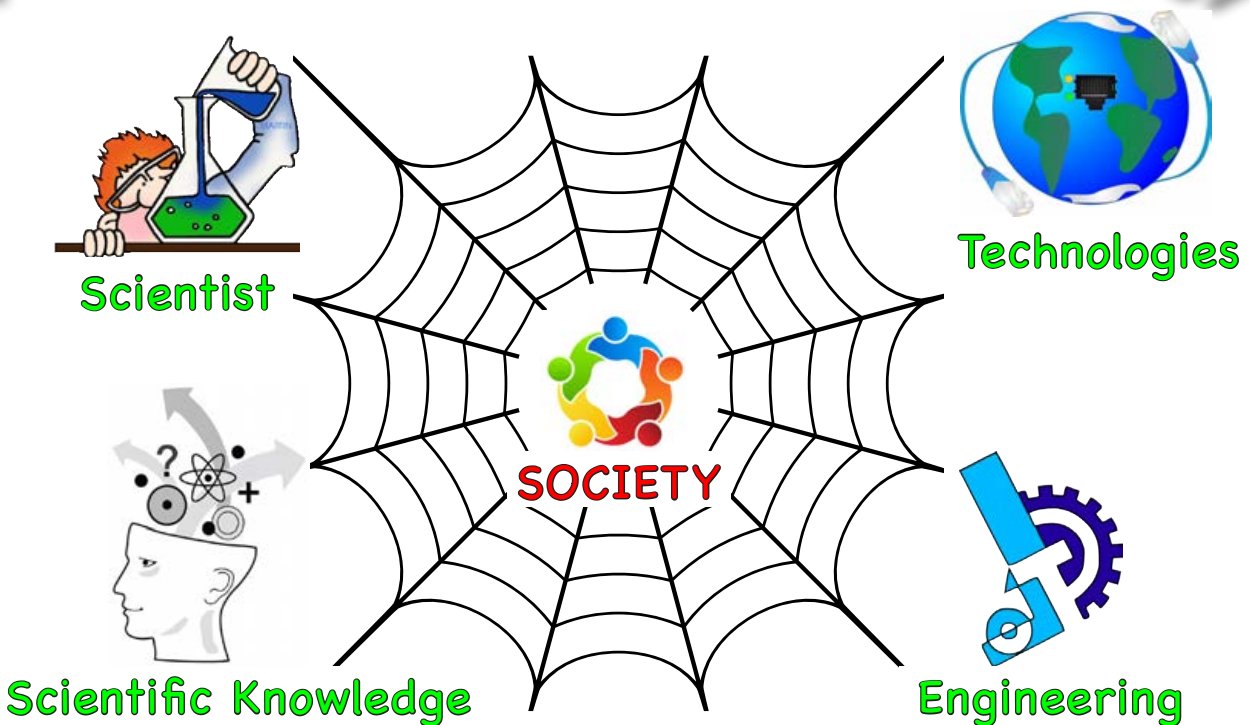




**Connecticut
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Connecticut Science Fair Association

April 2014

66th Connecticut Science & Engineering Fair

TABLE OF CONTENTS

Awards	(1- 62)
Life Sciences	
1000 series - 7th and 8th grade team	3
2000 series - 7th grade	4
2500 series - 8th grade	9
3000 series - 9 thru 12th grade	13
3500 series - 9 thru 12th grade team	27
Physical Sciences	
4000 series - 7th and 8th grade team	29
5000 series - 7th grade	32
5500 series - 8th grade	37
6000 series - 9 thru 12th grade	44
6500 series - 9 thru 12th grade team	56
Summary Tables	
Regular Categories	60
Special Categories	61
Statistics Plus	(63 - 88)
Fair Data	65
Historical Data	67
School Tracking	70
Returning Students	73
Beyond CSF	76
ISEF Competitors	78
I-SWEEEP Competitors	83
GENIUS Competitors	86
Indexes	(89 - 102)
Schools	91
Regional/City Fairs	93
Independent/Homeschooled Students	93
Sponsors	94
Students	96
Next Fair	101

WEB SITES

CSF	http://www.ctsciencefair.org
ISEF	http://www.societyforscience.org/isef
I-SWEEEP	http://www.isweeep.org
GENIUS Olympiad	http://www.geniusolympiad.org

AWARDS

FORMAT KEY

Project No.	Category	Title	Teacher	Regional/City Fair	Town
	Sch/Town	School			
	Student	Hometown	Grade		
	Awards	Honors			
		Sponsor	Sponsor Award		

Life Sciences

- 1001 LT Are Eggshells an Effective Fertilizer?
Windsor, Madina Academy, Teacher - Iman Al-Naggar
Jareen Choudhury, Bloomfield 8 Samar Saeedosman New Britain 8
Awards: Honors = 2
- 1002 LT Antacid Potency
New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones
Carlin Eswarakumar, New Haven 7 Sheila Hutchings New Haven 7
Awards: Honors = 2
- 1004 LT Purification Possibilities
Danbury, St. Gregory the Great School, Teacher - Mrs. Christine Fahey
Kevin McCoy, Danbury 8 Dominick Curra Danbury 8 Devin Trotta Danbury 8
Awards: Honors = 2
• National Oceanic and Atmospheric Administration --- Certificate, lapel pin, and \$50 gift card to Amazon given by CSEF
- 1005 LT Robotic Companions
Bethany, Amity Regional Middle School-Bethany, Teacher - Mr. Berean
Deepak Gupta, Woodbridge 8 Dean Pocwierz Woodbridge 8
Awards: Honors = 3
- 1006 LT Analysis of different wood's resistance and how to prevent or delay the decay with natural sources.
Orange, Southern Connecticut Hebrew Academy, Teacher - Mrs. Howell
Avraham Yaffe, Guilford 8 Yaacov Hecht Norwalk 8
Awards: Honors = 3
• Connecticut Science Supervisors Association --- \$125 for a middle school project
• Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash
• Jon Stone Memorial Award --- \$250 cash for Innovative Engineering
- 1007 LT Extracting DNA from Strawberries.
Enfield, St. Martha School, Teacher - Christina Yester
Amy Mistri, Enfield 7 Melissa Scanlon Enfield 7 Rachel Lagasse Enfield 7
Awards: Honors = 3
- 1008 LT The Effects of De-icers on Grass Growth
Southington, J.A. DePaolo Middle School, Teacher - Mrs. Shea
Evan Bender, Southington 8 Michael Dorsey Southington 8
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 3rd Place- Life Sciences MS Team- trophy and Invite to Compete Broadcom MASTERS
- 1009 LT Plants: CO2 Good For You?
Hamden, Hamden Middle School, Teacher - Mrs. Delucia
Zoe Eklund, Hamden 8 Johanna Angele-Kuehn Hamden 8
Awards: Honors = 2

AWARDS

- 1010 LT Use of a Microbial Fuel Cell to Generate Electricity from Compost
Wilton, Middlebrook School, Teacher - Mrs. Garcia
Emilie McCann, Wilton 8 Nora Hoch Wilton 8
Awards: Honors = 1
- Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion & Acrylic Award
 - Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
 - Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award
 - U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate
- 1011 LT How Does Your Garden Grow?
Danbury, St. Gregory the Great School, Teacher - Mrs. Fahey
Kendra Dascano, Danbury 8 Abigail Allen New milford 8
Awards: Honors = 3
- 1012 LT Effects of Ethanol, lemon, peppermint, and ginger extracts on e.coli
Windsor, Madina Academy, Teacher - Iman al-Naggar
Nuha Ashraf, Windsor 8 Alina Mohammed Windsor 8
Awards: Honors = 2
- 1014 LT Wood vs. Nature
Danbury, St. Joseph School, Teacher - Kathryn Iapaluccio
Emily Grenier, Danbury 8 Makinsey Jarboe Danbury 8
Awards: Honors = 3
- 1015 LT Eliminating Bacteria
Danbury, St. Gregory the Great School, Teacher - Mrs. Fahey
Bart Flaherty, New Fairfield 7 Christina Tomaselli Danbury 7 Royce Maxwell Danbury 7
Awards: Honors = 3
- 1016 LT Ready Set Grow
Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Pepin
Ananya Karanam, Plantsville 8 Jagvi Patel Southington 8
Awards: Honors = 2
- 1018 LT Which substances will produce the most energy?
New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones
George Wang, New Haven 7 Jake Wang New Haven 7
Awards: Honors = 1
- Pfizer Life Sciences Awards --- Finalist - Life Sciences Middle School Team - CSF Medallion & Acrylic Award
- 1019 LT What deodorant works the best?
Fairfield, St. Thomas Aquinas School, Teacher - Mr. Flynn
Maryjane Elwood, Fairfield 8 Elizabeth Duggan Fairfield 8
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences MS Team- \$100 each & trophy and Invite Compete Broadcom MASTERS
- 1021 LT Plants on Other Planets: The Effects of Gravity and Atmosphere
New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones
Rachel Kawall, New Haven 7 Sophie Edelstein New Haven 7
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 1st Place- Life Sciences MS Team- \$100 each & trophy and Invite to Compete Broadcom MASTERS
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 5th Place Middle School - Trophy, Medallion
 - Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade- \$200 & trophy
 - Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School Life Sciences
 - Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash
- 2001 L7 Effects of Irradiation on Seeds
Milford, St. Gabriel School, Teacher - John Campbell
Alexandra Leparik, Milford 7
Awards: Honors = 2

- 2002 L7 The Effect of Magnetism on Plant Growth
Newtown, St. Rose of Lima School, Teacher - Mrs. Jennifer Reilly
Kristen Cirone, Newtown 7
Awards: Honors = 3
• J.A. Augustine Award --- \$100 for excellence in biology
- 2003 L7 Nutritional Value of Smoothies
Branford, Connecticut Experiential Learning Center, Teacher - Melinda Alcosser
Liam Roberts, Guilford 7
Awards: Honors = 3
- 2004 L7 Now You See It, Now You Don't: Testing Your Peripheral Vision
Fairfield, St. Thomas Aquinas School, Teacher - Philip Flynn
Isabel Mezei, Fairfield 7
Awards: Honors = 2
- 2005 L7 Processed vs. Unprocessed Foods and Their Effects on Gastric Health
Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano
Ethan Parker, Westport 7
Awards: Honors = 2
- 2006 L7 Plant extermination projects
Hartford, Environmental Sciences Magnet at Mary Hooker, Teacher - Mrs. O'Conner
Nathan Colon, Waterbury 7
Awards: Honors = 3
- 2007 L7 Decreasing Sugar in Horse Treats
Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Pepin
Hannah Platt, Southington 7
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 4th Place- Life Sciences 7th grade- trophy and Invite to Compete Broadcom MASTERS
• Alumni Botany Awards --- Alumni Equine Award- \$50 Cash
- 2008 L7 The Mummification of Apples
Guilford, E.C. Adams Middle School, Teacher - Mrs. Arnold
Erik Mastalerz, Guilford 7
Awards: Honors = 2
• The Children's Museum --- 1 family 4-Pack of Admission Passes to the Children's Museum
- 2009 L7 Don't Drink That
Groton, Sacred Heart School, Teacher - Mrs. Sheryl McCarthy
Jonathan Foster, Gales Ferry 7
Awards: Honors = 3
- 2010 L7 Plant Growth
Fairfield, St. Thomas Aquinas School, Teacher - Mr. Philip Flynn
Conor Landry, Fairfield 7
Awards: Honors = 2
- 2011 L7 How Breathing Control Affects Singing
Avon, Talcott Mountain Academy, Teacher - Lydia Gibb
Tasha Casey, Avon 7
Awards: Honors = 2
- 2012 L7 The Effect of Nitrogen Fertilizer on Grass
Newtown, St. Rose of Lima School, Teacher - Mrs. Reilly
Chase Harper, Woodbury 7
Awards: Honors = 2

AWARDS

- 2013 L7 How Do You See It? The Effect of Age on Depth Perception
Forestville, St. Matthew School, Teacher - Mrs. MaryEllen Schigas
Stefan Zwolinski, Bristol 7
Awards: Honors = 2
• American Psychological Association --- Certificate, \$50 gift card to Amazon given by CSEF
- 2014 L7 The Effects of Handsanitizers on Bacterial Growth and Resistance.
Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano
Lila Wells, Darien 7
Awards: Honors = 3
• Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award
- 2015 L7 A Structural Approach To Drug Resistance
Avon, Talcott Mountain Academy, Teacher - Dr. Henry Furneaux
Varun Aggarwal, South Glastonbury 7
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award
- 2016 L7 Earthquakes
Branford, St. Mary School, Teacher - Mrs. Staples
Cara Samson, Branford 7
Awards: Honors = 3
- 2017 L7 The Effectiveness of an All-Natural Sunscreen vs. Commercial Sunscreens
Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano
Alexandra Agnew, Westport 7
Awards: Honors = 2
• Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award
- 2018 L7 Can smell affect your taste?
West Hartford, Solomon Schechter Day School, Teacher - Ms. Sue Prihar
Casey Greenbaum, West Hartford 7
Awards: Honors = 2
- 2019 L7 Feed The Birds
Madison, Our Lady of Mercy School, Teacher - Christopher Supik
Claire Vißers, Killingworth 7
Awards: Honors = 3
• Yale Peabody Museum --- Family “six-pack” of free passes to the Yale Peabody Museum
- 2020 L7 The Absorbency of Different Types of Wood
Newtown, St. Rose of Lima School, Teacher - Jennifer Reilly
Thomas Briscoe, Newtown 7
Awards: Honors = 3
- 2021 L7 Green Energy, Green World
Norwalk, The Montessori Middle School, Teacher - Cara Johnson
Elizabeth Byer, Weston 7
Awards: Honors = 2
• EnergizeCT/CL&P/esmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
- 2022 L7 Effect of Quantum on Plants
Hartford, Environmental Sciences Magnet at Mary Hooker, Teacher - David Cappeart
Hunter Rego, Winsted 7
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award
• CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Middle School Finalist - Medallion and acrylic award

- 2023 L7 Cleaning Your Toothbrush the Safe Way
Pawcatuck, St. Michael School, Teacher - Mr. Denoia
Drew Babineau, Charlestown 7
Awards: Honors = 3
- 2024 L7 Bittersweet
Bridgeport, Multicultural Magnet School, Teacher - Walter Mayorga
Elizabeth Silva, Bridgeport 7
Awards: Honors = 2
- 2025 L7 Aquaponics Terracotta vs Water; Benefits of Grow Mediums
Falls Village, Lee H. Kellogg School, Teacher - Joseph Markow
Sean Caiati, Falls Village 7
Awards: Honors = 3
• Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade- \$100 & trophy
- 2026 L7 Survival of Single-Celled Water Organisms in Different Potable Waters
Danbury, St. Joseph School, Teacher - Mrs. Iapaluccio
Daniel Villalona, Danbury 7
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award
- 2027 L7 One Bad Apple Can Spoil The Whole Bunch
Forestville, St. Matthew School, Teacher - Mrs. MaryEllen Schigas
Alex Valley, Bristol 7
Awards: Honors = 2
- 2028 L7 Nature's Way of Cleaning Oil Spills in Fresh Water
Bridgeport, Six to Six Interdistrict Magnet School, Teacher - Carmen Andrews
Xiomara Hernandez, Stratford 7
Awards: Honors = 3
• Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
• EnergizeCT/CL&P/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
• Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award
• Ricoh Corporation/Society for Science & the Public --- Certificate, Lapel Pin, \$50 gift card to Amazon given by CSEF
- 2029 L7 Biodegradation: Are We Convinced
Bridgeport, Park City Prep Charter School, Teacher - Mrs. Vicky Boudreau
David Pontes, Bridgeport 7
Awards: Honors = 3
- 2030 L7 Breaking Down Teeth
Stamford, Bi-Cultural Day School, Teacher - Mr. Graseck
Ethan Essensfeld, Stamford 7
Awards: Honors = 3
• Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award
- 2031 L7 Green Growing Alternatives
Milford, St. Gabriel School, Teacher - John Campbell
Brian LoCicero, Milford 7
Awards: Honors = 3
- 2032 L7 Restoring Scalzi Park to its Native Plant Population
Greenwich, Greenwich Catholic School, Teacher - Mrs. Phillips
Ryan Casey, Stamford 7
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 5rd Place- Life Sciences 7th grade- trophy
- 2033 L7 Radiant Radish
Kensington, St. Paul School, Teacher - Fayne Molloy
Serena Esposito, New Britain 7
Awards: Honors = 2

AWARDS

- 2034 L7 Seeds Sprout Best...
West Hartford, St. Brigid School, Teacher - Jennifer Bernaiche
Dylan Errico, West Hartford 7
Awards: Honors = 3
- 2035 L7 Colorful Flowers
Bridgeport, Multicultural Magnet School, Teacher - Walter Mayorga
Simone DiBella, Bridgeport 7
Awards: Honors = 3
- 2036 L7 The Affect of Food on an Orb Weaver Spider's Web Spinning
Brewster NY, H.H. Wells Middle School, Teacher - Anthony Forte
Cameron Hart, Brewster 7
Awards: Honors = 2
- 2037 L7 E-Cigarettes: A New Health Frontier
Hamden, Hamden Middle School, Teacher - Danny Martins
Akshar Agarwal, Hamden 7
Awards: Honors = 3
- 2038 L7 Does the Bouba-Kiki Effect Apply to Real World Objects and Shapes
West Hartford, Solomon Schechter Day School, Teacher - Susan Prihar
Samara Gordon-Wexler, West Hartford 7
Awards: Honors = 2
- 2039 L7 The Effect of Excessive Nutrients on the Growth of Phytoplankton
Guilford, E.C. Adams Middle School, Teacher - Kim Hayash
Robert May, Guilford 7
Awards: Honors = 2
• Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade- \$300 & trophy
- 2040 L7 Greenhouse Gases and the Effect on the Ozone Layer.
Hartford, SS. Cyril and Methodius School, Teacher - Mrs. Powell
Keily Murillo, Hartford 7
Awards: Honors = 3
- 2041 L7 3D Printing of Amyloid Precursor Protein: The Gene Mutation that Causes Alzheimer's
Avon, Talcott Mountain Academy, Teacher - Dr. Henry Furneaux
Zachary Waskowicz, Southington 7
Awards: Honors = 1 • Pfizer Life Sciences Awards --- Finalist - Life Sciences 7th grade - CSF Medallion & Acrylic Award
• Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award
- 2042 L7 What Substance Attracts The Most Fruit Flies
Madison, Our Lady of Mercy School, Teacher - Christopher Supik
Maria Lynders, Guilford 7
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- 2043 L7 Is Your Health Club Making You Sick?
Bethel, St. Mary School, Teacher - Mrs. Lisa Rost
Angela Saidman, Bethel 7
Awards: Honors = 2

- 2044 L7 Growing Our Future: Using LED Hydroponics to Cultivate Fresh Produce: A Solution for Urban Food Deserts
Stratford, St. Mark School, Teacher - Mr. McMahon
Kristen Robertson, Stratford 7
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 1st Place- Life Sciences 7th grade- \$200 & trophy and Invitation to Compete Broadcom MASTERS
 - Barnes Aerospace Applied Technology Awards --- 1st Place Middle School - \$300 and Trophy, Medallion
 - Environmental Sciences Awards with CACIWC --- 3rd Place MS- \$100, Trophy, CACIWC gifts
 - EnergizeCT/CL&P/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
 - Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade- trophy
 - Talcott Mountain Science Center --- Founder's Award - \$450 Saturday Mentorship Course at TMSC - Middle School Life Science
 - Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 2045 L7 Gluten - A Sticky Situation
Plantsville, J.F. Kennedy Middle School, Teacher - Pamela Pepin
Mary Bilodeau, Plantsville 7
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 7th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
- 2501 L8 Algae-Gro!
Hartford, Environmental Sciences Magnet at Mary Hooker, Teacher - Rebecca Hays
Ben Valigorsky, Winsted 8
Awards: Honors = 2
- Alexion Biotechnology Awards --- 4th Place- Biotechnology 8th grade- trophy and Invitation Compete in Broadcom MASTERS
- 2502 L8 The effect of processing on vitamin C content in fruitjuices as measured by iodometric titration
Trumbull, Christian Heritage School, Teacher - Modupe Oshin
Caileigh Treash, Newtown 8
Awards: Honors = 2
- 2503 L8 N.D. Naturopathic doctors and Alternative healthcare vs. M.D. Medical doctors and Conventional healthcare
Stratford, St. Mark School, Teacher - Michael McMahon
Skylar Shandrowski, Stratford 8
Awards: Honors = 3
- United States Public Health Service --- Certificate & \$50 Amazon gift card given by CSEF & medallion
- 2504 L8 Analyzing Soil Components
Manchester, St. Bridget School, Teacher - Kim Maysonet
Evgeniy Medvedev, Manchester 8
Awards: Honors = 3
- 2505 L8 Why we need Digestive Enzymes for optimal health.
Danbury, St. Joseph School, Teacher - Miss Iapaluccio
Emma Connolly, Danbury 8
Awards: Honors = 2
- 2506 L8 Too Nutritious?
Hartford, Environmental Sciences Magnet at Mary Hooker, Teacher - Rebecca Hays
Ronan Levy, Middle Haddam 8
Awards: Honors = 2
- Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award

