based, Tropospheric Gas Collection for use in Air Quality Monitoring

**Student(s)** Lachlan Rosato **Grade** 10 **Town** Greenwich

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award

**Simsbury** Independent - Simsbury High School Danny Martins

6004 The Effects of Thickness of Steel, Ball Bearing Size, and Drop Height of Ball Bearing During Dent Resistance Testing on Galvanized Steel versus Aluminum-Alloy.

**Student(s)** Rachel Baumann **Grade** 10 **Town** West Simsbury

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- American Society for Metals - Hartford Chapter --- \$100 Check

**Redding** Joel Barlow High School Dr. Katherine Nuzzo

6007 The effect of snow and ice thickness on the winter respiration Carbon Dioxide output

**Student(s)** Justin Pusztay **Grade** 11 **Town** Easton

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award



[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**Oxford** Oxford High School Mrs. Scheuer

6030 Electrically Independent, Low Cost, Self-Filling Water Bottle for use in Water Locked Regions

**Student(s)** Zachary Frew **Grade** 12 **Town** Oxford

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- Barnes Aerospace Applied Technology Awards --- 1st Place High School - \$500 and Plaque, Medallion
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

**Greens Farms** Greens Farms Academy Dr.Freeman

6039 Optimization of Reflectivity of GaN for Solar Applications

**Student(s)** Matthew Lichtenberg **Grade** 11 **Town** Satmford

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Chemistry

**Westport** Staples High School Dr. Nicholas D. Morgan

6053 The Derivation of Habitable Zones around Binary Star Systems: Is Planetary Stability Possible?

**Student(s)** Leo Andriuk **Grade** 12 **Town** Westport

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- Astronomical Society of Greater Hartford --- Senior Project-\$150, subscription to Sky and Telescope magazine and ASGH meeting invitation
- Connecticut College-Physics, Astronomy, & Geophysics Dept. --- \$150 and certificate, Senior Physics & teeshirt

**Norwich** Norwich Free Academy Stephani Jones

6056 A Field Study Analysis of Carbon Fiber Electrode Weaves and Conductors in the Design of Sedimentary Microbial Fuel Cells

**Student(s)** Katie Provost **Grade** 9 **Town** Bozrah

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report

**Madison** Daniel Hand High School Madhuparna Roychoudhury

6062 Ferromagnetism: Using ferromagnetic fluid to control prosthetics

**Student(s)** Shayan Roychoudhury **Grade** 12 **Town** Madison

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Mechanical

[SchTown] [School] [Teacher]  
[Proj#] [Project Title]

**Madison** Daniel Hand High School Madhuparna Roychoudhury

6064 Power generation via downdraft of humidified dry air

**Student(s)** **Ankita Roychoudhury** **Grade** 10 **Town** Madison

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- University of Connecticut - Physics Department --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificat
- Westinghouse Electric Company/New England Chapter of North American Young Generation in Nuclear --- 1st place, Excellence in Energy Research, \$100 cash award
- David and Torrey Fenton Awards --- For creative work in the physical sciences- high school; \$200 cash

**Bridgeport** Bridgeport Regional Aquaculture School Mr. Shadle

6066 Biochar Electrodes Incorporated with Cuprous Oxide Substrates to Optimize Solar Cells' Efficiency

**Student(s)** **Nicolas Santandrea** **Grade** 12 **Town** Fairfield

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2016 Sustainability Solutions Festival and \$50 Gift Card

**Glastonbury** Glastonbury High School Dr. Ali Bazzi

6068 Evaluation of Several Resonant Power Electronic Converters in Capacitively Coupled Wireless Energy Transmitters

**Student(s)** **Paul Han** **Grade** 11 **Town** Glastonbury

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- Mu Alpha Theta --- Certificate, \$50 gift card to Amazon given by CSEF
- IEEE, Connecticut Section --- \$250 Honors Award -Senior
- John B. Trevor Award in Electrical Engineering --- \$500 cash award for an innovative electronic or electrical project
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Electrical

