



Conn. Science & Engineering Fair

Quinnipiac University

March 14 - 18, 2017

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

Regular Fair Awards - Finalists

Sorted by:
 - School Town
 - School
 - Last Name

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

Avon Talcott Mountain Academy Lydia Gibb

5539 Unsupervised Machine Learning for Text Categorization

Student(s) **Aresh Pourkavoos** **Grade 8** **Town** Avon

- * Xerox Computer Science Awards --- 1st Place Middle School - \$300, Trophy and Medallion
- * Leask/Francoeur Family Awards --- 1st Place Middle School- For innovation electrical engineering or computer science - \$200 cash

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5525 Waterbot

Student(s) **Jonathan Fischman** **Grade 8** **Town** Woodbridge

- * Pepsico Physical Sciences Awards --- 3rd Place- Physical Sciences 8th Grade Ind, - \$100 & trophy, invite to compete Broadcom MASTERS
- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

4007 Plantaid

Student(s) **Evan Gorelick** **Grade 8** **Town** Woodbridge
Peter Savelyev **Grade 8** **Town** Woodbridge

- * Pepsico Physical Sciences Awards --- 3rd Place- Physical Sciences MS Team- trophy, invite to compete Broadcom MASTERS
- * Xerox Computer Science Awards --- 2nd Place Middle School - \$200, Trophy and Medallion

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

4004 Water Turbine

Student(s) **Christopher Hill** **Grade 8** **Town** Woodbridge
Benjamin Lee **Grade 8** **Town** Woodbridge

- * Pepsico Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy
- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering 8th grade - CSF Medallion
- * Dreams Unlimited Award --- \$200 Cash Award + Certificate

Bethany Amity Reg Middle School - Bethany Campus Mr. Kevin Berean

4021 The Energy Band

Student(s) **Kabir Khwaja** **Grade 8** **Town** Woodbridge
Samuel Green **Grade 8** **Town** Bethany

- * Pepsico Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 Cash and Trophy

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

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

4025 The Clean Drain

Student(s)	William Livesay	Grade 8	Town Woodbridge
	Joshua Feuerstein	Grade 8	Town Woodbridge
	Arnav Paliwal	Grade 8	Town Woodbridge

- * Pepsico Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- * Barnes Aerospace Applied Technology Awards --- 1st Place Middle School - \$300 and Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 4th Place- Engineering 8th grade- trophy
- * TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award Middle School- For excellence in environmental sciences

Bethany Amity Reg Middle School - Bethany Campus Berean

5569 Injur-knee

Student(s)	Cameron Luciano	Grade 8	Town Woodbridge
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- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5564 Pen-nik

Student(s)	Nikhil Mali	Grade 8	Town Woodbridge
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- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology 8th grade- trophy

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

4010 Using Nanotechnology to Clean Oil Spills

Student(s)	Aamnah Malik	Grade 8	Town Woodbridge
	Kathleen Inclima	Grade 8	Town Woodbridge

- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * National Oceanic and Atmospheric Administration --- Certificate and medallion, ,and \$25 Amazon gift card given by CSEF

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5559 Vision Shoe

Student(s)	Shyam Viswanathan	Grade 8	Town Woodbridge
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- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- * Xerox Computer Science Awards --- Middle School Finalist - Medallion
- * American Meteorological Society --- Certificate & \$25 Amazon gift card given by CSEF
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * ISA - International Society for Automation - Ct. Valley Section --- 2nd - \$75 award
- * Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- * **The Karen J. Howell Middle School Award for "Learning and Serving"**
--- The Karen J. Howell Middle School Award for "Learning and Serving" - \$1000

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

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

5519 Extinguish-Bot

Student(s) Weiss Yuan **Grade 8** **Town** Woodbridge

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering 8th grade - CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF
- * American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project

Bethany Amity Reg Middle School - Bethany Campus Kevin Berean

4001 Using Flocculation to Extract Chromium 6 From Water

Student(s) Wendy Zhang **Grade 8** **Town** Woodbridge
 Claire Yuan **Grade 8** **Town** Woodbridge

- * Barnes Aerospace Applied Technology Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion

Bethel Bethel High School Raymond Turek

3066 Maximizing Energy Production from MudWatts

Student(s) Brynne Bosworth **Grade 12** **Town** Bethel

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion

Bethel St. Mary School Kate McDonald

5506 Solar Cells

Student(s) Grace Garvey **Grade 8** **Town** Bethel

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion

Bozrah Fields Memorial School Mrs. E. Brown

5535 Password Security; How Easily Can Your Password Be Hacked? What Can You Do to Make it Safer?

Student(s) Kyra Adcock **Grade 8** **Town** Bozrah

- * Xerox Computer Science Awards --- Middle School Finalist - Medallion

Bozrah Fields Memorial School Mrs. E. Brown

5008 Orb Characteristics and Containment

Student(s) Elijah Ramthun **Grade 7** **Town** Bozrah

- * Pepsico Physical Sciences Awards --- 5th Place- Physical Sciences 7th Grade Individual - trophy
- * People's United Bank Mathematics Awards - with ATOMIC --- 1st Place Middle School- \$150 from ATOMIC, and Trophy, \$300 from People's United Bank
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 4th Place- Engineering 7th grade- trophy
- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade- \$100 & trophy and Invitation Compete in Broadcom MASTERS
- * Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Phys Science

Bozrah Fields Memorial School Mrs. Brown

5001 Building Tesla Coils

Student(s) Lucas Santo **Grade 7** **Town** Bozrah

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 2nd Place- Engineering 7th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS
- * The Children's Museum --- 1 family 4-Pack of Admission Passes to the Children's Museum
- * Wisner Award --- \$250 cash and plaque

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

Bozrah Fields Memorial School Mrs. Brown

5004 Environmental Monitoring System for Dog Safety

Student(s) Morgan Tainter **Grade 7** **Town** Gilman

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Xerox Computer Science Awards --- 3rd Place Middle School- \$100, Trophy, Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering 7th grade - CSF Medallion
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Connecticut Science Supervisors Association --- \$125 for a middle school project
- * John B. Trevor Award in Electrical Engineering --- \$500 cash award for an innovative electronic or electrical project

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3098 Developing a Spatial Model of Invasive Spread in Response to Climate Change

Student(s) Tomas Koeck **Grade 12** **Town** Fairfield

- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3072 Developing a Minimally Invasive Form of Enhancing In Vitro Cellular Growth via Ultrasonic Frequencies

Student(s) Emily Luciano **Grade 12** **Town** Stratford

- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3137 The Use of a Hydroxybenzene Group Variant, Grapefruit Seed Extract, as an Alternative Natural Pesticide for Contemporary Chemicals in Modern Agriculture

Student(s) Kyle Rosenfeld **Grade 12** **Town** Fairfield

- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card

Bridgeport Bridgeport Regional Aquaculture Center Kirk Shadle

3129 Utilizing a Freshwater Bioreactor as an Effective Carbon Dioxide Sequestration Technique

Student(s) Daniel Schaefer **Grade 12** **Town** Stratford

- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, air pollution related

Bridgeport Bridgeport Regional Aquaculture Center - BCF Kirk Shadle

6517 A Novel High Performance Liquid Chromatography Protocol to Investigate the Analgesic Role of Salicylic Acid and Other Bioactive Components found in Traditional Chinese Medicine

Student(s) Rachel Roca **Grade 12** **Town** Trumbull

Julia Lawlor **Grade 12** **Town** Southport

- * Pepsico Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Team- \$300(split) & Plaque