AWARDS

- 2507 L8 Analysis of Phosphorus (Fertilizer) Recovery from Varied “Run-off” Sources (Local Rivers and L.I.S.)
Orange, Southern Connecticut Hebrew Academy, Teacher - Karen Howell
Ben Forti, Woodbridge 8
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 5th Place- Life Sciences 8th grade- trophy and Invite to Compete Broadcom MASTERS
 - EnergizeCT/CL&P/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
 - Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award
 - Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash
- 2508 L8 How Does Global Warming Affect the Root-to-Shoot Ratio of Plant Growth?
Manchester, St. Bridget School, Teacher - Kim Maysonet
Benjamin Morris-Woods, Manchester 8
Awards: Honors = 3
- 2509 L8 Do Different Types of Music Affect the Growth of Vegetables; Spinach, Arugula and Radishes?
Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida
Shaye DeLaurentis, Fairfield 8
Awards: Honors = 2
- 2510 L8 Words, Words, Colors, Words
Madison, Our Lady of Mercy School, Teacher - Christopher Supik
Margaret King, Clinton 8
Awards: Honors = 2
- 2511 L8 It’s Raining, It’s Pouring, and pH Levels Across Hamden Need Exploring
Hamden, Hamden Middle School, Teacher - Mr. Danny Martins
Boaz Kaffman, Hamden 8
Awards: Honors = 2
- Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- 2512 L8 Water Purification
Willington, Hall Memorial School, Teacher - Laura Rodriguez
Ashley Park, Willington 8
Awards: Honors = 3
- 2513 L8 Wood Fire Frenzy
Hartford, Environmental Sciences Magnet at Mary Hooker, Teacher - Rebecca Hays
Victor Wilson, Manchester 8
Awards: Honors = 3
- 2514 L8 The Microwave Mistake
Milford, St. Gabriel School, Teacher - John Campbell
Michael LoCicero, Milford 8
Awards: Honors = 2
- American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- 2515 L8 Can You Beat The Heat: The Denaturing of Proteins
New Haven, St. Aedan-St. Brendan School, Teacher - Mr. Celentano
Jacob Spell, New Haven 8
Awards: Honors = 3
- 2516 L8 Planting With Compost
New Haven, Betsy Ross Arts Magnet School, Teacher - Amy Laggis
Gabrielle Christofor, Wallingford 8
Awards: Honors = 2
- 2517 L8 Color Changing Milk
Branford, St. Mary School, Teacher - Mrs. Staples
Margaret Pomroy, Branford 8
Awards: Honors = 3

- 2518 L8 Optical Illusions
Stratford, St. Mark School, Teacher - Mr. McMahon
Daniel Vetter, Milford 8
Awards: Honors = 3
- 2519 L8 Don't Eat Off That Counter! Which Brand of Disinfectant Wipe Kills the Most Bacteria Off a Kitchen Counter?
Danbury, St. Joseph School, Teacher - Ms. Iapaluccio
Amanda Attina, Danbury 8
Awards: Honors = 2
- 2520 L8 The Effects of Antioxidants on cell regrowth and regeneration in *Lumbricus variegatus*
Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano
Owen Petno, New Canaan 8
Awards: Honors = 1
- 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
 - Alexion Biotechnology Awards --- 2nd Place- Biotechnology 8th grade- \$300 & trophy and Invitation Compete in Broadcom MASTERS
- 2521 L8 Can action related video games trigger an adrenaline response as measured by changes in heart rate or blood pressure?
Sprague, Sayles School, Teacher - Mrs. Reyer
George Sechen III, Hanover 8
Awards: Honors = 2
- American Psychological Association --- Certificate, \$50 gift card to Amazon given by CSEF
- 2522 L8 Fruit Juice for Plants
Bridgeport, Bridgeport Hope School, Teacher - Mr. Abe
Sung Bok Bessell, Bridgeport 8
Awards: Honors = 3
- 2523 L8 Does a Magnetic Field Affect Plant Cells?
Hartford, Capital Preparatory Magnet School, Teacher - Kelly Horan
Sophie Lee, Rocky Hill 8
Awards: Honors = 2
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 4th Place Middle School - Trophy, Medallion
 - Alexion Biotechnology Awards --- 5th Place- Biotechnology 8th grade- trophy
 - Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
- 2524 L8 Electromagnetic Fields and Their Affects on Plants
Avon, Talcott Mountain Academy, Teacher - Mr. Meredith
Ryan Gorneault, Bristol 8
Awards: Honors = 2
- 2525 L8 Birds and Color
Forestville, St. Matthew School, Teacher - Mrs. MaryEllen Schigas
James Rybczyk, Bristol 8
Awards: Honors = 2
- 2526 L8 Investigation of the Antibacterial Properties of Various Ethanolic Plant Extracts
Greenwich, Central Middle School, Teacher - Ms. Jennifer Bresler
Mansi Dhond, Greenwich 8
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences 8th grade- \$200 & trophy and Invite to Compete Broadcom MASTERS
 - Alexion Biotechnology Awards --- 3rd Place- Biotechnology 8th grade- \$200 & trophy and Invitation Compete in Broadcom MASTERS
 - Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF

AWARDS

- 2527 L8 Your Head, Your Helmet
Hamden, Hamden Middle School, Teacher - Mrs. Delucia
Jack Gethings, Hamden 8
Awards: Honors = 2
• American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- 2528 L8 What Makes Your Heart Beat? Scary vs Neutral Text, Reading vs Listening; A Follow-up Study
West Hartford, Solomon Schechter Day School, Teacher - Ms. Sue Prihar
Rebecca Gold, West Hartford 8
Awards: Honors = 2
- 2529 L8 Incandescent v. Fluorescent: Which Light is Most Effective for Growing Corn Plants.
Danbury, St. Joseph School, Teacher - Miss Kathryn Iapaluccio
Jack Guiry, Danbury 8
Awards: Honors = 1 • Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion & Acrylic Award
- 2530 L8 Effect of Quantum on Plant Growth
Hartford, Environmental Sciences Magnet at Mary Hooker, Teacher - David Cappaert
Serena Seepersaud, Hartford 8
Awards: Honors = 2
- 2532 L8 The Effects of Bisphenol-A on anxiety, short-term memory, and sucrose preference in adolescent female rats.
Bridgeport, Interdistrict Discovery Magnet School, Teacher - Rachel Bowman
Ava Fabian, Bridgeport 8
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 3rd Place- Life Sciences 8th grade- \$100 & trophy and Invite to Compete Broadcom MASTERS
• CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 2nd Place Middle School - \$200 and Trophy, Medallion
• Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award
- 2533 L8 A Novel Method To Evaluate The Presence Of Genetically Modified Elements In Seeds.
Avon, Talcott Mountain Academy, Teacher - Dr. Henry Ferneaux
Andrew Ouellette, Burlington 8
Awards: Honors = 3
- 2534 L8 Does Whey Protein Effect the Rate of Regeneration of Planaria?
Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida
Robert Karosy, Bridgeport 8
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion & Acrylic Award
- 2535 L8 BioGas: The Future to Alternative Energy
Bridgeport, High Horizons Magnet School, Teacher - Mrs. Scott-Thiam
Rahnumar Rahman, Bridgeport 8
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 4th Place- Life Sciences 8th grade- trophy and Invite to Compete Broadcom MASTERS
• EnergizeCT/CL&P/eesmarts Sustainable Resources and Practices Awards --- MS Finalist - Medallion and Acrylic Trophy
- 2536 L8 Can I successfully pollinate radish flowers?
Danbury, St. Joseph School, Teacher - Miss. Iapaluccio
Dominique Valentine, Danbury 8
Awards: Honors = 3
- 2538 L8 Oil or Water Based?
Hamden, Hamden Middle School, Teacher - Mrs. Delucia
Emily Cunningham, Hamden 8
Awards: Honors = 3
- 2539 L8 Goo-Be-Gone
Bethel, St. Mary School, Teacher - Mrs. McDonald
Hannah Folan, Bethel 8
Awards: Honors = 2

- 2540 L8 Geotropism and Phototropism with Lima Beans
Willington, Hall Memorial School, Teacher - Laura Rodriguez
Abigail Donaghy, Willington 8
Awards: Honors = 3
- 2541 L8 Climate Change vs. Mussels: UNFILTERED!
Hartford, Environmental Sciences Magnet at Mary Hooker, Teacher - Rebecca Hays
Taylor Marchand, Winchester 8
Awards: Honors = 1
- Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion & Acrylic Award
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 3rd Place Middle School - \$100 and Trophy, Medallion
 - Fred Bailey Memorial Award --- \$250 for innovative research- Hartford Urban Middle School Project
 - Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
- 2542 L8 Do plants grow best with sugar water, tap water, or salt water?
Sprague, Sayles School, Teacher - Mrs. Reyer
Constance Odom, Baltic 8
Awards: Honors = 3
- 2543 L8 Should the Flu Vaccination Program be modified to emphasize vaccination of the young and less emphasis on the elderly?
Hebron, RHAM Middle School (I), Teacher - Robert Clarke
Gabrielle Benson-Clarke, Marlborough 8
Awards: Honors = 1
- Pfizer Life Sciences Awards --- Finalist - Life Sciences 8th grade - CSF Medallion & Acrylic Award
 - Xerox Computer Science Awards --- Middle School Finalist - Medallion, Acrylic Award
- 2544 L8 Can the color of your house effect your energy bill
New Haven, Betsy Ross Arts Magnet School, Teacher - Amy Laggis
Wayde Whichard, North Haven 8
Awards: Honors = 3
- 2545 L8 Thermohaline Circulation Shutdown
Canton, Canton Middle School, Teacher - Cheryl Adasms
Marissa Schroeter, Canton 8
Awards: Honors = 3
- American Meteorological Society --- Certificate & \$50 Amazon gift card given by CSEF
- 3001 LS Can Smells Improve Your Mental Ability?
Simsbury, Simsbury High School, Teacher - Linda Pirek
Stephanie Rosenberg, Simsbury 12
Awards: Honors = 3
- 3002 LS DNA sequence motifs as biomarkers for genomic disorders.
Madison, Daniel Hand High School, Teacher - Madhuparna Roychoudhury
Shayan Roychoudhury, Madison 11
Awards: Honors = 2
- 3003 LS Nodule Induction in Arabidopsis to Promote Symbiosis with Rhizobia
Greenwich, Brunswick School, Teacher - Dana Montanez
Christian Tanner, Rye 11
Awards: Honors = 2
- Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- 3004 LS Remember the Mind
Bethel, Bethel High School, Teacher - Sharon Bly
Quinn Vissak, Bethel 11
Awards: Honors = 2

AWARDS

- 3005 LS The Role of Asymmetric Division in Memory B-Cell Development
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Kristin Zakoworotny, Woodbridge 12
Awards: Honors = 3
- 3006 LS Bacterial Resistance to Vancomycin and Ampicillin
New Milford, New Milford High School, Teacher - Deborah Sweet
Christine Habjan, New Milford 11
Awards: Honors = 2
- 3007 LS Synergistic Antimicrobial Activity of Manuka Honey and Silver Nitrate
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Emma Goodman, Riverside 11
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque
 - Lunch with a Patent Attorney --- Lunch with a Patent Attorney
- 3008 LS Electrolyte challenge Orange Juice vs Energy Drinks
Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Ms. Marilyn Pearson
Veronica Feibusch, Milford 9
Awards: Honors = 3
- 3009 LS Electrospun Poly(lactic-co-glycolic acid) Scaffolds Slow Raw 264.7 Macrophage Fusion
Wallingford, Choate Rosemary Hall, Teacher - Dr. Rachel Gritzer
Michelle Wu, Cheshire 12
Awards: Honors = 2
- Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award
- 3010 LS Does Music Attract Bacteria
Danbury, Danbury High School, Teacher - John LaRosa
Natalie Mathews, Danbury 9
Awards: Honors = 3
- 3011 LS Bacteria à La Mode
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Olivia Backhaus, Stonington 12
Awards: Honors = 3
- 3012 LS Are You a Righty or a Lefty?
Bridgeport, Central High School, Teacher - Mr. Robert Pascarell
Denica Creighton, Bridgeport 10
Awards: Honors = 3
- 3013 LS Enzyme/Substrate Concentrations and the Rate of Enzyme-Catalyzed Reactions
New Haven, Hill Regional Career High School, Teacher - Mr. Peter Dimoulas
Vishal Patel, East Haven 10
Awards: Honors = 3
- 3014 LS ACVR1/ALK2 Inhibitors as a Cure for Fibrodysplasia Ossificans Progressiva (FOP)
Hamden, Hamden High School, Teacher - Ms. Beloin
Aakshi Agarwal, Hamden 9
Awards: Honors = 2
- Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- \$100 & plaque
- 3015 LS Effect of Communal Bathrooms on Rates of Contagious Diseases
Simsbury, Simsbury High School, Teacher - Linda Pirek
Mary Pyatt, Tariffville 12
Awards: Honors = 3

- 3016 LS Brilliant Bioplastic: A Comparative Analysis of Strength in Various Bioplastics
Greenwich, Brunswick School, Teacher - Dana Montanez
Sivan Sud, Greenwich 12
Awards: Honors = 2
• Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award
- 3017 LS Escherichia Coli's Resistance to a Household Cleaner Through the Zone of Inhibition
Hamden, Sacred Heart Academy, Teacher - Susan Nelson
Caroline Berberian, New Haven 9
Awards: Honors = 2
- 3018 LS Radish Seeds: Race To The Top
East Hartford, East Hartford High School, Teacher - Timothy Reid
Qayyoom Kasliwala, East Hartford 10
Awards: Honors = 3
- 3019 LS Calendula officinalis Naturopathic Treatments for Acne vulgaris Reduction affecting the Glandula sebacea and inhibit the excessive production of Sebum.
Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo
Devon Grey, Redding 10
Awards: Honors = 3
- 3020 LS The Effect of Flavonoids on Apoptosis, Proliferation, and the inhibition of Nuclear Factor Kappa B of Mouse Breast Cancer Cells
Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli
Saloni Shah, Rocky Hill 11
Awards: Honors = 2
- 3021 LS The Collemobola Consumes the Fungi: Interaction Between Two Important Soil Species
Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day
Lamisa Mannan, Orange 12
Awards: Honors = 2
- 3022 LS An investigation of the effects of high-fructose corn syrup on growth, phenotype, and protein production in Caenorhabditis elegans.
Greenwich, Brunswick School, Teacher - Dana Montañez
Christopher Peisch, Greenwich 10
Awards: Honors = 2
- 3023 LS Hydro and Solar Based Hybrid System
Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle
Ninad Vora, Glastonbury 9
Awards: Honors = 3
- 3024 LS Efficiency of Chlorophyll A and B found in Spinacia Oleracea for Electrical Generation in a Photosynthetic Solar Cell
Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo
Andrea McGowan, Redding 11
Awards: Honors = 3
• Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award
- 3025 LS Gorgonian Coral: A Population Flourishing in a Deprived Environment
Bethel, Bethel High School, Teacher - Ray Turek
Amanda Deming, Bethel 10
Awards: Honors = 2
- 3026 LS Do Sugar Substitutes Allow Yeast to Perform Cellular Respiration
Shelton, Shelton High School, Teacher - Ms. Clark
Alexander Ercolani, Shelton 9
Awards: Honors = 2

AWARDS

- 3028 LS Effect of Light Levels on the Growth of Coral
Storrs, E.O. Smith High School, Teacher - Jon Swanson
Joyce Zhou, Willimantic 10
Awards: Honors = 2
• Mystic Aquarium --- \$100 and 4 Admission Tickets to Mystic Aquarium
- 3029 LS Assessing the Correlation Between a Folate Deficiency During Pregnancy and Low Birth Weight
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Victoria Liu, Bethany 11
Awards: Honors = 2
• Mu Alpha Theta --- Certificate, \$50 gift card to Amazon given by CSEF
- 3030 LS Eye Color and Colorblindness
Simsbury, Simsbury High School, Teacher - Linda Pirek
Annika Geno, Simsbury 12
Awards: Honors = 3
- 3031 LS Effect of hours of sleep per school night on subject-specific academic success in high school students
Greenwich, Convent of the Sacred Heart, Teacher - Dr. Victoria Landry
Abigail Smith, Weston 12
Awards: Honors = 3
- 3032 LS An investigation into enteric symbionts and their effects on the interaction between gliadin and anti-gliadin antibodies.
Greenwich, Brunswick School, Teacher - Dana Montanez
Kevin Pendo, Darien 11
Awards: Honors = 2
- 3033 LS The Effect of Sea Temperatures On Plankton and the Ocean
Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo
Peter Gombos, Easton 11
Awards: Honors = 3
- 3034 LS Bioengineering of Popular Peppers to Create a Disease-Resistant Hybrid with Prolonged Shelf Life, Increased Biomass, and Capsaicin Content
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Andrew Lim, Old Greenwich 10
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
• Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High- \$300 & plaque
• Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting
- 3035 LS Trophocytosis between Toxoplasma and Host Cell Membrane during Invasion
Darien, Darien High School, Teacher - Christine Leventhal
Bettina Arkhurst, Darien 12
Awards: Honors = 2
- 3036 LS Determining the Effects of Cyberknife Radiosurgery for Trigeminal Neuralgia Part 2
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Dana Chung, Orange 11
Awards: Honors = 3
- 3037 LS Review: Systemic Lupus Erythematosus: Updated Treatments and the MYD88 Pathway
Middletown, Middletown High School, Teacher - Roberta Downer
Terry Nguyen, Middletown 12
Awards: Honors = 3
- 3038 LS What is the effect of water sources on plants?
Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Ms. Ciocci
Natalia Kembaren, Bridgeport 10
Awards: Honors = 3

- 3040 LS Investigation of the Inhibition of E. coli Biofilm Formation on Food-Contact Surfaces via a Brominated Furanone
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Sophie Bardos, Riverside 10
Awards: Honors = 2
• Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award
- 3041 LS Exothermic Reactions: Can They Be Used to Make More Efficient/Environmentally Safe Deicers?
Hamden, Sacred Heart Academy, Teacher - Mrs. Pam Brownell
Elizabeth Smith, Madison 10
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
• Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
• Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
- 3042 LS The Effect of the Bitter Gourd on Blood Sugar Levels
Shelton, Shelton High School, Teacher - Mary Clark
Veina Pillai, Shelton 11
Awards: Honors = 2
• Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 3043 LS Studying the role of neutrophils in preventing the dissemination of Listeria monocytogenes in the intestinal mucosa following oral infection
Glastonbury, Glastonbury High School, Teacher - Ms. Diane Pintavalle
Isha Walawalkar, Glastonbury 12
Awards: Honors = 2
- 3044 LS Differentially Expressed Genes in the Adipose Layer of Skin in Psoriatic Patients
Greens Farms, Greens Farms Academy, Teacher - Mathieu Freeman
Ethan Petno, New Canaan 11
Awards: Honors = 2
• People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion & Acrylic Award
• Xerox Computer Science Awards --- Senior High 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
• University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Cell and Molecular Biology
- 3046 LS The Effect of Stress on Academic Performance
Oxford, Oxford High School, Teacher - Adrian Poffenberger
Caroline Wolf, Oxford 11
Awards: Honors = 3
- 3047 LS The Effect of a Common Contaminant on the Percentage of Raphanus sativus (Radish) Seeds Germinated
Hamden, Hamden Hall Country Day School, Teacher - Dr. Frank Gasparro
Jing-Jing Wang, Woodbridge 10
Awards: Honors = 2
- 3048 LS Pine Resin Bioadhesive Medical Glue
Simsbury, Simsbury High School, Teacher - Linda Pirek
Brendan Cummings, West Simsbury 12
Awards: Honors = 2
- 3049 LS Studying the Effect of Light Color on the Rate of Photosynthesis in Aquatic Plants
Hartford, Hartford Magnet Trinity College Academy, Teacher - Penny Parmalee
Sameeha Shaikh, East Hartford 11
Awards: Honors = 2
• Fred Bailey Memorial Award --- \$250 for innovative research- Hartford Urban High School Project