**Putnam** Putnam Science Academy Serdar Haytiyev

6071 Designing a Braille E-Book For the Visually Impaired and Blind People

**Student(s)** **Abdulkadir Yilmaz** **Grade** 11 **Town** Putnam

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- Xerox Computer Science Awards --- 3rd Place High School- \$200, Plaque, Medallion
- Connecticut Association for the Gifted --- Leonardo Davinci 9-12 Grade \$50 Gift Certificate
- ISA - International Society for Automation --- 3rd - \$50 award
- Leask/Francoeur Family Awards --- Award for excellence and innovation in electrical engineering or computer science - \$200 cash
- Education Connection- Center for 21st Century Skills Awards --- \$100 For innovative use of technology to advance science or engineering
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

[SchTown] [School] [Teacher]  
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**Greenwich** Greenwich High School Andrew Bramante

6095 Novel Creation of a versatile, low-cost water purification system via a graphene oxide-TiO<sub>2</sub> composite membrane with incorporated electrified nanostructures

**Student(s)** **Sophie Bardos** **Grade** 11 **Town** Riverside

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500, Plaque, CACIWC gifts , Trip to Compete I-SWEEEP, Houston
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Environmental Science
- Fox Pest Control Award for Environmental Management --- \$150 Cash for Excellence in Environmental Management
- Unilever Trumbull R&D --- Shadow Day at Unilever Trumbull R&D Centre

### Physical Sciences - High School Teams

**Putnam** Putnam Science Academy Serdar Haytiyev

6503 Designing a High Efficiency and Low Cost Wind Turbines bu Utilizing Organic Solar Panels made from Rosa Canina

**Student(s)** **Cagri Aytekin** **Grade** 12 **Town** Putnam

**Furkan Sahin** **Grade** 10 **Town** Putnam

**Furkan Aldemir** **Grade** 11 **Town** Putnam

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- Barnes Aerospace Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- Constellation - An Excelon Company --- For Excellence in clean renewable / sustainable energy - Grades 9 - 12
- American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate

**Woodbridge** Amity Regional High School Deborah Day

6509 Echocardiogram-Based Wireless Left Ventricular Assist Device (LVAD) with Mobile Application Monitoring and Control

**Student(s)** **Daniel Giebisch** **Grade** 12 **Town** Woodbridge

**Noah Gallant** **Grade** 12 **Town** Bethany

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Team- \$300(split) & Plaque
- Xerox Computer Science Awards --- 1st Place High School - \$400, Plaque, Medallion
- Intel Excellence in Computer Science Award --- \$200 & certificate
- IEEE, Connecticut Section --- \$100 Honorable Mention
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Computer Science

**Putnam** Putnam Science Academy Serdar Haytiyev

6507 Environmentally Friendly and Low Cost Usage of Naturally Extracted Dyes from Organic Materials to Produce Renewable Energy at Efficient Rates

**Student(s)** **Ahmet Sirrik** **Grade** 11 **Town** Putnam

**Tarik Kesen** **Grade** 11 **Town** Putnam

**Ali Akcakir** **Grade** 11 **Town** Putnam

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion

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**Greenwich** Brunswick School Dana Montanez

6511 A Feasibility Study of Portable, Ground-Based Ice-Penetrating Radar to Resolve Cartography Deficiencies.

**Student(s)** **Ryan Callaghan** **Grade** 11 **Town** Wilton

**Alessandro Mariani** **Grade** 11 **Town** Greenwich

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion & Acrylic Award
- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- IEEE, Connecticut Section --- \$250 Honors Award -Junior

### Physical Sciences - Middle School 7th Grade

**Danbury** Westside Middle School Academy Mr. Neuhausel

5030 Opening a Garage Door with Raspberry Pi

**Student(s)** **Sarah Johnson** **Grade** 7 **Town** Danbury

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place- Physical Sciences 7th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- IEEE, Connecticut Section --- \$100 Honorable Mention