Bridgeport Bridgeport Regional Aquaculture Center - BCF Kirk Shadle

6024 Investigating the Efficacy of Magnesium Nitrate as a Viable Solvent in the Synthesis of 2,5-Dimethylfuran Biofuel

Student(s) Cole Stearns **Grade 12** **Town** Fairfield

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * U.S. Metric Association --- Certificate & \$25 Amazon gift card given by CSEF
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR
- * Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash

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

Bridgeport Fairchild Wheeler Magnet High School Ms, Warner
6003 AN INVESTIGATION INTO THE CAPABILITY OF GRAPHENE TO PRODUCE ELECTRICITY DURING RAINSTORMS AS AN ADDITION TO A TRADITIONAL SOLAR PANEL

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

- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 2nd Place High School - \$400 and Plaque, Medallion
- * Energize CT/eesmarts Future Sustainability Awards --- 1st Place High School - \$500 Cash, Plaque, and Trip to Compete I-SWEEEP, Houston
- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering Senior High - CSF Medallion

Bridgeport High Horizons Magnet School Portia Scott-Thiam
2513 Hydroponics vs. Fogponics

Student(s) Rebecca Abirached **Grade** 8 **Town** Bridgeport

- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Middle School Finalist - Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- * Southeastern New England Marine Educators --- Outstanding project in aquatic Science \$100 award and membership in SENEME - 1st place Junior and t-shirt

Bridgeport Multicultural Magnet School Ms. Ciuflea
5032 Natural Power

Student(s) John Paul Atehortua **Grade** 7 **Town** Bridgeport

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate

Bridgeport Park City Prep Charter School Mr. Jonathan Jaekle
2542 Larva -B-Gone: A Safer Way To Eliminate The Threat of Zika and Other Mosquito Borne Diseases

Student(s) Antonios Boudreau **Grade** 8 **Town** Ansonia

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Middle School Finalist - Medallion
- * Talcott Mountain Science Center & Academy --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science

Bridgeport Park City Prep Charter School Mr.jaekle
1013 Acid rain vs. algae

Student(s) Leanna Hosten **Grade** 8 **Town** Bridgeport
Joy Longwa **Grade** 8 **Town** Bridgeport

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

Bristol St. Paul Catholic High School Mr. Aliberti
6047 A Weather-Based Autonomous Rainwater Irrigation System

Student(s) Kamila Krawczuk **Grade** 11 **Town** New Britain

- * Xerox Computer Science Awards --- Senior High Finalist - Medallion
- * Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion
- * Leask/Francoeur Family Awards --- 1st Place High School- For innovation electrical engineering or computer science - \$200 cash
- * Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting
- * Southeastern New England Marine Educators --- Outstanding project in aquatic Science \$100 award and membership in SENEME - 1st place Senior and t-shirt

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

Canton Canton High School Stephen Riley

6100 A Closer Look At Petroleum: Our World's Energy

Student(s) **Gabriel Ortiz** **Grade 12** **Town** Canton

* Energize CT/eesmarks Alternative/Renewable Energy Awards --- High School Finalist - Medallion

Cheshire St. Bridget School Michelle Carroll

2014 Which Bioplastic is more Elastic

Student(s) **Kavin Kathir** **Grade 7** **Town** Cheshire

* Pfizer Life Sciences Awards --- 5rd Place- Life Sciences 7th grade- trophy
* Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
* Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion
* United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report

Cheshire St. Bridget School Mrs Carroll

2520 Do the Eyes Have It?

Student(s) **BriAnna McConnell** **Grade 8** **Town** Wolcott

* Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion

Danbury Danbury High School Karen Lamb

3007 Prevention of Zika Virus Infection and Other Mosquito-Borne Diseases Using Environmentally Sound Control Methods

Student(s) **Bradley Kerr** **Grade 9** **Town** Danbury

* Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
* CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Senior High Finalist - Medallion
* Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
* Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash

Danbury St. Gregory the Great School Mrs. Christine Fahey

4015 The Effect of Temperature on Solar Cells

Student(s) **Thomas Fahey** **Grade 8** **Town** Danbury

Eric McNamara **Grade 8** **Town** Danbury

* Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion

Danbury St. Gregory the Great School Mrs.Christine Fahey

5003 Wind Energy? I'm a Big Fan!

Student(s) **Anna Flaherty** **Grade 7** **Town** New Fairfield

* Pepsico Physical Sciences Awards --- 2nd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
* Energize CT/eesmarks Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion
* Stanley Lessoff Award for Excellence In Analytical Technique --- \$100 Cash and Plaque

Danbury St. Joseph School Lydia Jabbour

5019 Eggceptional Geodes: An Eggsperiment

Student(s) **Bronwyn Hyland** **Grade 7** **Town** New Fairfield

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion

Danbury St. Joseph School Ms. Jabbour

2007 The Effects of X-ray Radiation on Yeast

Student(s) **Conor O'Keefe** **Grade 7** **Town** Danbury

* Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
* Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF

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

Danbury St. Joseph School Lydia Jabbour

1011 Which Household or Home-Made Cleaner Best Prevents Bacteria Growth.

Student(s) **Matthew Riggs** **Grade 8** **Town** Danbury
Steven Soto **Grade 8** **Town** Danbury

* Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

Danbury Westside Middle School Academy Jonathan Neuhausel

5531 The Effects of Different Flours on the Breaking Point and Decomposition Rate of an Edible Spoon.

Student(s) **Sahana Chinthak** **Grade 8** **Town** Danbury

- * Pepsico Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 2nd Place Middle School - \$200 and Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion
- * Unilever Trumbull R&D --- Shadow Day at Unilever Trumbull R&D Centre

Danbury Westside Middle School Academy Andrea LaRosa

2537 Testing CNT (Carbon Nanotubes) to filter E. coli Infected Water Samples

Student(s) **Lasyapriya Josyula** **Grade 8** **Town** Danbury

- * Sustainable Resources and Practices Awards --- 3rd Place Middle School - \$200 Cash and Trophy
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology 8th grade- \$500 & trophy and Invitation Compete in Broadcom MASTERS

Danbury Westside Middle School Academy Jon Nehausel

5503 Examining the impact of window moisture on the strength of a wifi signal.

Student(s) **Jordan Lema** **Grade 8** **Town** Danbury

- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion

Danbury Westside Middle School Academy Jon Neuhausel

2033 Pharmaceuticals In Our Water: How Can These Hazardous Chemicals Be Filtered?

Student(s) **Khushi Parikh** **Grade 7** **Town** Danbury

- * Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS

Danbury Westside Middle School Academy Mr. Neuhausel

5025 A study on soil product following bio degradation of Styrofoam by tenebrio

Student(s) **Cassandra Plank Pinho** **Grade 7** **Town** Danbury

- * Pepsico Physical Sciences Awards --- 4th Place- Physical Sciences 7th Grade Ind. - trophy
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 3rd Place Middle School - \$100 and Trophy, Medallion
- * Environmental Sciences Awards with CACIWC --- 2nd Place MS- \$200, Trophy, CACIWC gifts
- * Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion
- * Urban School Challenge 1st Place Middle School Awards --- USC Highest Placing 7th grader- Project Oceanology's Ocean Camp

Danbury Westside Middle School Academy Jonathan Neuhausel

5568 Optimizing Fin Design For Compressed Air Water Rockets

Student(s) **Gryffin Syme** **Grade 8** **Town** Danbury

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Middle School Finalist - Medallion

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

Darien Darien High School Christine Leventhal

6031 Determining the Optimal Implementation for Secure Multiparty Computation of the Logistic Function

Student(s) Andrew Benz **Grade** 12 **Town** Darien

* Xerox Computer Science Awards --- Senior High Finalist - Medallion

Darien Darien High School Mr. Pratt

6072 Finding An Efficient Scalable Gray Water Bioremediation Treatment System

Student(s) Courtney Lowe **Grade** 12 **Town** Darien

* Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
* Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Physical Sciences
* University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Environmental Science