AWARDS

- 3050 LS Do zebra mussels colonize Lakes Lillinonah and Zoar from upstream?
Bethel, Bethel High School, Teacher - Mitchell Trainor
Danika Wagener, Bethel 11
Awards: Honors = 2
• Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
• Project Oceanology --- Individual - Book + 2 tickets, First Place Senior, check for \$100, t-shirt
- 3051 LS Analyzing Bacterial Resistance to Antibiotics
Tolland, Stonewall Academy, Teacher - Don Peck
Amelia Peck, Tolland 9
Awards: Honors = 2
- 3052 LS App Therapy
Simsbury, Simsbury High School, Teacher - Linda Pirek
Brigid Cazzetta, Weatogue 12
Awards: Honors = 3
- 3054 LS Nin1's Effect on Endoplasmic Reticulum Structure and Nuclear Migration
Westport, Staples High School, Teacher - Michele Morse
Grace Meehan, Westport 12
Awards: Honors = 2
- 3055 LS The Effect of Carbon Dioxide Levels on Oxygen Production in the Diatom *Cyclotella meneghiniana*
Greenwich, Convent of the Sacred Heart, Teacher - Victoria Landry
Katie Martinez, Port Chester 12
Awards: Honors = 2
• Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, air pollution related
- 3057 LS The Effect of Protein on Memory
Simsbury, Simsbury High School, Teacher - Linda Pirek
Alyson Saperstein, Simsbury 12
Awards: Honors = 3
• Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 3058 LS The Effects of PTHrP on Mammary Epithelial Cells
Hamden, Sacred Heart Academy, Teacher - Pamela Brownell
Alexzandrea Buscarello, Wolcott 12
Awards: Honors = 2
- 3059 LS The Quantitative Effects of Chlorella on Mercury Levels in Fish
Oxford, Oxford High School, Teacher - Mr. Poffenberger
Adriana Veltri, Oxford 12
Awards: Honors = 2
- 3060 LS Analysis of Megakaryopoiesis via the Rho/SRF and ROS/Erk Pathways
Hamden, Hamden High School, Teacher - Ms. Sonia Beloin
Justin Thomas, Hamden 12
Awards: Honors = 3
- 3061 LS Effect of Citrus Paradisi Concentrated Oil and Specific Component d-Limonene on the Dietary Intake of *Mus Musculus*
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Olivia Scharfman, Old Greenwich 11
Awards: Honors = 2
- 3063 LS Dietary Habits as Related to Increasing Numbers of Nephrolithiasis (kidney stones)
Redding, Joel Barlow High School, Teacher - Katherine Nuzzo Ph.D
Ryan Wendt, Easton 11
Awards: Honors = 3

- 3064 LS The Effect of Anti-TGF Beta and Light Endurance Training on Muscle Regeneration in elderly Female Mice
Manchester, Manchester High School, Teacher - Mrs. Hunt
Humza Ali, Manchester 12
Awards: Honors = 2
- 3065 LS A Comparative Study of Pathogenic Bacterial Life in Public Buildings.
New Milford, New Milford High School, Teacher - Dr. Sara I Dever
Sylvia Onorato, New Milford 11
Awards: Honors = 2
- 3067 LS The Effect of ILV Clusters on the Aggregation Propensity of CRABP.
Darien, Darien High School, Teacher - Abhay Thakur
Dorry Xun Zhao, Darien 12
Awards: Honors = 2
• Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award
- 3068 LS The Kinematics of Barefoot and Shod Running
Manchester, Manchester High School, Teacher - Megan Rader
Megan Boyer, Manchester 12
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
• U.S. Metric Association --- Certificate & \$50 gift card to Amazon given by CSEF
- 3069 LS The Nepal Project: The Impact of Soil Degradation on Soil Fertility
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Matt Whitehill, Woodbridge 11
Awards: Honors = 2
- 3070 LS How Bio-Fuels Compare to Gasoline
Fairfield, Fairfield College Preparatory School, Teacher - Mr. Canuel
Jonathan Siveyer, Monroe 9
Awards: Honors = 2
- 3071 LS Shedding Light on Cyanobacterial Population Growth and Regeneration
New Haven, Cooperative Arts and Humanities High School, Teacher - Mr. Terry Bella
Ade Ben-Salahuddin, New Haven 12
Awards: Honors = 3
- 3072 LS Targeting Expression of Histamine 4 Receptors on Microglial Cells to Combat Compulsive Disorders
Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day *Southern CT Invitational Sci & Eng Fair*
Eeman Abbasi, Orange 12
Awards: Honors = 2
- 3073 LS The Effect of Attentional Demand on Functional Connectivity in the Parietal Lobe
Darien, Darien High School, Teacher - David Lewis
Austin McLaughlin, Darien 12
Awards: Honors = 2
- 3074 LS Exploration of how Perjeta could help treat cancer
Suffield, Suffield High School, Teacher - Mitchell Charkiewicz
Kyle Zielinski, Suffield 11
Awards: Honors = 3
- 3075 LS The Biofixation of CO₂ and Greenhouse Gases Using Coccolithophorid Algae as a Natural Remedy to the Greenhouse Effect
Hamden, Hamden High School, Teacher - Danny Martins
Kayla Johnson, Hamden 9
Awards: Honors = 2
- 3076 LS iShrimp
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Sophia Streimer, Mystic 11
Awards: Honors = 2

AWARDS

- 3077 LS The Effect of pH on Nutrient Absorption
Hamden, Sacred Heart Academy, Teacher - Mrs. Pamela Brownell
Jennifer Piciw, Shelton 10
Awards: Honors = 2
• Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 3078 LS The Effect of Olive Oil Phenols on the Concentration of Yeast Bacteria in Food Preservation
Redding, Joel Barlow High School, Teacher - Katherine Nuzzo Ph.D
Emma Sanders, Redding 10
Awards: Honors = 2
- 3079 LS The Effects of Sensory Deprivation on Neural Activity for the Psychological and Mental Treatment of various Mental Conditions
Fairfield, Fairfield College Preparatory School, Teacher - Mrs. O'Reilly
Junlin Mo, Bridgeport 9
Awards: Honors = 3
- 3080 LS Investigating Bivalve Bioremediation in a Warming Climate
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Aaron Kane, Groton 11
Awards: Honors = 2
• Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
• Long Island Sound Foundation, Inc. --- \$500 Life Science/Environmental Science/Physical science
- 3081 LS Rethinking Biological Modeling: An Online Tool That Enables Researchers, Educators, and Students to Build, Analyze, and Share Rule-Based Models of Varying Complexity
Farmington, Farmington High School, Teacher - Michael Blinov
Patrick Demkowicz, Farmington 12
Awards: Honors = 2
• Xerox Computer Science Awards --- 3rd Place High School- \$200, Plaque, Medallion
- 3082 LS Primary Cilia Vesicle Secretion and Resorption Facilitate Cell Communication
Hamden, Hamden High School, Teacher - Sonia Beloin
Ank Agarwal, Hamden 11
Awards: Honors = 2
• Biophysical Society --- Biophysics Award- \$100
- 3083 LS Stress, Stress coping, and Self-Esteem among Asian American Youth
Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day
Jennifer Zhu, Bethany 12
Awards: Honors = 3
- 3084 LS The Affect of Pseudomonas putida on the Biodegradation of Plastics
New Haven, Engineering & Science University Magnet School, Teacher - Roger Rushworth
Lauren Low, Hamden 9
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
• CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Senior High Finalist - Medallion and acrylic award
• Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque, CACIWC gifts, Trip to Compete GENIUS Olympiad, Oswego, NY
• United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
• University of Connecticut - Physics Department --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate
• GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor
- 3085 LS The Detection of Photo-oxidation of Guanine in Oligonucleotides Exposed to visible Radiation from Seasonal Affective Disorder Photo-therapy Lights.
Hamden, Hamden Hall Country Day School, Teacher - Frank Gasparro
Akhil Trehan, Wallingford 10
Awards: Honors = 3

- 3086 LS How Sound Affects the Human Mind During Sleep?
Simsbury, Simsbury High school, Teacher - Linda Pirek
Timothy Preskenis, West Simsbury 12
Awards: Honors = 2
- 3087 LS Investigating the Efficacy of Bioluminescent Mushroom Panellus Stipticus as a Biosensor to Detect the Toxicity of Water Contaminants
Manchester, East Catholic High School, Teacher - Paul Oei
Bridget Oei, Hebron 12
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF
 - Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
 - EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- 1st Place High School - \$800 Cash, Plaque, and Trip to Compete I-SWEEEP, Houston
 - Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- Trip to compete at Intel ISEF, \$1000 & plaque,
 - Connecticut Science Supervisors Association --- \$125 for a high school project
 - Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash
 - University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Sustainability
- 3088 LS The Use of Bioluminescent Bacteria to Measure Persistent Levels of Water Pollution
Greenwich, Brunswick School, Teacher - Dana Montanez
Cooper Robinson, Riverside 11
Awards: Honors = 2
- 3089 LS Is Reaction Time Dependent on Height
Simsbury, Simsbury High School, Teacher - Linda Pirek
Noah Champion, Simsbury 12
Awards: Honors = 3
- 3090 LS Did You See That?
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Elizabeth McCarthy, North Stonington 11
Awards: Honors = 3
- 3091 LS Investigation of the BMP4 Culture Conditions Necessary to Produce Mesoderm-Lineage Cells from a Human Embryonic Stem Cell-Derived, Mesendoderm Intermediate
Ridgefield, Ridgefield High School, Teacher - Michael Yagid
Megan Johnson, Ridgefield 12
Awards: Honors = 2
- Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award
 - Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Life Sciences
- 3093 LS Immunogenicity and Efficacy of a Nanoparticle-based Lyme Disease Vaccine
Darien, Darien High School, Teacher - Christine Leventhal
Cameron Van de Graaf, Darien 12
Awards: Honors = 2
- 3095 LS The Effect of Parental Reading Behavior on Children's Reading Behavior
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Victoria Li, Woodbridge 10
Awards: Honors = 3
- 3096 LS The Effects of Moderate Altitude on Type 1 Diabetes
Simsbury, Simsbury High School, Teacher - Linda Pirek
Merisa Cirikovic, Simsbury 12
Awards: Honors = 3

AWARDS

- 3097 LS The Hydrolyzing Games Hydrochloric Acid vs. Beta-Glucosidase
Hamden, Sacred Heart Academy, Teacher - Susan Nelson
Jeanne Marie Cassidy, Bethany 9
Awards: Honors = 2
- 3098 LS Biological Control of the Invasive Eurasian Watermilfoil Using Aquatic Weevils
Danbury, Danbury High School, Teacher - Mr. John LaRosa
Janine Kerr, Danbury 11
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque, Trip to compete at Intel ISEF
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 1st Place High School - \$500 and Plaque, Medallion and trip to compete at Intel Int. Sci. & Eng. Fair
 - Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
 - H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT --- Life Sci. Senior 1st HS- \$1,000 cash, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
 - H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT --- \$500 to 1st Place HS Urban School Challenge Science Department for Equipment/Supplies
 - American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
 - Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash
 - Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash
 - Yale Peabody Museum --- Family “six-pack” of free passes to the Yale Peabody Museum
- 3099 LS Use of Stem Cell Engineering to Test the Function of a Genetic Variant for PTSD
Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle
Abbie Kelly, Glastonbury 11
Awards: Honors = 2
- Society for In Vitro Biology --- Certificate and \$50 gift card to Amazon given by CSEF
- 3101 LS The Effect of TiO₂/Graphene Oxide on the Purification of Tris(2-Chloroethyl)Phosphate(TCEP) and CuSO₄ (CS)
Contaminated Water
Ridgefield, Ridgefield High School, Teacher - Michael Yagid
Jin Joo Kim, Ridgefield 12
Awards: Honors = 1
- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
 - University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Biochemistry
- 3102 LS The Effect of Subliminal Messages on Food Selection
Woodbridge, Amity Regional High School, Teacher - Vincent Lazzaro *Southern CT Invitational Sci & Eng Fair*
Sarah Saxe, Woodbridge 9
Awards: Honors = 3
- 3103 LS The Effects of Ethanol on Zebrafish Embryonic Development
Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Aramli
Molee Desai, Farmington 11
Awards: Honors = 3
- 3104 LS The Remediation of Heavy Metals from Wastewater Using an Aspergillus niger Activated Flow Filter
Greenwich, Greenwich High School, Teacher - Andy Bramante
Kenneth Dorian, Riverside 11
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
 - EnergizeCT/CL&P/esmarts Future Sustainability Awards --- 2nd Place High School - \$500 Cash and Plaque, Trip to Compete at GENIUS Olympiad, Oswego, NY
 - Stockholm Junior Water Prize --- Certificate, Letter, \$50 gift card to Amazon given by CSEF, possible advance to further competition
 - The Goodwin-Niering Center for the Environment --- \$100 for “Excellence in Environmental Conservation Studies”
 - TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award High School- For excellence in environmental sciences
 - GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor

- 3105 LS Expression of DesB and DesZ for the Creation of Cellulosic Biofuels
 Darien, Darien High School, Teacher - Elissa Johnson
 Grace Brandon, Darien 12
 Awards: Honors = 2
- 3106 LS Biochar - what is it and how it can help improve the CO2 balance and increase crop yields
 Fairfield, Fairfield Ludlowe High School, Teacher - Matthew Sutton
 Gabriel Bay, Fairfield 11
 Awards: Honors = 2
- 3107 LS The Creation of Recombinant Proteins through Liquid Syncytial Endosperm Found in Coconut Water
 Greenwich, Greenwich High School, Teacher - Andrew Bramante
 Spencer Pevsner, Riverside 11
 Awards: Honors = 2
 • Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High- \$500 & plaque
- 3108 LS Targeted Therapy for Lung Cancer
 Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day
 Cindy Guo, Woodbridge 12
 Awards: Honors = 2
- 3109 LS The Effect of different aspects and types of light on Manduca Sexta
 Bethel, Bethel High School, Teacher - Sharon Bly
 Nicolas Cazzaniga, Bethel 10
 Awards: Honors = 1
 • Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
- 3110 LS Determining an Optimal Multiplicity of Infection for Adenoviral Transduction of ViraDuctin Introduced 3T3 Fibroblast Cells
 Ridgefield, Ridgefield High School, Teacher - Michael Yagid
 Michael Latorre, Ridgefield 12
 Awards: Honors = 2
- 3111 LS Neuroprotective Effect of Finofibrate in the MPTP Mouse Model of Parkinson's Disease
 Darien, Darien High School, Teacher - Mr. Lewis
 Isabel Sellhausen, Darien 12
 Awards: Honors = 2
- 3114 LS FRET based intercellular ATP imaging for testing of BCL-xL as a mitochondrial efficiency enhancer during Long Term Potentiation.
 Westport, Staples High School, Teacher - Michele Morse
 Connor Weiss, Westport 12
 Awards: Honors = 2
 • 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
- 3115 LS Inhibitory effect of D-Psicose on Motility, Growth and Reproductive Maturity of L1 larvae of Caenorhabditis elegans
 Greenwich, Greenwich High School, Teacher - Andrew Bramante
 Kotaro Yamashiro, Old Greenwich 10
 Awards: Honors = 2
- 3116 LS The Genetic Touch
 Shelton, Shelton High School, Teacher - Tina Lichtenberger
 Kelly Sou, Shelton 9
 Awards: Honors = 3
- 3117 LS Development and Verification of Primers for the Cytochrome Oxidase Gene in Cnidarians
 Storrs, E.O. Smith High School, Teacher - Jon Swanson
 Laura Blum, Storrs 10
 Awards: Honors = 3

AWARDS

- 3118 LS The Effect of Light Exposure on the Light Emission of Bioluminescent Dinoflagellates
Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Marilyn Pearson
Maia Mneimne, Bridgeport 9
Awards: Honors = 3
- 3119 LS Birth Order and Attention Span
Simsbury, Simsbury High School, Teacher - Linda Pirek
Sarah Kate Stuart, Simsbury 12
Awards: Honors = 3
- 3120 LS The Effects of Active Ingredients in Energy Drinks on the Development of Zebrafish Embryos
Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli
Kathryn Palinkos, Southington 11
Awards: Honors = 3
- 3121 LS The Feeding Behavior of *Squilla empusa* in the Long Island Sound
Westport, Staples High School, Teacher - Dr. Michele Morse
Jeffrey Burns, Westport 12
Awards: Honors = 2
• Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
- 3122 LS Differentially expressed genes involved in Paget's disease of bone in response to SQSTM1 status
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Helen Liu, Orange 10
Awards: Honors = 2
- 3124 LS SQSTM1/P62 Mutation of PDB
Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle
Tian Shen, Glastonbury 12
Awards: Honors = 3
- 3125 LS How Taurine Affects Hermit Crabs
Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Susan Long
Eve Marks, Fairfield 10
Awards: Honors = 3
- 3126 LS Testing for antibiotic properties of the seaweeds *Saccharina latissima* and *Gracilaria tikvahiae* against *Vibrio fischeri*
Bridgeport, Bridgeport Regional Aquaculture Center, Teacher - Kirk Shadle
Stratton Tolmie, Fairfield 12
Awards: Honors = 2
- 3127 LS Structure-Based Analysis of The CXCR4 N-Terminus
Westport, Staples High School, Teacher - Michele Morse
Malin Hovstadius, Westport 11
Awards: Honors = 3
- 3128 LS Effects of Epigallocatechin Gallate on Breast Cancer Growth Rates
Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli
Ryan Englander, Suffield 12
Awards: Honors = 3
- 3131 LS The Effects of Leucine on the Zebrafish Embryonic Development
Hartford, Academy of Aerospace and Engineering, Teacher - Dr. Lili Aramli
Nana Kyem, Newington 11
Awards: Honors = 2
- 3132 LS Carcinogens in Oil
Hamden, Sacred Heart Academy, Teacher - Dr. Sengupta
Jordan Earl, Hamden 9
Awards: Honors = 2

- 3134 LS Ilio-sacral and Ilio-femoral Joint Relation in the Positioning of Iguanas in the Lizard Tree of Life
Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day
Samantha Austin, Bethany 12
Awards: Honors = 2
• Yale Peabody Museum --- Family “six-pack” of free passes to the Yale Peabody Museum
- 3135 LS An Assessment of the Reefs in the Windward Islands Due to the Presence of *Pterois volitans*
Westport, Staples High School, Teacher - Dr. Michele Morse
Max Kantor, Westport 12
Awards: Honors = 2
• Yale Peabody Museum --- Family “six-pack” of free passes to the Yale Peabody Museum
- 3136 LS The Effects of Road Salt & Gasoline on Amylase Function
Simsbury, Simsbury High School, Teacher - Linda Pirek
Eduardo Rosadio, Simsbury 12
Awards: Honors = 2
- 3137 LS Investigating the Phytoremediation of Lead: The Type of Plant Species Versus the Rate of Lead Extraction in Hydroponic Media
Hamden, Sacred Heart Academy, Teacher - Dr. Sibani Sengupta
Elizabeth LoPreiato, New Britain 9
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
• Barnes Aerospace Applied Technology Awards --- 3rd Place High School - \$ 200 and Plaque, Medallion
• EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
• American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
• Connecticut Architecture Foundation --- \$200 Gift Certificate to Barnes and Nobles
• Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, waste recycling related
- 3138 LS The Effects of Diethyl Phthalate on Embryonic Development in Zebrafish
Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli
Jessica Fernandes, West Hartford 12
Awards: Honors = 3
- 3140 LS Examining training climate and Ironman race performance outcomes
Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle
Matthew DelMastro, Glastonbury 11
Awards: Honors = 2
- 3141 LS An Analysis of Experimental Stem Cell Differentiation Data
Darien, Darien High School, Teacher - Laura Goldberg
Emily Roney, Darien 12
Awards: Honors = 2
- 3142 LS Regulation and Browning Capabilities of FNDC4 in vivo
Ridgefield, Ridgefield High School, Teacher - Patrick Hughes
Natasha Armbrust, Ridgefield 11
Awards: Honors = 3
- 3143 LS Investigation of the Effects of Compounds in Curcumin, Fruits, Berries, and Garlic on Breast Cancer Cell Survival and Growth
Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli
Ella Ackerman, North Granby 11
Awards: Honors = 3
- 3144 LS Teaching English Language Skills via Interactive Storytelling with a Spanish-Speaking Robot
Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day
Owais Khan, Orange 11
Awards: Honors = 2
- 3145 LS siRNA-loaded exosome-lipid nanoparticles for in vitro treatment of B16F10 cells
Darien, Darien High School, Teacher - David Lewis
Nicole Gagne, Darien 12
Awards: Honors = 3

