



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:
- School Town
- School
- Last Name

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

Avon Avon High School Galuska

6025 Program your Diet

Student(s) Nivedha Natchiappan **Grade** 10 **Town** Avon

- Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award

Avon Talcott Mountain Academy Alyson Tockstein

5522 Thermodynamics of the Stirling Cycle: Testing the Effects of the Relative Temperature Difference on Stirling Engine Output

Student(s) Varun Aggarwal **Grade** 8 **Town** South Glastonbury

- Xerox Computer Science Awards --- 3rd Place Middle School- \$100, Trophy, Medallion

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

Avon Talcott Mountain Academy Ms. Tockstien

2537 The Antimicrobial Properties of Papaya

Student(s) Zachary Waskowicz **Grade** 8 **Town** Southington

- Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award Souvenir
- Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner

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

Bethany Amity Reg Middle School, Bethany Campus Kevin Berean

4029 Incorporating the Flutter Effect in Flags to Produce Energy

Student(s) Thomas Livesay **Grade** 8 **Town** Woodbridge

Felix Liu **Grade** 8 **Town** Woodbridge

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 Cash and Trophy

Bethany Amity Reg Middle School, Bethany Campus Kevin Berean

5504 Green Energy Ferris Wheel

Student(s) Isabel Salazar **Grade** 8 **Town** Woodbridge

- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy

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

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

4033 BabyBot: Creating a Robot to Soothe a Crying Infant

Student(s) **Neha Sudhir** **Grade 8** **Town** Woodbridge
Rosie Du **Grade 8** **Town** New Haven
Allison Fischman **Grade 8** **Town** 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

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

Bethel St. Mary School Mrs. McDonald

5043 A Matter of Facts: Designing a Math App to Help Kids Learn Their Math Facts

Student(s) **Kevin Legnard** **Grade 7** **Town** Bethel

- People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place Middle School- \$100 from ATOMIC, and Trophy, \$200 from People's United Bank
- Xerox Computer Science Awards --- Middle School Finalist - Medallion, Acrylic 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

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

Bozrah Fields Memorial School Mrs. Evelyn Brown

5032 Maximizing the Energy Output of a Wind Turbine

Student(s) **Dravyn Okoney** **Grade 7** **Town** Bozrah

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion, Acrylic Award

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

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

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

Bridgeport Black Rock School Helena Coatsworth

2507 Aqua-Life

Student(s) Benjamin Clark **Grade 8** **Town** Bridgeport

- CASE Urban School Challenge Awards with Travelers --- Middle School Finalist - Medallion and 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

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

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]

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

Bridgeport Bridgeport Regional Aquaculture School Kirk Shadle

6011 Application of the near-IR Luminescence Property of Egyptian Blue and related Alkaline Earth Metal Copper Silicates (ACuSi4O10, ACuSi2O6, ACuSi2O7) in Infrared Technologies

Student(s) **Daniel Munteanu** **Grade 12** **Town** Fairfield

- CASE Urban School Challenge Awards with Travelers --- 3rd Place High School - \$ 300 and Plaque, Medallion

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

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

Bridgeport Fairchild Wheeler Magnet High School Mr. Anthony

6060 Hydrogen Fuel Cells: How Electrode Material Affects Them

Student(s) **Graham Bonnell** **Grade 11** **Town** Southport

- CASE Urban School Challenge Awards with Travelers --- Senior High Finalist - Medallion and acrylic award

Bridgeport High Horizons Magnet School Mrs. Scott-Thiam

5523 Power Wind

Student(s) **Diego Garcia** **Grade 8** **Town** Bridgeport

- CASE Urban School Challenge Awards with Travelers --- Middle School Finalist - Medallion and acrylic award

Bridgeport Multicultural Magnet School Mr. Walter Mayorga

5555 Powerful Propellers

Student(s) **Abigail Cloud** **Grade 8** **Town** Bridgeport

- CASE Urban School Challenge Awards with Travelers --- Middle School Finalist - Medallion and acrylic award
- Society of Women Engineers - Hartford Section --- Scientific Calculator
- John S. Kendall Memorial Award --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering - Middle School

Bridgeport Read School Mr. Tharson

5034 Wood Toughness

Student(s) **Alexia Andrade** **Grade 7** **Town** Bridgeport

- CASE Urban School Challenge Awards with Travelers --- Middle School Finalist - Medallion and acrylic award