Fairfield Fairfield College Preparatory School Deborah Kiel

6054 The Application of Object Tracking in Surgery Robotics

Student(s) Hanxuan Mo **Grade** 12 **Town** Fairfield

* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
* U.S. Metric Association --- Certificate & \$25 Amazon gift card given by CSEF

Fairfield Fairfield College Preparatory School Ms. Kiel

3126 An investigation into the use of fruit peel filters to reduce the level of water contamination.

Student(s) Jonathan Siveyer **Grade** 12 **Town** Monroe

* Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
* Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
* Energize CT/eesmarts Future Sustainability Awards --- 2nd Place High School - \$300 Cash and Plaque
* GENIUS Olympiad --- GENIUS Olympiad Competition for 2nd Place HS Future Sustainability

Farmington Irving A. Robbins Middle School Kerry Visone

5530 Making concrete more energy efficient and lightweight.

Student(s) Angela Sadlowski **Grade** 8 **Town** Unionville

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
* UTC Aerospace Systems Awards for Excellence in Engineering --- 3rd Place- Engineering 8th grade- \$100 & trophy and Invitation Compete in Broadcom MASTERS
* Alexion Biotechnology Awards --- 5th Place- Biotechnology 8th grade- trophy
* Society of Women Engineers - Hartford Section --- Scientific Calculator
* GCS Award for Excellence in Transportation Engineering --- \$250 cash and plaque

Glastonbury Glastonbury High School Diane Pintavalle

6085 Functionalization of Gold Nanoparticles with various Amino Acids under Different pH Environment

Student(s) Danielle Cai **Grade** 11 **Town** Glastonbury

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion

Glastonbury Glastonbury High School Diane Pintavalle

3052 Flu Induced Alterations In Muscle Cytokine Expression Due To Aging

Student(s) Ronak Mahatme **Grade** 12 **Town** Glastonbury

* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

Greens Farms Greens Farms Academy Mathieu Freeman

6061 Comparative Study of Self-Designed Direct Access Formic Acid Fuel Cell (DFAFC) vs Hydrogen Fuel Cell

Student(s) Edward Lopez-Wortman **Grade** 12 **Town** Stamford

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion

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

Greens Farms Greens Farms Academy Mathew Freeman

3136 Improvements on design of biologically inspired modular prosthetics for general use.

Student(s) **Robert Marcus** **Grade** 12 **Town** New Canaan

* Barnes Aerospace Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion

Greens Farms Greens Farms Academy Mathieu

6076 Designing and Implementing a Flexible Support System for the Finger Injury Prevention in High-Impact Sports and Applications

Student(s) **Charles Thompson** **Grade** 12 **Town** Southport

* Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

* 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

6505 Using Piezoelectricity to Harness Energy into a Battery

Student(s) **Harold Barringer** **Grade** 10 **Town** Greenwich

Thomas Foley **Grade** 10 **Town** Greenwich

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion

* UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering Senior High - CSF Medallion

Greenwich Brunswick School Dana Montanez

3513 Analysis of Environmental Stress: The effect on Restriction Enzyme Analysis of Asterina DNA

Student(s) **Chris Burdick** **Grade** 11 **Town** Riverside

Greyson Wolfram **Grade** 11 **Town** Riverside

Matt Restieri **Grade** 11 **Town** Riverside

* Pfizer Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

Greenwich Brunswick School Dana Montanez

6083 Flow Rate vs. Hydroelectric Kilowatts Produced: A novel approach using Pelton wheels and land-based turbines in an effort to preserve surrounding ecosystems

Student(s) **Edward Camel** **Grade** 11 **Town** Greenwich

* Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

* Yale Science & Engineering Association, Inc. --- Certificate, \$25 gift card to Amazon given by CSEF

Greenwich Brunswick School Dana Montanez

3525 Methylmercury concentrations in Fish Tissue: A comparative analysis of Long Island Sound v. the Atlantic Ocean

Student(s) **Alberto Delgado** **Grade** 10 **Town** Riverside

Ryan Mulshine **Grade** 10 **Town** Greenwich

* Pfizer Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque

* Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

Greenwich Brunswick School Dana Montanez

6044 Optimizing Efficiency of Long Distance Tube-And-Pod-Based Low Friction Transportation Systems

Student(s) **Wesley Peisch** **Grade** 11 **Town** Greenwich

* Xerox Computer Science Awards --- 1st Place High School - \$400, Plaque, Medallion

* Intel Excellence in Computer Science Award --- \$200 & certificate

* Barker Mohandas Awards for Transportation Research --- \$200 Cash & Plaque for Excellence in Transportation Related Research- High School

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

Greenwich Brunswick School Dana Montanez

3015 An Investigation of Natural Alternatives to Chlorine When Treating Microbial-Contaminated Water

Student(s) Asher Porphy **Grade** 10 **Town** Harrison

- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card to Amazon given by CSEF, possible advance to further competition

Greenwich Brunswick School Dana Montanez

3542 Human fingerprints and Gecko Setae: A fusion of configurations to create a super-grip, non-slip surface

Student(s) Thacher Scannell **Grade** 11 **Town** Stamford

Avi Mukherjee **Grade** 11 **Town** Stamford

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque
- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

Greenwich Greenwich Catholic School Carol Lutz

5002 Mass Maglev Manufacturing

Student(s) Patrick McHugh **Grade** 7 **Town** Stamford

- * Pepsico Physical Sciences Awards --- 1st Place- Physical Sciences 7th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- * Energize CT/eesmart Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion

Greenwich Greenwich Catholic School Mrs. Lutz

4028 A Helping Hand

Student(s) Gianna Saviano **Grade** 8 **Town** Stamford

Sofina Tillman Singh **Grade** 8 **Town** Stamford

- * Pepsico Physical Sciences Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- * IEEE, Connecticut Section --- \$250 Honors Award -Junior
- * John S. Kendall Memorial Awards --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering - Middle School

Greenwich Greenwich High School Andrew Bramante

6040 Application of flexible PVDF nanofibrous membrane coated carbon fiber filter for tunable low cost solvent recycling

Student(s) Alex Araki **Grade** 11 **Town** Greenwich

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * TurnKey Compliance Solutions Environmental Awards --- \$300 Cash Award High School- For excellence in environmental sciences

Greenwich Greenwich High School Andrew Bramante

3032 Crowd-Sourced Detection and Mapping of Nitrate Water Pollutants via a Mobile Web-Based Image Analysis System

Student(s) Luca Barcelo **Grade** 11 **Town** Old Greenwich

- * Pfizer Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque
- * American Society for Quality - Thames Valley Section --- \$250 Cash Award
- * Project Oceanology --- Senior-Identification guide, t-shirt, 1 week residential summer camp

Greenwich Greenwich High School Andrew Bramante

3074 Remediation of Beryllium Heavy Metal via Phaseolus vulgaris Hyperaccumulation

Student(s) Manuel Carballo **Grade** 12 **Town** Greenwich

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque, CACIWC gifts
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 2nd Place HS Environmental Project

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

Greenwich Greenwich High School Andrew Bramante

3125 PDE-4 Inhibitor-Assisted Antibiotic Suppression of Borrelia Biofilm Growth for Treatment of Chronic Lyme

Student(s) **Sophia Chow** **Grade** 11 **Town** Old Greenwich

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- \$200 & plaque
- * Society for In Vitro Biology --- Certificate and \$25 Amazon gift card given by CSEF