AWARDS

- 3146 LS Skin Deep: A Biochemical Analysis of Grape Pigments
Hamden, Sacred Heart Academy, Teacher - Mrs. Pamela Brownell
Mitali Bandyopadhyay, Farmington 10
Awards: Honors = 2
- 3147 LS The Effectiveness of Plant Material as Metal Chelators
Westport, Staples High School, Teacher - Daniel Cortright
Virginia Gerig, Westport 9
Awards: Honors = 2
- 3149 LS The Two A's: Animals and Autism
Oxford, Oxford High School, Teacher - Mr. Poffenberger
Hannah VanBuiten, Oxford 12
Awards: Honors = 3
- 3150 LS The Effect of the Environment on the Development of a Food Allergy: A Sibling Study
Westport, Staples High School, Teacher - Dr. Michele Morse
Liana Sonenclar, Westport 12
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
• Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- 3151 LS Development of cytokine-based glioma therapies
Darien, Darien High School, Teacher - Christine Leventhal
Matthew Coley, Darien 12
Awards: Honors = 2
- 3152 LS Chemosensitization of high-grade serous ovarian carcinoma via calcium signaling
Greens Farms, Greens Farms Academy, Teacher - Dr. Freeman
Francesca Garofalo, Norwalk 12
Awards: Honors = 2
- 3153 LS Third Grade Student-Teacher Interactions
Westport, Staples High School, Teacher - Dr. Morse
Alyson Rackson, Westport 12
Awards: Honors = 3
- 3154 LS H19 lncRNA-Mediated Regulation of Aromatase Expression in Granulosa Cells
Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day
Arpita Jajoo, Woodbridge 11
Awards: Honors = 2
- 3155 LS Does Age Affect the Severity and Frequency of Concussions in Female Soccer Players?
Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino
Molly Carroll, Greenwich 11
Awards: Honors = 3
- 3156 LS Exploring Gender Bias Across Adolescence
Oxford, Oxford High School, Teacher - Adrian Poffenberger
Emma Plankey, Oxford 12
Awards: Honors = 3
- 3157 LS Optimizing the Area of Gram-Positive Bacteria as a Potential Application to Chemotherapy Treatment
Bethel, Bethel High School, Teacher - Ray Turek
Olivia Wootton, Bethel 11
Awards: Honors = 2
- 3158 LS The Effect of Common Industrial Food Additives on Zebrafish Embryo Development
Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli
Deniz Yetil, Newington 12
Awards: Honors = 3
• CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 5th Place High School - Plaque, Medallion

- 3159 LS The Population Dynamics of Inteins: Investigative Analysis of Metagenomes
Westport, Staples High School, Teacher - Michele Morse
Sara Banbury, Westport 12
Awards: Honors = 2
- 3161 LS The Role of Cx43 in Vascularization
Hamden, Sacred Heart Academy, Teacher - Pamela Brownell
Anjali Vasavada, Hamden 12
Awards: Honors = 2
- 3162 LS Characterization of TC-2153 Inhibition on Striatal-Enriched Protein Tyrosine Phosphatase (STEP) in Human Cell Lines
Wallingford, Choate Rosemary Hall, Teacher - Rachell Gritzer
Archeta Rajagopalan, Glastonbury 11
Awards: Honors = 2
• Society for In Vitro Biology --- Certificate and \$50 gift card to Amazon given by CSEF
- 3163 LS Use of a Pre-Chemotherapy/Radiotherapy Regimen of Glutamine and Probiotics to Prevent Oral Mucositis
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Alexandra Ng, Greenwich 11
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
• Alexion Biotechnology Awards --- Finalist - Biotechnology Senior High - CSF Medallion & Acrylic Award
• University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Microbiology
- 3501 LST Nice to Meat You: Using DNA Barcoding to Detect Mislabeling in the Meat Industry
Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino
Sabrina Carrozzi, White Plains 11 Alexa Granser Stamford 11 Grace McKenney Bedford 11
Awards: Honors = 3
• Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 3502 LST Alternate Source of Paper from Melons
Putnam, Putnam Science Academy, Teacher - Caron Quantick
Omer Tekin, Putnam 11 Abidin Emhan Putnam 11 Taha Cangoz Putnam 11
Awards: Honors = 1
• Pfizer Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion & Acrylic Award
• EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- 3rd Place High School - \$300 Cash and Trophy
- 3504 LST Creating a Living Filter to Lower Levels of Harmful Algae in Long Island Sound
Greenwich, Greenwich Academy, Teacher - Antoinette Decker
Clare Ryan, Greenwich 11 Gayatri Nangia Greenwich 12
Awards: Honors = 1
• Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High Team- \$300 (split) & Plaque
- 3505 LST Energy Efficiency
Hartford, Two Rivers Magnet High School, Teacher - Chris Mahl
Kaitie King, Coventry 9 Ardale Forrester East Hartford 9
Awards: Honors = 3
- 3507 LST Virtual screening and Evaluation of non-covalent Inhibitors for Class C -lactamase from Enterobacter cloacae P99
Fairfield, Fairfield Warde High School, Teacher - Dr. Ish Kumar
Sagar Gulati, Fairfield 11 Gazal Gulati Fairfield 11
Awards: Honors = 3
- 3508 LST Cloning, sequencing and analysis of potential amyloid beta precursor protein from Cnidarians
Greenwich, Greenwich Academy, Teacher - Dr. Decker
Jadesola Ariyibi, Old Greenwich 10 Morgan Sorbaro Greenwich 10 Anushya Makam Cos Cob 10
Awards: Honors = 2

AWARDS

- 3509 LST External Digestion of Cellulose Utilizing Enteric Symbionts from the Termite Gut
Greenwich, Brunswick School, Teacher - Dana Montanez
Nick VanBelle, Stamford 10 Eric Ganshaw Greenwich 10
Awards: Honors = 3
- 3511 LST The Effects of Black Seed Oil and Thymoquinone on Bacterial Growth
Windsor, Madina Academy Upper School, Teacher - Ibtsam Mahfouz
Shakeel Choudhury, Bloomfield 11 Haarith Vohra Milford 11
Awards: Honors = 2
- 3512 LST Effect of Environmental Conditions on Hydrogen Production in Clostridium
Putnam, Putnam Science Academy, Teacher - Caron Quantick
Hacibey Catalbasoglu, Putnam 11 Burak Eraslan Putnam 11
Awards: Honors = 1
- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High Team - CSF Medallion & Acrylic Award
 - EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- 3513 LST Using DNA Barcoding to Detect the Potential Contamination of Herbal Products
Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino
Emily Sabia, Greenwich 11 Claren Hesburgh Greenwich 11
Awards: Honors = 2
- 3514 LST Does Musical Training Affect Multi-Channel Sensory Integration?
Woodbridge, Amity Regional High School, Teacher - Deborah Day *Southern CT Invitational Sci & Eng Fair*
Yiran Zhang, Orange 10 Eli Silvert Woodbridge 10
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque
 - Connecticut Academy of Audiology --- \$150 Cash Award High School- For Excellence in Audiology and Acoustics
- 3515 LST Saving the World from Brain Eating Amoebas
New Haven, Hill Regional Career High School, Teacher - Mr. Dimoulas
Sylwia Zambrzycka, Shelton 11 Meeshali Patel New Haven 11
Awards: Honors = 3
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 3rd Place High School - \$ 300 and Plaque, Medallion
 - GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor
- 3516 LST Efficacy of Clobazam in Epilepsies Associated with Genetic Abnormalities
Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino
Abbi Wilson, West Harrison 11 Alexandra Bolanos New Rochelle 11
Awards: Honors = 2
- 3518 LST Observing the Effects of Biochar Soil Additives on Plants Grown with Pumpkin, Pomegranate, and Papaya Seed Fertilizers while Determining the Best Fertilizer for Plant Growth
Windsor, Madina Academy Upper School, Teacher - Ms. Samia Hussein
Arooba Peracha, Tolland 9 Ayesha Khan Windsor 10
Awards: Honors = 3
- 3519 LST An investigation of horizontal gene transfer by way of organelle capture: Arabidopsis to Rapa
Greenwich, Brunswick School, Teacher - Dana Montanez
Alessandro Montinaro, Greenwich 11 Franklin Stitzer Greenwich 11
Awards: Honors = 3

- 3520 LST A Novel Approach to Removing Oil Spills from Seawater by using Sustainable and Cost-efficient Materials
Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev
Cagri Aytekin, Putnam 11 Berk Suleyman Putnam 11 Erkam Curuk Putnam 11
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque
 - Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500, Plaque, CACIWC gifts , Trip to Compete I-SWEEEP, Houston
 - EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
 - University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Environmental Science
- 3521 LST Truly Vegetarian? Using DNA Barcoding to Detect Possible Contamination of Vegetarian Products
Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino
Kylinn Askew, Montgomery 11 Emma Novick New Canaan 11
Awards: Honors = 2

Physical Sciences

- 4002 PT Worming Around
Danbury, St. Gregory the Great School, Teacher - Mrs. Fahey
Alexander Iassogna, New Fairfield 8 Alejandro Velasquez Danbury 8 Sean Daly New Fairfield 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
- 4003 PT Using a Solar Oven to Purify Salt Water to Become Drinkable
Danbury, St. Joseph School, Teacher - Ms. Iapaluccio
Stephen Fanning, Danbury 8 Mario DeNardis Danbury 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
- 4004 PT Not Just for Eating
Pawcatuck, St. Michael School, Teacher - Mike Denoia
Brielle Fratoni-Jaskiewicz, Pawcatuck 8 Ruby Costello Westerly 8
Awards: Honors = 2
- 4005 PT pH from Scratch
Hamden, Hamden Middle School, Teacher - Mr. Martins
Miranda Holland, Hamden 8 Isabella Canas Hamden 8
Awards: Honors = 3
- 4006 PT Heat it up
Danbury, St. Gregory the Great School, Teacher - Christine Fahey
Rodolph Antonios, Danbury 7 Anthony Dascano Danbury 7
Awards: Honors = 2
- 4007 PT Styrofoam, Ceramic and Thermoses. Oh My!
Enfield, St. Martha School, Teacher - Mrs. Christina Yester
Ciara Logan, Somers 7 Tabitha Hinkle Suffield 7 Jillian Andelmen East Windsor 7
Awards: Honors = 2
- 4008 PT Battle of the Brands
West Hartford, St. Brigid School, Teacher - Jennifer Bernaiche
Nicole Mealha, Hartford 8 Julia Wiener West Hartford 8
Awards: Honors = 3

AWARDS

- 4009 PT Effect of Sulfites as a Preservative on Cell Absorption and Nutrient Content.
Orange, Southern Connecticut Hebrew Academy, Teacher - Mrs. Karen Howell
Breindel Piekarski, Hamden 7 Batya Koenigsberg New Haven 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
 - Stanley Lessoff Award for Excellence In Analytical Technique --- \$100 Cash and Plaque
- 4010 PT The Effects of a Robot's Speed in Mazes with Different Amounts of Turns
Southington, J.A. DePaolo Middle School, Teacher - Ms. Shea
Ashley Shafran, Southington 8 Erin Palinkos Southington 8
Awards: Honors = 2
- 4011 PT Stealth Shapes
Guilford, E.C. Adams Middle School, Teacher - Kim Parent-Hayash
Mark McNamara, Guilford 7 Hugh Medvecky Guilford 7 Bailey Meyers Guilford 7
Awards: Honors = 3
- 4012 PT Smog Filter Using An Electrostatic Field
Branford, Connecticut Experiential Learning Center, Teacher - Melinda Alcosser
Coleman Riegler, Madison 8 Jakob Frick Madison 7
Awards: Honors = 2
- Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
 - American Meteorological Society --- Certificate & \$50 Amazon gift card given by CSEF
- 4013 PT Stirling Engine: The Future
Bridgeport, Park City Prep Charter School, Teacher - Mrs. Vicky Boudreau
Joshua Goodrich, Bridgeport 7 Andrew Restrepo Bridgeport 7
Awards: Honors = 2
- 4014 PT Printed Prosthetics
Bethany, Amity Regional Middle School-Bethany, Teacher - Kevin Berean
Elizabeth Frieden, Bethany 8 Sally Thach Woodbridge 8
Awards: Honors = 2
- Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
 - 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
- 4015 PT Crystallizing Fudge
Enfield, St. Martha School, Teacher - Christina Yester
Shelby Arcouette, Enfield 7 Madison Langh Enfield 7 Jasmine Yard Somers 7
Awards: Honors = 3
- 4016 PT Color, Heat, and Light Absorption
Stamford, Bi-Cultural Day School, Teacher - Mr. Graseck
Nathan Links, Stamford 7 Dean Bilenker Stamford 7 Joshua Labkoff Stamford 7
Awards: Honors = 2
- 4017 PT Meltdown
Danbury, St. Gregory the Great School, Teacher - Christine Fahey
James Fahey, Danbury 8 Jake McNamara Danbury 8 Nicholas Buonaiuto Danbury 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 3rd Place- Physical Sciences MS Team- trophy, invite to compete Broadcom MASTERS
- 4018 PT The Power of Sound
Greenwich, Greenwich Catholic School, Teacher - Mrs. Phillips
Brendan Tuite, Stamford 7 Liam Nicholson Stamford 7 Griffin Lewis Riverside 7
Awards: Honors = 2

- 4019 PT Burning Candles
Enfield, St. Martha School, Teacher - Christina Yester
Joseph DeVito, Enfield 7 Aly Angell Broadbrook 7
Awards: Honors = 3
- 4020 PT Analysis of Prevention and delay of ignition and burn times of synthetic fingernails
Orange, Southern Connecticut Hebrew Academy, Teacher - Karen Howell
Miriam Kantor, Westport 7 Chana Katz New Haven 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 1st Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
 - American Meteorological Society --- Certificate & \$50 Amazon gift card given by CSEF
 - American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- 4021 PT Charge it up!!
Bridgeport, Bridgeport Hope School, Teacher - Mr. Abe
Kayoung Choi, Bridgeport 8 Mia Lugay Bridgeport 8
Awards: Honors = 2
- 4022 PT Chemical Propulsion
Willington, Hall Memorial School, Teacher - Laura Rodriguez
James Hipsky, Willington 8 Joey Fluet Willington 8
Awards: Honors = 2
- 4024 PT Have Some Sympathy!
Wilton, Middlebrook School, Teacher - Carol Festa
Duncan Vogel, Wilton 8 Albert Wei Wilton 8
Awards: Honors = 2
- 4025 PT Change an acoustic guitar into an electric guitar
Bridgeport, Bridgeport Hope School, Teacher - Abraham Deshotel
Hanul Eom, Bridgeport 8 Minkyung Kim Bridgeport 8
Awards: Honors = 3
- 4026 PT WriteBot
Bethany, Amity Regional Middle School-Bethany, Teacher - Kevin Berean
Sophie Baum, Woodbridge 8 Ananya Kachru Woodbridge 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Science sJr Team - CSF Medallion & Acrylic Award
 - Barnes Aerospace Applied Technology Awards --- 2nd Place Middle School - \$200 and Trophy, Medallion
 - Xerox Computer Science Awards --- Middle School Finalist - Medallion, Acrylic Award
 - Leask/Francoeur Family Awards --- 1st Place Middle School- For innovation electrical engineering or computer science - \$200 cash
- 4027 PT Rubber Bones
Bridgeport, Park City Prep Charter School, Teacher - Jonathan Jaekle
Bryn Claybourne, Bridgeport 8 Dallarara Ramos Bridgport 8
Awards: Honors = 3
- 4030 PT Novel Methods for Water Desalination by Harnessing Solar Energy using a Solar Oven With Flat Mirrors, Fresnel Lens and a Parabolic Mirror
Windsor, Madina Academy, Teacher - Iman Al-Naggar
Nader Kasem, Glastonbury 8 Khaleel Rahman Windsor 8 Ayman ElSherbini Windsor 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 2nd Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
 - Barnes Aerospace Applied Technology Awards --- 3rd Place Middle School - \$100 and Trophy, Medallion
 - Environmental Sciences Awards with CACIWC --- 2nd Place MS- \$200, Trophy, CACIWC gifts
 - EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- 1st Place Middle School - \$300 Cash and Trophy
 - EnergizeCT/CL&P/eesmarts Sustainable Resources and Practices Awards --- 3rd Place Middle School - \$200 Cash and Trophy
 - CSF Board of Directors Award --- certificate and \$50 Amazon gift card given by CSF

AWARDS

- 4031 PT Light Energy
Bethel, St. Mary School, Teacher - Kate McDonald
Jacob Schultz, Newtown 8 Christian O'Hara Danbury 8
Awards: Honors = 3
- 4032 PT Book Friction
Fairfield, St. Thomas Aquinas School, Teacher - Mr. Philip Flynn
Leo Redgate, Southport 7 Declan O'Donnell Southport 7 Jack Crager Fairfield 7
Awards: Honors = 3
- 4033 PT Harnessing Human Movement for Clean Energy
Bethany, Amity Regional Middle School-Bethany, Teacher - Kevin Berean
Edward Criscuolo, Woodbridge 8 Howard Ding Woodbridge 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Jr Team - CSF Medallion & Acrylic Award
 - Spirit of Invention Award --- \$100 Cash and Plaque for Inventive Concepts
- 5001 P7 The Effect of Different Antennae on the Reception of a Homemade Radio
Newtown, St. Rose of Lima School, Teacher - Jennifer Riley
Karl Kelly, Sandy Hook 7
Awards: Honors = 3
- 5003 P7 How Color Affects Heat
Windsor, St. Gabriel School, Teacher - Megarat Rosa
Adanya Jeudy, Windsor 7
Awards: Honors = 3
- 5004 P7 Does The Size and Material of a Ball Affect How High It Bounces?
Newington, St. Mary School, Teacher - Deborah Giantonio
Kate Morelli, New Britain 7
Awards: Honors = 2
- 5005 P7 The Effects of Soot on the Melting of Glaciers
Newtown, St. Rose of Lima School, Teacher - Mrs. Reilly
Jake Tapanes, Southbury 7
Awards: Honors = 2
- 5006 P7 Parabolic Trajectory Analysis of Projectiles Using Catapults
New Haven, Betsy Ross Arts Magnet School, Teacher - Katarzyna Cichus
Poorna Balakumar, West Haven 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- 5007 P7 Cool, Cool Chlorides...A comparison of ice melting chlorides as deicers and their effectiveness as an anti-freeze
Stratford, St. Mark School, Teacher - Mr. McMahon
Kenneth Sholomicky, Stratford 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- 5008 P7 Homopolar Motor From Faraday To Now-A-Day
West Hartford, St. Timothy Middle School, Teacher - Mrs. Breen
Alexis Aiudi, Avon 7
Awards: Honors = 2
- Wisner Award --- \$250 cash and plaque
- 5009 P7 Wind Power vs. Solar Power
Bethel, St. Mary School, Teacher - Lisa Rost
Quinn Kuroski, Bethel 7
Awards: Honors = 3

- 5010 P7 The Best Media
Pawcatuck, St. Michael School, Teacher - Mr. DeNoia
Megan Hill, Ashaway 7
Awards: Honors = 1
 - Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- 5011 P7 The Investigation Of The Presence Of Plastic Microscopic Fibers In Effluent Sewage Water And The Long Island Sound
Newtown, St. Rose of Lima School, Teacher - Mrs. Jen Reilly
Catherine Herrick, Sandy Hook 7
Awards: Honors = 1
 - Dominion Nuclear Connecticut Physical Sciences Awards --- 1st Place- Physical Sciences 7th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
 - Environmental Sciences Awards with CACIWC --- 1st Place MS - \$300, Trophy, CACIWC gifts
 - Association for Women Geoscientists --- Certificate & \$50 gift card to Amazon given by CSEF
 - Long Island Sound Foundation, Inc. --- \$500 Life Science/Environmental Science/Physical science
 - Project Oceanology --- Individual - Book + 2 tickets, First Place Junior, check for \$100, t-shirt
- 5012 P7 How the Strength Of Magnets Varies At Different Temperatures
Bridgeport, Park City Prep Charter School, Teacher - Mrs. Vicky Boudreau
Jacob Tay, Bridgeport 7
Awards: Honors = 3
 - American Society for Metals - Hartford Chapter --- \$100 Check
- 5013 P7 Smokey Ice
Danbury, St. Gregory the Great School, Teacher - Christine Fahey
Ryan Niland, Brookfield 7
Awards: Honors = 2
- 5014 P7 What Floats Your Boat?
Groton, Sacred Heart School, Teacher - Mrs. McCarthy
Mary Balagna, Mystic 7
Awards: Honors = 3
- 5015 P7 Acceleration Explanation
Windsor, St. Gabriel School, Teacher - Meg Rosa
Emile Shwayhat, Windsor 7
Awards: Honors = 3
- 5016 P7 Contrasting Types of Doctor's Offices Using Amount of Virulent Bacteria
New Haven, Engineering & Science University Magnet School, Teacher - Elizabeth Costen
Jacob Feuerstein, Woodbridge 7
Awards: Honors = 2
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Middle School Finalist - Medallion and acrylic award
- 5017 P7 Which Fruit Produces More Electricity?
Newington, St. Mary School, Teacher - Mrs. Deborah Giantonio
Joseph Tedeschi, Wethersfield 7
Awards: Honors = 2
- 5018 P7 A System for Remembering Generic Items (ASRGI for short)
Branford, Connecticut Experiential Learning Center, Teacher - Melinda Alcosser
Joshua Barrett, Woodmont 7
Awards: Honors = 2
 - Xerox Computer Science Awards --- 3rd Place Middle School- \$100, Trophy, Medallion
 - United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- 5020 P7 Crystal Clear
Bridgeport, Interdistrict Discovery Magnet School, Teacher - Mrs. Servino
Maximilian Aquino, Bridgeport 7
Awards: Honors = 2