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

Bristol St. Paul Catholic High School Mr Alberti

6076 Novel Approches of Making Human to Robot Interaction Possible for the Handicapped.

Student(s) **Kamila Krawczuk** **Grade 9** **Town** New Britain

- Xerox Computer Science Awards --- 2nd Place High School - \$300, Plaque, Medallion
- Intel Excellence in Computer Science Award --- \$200 & certificate
- Leask/Francoeur Family Awards --- Award for excellence and innovation in electrical engineering or computer science - \$200 cash

Cheshire Cheshire High School Casey King

3072 Development of a Prescient Warning Model for Cholera Utilizing an Epdemiological 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

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

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

Danbury St. Gregory the Great School Mrs. Christine Fahey

1004 Vitamin H2Grow

Student(s) **Kieran Doolabh** **Grade 7** **Town** Danbury
Hunter Swaylik **Grade 7** **Town** Woodbury
Brendan Walsh **Grade 7** **Town** Danbury

- Alexion Biotechnology Awards --- Finalist - Biotechnology 7h 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

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

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

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

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 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

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 Westside Middle School Academy Jonathan Neuhausel

5037 Using Different Plant Xylem to Filter Phosphates

Student(s) **Anjeli Joseph** **Grade 7** **Town** Danbury

- Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award Souvenir

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

Danbury Westside Middle School Academy Mr. Neuhausel

5033 Changing the pH of Soil to Generate Electricity in the Form of a Microbial Fuel Cell

Student(s) **Nila Narayan** **Grade 7** **Town** Danbury

- CASE Urban School Challenge Awards with Travelers --- Middle School Finalist - Medallion and acrylic award
- Environmental Sciences Awards with CACIWC --- 1st Place MS - \$300, Trophy, CACIWC gifts

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

Fairfield Fairfield College Preparatory School Mrs. Kiel

6029 Creating An Algorithm Based Off of The Quantum Turing Machine To Predict The Efficiency of Quantum Computational Operating Methods Using Benchmarked Simulated Environments

Student(s) Junlin Mo **Grade** 10 **Town** Bridgeport

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

Glastonbury Glastonbury High School Ms. Pintavalle

6027 Financially Superior Energy Source for Subterranean Inhabitants

Student(s) Ashley Gartland **Grade** 11 **Town** Glastonbury

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2016 Sustainability Solutions Festival and \$50 Gift Card
- Connecticut Architecture Foundation --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.

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

Glastonbury Glastonbury High School Diane Pintavalle

3054 Preparation and Comparison of EGCG-Loaded PLGA and Cellulose Acetate Microparticles for Osteoarthritis Treatment

Student(s) Anubhuti Mathur **Grade** 12 **Town** Glastonbury

- Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High- \$500 & plaque
- Biophysical Society --- Biophysics Award- \$100

Glastonbury Glastonbury High School Ms. Pintavalle

6073 Chef NAO: The Humanoid Cooking Robot

Student(s) Kiele Sacco **Grade** 12 **Town** Glastonbury

- Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award

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

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

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

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

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

Greens Farms Greens Farms Academy Sara Campoletano

2509 The Effects of Honey on the Healing and Regeneration of Lumbriculus variegatus

Student(s) Lila Wells **Grade** 8 **Town** Darien

- Alexion Biotechnology Awards --- 3rd Place- Biotechnology 8th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS

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

Greenwich Brunswick School Dana Montanez

6051 Revolutionizing A 16th Century Product For The Modern World: A Thermoelectric Chair That Creates Energy From The Human Touch

Student(s) Angus Fraser **Grade** 11 **Town** Darien

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 1st Place High School - \$500 Cash and Plaque, Trip to Compete I-SWEEEP, Houston
- Energize CT/eesmarts Future Sustainability Awards --- 3rd Place High School - \$300 Cash and Trophy
- Yale Science & Engineering Association, Inc. --- Certificate, \$50 gift card to Amazon given by CSEF
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Energy & Transportation

Greenwich Brunswick School Dana Montanez

6023 A Comparative Analysis of Rotating Solar Cubes vs. Horizontal Solar Arrays

Student(s) William Gorman **Grade** 10 **Town** Bedford

- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- U.S. Coast Guard Research and Development Center --- Summer internship to conduct research aboard ship or at a USCG base + \$50 Amazon Gift Card given by CSEF. ALTERNATE 2