Greenwich Greenwich High School Mr. Bramante

6053 Renewable Energy Generation of a Hybridized Saltwater Electrochemical and Hydrokinetic Energy System

Student(s) **Bennett Hawley** **Grade** 10 **Town** Cos Cob

- * Energize CT/eemarks Future Sustainability Awards --- High School Finalist - Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 3rd Place- Engineering Senior High- \$300 & plaque
- * Constellation, an Exelon Company --- 1st: \$150.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * Mystic Aquarium - Sea Research Foundation --- \$100 and 4 Admission Tickets to Mystic Aquarium

Greenwich Greenwich High School Andrew Bramante

3064 A New Precipitate Assay relating to Palladium Blood Contaminants for Early Detection of Chagas

Student(s) **Manuel Lopez** **Grade** 11 **Town** Riverside

- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High- \$300 & plaque

Greenwich Greenwich High School Andrew Bramante

6074 Reliably Jammed Disk Packing: A Novel Feature of a Classic Geometry Problem

Student(s) **Steven Ma** **Grade** 11 **Town** Greenwich

- * People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place High School- \$100 from ATOMIC, Plaque, \$300 from People's United Bank
- * Mu Alpha Theta --- Certificate, \$25 Amazon gift card given by CSEF
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Mathematics

Greenwich Greenwich High School Mr. Bramante

3117 Targeted Anticancer Properties of Honey Bee Melittin via Cell Surface Lipid Disruption

Student(s) **Dante Grace Minichetti** **Grade** 11 **Town** Greenwich

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Cell and Molecular Biology

Greenwich Greenwich High School Andrew Bramante

6010 Novel Low-Temperature Carbon Capture Using Aqueous Ammonia and Organic Solvents

Student(s) **Ethan Novek** **Grade** 12 **Town** Greenwich

- * Pepsico Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque, trip to compete at Intel ISEF
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * Energize CT/eemarks Alternative/Renewable Energy Awards --- 1st Place High School - \$500 Cash and Plaque, compete at GENIUS Olympiad
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, 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
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, high school, \$100 cash award

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

Greenwich Greenwich High School Andy Bramante

6063 Carbon Capture and Storage via Silver Nanoparticle Catalyzed Hydration of Carbon Dioxide

Student(s) **Agustina Stefani** **Grade 12** **Town** Greenwich

- * Pepsico Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Chemistry

Greenwich Greenwich High School Mr. Bramante

3109 Platelet Membrane Coating Bio-interfacing of Pravastatin to Increase Removal of Arterial Plaque

Student(s) **Haley Stober** **Grade 11** **Town** Old Greenwich

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering Senior High - CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

Greenwich Greenwich High School Andrew Bramante

3010 Rapid Colorimetric Field Monitoring System for Zika Virus in Mosquito Populations via DNAzyme-Functionalized Gold Nanoparticles

Student(s) **Rahul Subramaniam** **Grade 10** **Town** Cos Cob

- * Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
- * Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion
- * Bob Harris Fix It Award --- \$75 and Certificate for ingenuity in using material and tools

Greenwich Greenwich High School Andrew Bramante

3086 Detection of Premalignant Pancreatic Cancer via Computational Analysis of Serum Proteomic Profiles

Student(s) **Shobhita Sundaram** **Grade 11** **Town** Greenwich

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque, Trip to compete at Intel ISEF
- * People's United Bank Mathematics Awards - with ATOMIC --- 1st Place High School- \$150 from ATOMIC, Plaque, \$500 from People's United Bank
- * Xerox Computer Science Awards --- 2nd Place High School - \$300, Plaque, Medallion
- * 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
- * American Meteorological Society --- Certificate & \$25 Amazon gift card given by CSEF
- * Intel Excellence in Computer Science Award --- \$200 & certificate
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Computer Science

Greenwich Greenwich High School Mr. Andrew Bramante

6033 A Novel N-Doped Carbon Nanotube/Copper Electrode for the Reduction of CO₂ to Biofuel

Student(s) **Michelle Woo** **Grade 11** **Town** Riverside

- * Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque,
- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering Senior High - CSF Medallion
- * The Connecticut Technology Council Young Woman Innovation Award --- \$150 Cash Award for Technological Innovation
- * GENIUS Olympiad --- GENIUS Olympiad Competition for 2nd Place HS Alternative/Renewable Energy Project

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

Greenwich Greenwich High School Andrew Bramante

6015 Development of a CNT/ZnO/TiO₂ membrane for visible-light induced photocatalytic filtration of water-borne organic and bacterial pollutants

Student(s) Michelle Xiong **Grade** 11 **Town** Riverside

- * Pepsico Physical Sciences Awards --- 5th Place- Physical Sciences Senior High Individual - Plaque
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering Senior High - CSF Medallion
- * Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- Trip to compete at Intel ISEF, \$1000 & plaque,
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate given by ONR
- * Stockholm Junior Water Prize --- Certificate, \$25 gift card to Amazon given by CSEF, possible advance to further competition
- * Society of Women Engineers - Hartford Section --- Scientific Calculator
- * Coherent, Inc. Richard Hart Award for Excellence in Photonics --- \$300 cash, plaque, invitation to lunch and tour Coherent factory

Greenwich Greenwich High School Mr. Andy Bramante

3060 Cost-Effective, Portable Paper-Based Diagnosis of Alzheimer's Disease: Targeting A β Oligomers Using Curcumin-PLGA-Ceria Nanoconjugates as Artificial Biomarkers

Student(s) William Yin **Grade** 12 **Town** Riverside

- * UTC Aerospace Systems Awards for Excellence in Engineering --- 5th Place- Engineering Senior High- \$100 & plaque
- * Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- \$100 & plaque

Groton Sacred Heart School Larry Fitzgerald

5022 Strength of Electromagnets

Student(s) Samuel Hammond **Grade** 7 **Town** New London

- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering 7th grade - CSF Medallion

Groton Sacred Heart School Larry Fitzgerald, Principal

5536 INDUCED LEVITATION AND MOVEMENT APPLYING LENZ'S LAW

Student(s) Michael Luzzio **Grade** 8 **Town** Groton

- * UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering 8th grade - CSF Medallion
- * IEEE, Connecticut Section --- \$100 Honorable Mention
- * Barker Mohandas Awards for Transportation Research --- \$100 Cash & Plaque for Excellence in Transportation Related Research- Middle School
- * Bob Harris Fix It Award --- \$75 and Certificate for ingenuity in using material and tools

Hamden Hamden High School Sophia Michalatos

3149 Permanent Inactivation of the HIV Provirus via CRISPR Gene-Editing

Student(s) Aakshi Agarwal **Grade** 12 **Town** Hamden

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 3rd Place High School - \$ 300 and Plaque, Medallion

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

Hamden Hamden Middle School Michelle DeLucia

5545 Constructing a CoreXY Dual Extrusion Fused Filament Fabrication Apparatus

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

- * Pepsico Physical Sciences Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 5th Place Middle School - Trophy, Medallion
- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 2nd Place- Engineering 8th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate
- * IEEE, Connecticut Section --- \$100 Honorable Mention

Hamden Sacred Heart Academy Elizabeth Christophy

6067 Computer-Aided Bleeding Detection in Wireless Capsule Endoscopy Images Using Deep Convolutional Neural Networks

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

- * Pepsico Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque, trip to compete at Intel ISEF
- * People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion
- * Xerox Computer Science Awards --- 3rd Place High School- \$200, Plaque, Medallion
- * Intel Excellence in Computer Science Award --- \$200 & certificate
- * Maplesoft Awards for Applied Mathematics and Modeling --- Maple software - For Excellence in Mathematics

Hartford Environmental Sciences Magnet School at Mary Rebecca Pearson Hays

2020 pH Filtered Mussels

Student(s) **Nathan Hockley** **Grade 7** **Town** Burlington

- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Middle School Finalist - Medallion