**Danbury** St. Joseph School Jennifer Reilly

5026 The Power of Wind

**Student(s)** **Sean Guiry** **Grade** 7 **Town** Danbury

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 2nd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy

**Glastonbury** Smith Middle School Mary Coburn

5029 Sound Barriers: How does the type of material affect the amount of sound that carries through a surface?

**Student(s)** **Arjun Ahilan** **Grade** 7 **Town** Glastonbury

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
- Connecticut Academy of Audiology --- \$150 Cash Award Middle School- For Excellence in Audiology and Acoustics

**Newtown** St. Rose of Lima School Marde Dimon

5036 The Amount of Critical Mass Needed to Make a Sustainable Chain Reaction

**Student(s)** **Mary Locke** **Grade** 7 **Town** Sandy Hook

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 4th Place- Physical Sciences 7th Grade Ind. - trophy, invite to compete Broadcom MASTERS
- ISA - International Society for Automation --- 1st - \$125 award

**Danbury** St. Joseph School Mrs. Reilly

5054 Development of a technique to detect explosive residue for use in avoiding terrorism threats.

**Student(s)** **Bradley Kerr** **Grade** 7 **Town** Danbury

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 5th Place- Physical Sciences 7th Grade Individual - trophy
- Barnes Aerospace Applied Technology Awards --- 3rd Place Middle School - \$100 and Trophy, Medallion
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering

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**Wilton** Middlebrook School Mrs. Randall

5009 The Impact of Turbine Blades on Power Output

**Student(s)** **Vignesh Subramanian** **Grade 7** **Town** Wilton

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- J.A. Augustine Award --- \$100 for excellence in physical sciences

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

5023 Which Variables Affect The Flight Of A Rocket?

**Student(s)** **Brendan Toth** **Grade 7** **Town** Bozrah

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- Talcott Mountain Science Center --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science
- American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate
- American Society for Quality - Thames Valley Section --- \$250 Cash Award

**Bethel** St. Mary School Mrs. McDonald

5035 Keepin' Warm

**Student(s)** **Madeline Suarez** **Grade 7** **Town** Bethel

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award

**Madison** Our Lady of Mercy School Mr. Supik

5053 Which Wheat Flour Has the Most Gluten?

**Student(s)** **Allison Tuttle** **Grade 7** **Town** Killingworth

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award

**Plantsville** J.F. Kennedy Middle School Mrs. Marongolia

5063 How Accurate can your Local Weather Applications Be?

**Student(s)** **Trevor Messina** **Grade 7** **Town** Southington

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- People's United Bank Mathematics Awards - with ATOMIC --- 3rd Place Middle School - Trophy , \$100 from People's United Bank

## Physical Sciences - Middle School 8th Grade

**Stratford** St. Mark School Mr. Michael McMahon

5545 Using Induced Wind Force to Increase the Efficiency of an Electric Vehicle Battery

**Student(s)** **Emily Fedor** **Grade 8** **Town** Derby

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place- Physical Sciences 8th Grade Ind. - \$300 & trophy, invite to compete Broadcom MASTERS
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- 2nd Place Middle School - \$300 Cash and Trophy
- Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- Society of Women Engineers - Hartford Section --- Scientific Calculator
- David and Torrey Fenton Awards --- For creative work in the physical sciences- middle school; \$200 cash

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**Stratford** St. Mark School Mr. Michael McMahon

5560 Energy Scavenging--Proving the Seebeck Effect with a Homemade Thermoelectric Generator: A Source of Free, Sustainable, Low-Voltage Power

**Student(s)** **Kristen Robertson** **Grade 8** **Town** Stratford

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 Cash and Trophy
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
- Society of Women Engineers - Hartford Section --- Scientific Calculator

**Bozrah** Fields Memorial School Evelyn Brown

5507 Music Metrics and Fractals: Analyzing Different Genres of Digitized Music to Identify Input Metrics for Programming Fractal Representations of the Music with Mathematica