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

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

Greenwich Brunswick School Dana Montañez

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

Student(s) **Jamie MacFarlane** **Grade** 11 **Town** Greenwich

Nick VanBelle **Grade** 11 **Town** Stamford

Eric Ganshaw **Grade** 11 **Town** Greenwich

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

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

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

Greenwich Brunswick School Mrs. Montanez

6080 A Water-Resistant, Piezoelectric Precipitation Generator; A comparative analysis of mobile v. stationary systems

Student(s) **David Ruf** **Grade** 12 **Town** Greenwich

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

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

Greenwich Convent of the Sacred Heart Mary Musolino

3068 A Study of the Removal of Pollutants by Rain Gardens, a Type of Low-Impact Development Drainage System

Student(s) **Sarah Banker** **Grade** 12 **Town** Greenwich

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

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

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 Greenwich High School Andrew Bramante

6095 Novel Creation of a versatile, low-cost water purification system via a graphene oxide-TiO2 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-SWEEP, 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

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

Greenwich Greenwich High School Mr. Andrew Bramante

3009 Novel Ultrasonic-Induced Antibiotic Deterioration of Borrelia Biofilms for the Treatment of Chronic Lyme Disease

Student(s) Sophia Ertel **Grade** 12 **Town** Old Greenwich

- Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- \$200 & plaque
- Connecticut Science Supervisors Association --- \$125 for a high school project
- The Connecticut Technology Council Young Woman Innovation Award --- \$150 Cash Award for Technological Innovation

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"

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

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 Greenwich High School Andrew Bramante

3049 Targeted Release of Moringa oleifera Cationic Proteins from Starch-g-poly (sodium acrylate-co-HEMA) Hydrogels for the Remediation of Aqueous Polychlorinated Biphenyls

Student(s) Vijay Kadiyala **Grade** 11 **Town** Old Greenwich

- Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award Souvenir
- ASU Walton Sustainability Solutions Initiatives --- Certificate-Nomination to Compete in 2016 Sustainability Solutions Festival and \$50 Gift Card

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 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

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

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

Greenwich Greenwich High School Andrew Bramante

6026 Investigation of a Bacteriorhodopsin-Pt/TiO₂ Hybrid System for Enhanced Nanophotocatalytic Production of Hydrogen

Student(s) Mark Stich **Grade** 11 **Town** Greenwich

- Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- Yale Science & Engineering Association, Inc. --- Certificate, \$50 gift card to Amazon given by CSEF

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

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

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

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

Hamden Hamden Middle School Danny Martins

2527 Viral Protein 35 Inhibition: A Novel Treatment for Ebola Virus Disease

Student(s) Akshar Agarwal **Grade** 8 **Town** Hamden

- Alexion Biotechnology Awards --- 2nd Place- Biotechnology 8th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS

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

Hamden Sacred Heart Academy Mrs. Pamela Brownell

3090 Analyzing Cathode Placement in a Simple Single Vessel Microbial Fuel Cell: Potential Implications for Efficiency and Practical Applications

Student(s) Elizabeth LoPreiato **Grade** 10 **Town** New Britain

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

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

Hamden Sacred Heart Academy Mrs. Nelson

3055 The Effects of Grey Water on the Germination Rate and Growth of a Variety of Grass Species.

Student(s) Laura Mocchiola **Grade** 9 **Town** Shelton

- Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque, CACIWC gifts, Trip to Compete GENIUS Olympiad, Oswego, NY
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Life Sciences
- Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting

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

Hartford Greater Hartford Academy of Math & Science Dr. Aramli

3039 Zeolite Zaps Cancer Cells

Student(s) Jacqueline Klepinger **Grade** 11 **Town** Wethersfield

- CASE Urban School Challenge Awards with Travelers --- Senior High Finalist - Medallion and acrylic award
- Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$500 cash
- University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - \$5000 a year for each of four academic years- \$20,000 total

Hartford Greater Hartford Academy of Math & Science Dr. Lili Aramli

3077 Exploration into the Effects of Anti-PAR2 Antibody on the Expression of CUX-1 Related Metabolic Pathways and Apoptosis of Mouse Breast Cancer Cells