AWARDS

- 5021 P7 Crystals
New Britain, Pope John Paul II School, Teacher - Mrs. Nypert
Kelly Iskra, Newington 7
Awards: Honors = 2
- 5022 P7 How to power a calculator out of change
Bridgeport, Read School, Teacher - Mr. Tharson
Miguel Torres, Bridgeport 7
Awards: Honors = 3
- 5023 P7 Acids and Bases: The Rainbow Connection
Bridgeport, Roosevelt Elementary School, Teacher - Kelsey Bohnert
Rebecca Vilsaint, Bridgeport 7
Awards: Honors = 3
- 5024 P7 Josh's Bridge is Falling Down
Groton, Sacred Heart School, Teacher - Sheryl McCarthy
Joshua Terry, Ivoryton 7
Awards: Honors = 2
- 5025 P7 Viscosity vs. Surface Tension
Kensington, St. Paul School, Teacher - Fayne Molloy
Patrick Kennedy, Kensington 7
Awards: Honors = 2
- 5026 P7 Turn Milk Into Plastic
Guilford, E.C. Adams Middle School, Teacher - Mrs. Arnold
Sammy Hao, Guilford 7
Awards: Honors = 2
- 5027 P7 Light Power!
Danbury, St. Joseph School, Teacher - Miss Kathryn Iapaluccio
Jared Hewitt, Danbury 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- 5028 P7 Weather Warrior
Glastonbury, Smith Middle School, Teacher - Jerome Mass
Sana Desai, Glastonbury 7
Awards: Honors = 3
- 5029 P7 To Design A Self-Sustained Wind-Microbial Hybrid Device that will Generate Clean Hydrogen for Energy
Windsor, Madina Academy, Teacher - Iman Al-Naggar
Maryam Moghul, Farmington 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 3rd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
 - Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
 - EnergizeCT/CL&P/esmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
 - Alexion Biotechnology Awards --- Finalist - Biotechnology 7h grade - CSF Medallion & Acrylic Award
- 5030 P7 Solar and Wind Power
Wilton, Middlebrook School, Teacher - Kendra Norman
Jonathan Wu, Wilton 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 4th Place- Physical Sciences 7th Grade Ind. - trophy, invite to compete Broadcom MASTERS
 - EnergizeCT/CL&P/esmarts Sustainable Resources and Practices Awards --- 2nd Place Middle School - \$300 Cash and Trophy

- 5031 P7 Mathematical Patterns Found in Selected Classical Compositions
Bozrah, Fields Memorial School, Teacher - Evelyn Brown
Genevieve Buckridge, Bozrah 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 5th Place- Physical Sciences 7th Grade Individual - trophy
 - People's United Bank Mathematics Awards - with ATOMIC --- 3rd Place Middle School - Trophy , \$100 from People's United Bank
 - Xerox Computer Science Awards --- 2nd Place Middle School - \$200, Trophy and Medallion
 - Connecticut Association for the Gifted --- Leonardo Davinci 7-8 Grade \$50 Gift Certificate
 - IEEE, Connecticut Section --- \$250 Honors Award -Junior
 - Connecticut Academy of Audiology --- \$150 Cash Award Middle School- For Excellence in Audiology and Acoustics
- 5032 P7 Measuring Electrolyte Conductance in Sports Drinks, Orange Juice and Tap Water as Compared to Distilled Water
Newtown, St. Rose of Lima School, Teacher - Mrs. Reilly
Jack McDermott, Sandy Hook 7
Awards: Honors = 3
- 5033 P7 Oxidation in Apples
Southington, J.A. DePaolo Middle School, Teacher - Donna Shea
Lidia Prusak, Southington 7
Awards: Honors = 2
- 5034 P7 Local Air Pollution Variations
Norwalk, The Montessori Middle School, Teacher - Cara Johnson
Matias Martinez, Darien 7
Awards: Honors = 2
- American Meteorological Society --- Certificate & \$50 Amazon gift card given by CSEF
 - Air and Waste Management Association, Connecticut Chapter --- \$100 Junior, Environmental Research, air pollution related
- 5035 P7 A Practical Use For Bubbles
Groton, Sacred Heart School, Teacher - Sheryl McCarthy
Grace Murphy, Gales Ferry 7
Awards: Honors = 3
- 5036 P7 Whatever Floats Your Boat!
New Haven, Betsy Ross Arts Magnet School, Teacher - Mrs. Cichus
Cara Peccerillo, Derby 7
Awards: Honors = 2
- 5037 P7 Fantastic Elastic
Danbury, St. Gregory the Great School, Teacher - Christine Fahey
Frank Chieffalo, Danbury 7
Awards: Honors = 2
- 5038 P7 The Amount of Carbohydrates in Different Brands of Non-Fat Powdered Milk
Newtown, St. Rose of Lima School, Teacher - Mrs Jennifer Reilly
Molly Villodas, Newtown 7
Awards: Honors = 2
- 5039 P7 Does the Sun's Angle Affect the Output of a Solar Cell?
Danbury, St. Joseph School, Teacher - Katherine Ipaluccio
Andrew Tureaud, Danbury 7
Awards: Honors = 2
- 5040 P7 SUPERCOOL
West Hartford, St. Timothy Middle School, Teacher - Mrs. Christina Simao Breen
Michael Baldini, West Hartford 7
Awards: Honors = 2
- American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate

AWARDS

- 5041 P7 Using Wettability to Develop Reusable Freezer Bags
New Haven, Engineering & Science University Magnet School, Teacher - Roger Rushworth
Prastik Mohanraj, Ansonia 7
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 2nd Place- Physical Sciences 7th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
 - UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- 5042 P7 Does Baking Sheet Material Affect the Outcome of Cookies?
Groton, Sacred Heart School, Teacher - Sheryl McCarthy
Guinnevere Elenteny McQuown, Mystic 7
Awards: Honors = 2
- 5043 P7 Evaporation Situation
New Haven, St. Aedan-St. Brendan School, Teacher - Mr. Celentano
Ronald Thomas, New Haven 7
Awards: Honors = 3
- 5044 P7 Which Exterior Paint Will Protect Your Home?
Pawcatuck, St. Michael School, Teacher - Michael Denoia
Grace Kane, Mystic 7
Awards: Honors = 3
- 5045 P7 The Search for the Most Effective Ice Melt
Bozrah, Fields Memorial School, Teacher - Evelyn Brown
Rebecca Ramthun, Bozrah 7
Awards: Honors = 2
- Alexion Biotechnology Awards --- 5th Place- Biotechnology 7th grade- trophy
 - ASM Materials Education Foundation --- Certificate & \$50 ift card to Amazon given by CSEF & medallion
 - Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
 - Meyerand Young Woman Scientist Awards --- \$300 cash - Middle School, Physical Sciences
- 5046 P7 The Effects of Salt Concentrations and Voltages on the Electrolysis Process
Guilford, E.C. Adams Middle School, Teacher - Mrs. Hayash
Oscar Scott, Guilford 7
Awards: Honors = 3
- 5048 P7 Sergeant Powder
Milford, St. Gabriel School, Teacher - John Campbell
Aidan Conway, Milford 7
Awards: Honors = 3
- 5049 P7 The Effect of Putting Duct Tape on a Wiffle Ball Bat
Newtown, St. Rose of Lima School, Teacher - Mrs. Jennifer Reilly
Aidan Moulder, Newtown 7
Awards: Honors = 3
- 5050 P7 The Effects of Temperature on Chemical Reactions
Groton, Sacred Heart School, Teacher - Mrs. McCarthy
Elizabeth Fountaine, Groton 7
Awards: Honors = 3
- 5051 P7 Putting a Spin on Billiards
Stamford, Bi-Cultural Day School, Teacher - Christopher Graseck
Samuel Essenfeld, Stamford 7
Awards: Honors = 2

- 5052 P7 How much force will come from changing the polarity of two charged magnetic rocks and how far will they go away from each other?
Bethel, St. Mary School, Teacher - Mrs Lisa Rost
Rory Daly, Brookfield 7
Awards: Honors = 3
- 5053 P7 An Easier Way For Water
Branford, Connecticut Experiential Learning Center, Teacher - Maria
Nolan Nichols, North Branford 7
Awards: Honors = 3
- 5054 P7 Which produce generates the most electricity: lemon or potato?
Danbury, St. Joseph School, Teacher - Kathryn Iapaluccio
Ryan Henn, Danbury 7
Awards: Honors = 2
- 5055 P7 Light Bulbs Which type is brighter?
Groton, Sacred Heart School, Teacher - Mrs. Sheryl McCarthy
Alex Grandolfi, Mystic 7
Awards: Honors = 2
- 5056 P7 The Effect of Freezing and Thawing on Various Types of Rocks
Newtown, St. Rose of Lima School, Teacher - Mrs. Reilly
Emilia McGuinness Getzinger, Newtown 7
Awards: Honors = 2
• Randy Gibson Award for Earth Science Research --- \$100 cash and plaque
- 5057 P7 Drag Effect On An Airplane
Bridgeport, Park City Prep Charter School, Teacher - Mrs. Vicky Boudreau
Ja'hShawn Vanholten, Bridgeport 7
Awards: Honors = 3
- 5058 P7 Bio-Inspired Robot
Cheshire, St. Bridget School, Teacher - Michelle Carroll
Carolyn Marchak, Bristol 7
Awards: Honors = 1
• Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 7th Grade - CSF Medallion & Acrylic Award
- 5501 P8 Which type of grocery bag; plastic, paper, or recycled paper, biodegrades the fastest?
Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida
Diana Pires, Bridgeport 8
Awards: Honors = 2
- 5502 P8 Ping Pong and Wiffle Ball Catapult
Hartford, SS. Cyril and Methodius School, Teacher - Alice Powell
Yucel Santiago, Hartford 8
Awards: Honors = 3
- 5503 P8 Which Antacid can Neutralize the Most Stomach Acid?
Bridgeport, Park City Prep Charter School, Teacher - Jonathan Jaekle
Darius Gordon, Bridgeport 8
Awards: Honors = 3
- 5504 P8 Pitch Not Perfect
Southington, J.A. DePaolo Middle School, Teacher - Mrs. Shea
Lydia Yu, Southington 8
Awards: Honors = 2
• People's United Bank Mathematics Awards - with ATOMIC --- Middle School Finalist - Medallion & Acrylic Award

AWARDS

- 5505 P8 Electromagnets
Windsor, St. Gabriel School, Teacher - Margaret Rosa
Justin Lam, Windsor 8
Awards: Honors = 2
- 5506 P8 Nuts & Beans About Energy
Groton, Sacred Heart School, Teacher - Sheryl McCarthy
Trinity Rashan, Waterford 8
Awards: Honors = 2
- 5507 P8 The Efficiency and Durability of Piezoelectric Generators
Avon, Talcott Mountain Academy, Teacher - Mr. Meredith
Humza Zaidi, Avon 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. - trophy, invite to compete Broadcom MASTERS
 - EnergizeCT/UI/esmarts Alternative/Renewable Energy Awards --- 3rd Place Middle School - \$100 Cash and Trophy
 - MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, middle school, \$200 cash award
 - Connecticut Invention Convention --- \$50 gift certificate & invitation to present at CT Invention Convention as “CIC Next Step Inventors”
- 5508 P8 A Study of the Production, Impact Testing, and Degradation of Seaweed Based Bioplastics
Bozrah, Fields Memorial School, Teacher - Mrs. Ev Brown
Katie Provost, Bozrah 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
 - Environmental Sciences Awards with CACIWC --- MS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
 - EnergizeCT/CL&P/esmarts 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 8th grade- \$500 & trophy and Invitation Compete in Broadcom MASTERS
 - Ricoh Corporation/Society for Science & the Public --- Certificate, Lapel Pin, \$50 gift card to Amazon given by CSEF
 - Society of Women Engineers - Hartford Section --- Scientific Calculator
 - Southeastern New England Marine Educators --- \$100 award and membership in SENEME - 1st Place Junior
 - Air and Waste Management Association, Connecticut Chapter --- \$100 Junior, Environmental Research, waste recycling related
- 5509 P8 Bell Curve
West Hartford, St. Timothy Middle School, Teacher - Christina Simao-Breen
Devon Lane, Windsor Locks 8
Awards: Honors = 3
- American Society for Quality - Thames Valley Section --- \$250 Cash
- 5510 P8 Viscosity and Melting Profile of Dairy and Non-Dairy Ice-Cream and the Development of Appealing Ice-Cream for Lactose Intolerant Individuals.
Trumbull, Christian Heritage School, Teacher - Mrs. Oshin
Cristian Piraneque, Oxford 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- 5511 P8 Phonebook Friction
Branford, St. Mary School, Teacher - Mrs. Staples
Meredith McConnell, Branford 8
Awards: Honors = 3
- 5512 P8 Alleviating Minor Household Flooding Situations
New Britain, Sacred Heart School, Teacher - Miss Kornas
Victoria Piechota, New Britain 8
Awards: Honors = 2

- 5513 P8 How much salt is in water?
Milford, St. Gabriel School, Teacher - John Campbell
Hannah Williams, Milford 8
Awards: Honors = 3
- 5514 P8 The Effect of Greywater on the Growth of Plants
Newtown, Newtown Middle School, Teacher - Beverly Andracchi
Emily Payne, Newtown 8
Awards: Honors = 2
- 5515 P8 Removal and Recycling of Phosphate from Water using Various Methods: A Sustainability Project
New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones
Maya Geradi, New Haven 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 2nd Place- Physical Sciences 8th Grade Ind. - \$200 & trophy, invite to compete Broadcom MASTERS
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 1st Place Middle School - \$300 and Trophy, Medallion and Project Oceanology's Ocean Camp
 - Quinnipiac University Scholarships --- \$20,000, 4 year scholarship to Quinnipiac University for Middle School Student
 - 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
 - Environmental/ Energy Award- Urban Public School Award --- \$100 Award for top environmental or alternative energy project from a New Haven public school
- 5516 P8 Burn Those Calories
Southington, St. Thomas School, Teacher - Pauline Pelczar
Anthony Shea, Southington 8
Awards: Honors = 2
- Demos R Us --- \$150 Cash Award- Clear Execution of Research
- 5517 P8 Analysis of natural sources of possible road de-icers and effect on pavement, soil, and plants.
Orange, Southern Connecticut Hebrew Academy, Teacher - Mrs. Howell
Jacob Hasbani, New Haven 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 3rd Place- Physical Sciences 8th Grade Ind. - \$100 & trophy, invite to compete Broadcom MASTERS
 - EnergizeCT/CL&P/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist - Medallion and Acrylic Trophy
 - TurnKey Compliance Solutions Environmental Awards --- \$100 Cash Award Middle School- For excellence in environmental sciences
- 5518 P8 Do enzymes make a better detergent?
Canton, Canton Middle School, Teacher - Cheryl Adams
Thi Le, Canton 8
Awards: Honors = 2
- 5519 P8 Analysis of "Super Spices" Effect on Cell Absorption, Antioxidant Levels, and pH.
Orange, Southern Connecticut Hebrew Academy, Teacher - Karen Howell
Fraydy Meltzer, New Haven 8
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 5th Place- Physical Sciences 8th Grade Ind. - trophy, invite to compete Broadcom MASTERS
 - Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award
- 5520 P8 Battery Life
Bethel, St. Mary School, Teacher - Mrs. Kate McDonald
Stephen DeMarco, Bethel 8
Awards: Honors = 3

AWARDS

- 5521 P8 Bio Battery: The Wise Alternative for Future Renewable Energy
Madison, Our Lady of Mercy School, Teacher - Mr. Supik
Cole Simons, Guilford 8
Awards: Honors = 2
- 5522 P8 The Alternative Battery
Bridgeport, Geraldine W. Johnson School, Teacher - Mr. Kieran Hyland
Karim Alveranga, Bridgeport 8
Awards: Honors = 3
- 5523 P8 What bridge design is strongest?
Bridgeport, Park City Prep Charter School, Teacher - Jonathan Jaekle
Douglas Mattos, Bridgeport 8
Awards: Honors = 3
- 5524 P8 Wind Turbines: The effects of different blades on a model wind turbine
Bozrah, Fields Memorial School, Teacher - Evelyn Brown
Joseph Cirrito, Bozrah 8
Awards: Honors = 2
- 5525 P8 The Effects of a Gear Size on Speed
Groton, Sacred Heart School, Teacher - Mrs. Sheryl McCarthy
Alexander Hoth, Gales Ferry 8
Awards: Honors = 3
- 5526 P8 A Lot of Power
Bridgeport, High Horizons Magnet School, Teacher - Mrs. Scott-Thiam
Humberto Figueroa, Bridgeport 8
Awards: Honors = 2
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Middle School Finalist - Medallion and acrylic award
- 5527 P8 Can Exercise Really Help Our Brains Work Better?
Cheshire, St. Bridget School, Teacher - Michelle Carroll
Nelson Alino, Cheshire 8
Awards: Honors = 3
- 5528 P8 Greenergy
Newtown, Newtown Middle School, Teacher - Mrs. Andracchi
Danielle DePinto, Newtown 8
Awards: Honors = 3
- 5529 P8 How long does it take devices to charge when the power goes out?
New Britain, Sacred Heart School, Teacher - Miss Kornas
Kateryna Yurkevych, New Britain 8
Awards: Honors = 3
- EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- 2nd Place Middle School - \$200 Cash and Trophy
 - Sister Mary Christine Life Sciences Award --- \$150 and plaque for excellence in the life sciences by a catholic middle school project
- 5531 P8 Comparing Reactions
Milford, St. Gabriel School, Teacher - John Campbell
Kyle Shugrue, Milford 8
Awards: Honors = 3
- 5532 P8 The Effect of Different Barriers, Materials and Interferences on the Travel of Radio Waves from a Router to a Computer
Brewster NY, H.H. Wells Middle School, Teacher - Mr. Forte
Braeden Hecht, Brewster 8
Awards: Honors = 2

- 5533 P8 Which calcium carbonate antacid will neutralize gastric acid more effectively?
Bethel, St. Mary School, Teacher - Mrs. McDonald
Tiffany Saviano, Danbury 8
Awards: Honors = 2
• Alexion Biotechnology Awards --- Finalist - Biotechnology 8th grade - CSF Medallion & Acrylic Award
- 5534 P8 Do Water-Filtering Bottles Really Work?
New Britain, Sacred Heart School, Teacher - Ms. Kornas
Kathryn Smith, Bristol 8
Awards: Honors = 3
- 5535 P8 The Effect of Rainfall on Oxygen/ pH Levels in Bodies of Water
Glastonbury, Smith Middle School, Teacher - Sandra Nichols
Niyati Hora, Glastonbury 8
Awards: Honors = 3
- 5536 P8 Keep the Heat
Forestville, St. Matthew School, Teacher - Mrs. MaryEllen Schigas
Abby Aldieri, Bristol 8
Awards: Honors = 2
• EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion, Acrylic Award
• ASM Materials Education Foundation --- Certificate & \$50 gift card to Amazon given by CSEF& medallion
- 5537 P8 Burning Calories to Light up the Night
Newtown, Newtown Middle School, Teacher - Beverly Andracchi
Cameron MacDonald, Sandy Hook 8
Awards: Honors = 3
• EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion, Acrylic Award
- 5538 P8 Temperature Check of the Sea
Southington, St. Thomas School, Teacher - Pauline Pelczar
Noah DeFeo, Plantsville 8
Awards: Honors = 3
- 5539 P8 Stock Strategies
Glastonbury, Smith Middle School, Teacher - Jerome Maas
Abhishek Malani, Glastonbury 8
Awards: Honors = 3
• People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place Middle School- \$100 from ATOMIC, and Trophy, \$200 from People's United Bank
- 5540 P8 Bio vs. Fossil Fuels
Windsor, St. Gabriel School, Teacher - Margaret Rosa
Max Mossberg, Windsor 8
Awards: Honors = 1
• Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
• EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - 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
- 5541 P8 Soap Mixtures and their Bubbles
Groton, Sacred Heart School, Teacher - Mrs. McCarthy
Danielle Millerick, Mystic 8
Awards: Honors = 3
- 5542 P8 Watts Up?
Bridgeport, Multicultural Magnet School, Teacher - Mrs. Burns
Abram Goda, Bridgeport 8
Awards: Honors = 3