Hartford Environmental Sciences Magnet School at Mary Rebecca Hays

2534 The Effects of Food on Breeding Xiphophorus Helleirii

Student(s) **Natalie Reeves** **Grade 8** **Town** Southington

- * Pfizer Life Sciences Awards --- 5th Place- Life Sciences 8th grade- trophy
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 4th Place Middle School - Trophy, Medallion
- * Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum

Hartford Environmental Sciences Magnet School at Mary Kirsten Devlin

2501 Hydroponics: Floating or Flowing?

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

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

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

Hartford Sport and Medical Sciences Academy Christine Demusz

5508 Natural Plastic: Milk Plastic Biodegradation vs. Commercial Plastic Degradation

Student(s) **Madison Lee** **Grade 8** **Town** Rocky Hill

- * Pepsico Physical Sciences Awards --- 5th Place- Physical Sciences 8th Grade Ind. - trophy
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 1st Place Middle School - \$300 and Trophy, Medallion
- * Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 1st Place- Engineering 8th grade- \$500 & trophy and Invitation Compete in Broadcom MASTERS
- * 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 --- 2nd Place- Biotechnology 8th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- * Air and Waste Management Association, Connecticut Chapter --- \$100 Junior, Environmental Research, waste recycling related
- * Urban School Challenge 1st Place Middle School Awards --- Highest Placing 8th grader- GENIUS-Olympiad Competition -\$500 travel stipend
- * GENIUS Olympiad --- GENIUS Olympiad Competition for Highest Placing USC 8th grade Project

Hebron Oei Homeschool Ellen McHugh

5537 Developing a Prototype Atmospheric Water Generator System as a Clean, Safe and Sustainable Water Source

Student(s) **John Oei** **Grade 8** **Town** Hebron

- * Pepsico Physical Sciences Awards --- 1st Place- Physical Sciences 8th Grade Ind.- \$300 & trophy, invite to compete Broadcom MASTERS
- * Barnes Aerospace Applied Technology Awards --- 3rd Place Middle School - \$100 and Trophy, Medallion
- * Sustainable Resources and Practices Awards --- 2nd Place Middle School - \$300 Cash and Trophy
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * NASA EARTH System Science Award --- Certificate and \$25 gift card given by CSEF
- * Ct Architecture Foundation Award Name: The William M. Mack, AIA Award --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- * Society of Women Engineers - Hartford Section --- Scientific Calculator

Lakeville The Hotchkiss School Richard Kyung

6030 A New Fast Algorithm for Finding Eigenvalues in Vibrating Structures

Student(s) **Seouk Jun Kim** **Grade 11** **Town** Lakeville

- * People's United Bank Mathematics Awards - with ATOMIC --- 3rd Place High School - Plaque, \$200 from People's United Bank
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * Maplesoft Awards for Applied Mathematics and Modeling --- Maple software - For Excellence in Mathematics

Meriden ACES Thomas Edison Middle School Todd Solli

4014 Fats In Cooking Oils

Student(s) **Ariana Alston** **Grade 7** **Town** Meriden

Selena Galvan **Grade 7** **Town** Meriden

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- * Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner

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

Meriden ACES Thomas Edison Middle School Todd Solli

5554 The Relationship Between Aerodynamic Shape and Wind Drag

Student(s) **Kaya Cook** **Grade 8** **Town** Middletown

- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Middle School Finalist - Medallion
- * Constellation, an Exelon Company --- 2nd: \$50.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy
- * Connecticut College-Physics, Astronomy, & Geophysics Dept. --- \$150 and certificate, Junior Physics & teeshirt

Meriden ACES Thomas Edison Middle School Todd Solli

4011 To Sensor or Not to Sensor.

Student(s) **Madison Ehmka** **Grade 8** **Town** Meriden
Chloe DiChello **Grade 8** **Town** Meriden

- * Pepsico Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion

Meriden ACES Thomas Edison Middle School Todd Solli

1014 Extracting DNA from fruit

Student(s) **Brianna Oliveras** **Grade 8** **Town** Meriden
Mikaela Mitchell **Grade 8** **Town** Meriden

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion

Meriden St. Joseph School Timothy Coleman

5036 What kind of water is the purest?

Student(s) **Ryan Killeen** **Grade 7** **Town** Meriden

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion

Milford Platt Technical High School Mrs. Hart

6522 Project W- Domestic water recovery system

Student(s) **Christian Haupt** **Grade 10** **Town** West Haven
Christian Ramos **Grade 10** **Town** Stratford

- * Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Sustainability

Monroe St. Jude School Mrs. Shea

5518 Magnetic Power

Student(s) **Francesco Thomas** **Grade 8** **Town** Monroe

- * Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion

New Britain Goodwin Technical High School Steve Donaghy

6528 Solar powered survival Jacket with a organic type battery back up. to recharge or power a cell phone or LED lights.

Student(s) **Daniel Garcia** **Grade 10** **Town** New Britain
Juan Ospina **Grade 10** **Town** New Britain
Daneirys Rivera **Grade 10** **Town** Bristol

- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

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

New Canaan St. Aloysius School deborah phillips

4027 Mars Exploration

Student(s) **Kaloyan Dimitrov** **Grade 7** **Town** Norwalk
Andrew Tully **Grade 7** **Town** Norwalk
Alex Lanzillotti **Grade 7** **Town** Stamford

- * Pepsico Physical Sciences Awards --- 1st Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 3rd Place- Engineering 7th grade- \$100 & trophy and Invitation Compete in Broadcom MASTERS
- * ISA - International Society for Automation - Ct. Valley Section --- 1st - \$125 award

New Haven Bruder Homeschool John Bruder

6051 Design, build, and code a cellular/WiFi enabled smart thermostat using a microcontroller and a custom Android app to increase energy efficiency for homes and workplaces.

Student(s) **Ben Bruder** **Grade 10** **Town** New Haven

- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * Zepke Award --- \$200 - For the Best Use of Electronic Circuitry
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Electrical

New Haven Engineering Science University Magnet School Roger Rushworth

6097 Developing a Novel Energy Harvesting Device using Paint-on Fabrication Techniques with Mosz and use of Discardable Materials

Student(s) **Arya Bairat** **Grade 9** **Town** Milford

- * Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion
- * ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2018 Sustainability Solutions Festival and \$25 Gift Card
- * IEEE, Connecticut Section --- \$250 Honors Award -Senior

New Haven Engineering Science University Magnet School Roger Rushworth

2510 How do Different Types of Street Lights Impact Our Environment and What is the Safest Way to Illuminate Our Streets?