Student(s) Leon Novak **Grade** 11 **Town** Rocky Hill

- CASE Urban School Challenge Awards with Travelers --- Senior High Finalist - Medallion and acrylic award
- Society for In Vitro Biology --- Certificate and \$50 gift card to Amazon given by CSEF

Hartford Greater Hartford Academy of Math & Science Dr. Aramli

3128 The Effects of Pollution On the Regenerative Process of the Nematostella Organism

Student(s) Bryan Tassavor **Grade** 11 **Town** Rocky Hill

- CASE Urban School Challenge Awards with Travelers --- Senior High Finalist - Medallion and acrylic award
- Quinnipiac University Scholarships --- \$20,000, 4 year scholarship (\$5000 per year) to Quinnipiac University for HS Student & \$500 cash

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"

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

Hebron RHAM High School Kristin Spinelli

3515 Manure to Methane

Student(s) Taylor Bryssel **Grade 9** **Town** Marlborough
Darren Lin **Grade 9** **Town** Marlborough

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 Cash and Plaque
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- NYUC Pony Club Equine Award --- \$50 Cash Award or excellence in equine studies

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

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

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

Manchester St. Bridget School Mrs. Kim Maysonet

5014 Can The Weight of a Car be Accurately Weighed by Using an Air Pressure Gauge and a Ruler?

Student(s) Ashleigh Purcell **Grade 7** **Town** Manchester

- People's United Bank Mathematics Awards - with ATOMIC --- Middle School Finalist - Medallion & Acrylic Award

New Haven Betsy Ross Arts Magnet School Laggis

2508 Hand Hygiene Effectiveness in Reducing the Number of Bacterial Colonies.

Student(s) Aimee Turcotte **Grade 8** **Town** Milford

- Alexion Biotechnology Awards --- 4th Place- Biotechnology 8th grade- trophy and Invitation Compete in Broadcom MASTERS

New Haven Engineering & Science University Magnet School Roger Rushworth

2535 Optimizing Methane Oxidation by Methanotrophs Through the Engineering Application of Different Environments

Student(s) Jacob Feuerstein **Grade 8** **Town** Woodbridge

- Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
- Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award Souvenir
- Air and Waste Management Association, Connecticut Chapter --- \$100 Junior, Environmental Research, waste recycling related

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

New Haven Engineering & Science University Magnet School Mr. Roger L. Rushworth
 2521 Electric Energy Production In A Bio-fuel Cell For Varying Electrogenic Microbial Samples

Student(s) Sumanth Kondapalli **Grade 8** **Town** Milford

- CASE Urban School Challenge Awards with Travelers --- 2nd Place Middle School - \$200 and Trophy, Medallion
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- Alexion Biotechnology Awards --- 1st Place- Biotechnology 8th grade- \$500 & trophy and Invitation Compete in Broadcom MASTERS
- Environmental/Energy Award-Urban Public School Award --- For the highest scoring environmental protection or alternate energy project by a New Haven Public School student.

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

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

New Haven Worthington Hooker Middle School Douglas Jones
 2001 The Effects of Wi-fi on Plant Growth

Student(s) Michael Bencivengo **Grade 7** **Town** New Haven

- Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade- 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

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

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

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

Newtown St. Rose of Lima School Mardi Dimon

5224 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

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

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

Orange Southern CT Hebrew Academy Karen Howell

5512 Design, build and program a robot using an Arduino Mega 2560 R3 through an Android app to cheer up or relax children at a hospital

Student(s) Ben Bruder **Grade 8** **Town** New Haven

- Barnes Aerospace Applied Technology Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
- Xerox Computer Science Awards --- 2nd Place Middle School - \$200, Trophy and Medallion
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering

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

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

Student(s) Batya Koenigsberg **Grade 8** **Town** New Haven

Breindel Piekarski **Grade 8** **Town** Hamden

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

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

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

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

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

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

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"

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

Plantsville J.F. Kennedy Middle School Pamela Pepin

1020 Got White?-Which toothpaste will whiten the best on stained limestone tiles?

Student(s) **Tara Brock** **Grade 7** **Town** Southington
Hannah Sousa **Grade 7** **Town** Southington

- Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade- trophy

Plantsville 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

Student(s) **Matthew Maciejewski** **Grade 7** **Town** Plantsville

- 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

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

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

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

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

Putnam Putnam Science Academy Serdar Haytiyev

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

Student(s)	Enes Cicek	Grade 11	Town Putnam
	Murat Acar	Grade 10	Town Putnam
	Amir Edris	Grade 10	Town 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

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

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

Student(s)	Omer Tekin	Grade 12	Town Putnam
	Abidin Emhan	Grade 12	Town Putnam
	Taha Cangoz	Grade 12	Town 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

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

Student(s)	Abdulkadir Yilmaz	Grade 11	Town Putnam
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- 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"

Redding Joel Barlow High School Dr. Katherine Nuzzo

6046 Sequestration of Carbon Dioxide by Lithium Orthosilicate in a Clay Body in Ambient Air

Student(s)	Lia Bozzone	Grade 11	Town West Redding
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- Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award

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

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

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 Puszta** **Grade** 11 **Town** Easton

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

Redding Joel Barlow High School Dr. Katherine Nuzzo

6059 A Statistical Analysis on the Effects of Volcanic Sulfate Emissions on Precipitation Patterns as Analogue for Geoengineering

Student(s) **Megan Siedman** **Grade** 11 **Town** Redding

- People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place High School- \$100 from ATOMIC, Plaque, \$300 from People's United Bank
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate

Redding SCSEF - Old Saybrook Senior High School Kellie Sutliff-Brady

3075 Elevated Levels Of Interleukin-8 in Non-Small Cell Lung Cancers induce Cell Survival During Chemotherapy

Student(s) **Andrew Pan** **Grade** 12 **Town** Old Saybrook

- 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 Cell and Molecular Biology

Ridgefield Ridgefield High School Michael Yagid

6086 Maximization of the Profit of a Large, Prestigious University in the Presence of a State University

Student(s) **Adam Davidovich** **Grade** 12 **Town** Ridgefield

- People's United Bank Mathematics Awards - with ATOMIC --- 1st Place High School- \$150 from ATOMIC, Plaque, \$500 from People's United Bank
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Mathematics

Ridgefield Ridgefield High School Patrick Hughes

6047 The Effect of Different Checkerboard Sizes on Steady State Visually Evoked Potentials

Student(s) **Randy Deng** **Grade** 12 **Town** Ridgefield

- Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award
- Connecticut Association of Physics Teachers --- \$100 Senior project
- IEEE, Connecticut Section --- \$100 Honorable Mention

Salisbury Salisbury School Tobias Ayer

6014 The physics of the space elevator construction.

Student(s) **Kyungmin Lee** **Grade** 11 **Town** Salisbury

- People's United Bank Mathematics Awards - with ATOMIC --- 3rd Place High School - Plaque, \$200 from People's United Bank
- Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award
- Barker Mohandas Award for Transportation Research --- \$200 Cash & Plaque for Excellence in Transportation Related Research- High School

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

Shelton Shelton Intermediate School Mrs. Genova

5058 The Voltage Changes from Different Wavelength Radiations on a Solar Panel

Student(s) Siddharth Jain **Grade 7** **Town** Shelton

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

Stamford Bi-Cultural Day School Mr. Chris Graseck

1014 To Hatch or Not to Hatch: Brine Shrimp & Pollution

Student(s) Gabriel Dweck **Grade 7** **Town** Armonk

Andrew Ukhanov **Grade 7** **Town** Stamford

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

Stamford Bi-Cultural Day School Chris Graseck

1017 The Impact of Acidic Water on Germinating Mung Beans.

Student(s) Jordana Raich **Grade 7** **Town** Stamford

Tilly Chamberlain **Grade 7** **Town** Stamford

- Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award Souvenir

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

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

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

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

Suffield Suffield High School Mr. Mitchell Charkiewicz

6075 Energy Transfer Using Laser Power Beaming

Student(s) Joseph Howarth **Grade** 11 **Town** Suffield

- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque, Trip to Compete GENIUS Olympiad, Oswego, NY
- Coherent, Inc. Richard Hart Award for Excellence in Photonics --- \$300 cash, plaque, invitation to lunch and tour Coherent factory