AWARDS

- 5543 P8 Magnetic Linear Accelerator
Bethel, St. Mary School, Teacher - Mrs. McDonald
Benjamin Fletcher, Redding 8
Awards: Honors = 2
- 5544 P8 Supercooling Water and Snap Freezing.
New Haven, St. Aedan-St. Brendan School, Teacher - Mr. Celentano
Darrell Draughn, Hamden 8
Awards: Honors = 3
- 5545 P8 Kinetic Coaster
Danbury, St. Gregory the Great School, Teacher - Mrs. Fahey
Nicholas Walker, Danbury 8
Awards: Honors = 2
- 5547 P8 Which type of arm, robotic or human, would have 100% accuracy and precision when throwing a ball?
Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida
Thomas Agonito, Fairfield 8
Awards: Honors = 1
 - Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- 5548 P8 Clean and Green is (Ph)un
Bethel, St. Mary School, Teacher - Mrs. McDonald
Joseph Suarez, Bethel 8
Awards: Honors = 3
- 5549 P8 The Effect of Different Rain Waters on the Growth of Radish Seeds
Newtown, Newtown Middle School, Teacher - Ms. Andracchi
Angela Payne, Newtown 8
Awards: Honors = 2
- 5550 P8 Electrostatic Generator
Bridgeport, Multicultural Magnet School, Teacher - Mr. Walter Mayorga
Sarah Hernandez, Bridgeport 8
Awards: Honors = 2
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Middle School Finalist - Medallion and acrylic award
 - Quinnipiac University Scholarships --- \$20,000, 4 year scholarship to Quinnipiac University for Middle School Student
 - Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
 - Connecticut College-Physics, Astronomy, & Geophysics Dept. --- \$150 and certificate, Junior Physics & teeshirt
 - David and Torrey Fenton Awards --- For creative work in the physical sciences- middle school; \$200 cash
- 5551 P8 How Does Adding Water to A Bottle Rocket Affect Its Flight?
Newington, St. Mary School, Teacher - Deborah Giantonio
Maeve Maltese, New Britain 8
Awards: Honors = 2
- 5552 P8 Which Pop-Singer Has the Best Voice?
Avon, Farmington Valley Academy Montessori, Teacher - Thomas Alena
Meaghan Ging, Avon 8
Awards: Honors = 3
- 5553 P8 Invisible Technology.
Stratford, St. Mark School, Teacher - Mr McMahon
Michaela Luk, Stratford 8
Awards: Honors = 3

- 5554 P8 Fabrication and testing of the power output of a solid state tesla coil.
Trumbull, Christian Heritage School, Teacher - Mrs. Oshin
Judah Immanuel, Woodbridge 8
Awards: Honors = 1
 - Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
- 5555 P8 Measuring the Speed of Light through Gelatin using a Laser Pointer The Angles of the Laser vs the Speed of Light
Kensington, St. Paul School, Teacher - Miss Kelly Wytas
Joshua Rigsby, Kensington 8
Awards: Honors = 3
- 5556 P8 Drawing Robot
New Britain, Pope John Paul II School, Teacher - Jennifer Nypert
Kamila Krawczuk, New Britain 8
Awards: Honors = 1
 - Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences 8th Grade - CSF Medallion & Acrylic Award
 - People's United Bank Mathematics Awards - with ATOMIC --- 1st Place Middle School- \$150 from ATOMIC, and Trophy, \$300 from People's United Bank
 - Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
 - Xerox Computer Science Awards --- 1st Place Middle School - \$300, Trophy and Medallion
 - IEEE, Connecticut Section --- \$100 Honorable Mention
- 5557 P8 Does the Shape of an Air Foil affect the lift of an Airplane?
Bethel, St. Mary School, Teacher - Mrs. McDonald
Michael Meehan, Bethel 8
Awards: Honors = 2
 - U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate
- 5558 P8 Make it Stronger
Branford, Connecticut Experiential Learning Center, Teacher - Melinda Alcosser
Bryce Leckey, Madison 8
Awards: Honors = 2
 - Henderson Award --- Certificate and \$50 Amazon Gift Card given by CSF
- 5559 P8 The Effect of Lenses on a Solar Panel.
Glastonbury, Smith Middle School, Teacher - Jerome Maas
Tushar Sondhi, South Glastonbury 8
Awards: Honors = 3
- 5560 P8 Solar Sweatshirt
Bethany, Amity Regional Middle School-Bethany, Teacher - Mr. Berean
Ayaan Malik, Woodbridge 8
Awards: Honors = 2
- 5561 P8 Graphene Enhanced Piezoelectric Generator for Environmental Energy Conservation
Canton, Canton Middle School, Teacher - Mrs. Adams
Gabriel Mesa, Canton 8
Awards: Honors = 1
 - Dominion Nuclear Connecticut Physical Sciences Awards --- 1st Place- Physical Sciences 8th Grade Ind.- \$300 & trophy, invite to compete Broadcom MASTERS
 - Connecticut Science Teachers Association's Marty Tafel Student Research Award --- Physical Sciences 8th Grade - \$500 and invite to CSTA Award Banquet
 - Connecticut Invention Convention --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- 5562 P8 Wind Power
West Hartford, St. Timothy Middle School, Teacher - Mrs. Breen
Benjamin Lavoie, West Hartford 8
Awards: Honors = 2
 - ISA - International Society for Automation --- 2nd - \$75 award

AWARDS

- 5563 P8 Hypoallergenic Lawn Care Device
Stamford, Rippowam Middle School, Teacher - Mark Goldsmith
Kiran Jagtiani, Stamford 8
Awards: Honors = 2
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Middle School Finalist - Medallion and acrylic award
 - Barnes Aerospace Applied Technology Awards --- Middle School Finalist - Medallion and acrylic award
 - Association for Women Geoscientists --- Certificate & \$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
 - Bob Harris Fix It Award --- \$100 and Certificate for ingenuity in using material and tools
 - Connecticut Invention Convention --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- 5564 P8 Foot-Operated Computer Mouse Prototype
Bridgeport, Six to Six Interdistrict Magnet School, Teacher - Mrs. Andrews
Hyojune Jung, Bridgeport 8
Awards: Honors = 3
- 5565 P8 Mathematical Analysis of the Rubik's Cube Using the Thistlethwaite Algorithm and Sets of Moves
Bozrah, Fields Memorial School, Teacher - Evelyn Brown
Evan Windsor, Bozrah 8
Awards: Honors = 2
- People's United Bank Mathematics Awards - with ATOMIC --- Middle School Finalist - Medallion & Acrylic Award
 - IEEE, Connecticut Section --- \$100 Honorable Mention
- 5566 P8 Magnetic Levitation Automotive Wind Rail
Branford, Connecticut Experiential Learning Center, Teacher - Melinda Alcosser
Luke Atkins, Guilford 8
Awards: Honors = 2
- EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist - Medallion, Acrylic Award
 - ISA - International Society for Automation --- 1st - \$125 award
- 5567 P8 Which Model Airplane Flies the Farthest?
Newington, St. Mary School, Teacher - Deborah Giantonio
Anthony Tedeschi, Wethersfield 8
Awards: Honors = 3
- U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate
- 6001 PS Burning Calories: How much energy is stored in different types of foods?
Bridgeport, Warren Harding High School, Teacher - Mr. Vigeant
Dannel Hall, bridgeport 11
Awards: Honors = 3
- 6002 PS Resistance and Temperature of Wires
Hartford, Two Rivers Magnet High School, Teacher - Mr. Mahl
Devon Dugentas, East Hartford 9
Awards: Honors = 2
- 6003 PS Spinning Coin
Bridgeport, Bridgeport Military Academy, Teacher - Tomas Honiss
Hannah Laflin, Trumbull 9
Awards: Honors = 3
- 6005 PS An Aerodynamic Investigation of a Six Panel Circularly Grooved Golf Ball
Manchester, Manchester High School, Teacher - Megan Rader
Chelsey Tinson, Manchester 12
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award

- 6006 PS Testing Methods Used to Calculate Stellar Evolutionary Stages in Star Clusters
Oxford, Oxford High School, Teacher - Adrian Poffenberger
Clara McGee, Oxford 12
Awards: Honors = 2
- 6007 PS Using Verbal Commands to Play the Maze Game with NAO, Humanoid Robot
Greenwich, Convent of the Sacred Heart, Teacher - Dr.Landry
Christina Paolicelli, Pound Ridge 12
Awards: Honors = 3
- 6008 PS The Effect of Varying Ferrofluid Carrier Liquids on Oil Spill Remediation
Woodbridge, Amity Regional High School, Teacher - Deborah Day *Southern CT Invitational Sci & Eng Fair*
Haya Jarad, Orange 9
Awards: Honors = 2
- 6009 PS Chemical and Microwave Pretreatment of Biomass to Optimize Reducing Sugar Yield for Cellulosic Ethanol Applications
Greens Farms, Greens Farms Academy, Teacher - Mathieu Freeman
Roque Martin, Easton 12
Awards: Honors = 2
- 6010 PS 3D Printed Fractal Structures
Greenwich, Greenwich Academy, Teacher - Dr. Ann Decker
Madeleine Jansson, Greenwich 11
Awards: Honors = 2
- 6011 PS Optimal Lens Configuration for SunLight Redirection
Westport, Staples High School, Teacher - Dr. Nicholas D Morgan
Catherine Rotondo, Westport 11
Awards: Honors = 3
- 6012 PS Testing the Use of Carbon Nanotubes in Electrochemical Double Layered Super Capacitors
Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino
Jennifer Esposito, Bedford 11
Awards: Honors = 2
- University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Mathematics
- 6013 PS Development of a Sustainable Energy System that Converts Lightning to Hydrogen Gas through Plasma Electrolysis
Oxford, Oxford High School, Teacher - Adrian Poffenberger
Brian Westgate, Oxford 12
Awards: Honors = 2
- 6014 PS Developing a Low-Cost Method of Manufacturing Heart Valves for Transcatheter Aortic Valve Replacement Surgery
Glastonbury, Glastonbury High School, Teacher - Ms. Diane Pintavalle
Brittany Horton, South Glastonbury 12
Awards: Honors = 1
- Dominion Nuclear Connecticut 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 certificate1
 - University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Engineering: Mechanical
 - John S. Kendall Memorial Award --- \$250 John S. Kendall Award for Excellence in Mechanical Engineering
- 6015 PS Geant4 Monte Carlo Simulation in the Development of CMS Calorimetry
Darien, Darien High School, Teacher - Christine Leventhal
Alex Sedlack, Darien 12
Awards: Honors = 3
- 6016 PS Tilt angles affect on a photovoltaic modules voltage output.
Oxford, Oxford High School, Teacher - Adrian Poffenberger
Logan Law, Oxford 9
Awards: Honors = 3

AWARDS

- 6017 PS The Stability and Activity of the Biosynthetic and Synthetic Emulsifiers of Xanthan Gum, Propylene Glycol Alginate (PGA), and Tragacanth
Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo
Alexandria Hayman, Redding 11
Awards: Honors = 2
- 6018 PS A New Spin on Generators
Fairfield, Fairfield College Preparatory School, Teacher - Anthony Canuel
Kyle Foster, Trumbull 11
Awards: Honors = 3
- 6019 PS Are you getting what you pay for at the gas station?
Bethel, Bethel High School, Teacher - Mr. Ray Turek
Emma Crouse, Bethel 11
Awards: Honors = 3
- 6020 PS Comparing the energy generated from simulated rain drops on a piezoelectric surface to a hydro-electric turbine in a downspout, using the same volume of water
Greenwich, Greenwich Academy, Teacher - Ann Decker
Emma Morrison, Mount Kisco 11
Awards: Honors = 3
• EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- 6022 PS Development of wet lands and utilization of ground water without disturbing environment.
Danbury, Danbury High School, Teacher - Nichole Gurney
Irene Mathew, Danbury 11
Awards: Honors = 3
- 6023 PS Correlation of Hippocampal Neurogenesis and Exposure to Cosmic Ray Highly Ionizing Radiation (HZE) Particles
Oxford, Oxford High School, Teacher - Adrian Poffenberger
Michaela Seales, Oxford 9
Awards: Honors = 3
• American Institute of Aeronautics & Astronautics - Connecticut Section --- \$200 award, certificate
- 6024 PS Quality of Nighttime Photography Based on Light Sources
Bethel, Bethel High School, Teacher - Sharon Bly
Nikki Shaner-Bradford, Bethel 11
Awards: Honors = 3
- 6025 PS Chitin: Nature's Plastic
Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Mr. Anthony
Colton Moore, Trumbull 9
Awards: Honors = 3
- 6026 PS Bio-sensor drug carrier for insulin
Bridgeport, Bridgeport Regional Aquaculture Center, Teacher - Kirk Shadle
William Tait, Stratford 12
Awards: Honors = 1
• Dominion Nuclear Connecticut Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual - \$200 & Plaque
• CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 2nd Place High School - \$400 and Plaque, Medallion
• H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT --- \$1000 Cash Award and Invitation to attend CASE's Annual Mtg- 2nd Place HS USC
• Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- 6027 PS Obtaining Alternative Concentrations of Ferric Chloride for Higher Visibility while Etching Copper for use in Jewelry
Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo
Julia Wargo, Easton 12
Awards: Honors = 3

- 6028 PS Finding the Best Rust Remover
Fairfield, Fairfield College Preparatory School, Teacher - Anthony Canuel
Griffin Roth, Fairfield 11
Awards: Honors = 3
- 6029 PS Determining Natural Pigment Category that Leads to the Highest Output of Current and Voltage on Dye-Sensitized Solar Cell
Bridgeport, Bridgeport Regional Aquaculture Center, Teacher - Kirk Shadle
Joshua Kreidler, Shelton 12
Awards: Honors = 2
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Senior High Finalist - Medallion and acrylic award
- 6030 PS Morphological features of intermediate-mass black holes
Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle
Alison Dugas, Glastonbury 12
Awards: Honors = 3
- 6031 PS Clear Reaction
Bridgeport, Central High School, Teacher - Mrs. Dritchler
Kirya Brown, Bridgeport 9
Awards: Honors = 3
- 6032 PS 3 Little Pigs
New Haven, Engineering & Science University Magnet School, Teacher - Roger Rushworth
Shyam Patel, New Haven 9
Awards: Honors = 3
- 6033 PS Exploring the Storage Capacities of Carbon Nanotube and Graphene Based Capacitors
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Arvene Golbazi, Bethany 11
Awards: Honors = 2
- 6034 PS Evaluating the Performance of a Model Solar Concentrating System Using Thermoelectric Generating Technology
Washington, The Gunnery, Teacher - Steven Bailey
Grace Herrick, Sandy Hook 9
Awards: Honors = 1
 - Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - People's United Bank Mathematics Awards - with ATOMIC --- 3rd Place High School - Plaque, \$200 from People's United Bank
 - Barnes Aerospace Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
 - EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque, Trip to Compete GENIUS Olympiad, Oswego, NY
 - United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
 - Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Physical Sciences
 - GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor
- 6035 PS Analyzing the Effect of De-icers on Connecticut River Water Quality
Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo
Jamie Curtis, Redding 12
Awards: Honors = 3
 - Southeastern New England Marine Educators --- \$100 award and membership in SENEME - 1st Place Senior
- 6036 PS Pressure to the Future
Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Ryan Anthony
Anubhav Dhar, Trumbull 9
Awards: Honors = 3

AWARDS

- 6037 PS Application of Shear Thickening Fluids in Orthos for Parkinson's Patients
Brewster NY, Brewster High School, Teacher - Edward Schmidt
Jeffrey Marano, Brewster 12
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
- 6038 PS Solar Water Disinfection Optimization Using Titanium Dioxide Coated Plastics
Greens Farms, Greens Farms Academy, Teacher - Mathieu Freeman
Eric Dexheimer, Westport 12
Awards: Honors = 2
- 6039 PS The Construction and Calculation of an Atmospheric Geothermal Airlift Pump Condenser
Bridgeport, Bridgeport Regional Aquaculture Center, Teacher - Kirk Shadle
Matthew Raymond, Fairfield 12
Awards: Honors = 2
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 4th Place High School - Plaque, Medallion
 - Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- 6040 PS Design of a Novel Photo-Sensitized Carbon-based Supercapacitor for Capture and Storage of Solar Energy
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Peter Russell, Riverside 11
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - 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
 - Yale Science & Engineering Association, Inc. --- Certificate, \$50 gift card to Amazon given by CSEF
 - MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, high school, \$200 cash award
 - David and Torrey Fenton Awards --- For creative work in the physical sciences- high school; \$200 cash
 - Connecticut Invention Convention --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- 6041 PS The Effects of Pressure, Temperature, and Cooling Rate on Tensile Strength of Extruded High Density Polyethylene
Simsbury, Simsbury High School, Teacher - Danny Martins
Rachel Baumann, Simsbury 9
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - American Society for Metals - Hartford Chapter --- \$100 Check
 - Society of Women Engineers - Hartford Section --- Scientific Calculator
- 6042 PS A Probe of the Phase Space of Celestial N-body Systems and Its Implications for Extraterrestrial Life
Westport, Staples High School, Teacher - Nicholas Morgan
Zach Effman, Westport 11
Awards: Honors = 2
- Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award
 - Astronomical Society of Greater Hartford --- Senior Project-\$100, subscription to Sky and Telescope magazine and ASGH meeting invitation -2nd place
- 6043 PS Development of a Simulation Model for the Solution of Einstein's General Relativity and Quantum Mechanics Based on Causal Dynamical Triangulation
Shelton, Shelton High School, Teacher - Mrs. Clark
Rigel Mahmood, Shelton 12
Awards: Honors = 2
- People's United Bank Mathematics Awards - with ATOMIC --- 2nd Place High School- \$100 from ATOMIC, Plaque, \$300 from People's United Bank
 - Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award
 - Connecticut College-Physics, Astronomy, & Geophysics Dept. --- \$150 and certificate, Senior Physics & teeshirt

- 6044 PS Glucose Meter Shoe
Simsbury, Simsbury High School, Teacher - Linda Pirek
Kelly Gorham, Weatogue 12
Awards: Honors = 3
- 6045 PS Optimizing Hydrogen Production From a Piezo-electrochemical Water-Splitting Mechanism with Low-Cost Synthesis of ZnO and BiFeO₃ Nanostructures
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Margaret Cirino, Greenwich 9
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 4th Place- Physical Sciences Senior High Individual - Plaque
 - EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
 - UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- 6047 PS Keep your hands on the handle
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Hannah Peabody, Fishers Island 11
Awards: Honors = 3
- American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
- 6049 PS Momentum Powered Magnetic Generator For Electric Car Applications And Free Energy And Perpetual Motion Research
Greens Farms, Greens Farms Academy, Teacher - Mathieu Freeman
Arthur Doelp, Darien 12
Awards: Honors = 2
- EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
 - University of Connecticut - Physics Department --- UCONN Physics Department - Co-Op \$100 Gift Certificate
- 6050 PS Gambling: Science or Luck? - Can gamblers alter their odds? An assessment to determine scientific principles and mathematical techniques used by gambling companies to ensure profits.
Sandy Hook, Newtown High School, Teacher - Mrs. Karen Sherman
Alisha Aggarwal, Newtown 10
Awards: Honors = 3
- 6051 PS Effective Energy Storage Technology for Electric Power
Danbury, Immaculate High School, Teacher - Mrs. Betsy Murphy
Martha Haddad, Danbury 9
Awards: Honors = 2
- Society of Women Engineers - Hartford Section --- Scientific Calculator
- 6052 PS Construction of a Mechanical Arm with Magnetic Claw
Oxford, Oxford High School, Teacher - Adrian Poffenberger
Kevin King, Oxford 12
Awards: Honors = 3
- 6054 PS Exploration into the Development of a Mathematical Solar Cell Model in order to Simulate Solar Energy Potential in the United States
Fairfield, Fairfield College Preparatory School, Teacher - Anthony Canuel
Dylan Hawkes, Trumbull 11
Awards: Honors = 2
- 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 --- 1st Place High School - \$400, Plaque, Medallion
 - Intel Excellence in Computer Science Award --- \$200 & certificate
 - Leask/Francoeur Family Awards --- 1st Place High School- For innovation electrical engineering or computer science - \$200 cash
 - University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Computer Science