Student(s) **Eva Heaphy** **Grade 8** **Town** New Haven

- * Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion
- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF
- * Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum
- * Environmental/ Energy Award- Urban Public School Award --- \$100 Award for top environmental or alternative energy project from a New Haven public school

New Haven Engineering Science University Magnet School Roger Rushworth

3533 A Novel Approach Using Biochar in Sand Reactors to Accelerate Biodegradation of Naphthenic Acids in the Process of Bitumen Extraction via Oil Sands

Student(s) **Sumanth Kondapalli** **Grade 10** **Town** Milford
Tirth Patel **Grade 11** **Town** New Haven

- * Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High Team- \$300 (split) & Plaque
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Senior High Finalist - Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

[SchTown]	[School]	[Teacher]	[Proj#]	[Project Title]	Student(s)	Grade	Town
New Haven	Engineering Science University Magnet School	Heather Toothaker	6005	A Novel Rapid Diagnostic Test for Zika Virus NS1 Protein using Nanoribbon Microfluidics	Lauren Low	Grade 12	Town Hamden
<ul style="list-style-type: none"> * Pepsico Physical Sciences Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Senior High Finalist - Medallion * Barnes Aerospace Applied Technology Awards --- 1st Place High School - \$500 and Plaque, Medallion * UTC Aerospace Systems Awards for Excellence in Engineering --- 2nd Place- Engineering Senior High- \$500 & plaque * Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$250 cash * IEEE, Connecticut Section --- \$100 Honorable Mention * Arthur Mensing Award --- \$1000 cash award for excellence in the physical sciences 							
New Haven	Engineering Science University Magnet School	Roger Rushworth	3114	A Novel Study on the Membrane Interactions of Bovine Alpha-Lactalbumin and Oleic Acid Complex on Tumor Cells to Induce Lysosomal Cell Apoptosis	Prastik Mohanraj	Grade 10	Town Ansonia
<ul style="list-style-type: none"> * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 5th Place High School - Plaque, Medallion 							
New Haven	Engineering Science University Magnet School	Roger Rushworth	2528	The affect of Roundup on GMO plants versus wild grown plants	Rachna Vipparla	Grade 8	Town Milford
<ul style="list-style-type: none"> * Pfizer Life Sciences Awards --- 4th Place- Life Sciences 8th grade- trophy 							
New Haven	St. Aedan-St. Brendan School	Michael Celentano	2019	Rethink your drink	Aaron Brogdon-Hill	Grade 7	Town New Haven
<ul style="list-style-type: none"> * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion 							
New Haven	Wilbur Cross High School	Charlene Woodland	3013	Formulation of Gelatin-Hyaluronic Acid Blend Cross-Linked Gels for Potential Tissue Applications: Cost-Effective, Patient Specific, Alternative Treatment of Labral Tears of the Hip	Sophie Edelstein	Grade 10	Town New Haven
<ul style="list-style-type: none"> * Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- 4th Place High School - Plaque, Medallion * UTC Aerospace Systems Awards for Excellence in Engineering --- 1st Place- Engineering Senior High- Trip to compete at Intel ISEF, \$500 & plaque, * Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High- \$500 & plaque * Otero Family Award --- The Otero Family Award; \$200 cash * Lunch with a Patent Attorney --- Lunch with a Patent Attorney * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Biochemistry 							
New Haven	Wilbur Cross High School	Prof. Joshua Gendron	3151	A study of circadian genetics and abiotic stress towards sustainable agriculture	Maya Geradi	Grade 11	Town New Haven
<ul style="list-style-type: none"> * Pfizer Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque * CASE Urban School Challenge Awards with Aetna, IBM, & 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 * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Microbiology * Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting 							

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

New Haven Worthington Hooker Middle School Douglas Jones

1009 Seaweed & Tsunamis

Student(s) **Amelia Cox** **Grade 7** **Town** New Haven
Sage Urban **Grade 7** **Town** New Haven

- * Pfizer Life Sciences Awards --- 3rd Place- Life Sciences MS Team- trophy and Invite to Compete Broadcom MASTERS
- * National Oceanic and Atmospheric Administration --- Certificate and medallion, ,and \$25 Amazon gift card given by CSEF
- * J.A. Augustine Award --- \$100 for excellence in biology

New Haven Worthington Hooker Middle School Mr. Jones

2037 Earth, Water, Flora: Reducing Soil Erosion

Student(s) **Alena Gutierrez** **Grade 7** **Town** New Haven

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion

New London Science and Technology Magnet HS Charles Mulligan

6519 The Optimization of a Polycrystalline and Monocrystalline Solar Cell through Effective Cooling in the Form of a Heatsink Transfer System

Student(s) **John Burnett** **Grade 11** **Town** Ledyard
Austin Huang **Grade 11** **Town** Uncasville

- * Energize CT/eemarks Future Sustainability Awards --- High School Finalist - Medallion
- * Constellation, an Exelon Company --- 2nd: \$100.00 Cash - Grade 9 - 12: For Excellence in clean renewable / sustainable energy

New London Science and Technology Magnet HS Charles Mulligan

3081 Effectiveness of American Beach Grass Restoration

Student(s) **Tessa Rock** **Grade 11** **Town** New London

- * Energize CT/eemarks Future Sustainability Awards --- High School Finalist - Medallion
- * The Goodwin-Niering Center for the Environment --- \$100 for "Excellence in Environmental Conservation Studies"
- * Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash
- * Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum

New London Science and Technology Magnet HS Charles Mulligan

6508 Role of Ambient Environmental Chemical Composition in the Creation of Precursors to Life

Student(s) **Thomas Statchen** **Grade 10** **Town** Stonington
Zack Skrabacz **Grade 10** **Town** New London

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion

Newtown St. Rose of Lima School John Dalton

2001 The Effect of Petroleum Products on the Growth of Ramshorn Snails (Planorbis Rebrum)

Student(s) **Gregory Gargano** **Grade 7** **Town** Sandy Hook

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion
- * Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade- trophy
- * Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$25 gift card given by CSEF

Newtown St. Rose of Lima School Mr Dalton

5017 Bisphenol A content in BPA free water bottles, canned food items, children's plastic connectable beads and plastic pen caps

Student(s) **Irena Komninakas** **Grade 7** **Town** Shelton

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion

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

Norwalk Roton Middle School John Skopp

2524 What effect does surface temperature have on fingerprints?

Student(s) Sarah Signore **Grade 8** **Town** Norwalk

- * Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 8th grade- \$200 & trophy and Invite to Compete Broadcom MASTERS
- * Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash

Pawcatuck St. Michael School Mrs. Anna-Helene Grossomanides

2018 Hydroponics - A World Without Dirt

Student(s) Anne Drago **Grade 7** **Town** Pawcatuck

- * Pfizer Life Sciences Awards --- 4th Place- Life Sciences 7th grade- trophy
- * Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade- trophy
- * Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF
- * University of Connecticut - Physics Department --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate

Pawcatuck St. Michael School Mrs. Anna-Helene Grossomanides

2539 Phototropism: In Indoor Germinated Seedlings

Student(s) Mary Malloy **Grade 8** **Town** Mystic

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion

Pawcatuck St. Michael School Mrs. Grossomanides

2023 Is That Granite Radioactive?

Student(s) Samuel Montalto **Grade 7** **Town** Westerly

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion
- * Evelyn Brown Award --- Earth Science - Field work with geologic or historic value

Plantsville J.F. Kennedy Middle School Mrs. Pepin

5040 What quantity of dimples on a golf ball best contributes to flight distance.

Student(s) Ethan Lebo **Grade 7** **Town** Southington

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion

Plantsville J.F. Kennedy Middle School Mrs. Pepin

1017 Oil Effect On Aquatic Plants

Student(s) **Caleigh McDougall** **Grade 8** **Town** Southington
Madison Johnston **Grade 8** **Town** Southington

- * Environmental Sciences Awards with CACIWC --- 3rd Place MS- \$100, Trophy, CACIWC gifts

Redding CT STEM Fair Deborah Day

3061 The Influence of Wildebeest Carcass Inputs on the Diet of Fish in the Mara River

Student(s) Katherine Handler **Grade 12** **Town** Woodbridge

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion
- * Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

Redding CT STEM Fair Andrew Bramante

6013 Optimization of Vertically Aligned Boron Nitride Nanotube Membranes via Magnetic Arrangement in a Lyotropic Precursor for Water Transport Applications

Student(s) Connor Li **Grade 12** **Town** Cos Cob

- * UTC Aerospace Systems Awards for Excellence in Engineering --- 4th Place- Engineering Senior High- \$200 & plaque
- * Connecticut Association of Physics Teachers --- \$100 Senior project