**Student(s)** **Genevieve Buckridge** **Grade 8** **Town** Bozrah

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & trophy, invite to compete Broadcom MASTERS
- People's United Bank Mathematics Awards - with ATOMIC --- 1st Place Middle School- \$150 from ATOMIC, and Trophy, \$300 from People's United Bank
- Xerox Computer Science Awards --- 1st Place Middle School - \$300, Trophy and Medallion
- Connecticut Association for the Gifted --- Leonardo Davinci 7-8 Grade \$50 Gift Certificate
- Stanley Lessoff Award for Excellence In Analytical Technique --- \$100 Cash and Plaque

**Hamden** Hamden Middle School Mr. Martins

5530 What's Shaking? - A Study of Soil Liquefaction

**Student(s)** **Andrew Larocque** **Grade 8** **Town** Hamden

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy, invite to compete Broadcom MASTERS
- Society of Women Engineers - Hartford Section --- Scientific Calculator

**Greenwich** Central Middle School Ms. Bresler

5514 Substitution of Metals in a Salt-Water Engine to Increase Energy-Efficiency

**Student(s)** **Bennett Hawley** **Grade 8** **Town** Cos Cob

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 5th Place- Physical Sciences 8th Grade Ind. - trophy, invite to compete Broadcom MASTERS
- Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion, Acrylic Award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
- Constellation - An Excelon Company --- For Excellence in clean renewable / sustainable energy - Grades 7 & 8
- IEEE, Connecticut Section --- \$100 Honorable Mention
- MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, middle school, \$100 cash award
- American Society for Metals - Hartford Chapter --- \$50 Check

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**Bozrah** Fields Memorial School Evelyn Brown

5502 Water Filtration and Flocculation Methods

**Student(s)** Rebecca Ramthun **Grade 8** **Town** Bozrah

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- 3rd Place Middle School - \$200 Cash and Trophy
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
- Demos R Us Award --- \$150 Cash Award- Clear Execution of Research

**Trumbull** Christian Heritage School Mrs. Oshin

5509 The Effect of Using Foam to Create a More Sophisticated Highway Barrier on Lessening the Spike of G-forces During an Impact

**Student(s)** Daniel Colgate **Grade 8** **Town** Bridgeport

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- Dakers Award for Transportation Engineering --- \$100 Award For Innovative Transportation Engineering

**New Haven** Engineering & Science University Magnet School Mr. Roger Rushworth

5528 Efficiency of Piezoelectric Materials for Electric Production

**Student(s)** Prastik Mohanraj **Grade 8** **Town** Ansonia

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- Middle School Finalist - Medallion and acrylic award
- IEEE, Connecticut Section --- \$100 Honorable Mention

**Danbury** Westside Middle School Academy Jonathan Neuhausel

5551 UV-C Lighting As A Supplemental Method Of Preservation In Refrigerators To Reduce Energy Consumption

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

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- 1st Place Middle School - \$300 and Trophy, Medallion and Project Oceanology's Ocean Camp
- Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
- Connecticut Academy of Science and Engineering Middle School Urban School Challenge Award --- Urban School Challenge 1st MS- \$250 Cash Award, Invite to attend CASE's Annual Mtg & \$500 to School Science Department for Equipment/Supplies
- Alexion Biotechnology Awards --- 5th Place- Biotechnology 8th grade- trophy
- Ricoh Corporation/Society for Science & the Public --- Certificate, Lapel Pin,\$50 gift card to Amazon given by CSEF

**Newtown** Newtown Middle School Mrs. Andracchi

5565 The Universal Soccer Shoe

**Student(s)** Miles Martiska **Grade 8** **Town** Newtown

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- American Society for Metals - Hartford Chapter --- \$50 Check

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## Physical Sciences - Middle School Teams

**Windsor** Madina Academy Eslam Hassan

4008 Investigating Novel Methods to Harvest Solar Energy for Generation of Solar Steam from Salt Water and Snow Using Graphene and Carbon Foam