AWARDS

- 6056 PS Determining Honey Adulteration with Raman Spectra
Brewster NY, Brewster High School, Teacher - Edward Schmidt
Andrew Genussa, Brewster 12
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Chemistry
- 6057 PS Baking-Soda Fizz
Bridgeport, Central High School, Teacher - Mr. Sebourne
Thea Stephens, Bridgeport 11
Awards: Honors = 3
- 6058 PS A Study of the Removal of Pollutants by Rain Gardens, a Low-Impact Drainage System
Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino
Sarah Banker, Greenwich 11
Awards: Honors = 2
- EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
 - Sister Mary Christine Life Sciences Award --- \$250 and plaque for excellence in the life sciences by a catholic high school project
 - Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting
- 6059 PS Construction of a Renewable Energy Generator from Recycled Materials: A Study on Windbelts
Woodbridge, Amity Regional High School, Teacher - Deborah Day *Southern CT Invitational Sci & Eng Fair*
Noah Gallant, Bethany 11
Awards: Honors = 2
- EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
 - U.S. Metric Association --- Certificate & \$50 gift card to Amazon given by CSEF
- 6060 PS Oxidative Desulfuration Of Dibenzothiophene Through The Use Of TiO₂ Coated OMS-2
Glastonbury, Glastonbury High School, Teacher - Ms. Pintavalle
Mohamed El-Dirany, Glastonbury 12
Awards: Honors = 2
- 6061 PS Coronal Mass Ejections: Determining the exponent of a power law that dictates how drag affects the path of a coronal mass ejection
Darien, Darien High School, Teacher - Christine Leventhal
Kellyn Berrigan, Darien 12
Awards: Honors = 2
- 6062 PS Atmospheric Water Generator From Alternative Energy Sources.
Oxford, Oxford High School, Teacher - Mr. Poffenberger
Zachary Frew, Oxford 11
Awards: Honors = 2
- ISA - International Society for Automation --- 3rd - \$50 award
- 6064 PS Examining Graphene Nanoparticles for CO₂ capture and water purification.
Madison, Daniel Hand High School, Teacher - Madhuparna Roychoudhury
Ankita Roychoudhury, Madison 9
Awards: Honors = 2
- Society of Women Engineers - Hartford Section --- Scientific Calculator
- 6065 PS Computer Hand Input Mechanism
Sandy Hook, Newtown High School, Teacher - Timothy DeJulio
Peter Manfredonia, Sandy Hook 11
Awards: Honors = 3

- 6066 PS Partitioning gamma-ray sources in Fermi Large Area Telescope observations for spatial and spectral analysis
Ridgefield, Ridgefield High School, Teacher - Michael Yagid
Isabelle Goldstein, Ridgefield 12
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque, trip to compete at Intel ISEF
 - H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT --- Physical Sciences 1st HS \$1,000 cash, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
 - Astronomical Society of Greater Hartford --- Senior Project-\$150, subscription to Sky and Telescope magazine and ASGH meeting invitation -1st place
- 6067 PS The Development of a Multilayer Anechoic Tile Systems to Mitigate the Effect of Disbonds in the Hulls of Submersibles
Oxford, Oxford High School, Teacher - Mr. Poffenberger
Kevin Schumitz, Oxford 12
Awards: Honors = 2
- 6068 PS UV Curing
Simsbury, Simsbury High School, Teacher - Linda Pirek
Kevin Nguyen, Simsbury 12
Awards: Honors = 3
- 6070 PS The Effect of Fertilizer on Dissolved Oxygen Levels in Water.
Bridgeport, Warren Harding High School, Teacher - Mr. Fred Vigeant
Luis Ortiz, Bridgeport 12
Awards: Honors = 3
- 6071 PS Hydrogen Fuel Cells: How Changes in Temperature Affect Them
Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Mr. Anthony
Graham Bonnell, Southport 10
Awards: Honors = 3
- 6072 PS The effect of E. coli location and availability on the rate of locomotion in C. elegans
Greenwich, Convent of the Sacred Heart, Teacher - Dr. Victoria Landry
Shannon Longworth, Katonah 12
Awards: Honors = 2
- 6073 PS Low Drag Automobile Design
Greens Farms, Greens Farms Academy, Teacher - Mathieu Freeman
Andrew Holliday, New Canaan 12
Awards: Honors = 3
- 6074 PS Creation of Tidal Power from Infiltrating Coastal Ground Water via a Novel Tidal Barrage System
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Ethan Novek, Greenwich 9
Awards: Honors = 1
- Dominion Nuclear Connecticut 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
 - EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- 1st Place High School - \$500 Cash and Plaque, 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
 - Connecticut Association of Physics Teachers --- \$100 Senior project
 - Long Island Sound Foundation, Inc. --- \$500 Life Science/Environmental Science/Physical science
 - Connecticut Invention Convention --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- 6075 PS On the Minimization of Rotor Losses in the Three Phase Induction Machine
Glastonbury, Glastonbury High School, Teacher - Ms. Pintavalle
Paul Han, Glastonbury 10
Awards: Honors = 3
- Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award

AWARDS

- 6076 PS Practical Applications for 3D Printing Concrete Structures
Sandy Hook, Newtown High School, Teacher - DeJulio, Timothy
David Corsi, Sandy Hook 11
Awards: Honors = 3
- 6077 PS The Power of Gatorade
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Shelby Lusker, Fishers Island 11
Awards: Honors = 3
- 6078 PS Temperature-Induced Concurrent Removal and Recovery of Wastewater Ammonia-Nitrogen
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Andrew Ma, Riverside 11
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
 - Stockholm Junior Water Prize --- Certificate, Letter, \$50 gift card to Amazon given by CSEF, possible advance to further competition
 - Yale Science & Engineering Association, Inc. --- Certificate, \$50 gift card to Amazon given by CSEF
 - Mu Alpha Theta --- Certificate, \$50 gift card to Amazon given by CSEF
- 6079 PS An Inquiry Into The Use of Graphene as a Superconductor
Fairfield, Fairfield College Preparatory School, Teacher - Anthony Canuel
Nicholas Siveyer, Monroe 11
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - Coherent, Inc. Richard Hart Award for Excellence in Photonics --- \$300 cash, plaque, invitation to lunch and tour Coherent factory
- 6080 PS Great Globbs of Gluten
Hartford, Two Rivers Magnet High School, Teacher - Mr. Mahl
Mallika Balgobin, Hartford 9
Awards: Honors = 3
- 6081 PS Solar Computing: Creating a cost-effective off-the-grid laptop for utilization in third world countries
Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo
Hunter Lightman, Easton 11
Awards: Honors = 2
- 6083 PS The application of magnetic levitation technology on elevator construction
Suffield, Suffield High School, Teacher - Mr. Charkiewicz
Lukas Baker, Suffield 10
Awards: Honors = 3
- Connecticut Architecture Foundation --- \$200 Gift Certificate to Barnes and Nobles
- 6084 PS Mapping Tidal Current Farm Potential Along the Long Island Sound
Oxford, Oxford High School, Teacher - Mr. Poffenberger
Charles Yetman, Oxford 12
Awards: Honors = 3
- 6086 PS Studies of Phase Separation using Ferrofluids as a Model
Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day
Joseph Neumann, Woodbridge 11
Awards: Honors = 2
- CSF Board of Directors Award --- certificate and \$50 Amazon gift card given by CSF
- 6087 PS Building a Magnetically Levitated Elevator that can Raise and Lower Objects to Various Heights
Trumbull, Christian Heritage School, Teacher - Mr. Daniel Cote
Patrick Chaverri, Seymour 11
Awards: Honors = 3

- 6088 PS Graphene Film Conductivity with Single Strand Deoxyribonucleic Acid
Ridgefield, Ridgefield High School, Teacher - Patrick Hughes
Isabelle Gordon, Ridgefield 12
Awards: Honors = 2
- 6089 PS The Development of a Recycled Tire and Marine Cyanobacteria Single Chamber Microbial Fuel Cell
Bridgeport, Bassick High School, Teacher - Mr. Shadle
Rami Kharbouch, Bridgeport 11
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Senior High Finalist - Medallion and acrylic award
 - Westinghouse Electric Company/New England Chapter of North American Young Generation in Nuclear --- 1st place, Excellence in Energy Research, \$100 cash award
- 6090 PS An investigation studying the effect of the pseudomonas bacteria in a salt H₂O environment
Greenwich, Brunswick School, Teacher - Dana Montanez
Alessandro Mariani, Greenwich 10
Awards: Honors = 2
- 6091 PS Synthesis of Silver Nanoparticles using Plasma Arcing Atomizing Methods
Bridgeport, Bridgeport Regional Aquaculture Center, Teacher - Kirk Shadle
Kelly DeMeo, Fairfield 12
Awards: Honors = 2
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Senior High Finalist - Medallion and acrylic award
 - The Connecticut Technology Council Young Woman Innovation Award --- \$150 Cash Award for Technological Innovation
- 6093 PS Synthesis and Characterization of EGCG-PLAGA Conjugates and Mixtures
Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle
Anubhuti Mathur, Glastonbury 11
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque, trip to compete at Intel ISEF
 - Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- 6094 PS The Effect of Nanoparticles on UVA-Induced Psoralen Photoadducts and their Rapid Detection by Matrix-assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS)
Hamden, Hamden Hall Country Day School, Teacher - Dr. Frank Gasparro
Michael Crockett, Cheshire 11
Awards: Honors = 2
- 6095 PS Synthesis of a Block Co-polymer for the Manufacturing of a Bio-Degradable Monomeric Filament
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Spencer Matonis, Greenwich 11
Awards: Honors = 1
- Dominion Nuclear Connecticut 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
 - Otero Family Award --- The Otero Family Award; \$200 cash
 - University of Connecticut Academic Excellence Scholarship --- Academic Excellence Scholarship - \$5000 a year for each of four academic years- \$20,000 total
- 6096 PS New Invention to Efficiently Harness Wave Power
Suffield, Suffield High School, Teacher - Mitch Charkiewicz
Matthew Rogers, Suffield 10
Awards: Honors = 2
- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
 - EnergizeCT/UI/esmarts Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 Cash and Plaque
 - Education Connection- Center for 21st Century Skills Awards --- \$100 For innovative use of technology to advance science or engineering

AWARDS

- 6098 PS Effect of Accelerated Particles on the atoms of Copper and Gold
New Milford, New Milford High School, Teacher - Ms. Eileen Reed
Austin Hengel, New Milford 11
Awards: Honors = 3
- 6099 PS Inorganic Biology: Direction Control of Polyoxometalate-Based Tubular Microstructures
Ridgefield, Ridgefield High School, Teacher - Mr. Patrick Hughes
Devin Gund, Ridgefield 12
Awards: Honors = 2
- 6100 PS Power Gear
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Amber Ferguson, Fishers Island 12
Awards: Honors = 3
- 6101 PS A Filamentous Organic Solar Cell Based Piezoelectric Architecture for Powering Commercial and Biological Electronic Devices
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Maxmillian Minichetti, Greenwich 11
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 5th Place- Physical Sciences Senior High Individual - Plaque
 - EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
 - EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
 - 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
 - IEEE, Connecticut Section --- \$250 Honors Award -Senior
 - Arthur Mensing Award --- \$1000 cash award for excellence in the physical sciences
 - Connecticut Invention Convention --- \$50 gift certificate & invitation to present at CT Invention Convention as “CIC Next Step Inventors”
- 6103 PS Voltage Output of Homemade Nano-Crystalline Dye-Sensitized Solar Cells in Series
Trumbull, Christian Heritage School, Teacher - Mr. Cote
Michael Lord, Westport 11
Awards: Honors = 3
- 6105 PS A Novel Application of Piezoelectricity and Impressed Current Cathodic Protection for Corrosion Prevention
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Cole Addonizio, Greenwich 11
Awards: Honors = 2
- IEEE, Connecticut Section --- \$100 Honorable Mention
 - American Society for Metals - Hartford Chapter --- \$100 Check
- 6106 PS Uncovering Hidden Masterpieces
Hamden, Hamden High School, Teacher - Sonia Beloin
Francesca Kleine, Hamden 10
Awards: Honors = 3
- 6107 PS Reducing the Price of Solar Panels by Changing their Chemical Components
Danbury, Danbury High School, Teacher - Hughes/Larossa
Ramagopal Karthikeyan, Danbury 9
Awards: Honors = 3
- 6108 PS How do Cover Crops affect Soil pH
Oxford, Oxford High School, Teacher - Mr. Poffenberger
Aidan Fay, Oxford 9
Awards: Honors = 3

- 6110 PS Determination and removal of 17-Beta Estradiol in Long Island Sound.
Bridgeport, Bridgeport Regional Aquaculture Center, Teacher - Kirk Shadle
Lora Walsh, Stratford 12
Awards: Honors = 3
• CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Senior High Finalist - Medallion and acrylic award
- 6111 PS How the Type of Footing Effects the Impact of Livestock on Soil Erosion
Hebron, RHAM High School, Teacher - Kristin Spinelli
Kayleigh Sauyet, Andover 9
Awards: Honors = 3
- 6112 PS Blowing in the Wind: Southwestern Connecticut's Potential for Wind Energy Production
Redding, Joel Barlow High School, Teacher - Dr. Nuzzo
Lucas Kocka, Redding 12
Awards: Honors = 3
- 6113 PS Enhancing Water Resistance Qualities of SrAl₂O₄:Eu²⁺, Dy³⁺ Phosphors Using Barrier Coatings
Greens Farms, Greens Farms Academy, Teacher - Mathieu Freeman
Carter Durno, Westport 12
Awards: Honors = 3
- 6116 PS Inclusion of Thermoelectric Generators in Glass Building Materials to Produce Useful Energy in New England Homes
Greenwich, Greenwich High School, Teacher - Andrew Bramante
Bryce Anderson, Greenwich 10
Awards: Honors = 2
• Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- 6117 PS The Oort Cloud: A Cometary Reservoir
New Milford, New Milford High School, Teacher - Ms. Virginia Landgrebe
Carly KleinStern, New Milford 11
Awards: Honors = 2
• University of Connecticut - Physics Department --- UCONN Early College Experience Program: Physical Sciences - Co-Op \$100 Gift Certificat
• Dreams Unlimited --- \$100 Cash Award + Certificate
- 6118 PS A Potential and easy to use, low cost Diabetic Test for use in Developing Countries and Rural Areas
Windsor, Madina Academy Upper School, Teacher - Mr. Coleman
Sithy Mahamoon, Windosr 10
Awards: Honors = 1
• Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
• Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- \$200 & plaque
- 6119 PS Earth Energy
Hartford, Two Rivers Magnet High School, Teacher - Chris Mahl
Bishop Bryan, South Windsor 9
Awards: Honors = 3
- 6120 PS Do You C This Juice? How Levels of Vitamin C Deplete Over Time
Fishers Island NY, Fishers Island School, Teacher - Carol Giles
Grace Timmons, Pawcatuck 11
Awards: Honors = 3

AWARDS

- 6121 PS A Novel Approach to The Design of an Electroencephalogram-Based Brain-Computer Interface For Use In Thought to Text Translation
Norwich, Norwich Free Academy, Teacher - Stephani Jones
Connor Provost, Bozrah 10
Awards: Honors = 3
- Xerox Computer Science Awards --- 2nd Place High School - \$300, Plaque, Medallion
 - Intel Excellence in Computer Science Award --- \$200 & certificate
 - Education Connection- Center for 21st Century Skills Awards --- \$100 For innovative use of technology to advance science or engineering
- 6122 PS Building a Maglev train using electromagnet
Trumbull, Christian Heritage School, Teacher - Daniel Cote
Jejun Youn, Shelton 11
Awards: Honors = 3
- 6123 PS The Car of the Future: The Effect of Two Energy Power Sources Charged by Solar Panels on the Mileage and Speed of an RC Car.
Hartford, Two Rivers Magnet High School, Teacher - Mr. Mahl
Lariab Afzaal, Windsor 10
Awards: Honors = 3
- 6124 PS Designing a circuit board to wirelessly power a Left Ventricular Assist Device (LVAD)
Woodbridge, Amity Regional High School, Teacher - Deborah Day
Daniel Giebisch, Woodbridge 11
Awards: Honors = 3
- John B. Trevor Award in Electrical Engineering --- \$500 cash award for an innovative electronic or electrical project
 - University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Engineering: Electrical
- 6125 PS Investigating Alternative Methods Using Magnetism to Power a Four-Stroke Engine
Oxford, Oxford High School, Teacher - Nicole Granucci
Zachary Geffert, Oxford 11
Awards: Honors = 2
- Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- 6126 PS LCD Projector Built From Commonly Found Electronics On A Budget
Suffield, Suffield High School, Teacher - Mitchell Charkiewicz
Ronnie Augeri, West Suffield 12
Awards: Honors = 3
- 6501 PST Changing the shape of blades on wind turbines
Suffield, Suffield High School, Teacher - Nisha Pickett
Erin McGann, West Suffield 11 Martha Beringer Suffield 11
Awards: Honors = 2
- 6502 PST Black Ice Road Sensors
Putnam, Putnam Science Academy, Teacher - Caron Quantick
Ahmet Arslan, Putnam 12 Berkan Tuytu Putnam 12
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion & Acrylic Award
 - Barnes Aerospace Applied Technology Awards --- Senior High Finalist - Medallion and acrylic award
- 6503 PST Battling Subjectivity - Finding Tools For Nano-Scale Measurement
New Haven, Cooperative Arts and Humanities High School, Teacher - Mr. Bella
Mairead Brennan, New Haven 11 Melba Flores New Haven 12
Awards: Honors = 2
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Senior High Finalist - Medallion and acrylic award

- 6504 PST Blades of Fury Pt. 2: Weight Efficiency
Shelton, Shelton High School, Teacher - Patricia Presutto
Joseph Niski, Shelton 10 Ian Diaz Shelton 10
Awards: Honors = 2
- 6505 PST Feasibility of Electromagnetic Freight Systems
Fairfield, Fairfield College Preparatory School, Teacher - Anthony Canuel
Gavin Granath, Darien 11 Michael Lagrange Stamford 11
Awards: Honors = 2
- 6506 PST Building an Automated Prototype for the USAR Operations and Industrial Applications Using Lego Mindstorm, Tetrix and RobotC
Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev
Almas Myrztatay, Putnam 12 Selman Avci Middletown 12
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 3rd Place - Physical Sciences Senior High Team - Plaque
 - People's United Bank Mathematics Awards - with ATOMIC --- High School Finalist - Medallion & Acrylic Award
 - Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award
 - IEEE, Connecticut Section --- \$200 Honorable Mention
- 6507 PST Using a photovoltaic cell to self-sustain a clean water pump
Suffield, Suffield High School, Teacher - Mitch Charkiewicz
Paul Grimard, Suffield 12 Anthony DeVita West Suffield 12
Awards: Honors = 3
- 6508 PST Comparative Efficiencies of Magnetically Levitating Train Systems in and out of a Vacuum Chamber
Greenwich, Brunswick School, Teacher - Dana Montanez
Angus Fraser, Darien 10 David Ruf Greenwich 11
Awards: Honors = 2
- Barker Mohandas Award for Transportation Research --- \$200 Cash & Plaque for Excellence in Transportation Related Research
- 6509 PST Designing and Building a Scale Model of an Eco-friendly and Self-sustainable city
Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev
Ahmet Acar, Putnam 9 Amir Edris Putnam 9
Awards: Honors = 3
- 6510 PST Converting Mechanical Energy from Cross-walk Traffic Using Piezoelectricity
Greenwich, Brunswick School, Teacher - Dana Montañez
Jamie MacFarlane, Greenwich 10 Andreas Kern Greenwich 10
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion & Acrylic Award
 - EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
 - EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- 6511 PST Shelf Life of Milk.
New Haven, Hill Regional Career High School, Teacher - Mr. Dimoulas
Yara Hosny, East Haven 12 Afnan Hassan Belal West Haven 12
Awards: Honors = 3
- 6512 PST Gravimetric Analysis of Calcium and Hard Water
Shelton, Shelton High School, Teacher - Mary Clark
Samantha Rubio, Shelton 12 Monica Holler Shelton 12 Jared Peck Shelton 12
Awards: Honors = 3
- 6513 PST Calories to Watts: Novel methods that utilize exercising energy using piezoelectric generators
Windsor, Madina Academy Upper School, Teacher - Ibtsam Mahfouz
Rayyan Ashraf, Windsor 11 Osama ElSherbini Windsor 9
Awards: Honors = 2