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

Redding Joel Barlow High School Dr. Nuzzo
 3021 The Effect of Different Species of Coprophagous Arthropods on the Reduction of Methane Production from Feces
Student(s) **Daniel Brey** **Grade 11** **Town** Redding

* Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

Redding Joel Barlow High School Dr. Nuzzo
 3518 A Statistical Analysis of the Inflation of Atmospheric CO2 Levels and the Correlation Between Sea Ice Concentration and Aptenodytes Forsteri Breeding Patterns
Student(s) **Ella Gaspar** **Grade 11** **Town** Redding
Taylor Macchia **Grade 11** **Town** Wilton

* Pfizer Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

Redding Joel Barlow High School Dr. Katherine Nuzzo
 6079 Experimentally determining the total lasting albedo effect of aerosol-seeded clouds based on aerosol particle type
Student(s) **Jonathan Lam** **Grade 11** **Town** Easton

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion

Redding Joel Barlow High School Dr. Katherine Nuzzo
 3530 Analysis of the Effects of Selenastrum capricornutum on the pH of Freshwater Marine Environments
Student(s) **Alex Palvinski** **Grade 11** **Town** Redding
Michael Klein Wassink **Grade 11** **Town** Redding

* Pfizer Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

Shelton Shelton High School Mrs. McNamara
 6042 Cheap Heat
Student(s) **Gregorio Corsale** **Grade 12** **Town** Derby

* Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
 * Energize CT/eesmarts Future Sustainability Awards --- 3rd Place High School - \$200 Cash and Plaque

Shelton Shelton High School Dr. Rivera
 6088 The Effect of Center of Mass and Center of Pressure Locations of Model Rocket Performance
Student(s) **Siddharth Jain** **Grade 9** **Town** Shelton

* UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering Senior High - CSF Medallion
 * John S. Kendall Memorial Awards --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering - High School

Shelton Shelton High School Christine McNamara
 6064 An Engineering Approach to Developing Sustainable Technology: Piezoelectric-Powered Shoe Inserts
Student(s) **Lauren Pawlowski** **Grade 11** **Town** Shelton

* Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion

Shelton Shelton High School Dr. Rivera
 6046 Cycling Assisted Brake
Student(s) **Kyle Young** **Grade 9** **Town** Shelton

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
 * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
 * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Mechanical

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

Shelton Shelton Intermediate School Denise Fix

5023 Sneaker Feature

Student(s) Sofia Gasbarro **Grade 7** **Town** Shelton

- * Pepsico Physical Sciences Awards --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
- * Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School, Physical Sciences

Simsbury Westminster School Mr. Tony Griffith

6052 Adaptive Boosting - A Study on Machine Learning

Student(s) Nicholas Wee **Grade 11** **Town** Simsbury

- * Xerox Computer Science Awards --- Senior High Finalist - Medallion

Southington J.A. DePaolo Middle School Ms. Shea

5026 Snap Crackle Pop

Student(s) Morgan Birdsey **Grade 7** **Town** Southington

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * Henderson Award --- Certificate and \$25 Amazon Gift Card given by CSF

Southington Southington Catholic School Pauline Pelczar

5504 Trash to Gas!

Student(s) Victoria Gomez **Grade 8** **Town** Southington

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion

Stamford Bi-Cultural Day School Christopher Graseck 421 Park

1016 How do Brine Shrimp Hatch in different Ph?

Student(s) Ben Cohen **Grade 7** **Town** Westport
Joshua Marcus **Grade 7** **Town** Westport

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences MS Team- \$100 each & trophy and Invite to Compete Broadcom MASTERS

Stamford Bi-Cultural Day School Christopher Graseck

1002 Is "non-toxic" dish detergent safe for the environment?

Student(s) Brandon King **Grade 7** **Town** Stamford
Ori Divon **Grade 7** **Town** Stamford

- * Pfizer Life Sciences Awards --- 2nd Place- Life Sciences MS Team- \$100 each & trophy and Invite Compete Broadcom MASTERS
- * Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash

Stamford Bi-Cultural Day School Christopher Graseck

2025 An Analysis of Nitrogen and Phosphate Fertilizer on Algae Growth

Student(s) Anna Lichtenberg **Grade 7** **Town** Stamford

- * Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- * Project Oceanology --- Junior-Identification guide, t-shirt, 1 week residential summer camp
- * Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash

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

Stratford St. Mark School Ms. Lynn Olins

2005 "Watts" the efficiency of solar cells?

Student(s) **Kaitlyn Szczepanski** **Grade 7** **Town** Stratford

- * Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 5th Place- Engineering 7th grade- trophy
- * U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate

Suffield Suffield High School Mitchell Charkiewicz

6027 A Novel Approach to Measuring Reaction Times in a Simulated Driving Environment

Student(s) **Caitlin Kirschbaum** **Grade 12** **Town** Suffield

- * Barnes Aerospace Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
- * American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project

Suffield Suffield High School Mitchell Charkiewicz

3520 An investigation of Nannochloropsis oculata / Yeast Biofuel Efficiency

Student(s) **Jason Werenski** **Grade 12** **Town** Suffield

Yash Mehta **Grade 12** **Town** Suffield

Tristan Evans **Grade 12** **Town** Suffield

- * Energize CT/eesmarks Future Sustainability Awards --- High School Finalist - Medallion

Trumbull Christian Heritage School Theresa Miller

5555 The fabrication and testing of various fruit juice dye-sensitized solar cells with the addition of preservatives

Student(s) **Rachel Brooks** **Grade 8** **Town** Trumbull

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion
- * Energize CT/eesmarks Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 Cash and Trophy
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * Alexion Biotechnology Awards --- 3rd Place- Biotechnology 8th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS
- * MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, middle school, \$100 cash award
- * Demos R Us Award --- \$150 Cash Award- Clear Execution of Research

Trumbull Christian Heritage School Daniel Cote

6018 The Design and Fabrication of a Zero Carbon Emissions Compressed Air Engine Eliminating Batteries and Other Associated Environmental Impacts

Student(s) **Judah Immanuel** **Grade 11** **Town** Woodbridge

- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion

Trumbull Christian Heritage School Theresa Miller

2533 The Effect of Martian Regolith on Vegetable Germination for Extra Terrestrial Colonization

Student(s) **Amanda Shipman** **Grade 8** **Town** Trumbull

- * Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 8th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- * Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion

Trumbull St. Joseph High School Daniel T. Walsh, PhD

3509 Effect of Popular Acidic Drinks on Human Tooth Enamel and Use of Common Chemical Additives to Reduce Enamel Erosion

Student(s) **Cheng Chang** **Grade 11** **Town** Stratford

Hao Zhang **Grade 12** **Town** Bridgeport

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

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

Trumbull St. Joseph High School Dr. Walsh

6504 Today's Invisible Threats: the Concentration of Radon According to Geological and Geographical Components

Student(s) **Abigail Cloud** **Grade** 10 **Town** Bridgeport
Anna Argulian **Grade** 10 **Town** Stratford

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion

Trumbull Trumbull High School Steffanie Elkins

3089 The Effect of Added External Chemicals on Inhibiting Population Growth of Cyanobacteria Within a Fertilizer-Runoff Environment

Student(s) **Arnav Srivastava** **Grade** 10 **Town** Trumbull

* Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion

Waterford Waterford High School Michael O'Connor

3016 The Use of Copepods as a Mosquito Control System

Student(s) **Sophie Wang** **Grade** 11 **Town** Waterford

- * Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500, Plaque, CACIWC gifts
- * University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - \$6,500 a year for four academic years- (\$26,000 total)
- * Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Life Sciences
- * University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - \$6,500 a year for four academic years- (\$26,000 total)
- * Fox Pest Control Award for Environmental Management --- \$150 Cash for Excellence in Environmental management