**Student(s)** **Maryam Moghul** **Grade 8** **Town** Bloomfield  
**Ibrahim Moghul** **Grade 7** **Town** Bloomfield

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy

**New Haven** Worthington Hooker Middle School Douglas Jones

4001 The Hard Truth About Water Hardness: Which body of water is the healthiest (in Water Hardness)?

**Student(s)** **Jake Wang** **Grade 8** **Town** New Haven  
**George Wang** **Grade 8** **Town** New Haven

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS

**Bethany** Amity Reg Middle School, Bethany Campus Kevin Berean

4017 The Sensing Cane

**Student(s)** **Kate Yuan** **Grade 8** **Town** Woodbridge  
**Catalina Betancur** **Grade 8** **Town** Woodbridge

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 3rd Place- Physical Sciences MS Team- trophy, invite to compete Broadcom MASTERS
- Barnes Aerospace Applied Technology Awards --- 1st Place Middle School - \$300 and Trophy, Medallion
- Xerox Computer Science Awards --- Middle School Finalist - Medallion, Acrylic Award
- American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- ISA - International Society for Automation --- 2nd - \$75 award

**Orange** Southern CT Hebrew Academy Karen Howell

4003 Analysis of Safer Electroplating Metals and Electrolyte solutions with their Environmental Impact

**Student(s)** **Meira Shleifer** **Grade 8** **Town** Waterbury  
**Zahava Klein** **Grade 8** **Town** New Haven

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
- American Society for Metals - Hartford Chapter --- \$100 Check
- TurnKey Compliance Solutions Environmental Awards --- \$300 Cash Award - For excellence in environmental sciences
- Unilever Trumbull R&D --- Shadow Day at Unilever Trumbull R&D Centre

**Orange** Southern CT Hebrew Academy Karen Howell

4010 Analysis of Nature's Digestive Enzymes and Effect of Inhibitors and Enhancers on Nutrition and Cell Absorption.

**Student(s)** **Esther Lipsker** **Grade 8** **Town** Stamford  
**Chana Kalmanson** **Grade 8** **Town** New Haven

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
- Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award Souvenir
- United States Public Health Service --- Certificate & \$50 Amazon gift card given by CSEF & medallion
- Institute of Food Technologists, Nutmeg Section --- \$100 award + invitation to dinner



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**Orange** Southern CT Hebrew Academy Mrs. Karen Howell

4019 Analysis of the Extraction of Proteins from Under Utilized Resources and Their Nutrient and Bioavailability Values

<b>Student(s)</b>	<b>Batya Koenigsberg</b>	<b>Grade 8</b>	<b>Town</b> New Haven
	<b>Breindel Piekarski</b>	<b>Grade 8</b>	<b>Town</b> Hamden

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award

**Windsor** Madina Academy Mahmood Mohammed

4025 Installing a Wind-gust Turbine to generate energy to power highway lighting or to see the Power Grids.

<b>Student(s)</b>	<b>Adelisa Cecunjanin</b>	<b>Grade 8</b>	<b>Town</b> Windsor
	<b>Alina Mohammed</b>	<b>Grade 8</b>	<b>Town</b> Windsor

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
- Environmental Sciences Awards with CACIWC --- 2nd Place MS- \$200, Trophy, CACIWC gifts
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy

**Bethany** Amity Reg Middle School, Bethany Campus Mr. Kevin Berean

4033 BabyBot: Creating a Robot to Soothe a Crying Infant

<b>Student(s)</b>	<b>Neha Sudhir</b>	<b>Grade 8</b>	<b>Town</b> Woodbridge
	<b>Rosie Du</b>	<b>Grade 8</b>	<b>Town</b> New Haven
	<b>Allison Fischman</b>	<b>Grade 8</b>	<b>Town</b> Woodbridge

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
- Xerox Computer Science Awards --- Middle School Finalist - Medallion, Acrylic Award
- Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School, Physical Sciences