Suffield Suffield High School Mitchell Charkiewicz

6081 Reverse Osmosis Water Desalination Via the Harnessing of Perpetual Wave Energy

Student(s) Matthew Rogers **Grade** 11 **Town** Suffield

- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition
- Wisner Award --- \$250 cash and plaque
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Sustainability
- John S. Kendall Memorial Award --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering - High School
- U.S. Coast Guard Research and Development Center --- Summer internship to conduct research aboard ship or at a USCG base + \$50 Amazon Gift Card given by CSEF. ALTERNATE 1

Tolland Stonewall Academy Don Peck

6018 A Novel Approach to Increase the Power Efficiency of a Wind Turbine with a Shroud and Diffuser Design

Student(s) Amelia Peck **Grade** 10 **Town** Tolland

- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award

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

Trumbull Christian Heritage School Mrs. Oshin

5513 HOW TO INSULATE YOUR HOUSE AND REDUCE YOUR FUEL BILLS

Student(s) Garrett Kalker **Grade** 8 **Town** Monroe

- Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF

Trumbull Christian Heritage School Daniel Cote

6094 The refinement and production of bio-diesel derived from laboratory grown nannochloropsis algae

Student(s) Sarah Mack **Grade** 11 **Town** West Haven

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
- Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Physical Sciences

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

Trumbull Christian Heritage School Mrs Oshin

5549 The Effect of Catapult Arm Length on the Distance the Projectile Travels

Student(s) Nicholas Rosselli **Grade 8** **Town** Trumbull

- People's United Bank Mathematics Awards - with ATOMIC --- Middle School Finalist - Medallion & Acrylic Award

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

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

West Hartford St. Timothy Middle School Ms. Breen

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

Student(s) Benjamin Lee **Grade 7** **Town** West Hartford

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS

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

Westport Staples High School Dr. Nick Morgan

3056 Analysis of Transport of Nitrogen Species through Right-of-way-Bioswales

Student(s) Grant Schwabacher **Grade 12** **Town** Westport

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

Westport Staples High School Dr. Nick Morgan

6091 Smoking Gun in the Milky Way Galaxy: Open Clusters and Dwarf Galaxies

Student(s) Xiaotian Zhang **Grade 11** **Town** Westport

- People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion & Acrylic Award
- Astronomical Society of Greater Hartford --- Senior Project-\$100, subscription to Sky and Telescope magazine and ASGH meeting invitation

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

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

Wilton Middlebrook School Mrs. Debbie Mallozzi

1022 Acid Rain in Wilton, CT

Student(s) Elizabeth Yoon **Grade 8** **Town** Wilton
Anna Yoon **Grade 7** **Town** Wilton

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

Windsor Madina Academy Esslam Hassan

2541 Inexpensive Treatments for Plants Affected from Contaminated Soil by Oil Spills

Student(s) Radeyah Ahmed **Grade 8** **Town** Bloomfield

- Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award Souvenir
- Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School Life Sciences

Windsor Madina Academy Mahmood Mohammed

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

Student(s) Adelisa Cecunjanin **Grade 8** **Town** Windsor
Alina Mohammed **Grade 8** **Town** 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

Windsor Madina Academy Esslam 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

Windsor Madina Academy Mr. Hassan

1005 The effect of organic and non-organic compost produced by vermicomposting with eisenia foetida on the growth of lycopersicon lycopersicum.

Student(s) Ayesha Nazir **Grade 7** **Town** Manchester
Ruqayyah Paine **Grade 7** **Town** Terryville

- Environmental Sciences Awards with CACIWC --- 3rd Place MS- \$100, Trophy, CACIWC gifts
- Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award Souvenir

Windsor St. Gabriel School Margaret Rosa

4028 Does your shirt have your back: A study of clothing features that protect against UV light

Student(s) Alma Clark **Grade 7** **Town** Windsor
Benjamin Clark **Grade 7** **Town** Windsor

- Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award Souvenir

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

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

Woodbridge Amity Regional High School Deborah Day

6084 Determination of Illicit Drug Residues on Currency Using LC-MS/MS

Student(s) **Victoria Liu** **Grade 12** **Town** Bethany

- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award

Woodbridge Amity Regional High School Deborah Day

6082 Creating a Semantic Search Engine with Voice Integration

Student(s) **David Wang** **Grade 11** **Town** Bethany

- Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award
- U.S. Coast Guard Research and Development Center --- Summer internship to conduct research aboard ship or at a USCG base + \$50 Amazon Gift Card given by CSEF.