West Hartford King Philip Middle School Robert Felekey

5038 Slip Hazard Alarm Robot--H2OhNobot

Student(s) **Theodore Zhang** **Grade** 7 **Town** West Hartford

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 1st Place- Engineering 7th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- * American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- * Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

West Hartford St. Brigid-St. Augustine School Donald Fay

2505 Ecological Refrigerator

Student(s) **Melanie Grajales** **Grade** 8 **Town** West Hartford

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion
- * Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner

West Hartford St. Timothy Middle School Danielle Locke

2022 Green Tea: A Simple Solution for a Bananas Problem?

Student(s) **Grace Flynn** **Grade** 7 **Town** West Hartford

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences 7th grade- \$200 & trophy and Invitation to Compete Broadcom MASTERS
- * Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS
- * Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School Life Sciences

West Hartford St. Timothy Middle School Danielle Locke

2017 Hitting All the Right Notes: Unlocking the Formula to Oscar-Winning Original Songs

Student(s) **Mia Porcello** **Grade** 7 **Town** West Hartford

- * People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place Middle School- \$100 from ATOMIC, and Trophy, \$200 from People's United Bank

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

Wilton Middlebrook Middle School Jessica Garcia

2504 A Novel Method for Oil Spill Cleanup Using Biomass

Student(s) **Anika Bhagavatula** **Grade 8** **Town** Wilton

- * Pfizer Life Sciences Awards --- 1st Place- Life Sciences 8th grade- \$300 & trophy and Invite to Compete Broadcom MASTERS
- * Environmental Sciences Awards with CACIWC --- 1st Place MS - \$300, Trophy, CACIWC gifts
- * Sustainable Resources and Practices Awards --- 1st Place Middle School - \$500 Cash and Trophy
- * Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Life Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
- * Ricoh Americas Corporation --- Certificate, \$25 Amazon gift card given by CSEF
- * National Oceanic and Atmospheric Administration --- Certificate and medallion, and \$25 Amazon gift card given by CSEFF
- * Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6098 Effects of Concentration and Cooling Rate on Microstructural and Macroscopic Properties of Tin-Zinc Binary Alloys

Student(s) **Jay Aindow** **Grade 12** **Town** Tolland

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Senior High Finalist - Medallion
- * ASM Materials Education Foundation --- Certificate & \$25 gift card to Amazon given by CSEF
- * American Society for Metals - Hartford Chapter --- \$100 Check

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6513 The Effect of Adding a Second Polymer to Bombyx mori silk fibroin on the Mechanical Properties and Morphology of The Polymer Blends

Student(s) **Chandni Patel** **Grade 12** **Town** Southington
Janine Albert **Grade 12** **Town** Windsor

- * Pepsico Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque

Windsor Academy of Aerospace and Engineering Dr. Bellinger

6523 Effect of Aerodynamic Leaf Design on Electrical Power Generation via a Network of Vertically Aligned Micro Wind Turbines.

Student(s) **Chris Rinaldi** **Grade 10** **Town** Enfield
Vishakh Talanki **Grade 10** **Town** south windsor
Jean Pasato **Grade 10** **Town** Middletown

- * Pepsico Physical Sciences Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- * People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion
- * CASE Urban School Challenge Awards with Aetna, IBM, & Travelers --- Senior High Finalist - Medallion
- * Energize CT/eesmart Alternative/Renewable Energy Awards --- High School Finalist - Medallion

Windsor Greater Hartford Academy of Math and Science Dr.Lili Aramli

3507 The Investigation of the Effectiveness of Triclocarban as an Antibacterial Agent

Student(s) **Alexa Wilson** **Grade 11** **Town** Rocky Hill
Arshad Bhura **Grade 11** **Town** Rocky Hill
Malavika Madan **Grade 11** **Town** South Windsor

- * Pfizer Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion

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

Windsor Madina Academy Saqib Chariwala

6516 Converting Grass into Cellulosic Ethanol to Generate Energy as a Heating System

Student(s) **Radeyah Ahmed** **Grade 10** **Town** Bloomfield
Jareen Choudhury **Grade 11** **Town** Bloomfield

- * Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion
- * Energize CT/eesmarks Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 Cash and Plaque
- * University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Energy & Transportation

Windsor Madina Academy Saqib Chariwala

4013 Light Intensity and Photosynthesis: How different colors of light and their intensities affect photosynthesis?

Student(s) **Sakinah Caesar** **Grade 7** **Town** Simsbury
Sheza Chaudhry **Grade 7** **Town** Windsor Locks

- * Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion
- * Association for Women Geoscientists --- Certificate & \$25 gift card to Amazon given by CSEF

Windsor Madina Academy Saqib Chariwala

6514 Charge Your Devices Using a Portable Thermoelectric Generator Harnessing Wasted Heat Energy

Student(s) **Ayman ElSherbini** **Grade 10** **Town** Windsor
Alina Mohammed **Grade 10** **Town** Windsor

- * Energize CT/eesmarks Future Sustainability Awards --- High School Finalist - Medallion

Windsor Madina Academy Saqib Chariwala

4020 Investigating Novel Methods of Generating Electricity Using a Double Plated Magnetic Generator with Springs Compared to a Miniature Axial Rounded Tip Tidal Stream Generator

Student(s) **AlYaman Zoghol** **Grade 8** **Town** Enfield
Ahmad Mohammed **Grade 8** **Town** Windsor

- * Pepsico Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion
- * Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion
- * UTC Aerospace Systems Awards for Excellence in Engineering --- 5th Place- Engineering 8th grade- trophy
- * United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, and Annual Report
- * Constellation, an Exelon Company --- 1st: \$100.00 Cash - Grade 7 - 8: For Excellence in clean renewable / sustainable energy

Windsor St. Gabriel School Meg Rosa

2529 Conventional v. Organic Fruit

Student(s) **Jeremy Blackwood** **Grade 8** **Town** Windsor

- * Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion

Woodbridge Amity Regional High School Deborah Day

6049 Improving the Outbrain Click Prediction Algorithm

Student(s) **Jimmy Bi** **Grade 12** **Town** Woodbridge

- * Xerox Computer Science Awards --- Senior High Finalist - Medallion

Woodbridge Amity Regional High School Deborah Day

6093 Designing a Protective Cap To Reduce Impact Force and Head Trauma

Student(s) **Quinnlan Burke** **Grade 11** **Town** Woodbridge

- * Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion
- * American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project

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

Woodbridge Amity Regional High School Deborah Day

3006 Dissecting the role of Desmosterol in regulating macrophage immune activation during atherogenesis

Student(s) **Agrani Dixit** **Grade** 11 **Town** Woodbridge

* Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion

Woodbridge Amity Regional High School Deborah Day

6089 Study of Size Separation of Sub-Millimeter Sizes Granular Material Using Vibro-Fluidization

Student(s) **Jethin Gowda** **Grade** 12 **Town** Orange

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion

* UTC Aerospace Systems Awards for Excellence in Engineering --- Finalist - Engineering Senior High - CSF Medallion

Woodbridge Amity Regional High School Deborah Day

6510 Analysis and Proving of "Cycloid" Universe Using Friedmann Equations and Torsion Cosmology

Student(s) **Kelsey McCormack** **Grade** 12 **Town** Orange

Himay Dharani **Grade** 12 **Town** Orange

* People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion

* American Meteorological Society --- Certificate & \$25 Amazon gift card given by CSEF

Woodbridge Ezra Academy Rebecca Tishkoff

5523 Tracking the movements of a human being.

Student(s) **Ethan Lavi** **Grade** 8 **Town** Woodbridge

* Pepsico Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion

* Jon Stone Memorial Award --- \$150 cash for Innovative Engineering