-
- 6514 PST Recycled Plastic Bag Insulation
 Suffield, Suffield High School, Teacher - Mr. Charkiewicz
 Katherine Baker, Suffield 9 Caitlin Kirschbaum Suffield 9
 Awards: Honors = 1
 • Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior Team - CSF Medallion & Acrylic Award
- 6515 PST The Catapult
 Bridgeport, Bridgeport Military Academy, Teacher - Mr. Honiss
 Joseph Falco, Bridgeport 9 Jessie Abrams Bridgeport 9 Nicky Alamo Bridgeport 9
 Awards: Honors = 3
- 6516 PST The Effect of Temperature, pH, and Dissolved Oxygen on Halophilic Desalination
 Greenwich, Brunswick School, Teacher - Dana Montanez
 Mahesh Raman, Stamford 11 Reed McMurchy Stamford 11
 Awards: Honors = 1
 • Dominion Nuclear Connecticut Physical Sciences Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- 6517 PST Harvesting the Resources of Space
 Suffield, Suffield High School, Teacher - Mitchell Charkiewicz
 Brent Heineman, Suffield 12 Chris Ellithorpe Suffield 12
 Awards: Honors = 3
- 6518 PST The Effect of Extreme Cold Temperatures on the Strength of Adhesive Bonds
 Hebron, RHAM High School, Teacher - Kristin Spinelli
 Paisley Kostick, Marlborough 9 Sophia Arruda Marlborough 9
 Awards: Honors = 2
- 6520 PST The Future of Armor: Inspired by the Dactyl Club of the Mantis Shrimp
 Greenwich, Brunswick School, Teacher - Mrs. Montanez
 Ryan Callaghan, Wilton 10 Thomas Kern Greenwich 10
 Awards: Honors = 1
 • Dominion Nuclear Connecticut Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Team- \$300(split) & Plaque
- 6521 PST A Novel Wind Turbine Design Incorporating Photovoltaic Cells and Piezoelectric Sensors
 Windsor, Madina Academy Upper School, Teacher - Ibtsam Mahfouz
 Aasiya Ahmed, Windsor 11 Aden Khan Windsor 11 Usra Qureshi Windsor 11
 Awards: Honors = 2
 • EnergizeCT/UI/esmarts Alternative/Renewable Energy Awards --- High School Finalist - Medallion
 • University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Energy & Transportation
- 6522 PST Simulated Impact of Car Collisions
 Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Ms. Januszkiewicz
 Liam McNeece, Trumbull 9 Cody Scanlan Stratford 10
 Awards: Honors = 3
-

Intel ISEF

CSEF Life Sciences

1st place winner **Janine Kerr, Danbury High School, Danbury** will represent Urban Challenge at ISEF

2nd place winner **Bridget Oei, East Catholic High School, Manchester** will represent Alexion Biotechnology at ISEF

3068 The Kinematics of Barefoot and Shod Running
Megan Boyer, Manchester High School, Manchester, Teacher - Megan Rader

3007 Synergistic Antimicrobial Activity of Manuka Honey and Silver Nitrate
Emma Goodman, Greenwich High School, Greenwich, Teacher - Andrew Bramante

CSEF Physical Sciences

6066 Partitioning gamma-ray sources in Fermi Large Area Telescope observations for spatial and spectral analysis
Isabelle Goldstein, Ridgefield High School, Ridgefield, Teacher - Michael Yagid

6093 Synthesis and Characterization of EGCG-PLAGA Conjugates and Mixtures
Anubhuti Mathur, Glastonbury High School, Glastonbury, Teacher - Diane Pintavalle

CSEF Special Categories

Alexion Biotechnology

3087 Investigating the Efficacy of Bioluminescent Mushroom *Panellus Stipticus* as a Biosensor to Detect the Toxicity of Water Contaminants
Bridget Oei, East Catholic High School, Manchester, Teacher - Paul Oei

Urban Challenge

3098 Biological Control of the Invasive Eurasian Watermilfoil Using Aquatic Weevils
Janine Kerr, Danbury High School, Danbury, Teacher - Mr. John LaRosa

I-SWEEEP

3087 **Bridget Oei**, East Catholic High School, Manchester

3520 A Novel Approach to Removing Oil Spills from Seawater by using Sustainable and Cost-efficient Materials
Cagri Aytekin, Berk Suleyman and Erkam Curuk, Putnam Science Academy, Putnam, Teacher - Serdar Haytiyev

6074 Creation of Tidal Power from Infiltrating Coastal Ground Water via a Novel Tidal Barrage System
Ethan Novek, Greenwich High School, Greenwich, Teacher - Andrew Bramante

GENIUS Olympiad

3084 The Affect of *Pseudomonas putida* on the Biodegradation of Plastics
Lauren Low, Engineering & Science University Magnet School, New Haven, Teacher - Roger Rushworth

3104 The Remediation of Heavy Metals from Wastewater Using an *Aspergillus niger* Activated Flow Filter
Kenneth Dorian, Greenwich High School, Greenwich, Teacher - Andy Bramante

3515 Saving the World from Brain Eating Amoebas
Sylvia Zambrzycka and Meeshali Patel, Hill Regional Career High School, New Haven, Teacher - Mr. Dimoulas

6034 Evaluating the Performance of a Model Solar Concentrating System Using Thermoelectric Generating Technology
Grace Herrick, The Gunnery, Washington, Teacher - Steven Bailey

AWARDS

Winning Projects of Regular Categories

Award	CSEF – Life Sciences					CSEF – Physical Sciences				
	LT	L7	L8	LS	LST	PT	P7	P8	PS	PST
1	1021	2044	2520	3098	3514	4020	5011	5561	6066	6516
2	1019	2045	2526	3087	3504	4030	5041	5515	6093	6520
3	1008	2042	2532	3068	3520	4017	5029	5517	6026	6506
4		2007	2535	3007			5030	5507	6045	
5		2032	2507	3104			5031	5519	6101	
M	1010	2015	2529	3034	3502	4002	5006	5508	6005	6502
M	1018	2022	2534	3041	3512	4003	5007	5510	6014	6510
M		2026	2541	3084		4009	5010	5540	6034	6514
M		2041	2543	3101		4026	5027	5547	6037	
M				3109		4033	5058	5554	6040	
M				3137				5556	6041	
M				3150					6056	
M				3163					6074	
M									6078	
M									6079	
M									6089	
M									6095	
M									6118	
M										

Winning Projects of Special Categories

Award	Biotechnology			Urban Challenge	
	7th grade	8th grade	9-12th gr	Middle	High
1	2039	5508	3087	5515	3098
2	1021	2520	3107	2532	6026
3	2025	2526	3034	2541	3515
4	2044	2501	6118	2523	6039
5	5045	2523	3014	1021	3158
M	2014	1010	3009	2022	3084
M	2017	2506	3016	5016	6029
M	2028	2507	3024	5526	6089
M	2030	2532	3040	5550	6091
M	2041	5519	3067	5563	6110
M	5029	5533	3091		6503
M			3163		
M					

Winning Projects of Special Categories

Award	Computer Science		Mathematics		Applied Tech		Envir Science	
	Middle	High	Middle	High	Middle	High	Middle	High
1	5556	6054	5556	6054	2044	6074	5011	3520
2	5031	6121	5539	6043	4026	6034	4030	3084
3	5018	3081	5031	6034	4030	3137	2044	3087
M	2543	3044	5504	3044	1010	3041	2028	3003
M	4026	6042	5565	6506	4014	6039	2511	3041
M		6043			5556	6096	4012	3080
M		6075			5563	6116	5029	3098
M		6506				6125	5508	6078
M						6502		
M								
M								
M								
M								
M								

Award	Energy		Sustainable Resource		Future Sustainability	
	Middle	High		Middle	High	
1	4030	6074		5508	3087	
2	5529	6034		5030	3104	
3	5507	6096		4030	3502	
M	5536	6045		2021	3137	
M	5537	6049		2028	3512	
M	5540	6059		2044	3520	
M	5566	6101		2507	6020	
M		6510		2535	6058	
M		6521		5029	6101	
M				5517	6510	
M						
M						
M						
M						
M						

Beyond CSF	
I-SWP	GENIUS
3087	3084
3520	3104
6074	3515
	6034

ISEF	
Sponsor	Project
CSEF	3007
CSEF	3068
CSEF	6066
CSEF	6093
Alexion	3087
USC	3098

UTC		CSTA	CASE	QU		Engineering	
Middle	High	Middle		Middle	High	Middle	High
4014	3084	2520	3098	5515		4014	6040
5018	6034	5561	6066	5550		5041	6045
5508	6040		5515			5508	6074
	6074		6026				6101
	6101						

STATS PLUS

Projects

Project Category	JrTm	7th	8th	Sr	SrTm	Total	%
Life Sciences	17	45	43	144	17	266	49%
Physical Sciences	29	55	65	109	21	279	51%
Total	46	100	108	253	38	545	
Percent	8%	18%	20%	46%	7%		100%

Project Grade	7	8	9	10	11	12	Total
Life Sciences	50	55	20	25	56	60	266
Physical Sciences	66	83	25	15	47	43	279
Total	116	138	45	40	103	103	545
Percent	21%	25%	8%	7%	19%	19%	100%

Project Gender	7	8	9	10	11	12	Total
Male	66	71	16	20	51	45	269
Female	50	67	29	20	52	58	276
Not Given							0
Total	116	138	45	40	103	103	545

Students

Student Category	JrTm	7th	8th	Sr	SrTm	Total	%
Life Sciences	37	45	43	144	38	307	47%
Physical Sciences	67	55	65	109	45	341	53%
Total	104	100	106	253	83	648	
Percent	16%	15%	17%	39%	13%		100%

Student Grade	7	8	9	10	11	12	Total
Life Sciences	57	68	21	30	70	61	307
Physical Sciences	84	103	31	19	53	51	341
Total	141	171	52	49	123	112	648
Percent	22%	26%	8%	8%	19%	17%	100%

Student Gender	7	8	9	10	11	12	Total
Male	79	87	21	26	61	50	324
Female	62	84	31	23	62	62	324
Not Given							
Total	141	171	52	49	123	112	648

Summary

	Students			Student Gender			Schools		
Category	Jr	Sr	Total	Male	Fem	Total	Jr	Sr	Total
Life Sciences	125	182	307	121	186	307			
Physical Sciences	187	154	341	203	138	341			
Total	312	336	648	324	324	648	68	57	121
Percent	48%	52%		50%	50%		Not to be totaled		

	Projects			Individual Projects			Team Projects		
Category	Jr	Sr	Total	Jr	Sr	Total	Jr	Sr	Total
Life Sciences	105	161	266	88	144	232	17	17	34
Physical Sciences	149	130	279	120	109	229	29	21	50
Total	254	291	545	208	253	461	46	38	84
Percent	47%	53%		45%	55%		55%	45%	

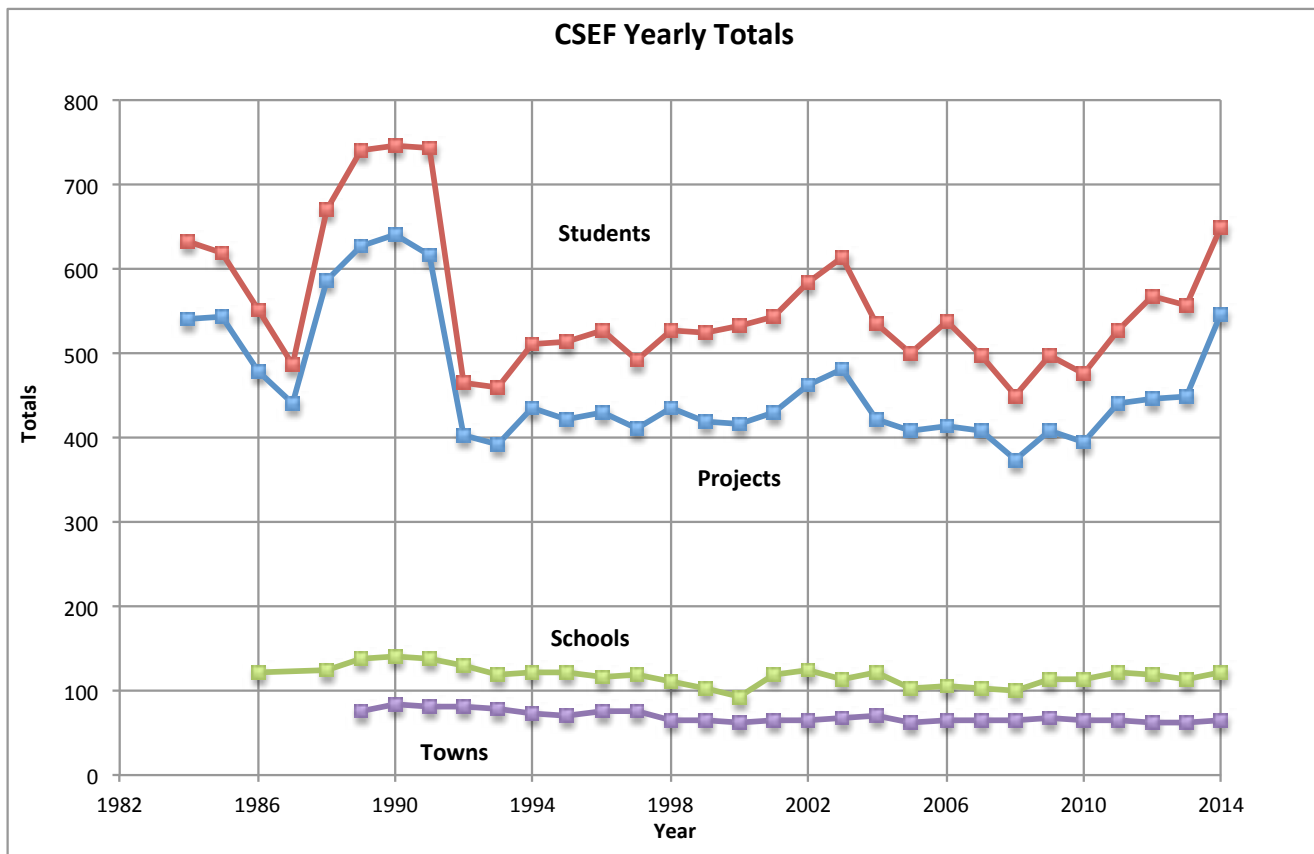
Awards

Regular = Reg + SpCat

Projects -->	Regular Awards			Special Awards			All Awards		
Category	Jr	Sr	Total	Jr	Sr	Total	Jr	Sr	Total
Life Sciences	34	31	65	20	33	53	45	47	92
Physical Sciences	45	42	87	33	36	71	56	55	111
Total	79	73	152	53	71	124	101	102	203
Percent	52%	48%		43%	57%		50%	50%	

Honors

Category		Projects				Students			
	Hon	Jr	Sr	Total	%	Jr	Sr	Total	%
Life Sciences	1	23	18	41		28	25	53	
Physical Sciences		29	24	53		40	30	70	
Sub Total		52	42	94	17%	68	55	123	19%
Life Sciences	2	42	84	156		49	90	139	
Physical Sciences		63	45	108		78	54	132	
Sub Total		105	129	234	43%	127	144	271	42%
Life Sciences	3	40	59	99		48	67	115	
Physical Sciences		57	61	118		69	70	139	
Sub Total		97	120	217	40%	117	137	254	39%
Total				545				648	



Graph Note (also see pages 68 and 69) -

1988 - Junior Individuals (LJ, PJ) were separated into L7, L8 and P7, P8 to reduce size of categories for judging process.

1991- Senior Teams (LST, PST) were added to the fair categories.

1992 - Maximum reservations for middle schools was changed from 6 to 3 projects per school.

1993 - Maximum reservations for middle schools was changed to 4 projects per school by request of teachers.

2014 - Maximum reservations for middle schools was changed to 6 projects and high schools to 15 projects.

General Data Totals by Year

Year	Location	Proj	Stu	Sch	Tw
1984	University of Connecticut, Storrs	540	634	----	---
1985	Quinnipiac College, Hamden	544	619	----	---
1986	Quinnipiac College, Hamden	478	552	121	---
1987	Connecticut College, New London	441	487	----	---
1988	Connecticut College, New London	587	671	124	---
1989	Trinity College, Hartford	627	740	138	75
1990	Trinity College, Hartford	642	746	142	85
1991	Quinnipiac College, Hamden	617	743	138	82
1992	Quinnipiac College, Hamden	403	465	130	81
1993	U.S. Coast Guard Academy, New London	393	461	119	78
1994	U.S. Coast Guard Academy, New London	435	511	123	72
1995	University of Connecticut, Storrs	421	513	121	70
1996	Connecticut College, New London	430	527	116	77
1997	Connecticut College, New London	410	491	119	75
1998	Quinnipiac College, Hamden	435	527	110	64
1999	Quinnipiac College, Hamden	419	525	102	65
2000	Quinnipiac College, Hamden	416	533	93	61
2001	Quinnipiac University, Hamden	430	543	118	65
2002	Quinnipiac University, Hamden	463	583	124	64
2003	Quinnipiac University, Hamden	482	613	114	68
2004	Quinnipiac University, Hamden	421	536	121	70
2005	Quinnipiac University, Hamden	407	501	103	63
2006	Quinnipiac University, Hamden	415	538	105	66
2007	Quinnipiac University, Hamden	407	498	103	65
2008	Quinnipiac University, Hamden	374	450	101	64
2009	Quinnipiac University, Hamden	409	498	114	68
2010	Quinnipiac University, Hamden	395	476	114	66
2011	Quinnipiac University, Hamden	442	526	122	66
2012	Quinnipiac University, Hamden	446	568	120	61
2013	Quinnipiac University, Hamden	448	557	113	61
2014	Quinnipiac University, Hamden	545	648	121	64

Project Category Totals by Year

Year	LT	L7	LJ	L8	LS	LST	PT	P7	PJ	P8	PS	PST
1984	58	-	137	-	74	--	36	-	162	-	73	--
1985	41	-	155	-	68	--	34	-	175	-	71	--
1986	36	-	125	-	60	--	38	-	152	-	67	--
1987	26	-	<u>136</u>	-	63	--	20	-	<u>157</u>	-	39	--
1988	37	70		89	47	--	47	94		144	59	--
1989	56	76		93	64	--	57	91		121	69	--
1990	63	105		89	83	--	41	78		102	81	--
1991	56	80		87	75	6	56	67		110	74	6
1992	32	35		60	79	7	23	45		60	62	0
1993	37	53		58	47	4	23	45		74	49	3
1994	31	40		70	64	14	25	49		88	51	3
1995	34	46		57	60	11	37	53		68	50	5
1996	40	42		64	53	14	37	44		76	54	6
1997	35	51		49	60	11	32	41		80	49	2
1998	35	58		61	56	15	30	58		54	58	10
1999	40	46		39	63	18	39	49		63	58	4
2000	46	46		44	62	11	43	42		59	50	13
2001	36	47		56	78	7	54	38		56	45	13
2002	43	44		63	74	27	36	47		59	58	12
2003	39	54		57	59	32	42	44		78	64	13
2004	32	40		44	67	16	42	38		65	58	19
2005	21	35		48	54	24	35	51		72	56	11
2006	22	25		46	48	29	33	47		76	63	26
2007	20	38		28	66	16	38	48		65	76	12
2008	19	38		46	59	29	14	47		51	61	10
2009	24	40		35	83	18	27	53		44	69	16
2010	19	30		36	75	16	23	52		61	65	18
2011	22	31		42	85	11	25	60		62	86	18
2012	27	34		43	92	20	34	44		54	74	24
2013	20	31		38	89	14	44	53		58	86	15
2014	17	45		43	144	17	29	55		65	109	21

STATS PLUS

Town	School	Type, No Res, Path & UC	Reserved		Registered		Entered			
Project Type: 2 = High or High/ Middle School, 1 = Middle School Only			J1	S1	J2	S2	J3	S3	P3	St3
Avon	Farmington Valley Academy Montessori	1 - - -	4	0	2	-	1	-	1	1
Avon	Talcott Mountain Academy	1 - - -	6	0	9	-	6	-	6	6
Baltic	Sayles School	1 - - -	3	0	3	--	2	-	2	2
Bethany	Amity Reg Middle School, Bethany Campus	1 - - -	8	0	8	-	5	-	5	9
Bethel	Bethel High School	2 - - -	0	9	-	10	-	7	7	7
Bethel	Bethel Middle School	1 - - -	0	0	-	-	-	-	-	-
Bethel	St. Mary School	1 - - -	10	0	19	-	10	-	10	11
Bozrah	Fields Memorial School	1 - - -	5	0	5	-	5	-	5	5
Branford	Connecticut Experiential Learning Center	1 - - -	7	0	6	-	6	-	6	7
Branford	St. Mary School	1 - - -	3	0	3	-	3	-	3	3
Brewster	Brewster High School	2 - - -	0	12	-	9	-	2	2	2
Brewster	H.H. Wells Middle School	1 - - -	6	0	3	-	2	-	2	2
Bridgeport	Bassick High School	2 x bp x	0	0	-	3	-	1	1	1
Bridgeport	Bridgeport Hope School	1 - - -	5	0	2	-	3	-	3	5
Bridgeport	Bridgeport Military Academy	2 x bp x	0	0	-	3	-	2	2	4
Bridgeport	Bridgeport Public Schools	2 - bp x	15	20	-	-	-	-	-	-
Bridgeport	Bridgeport Regional Aquaculture Center	2 x bp x	0	0	-	27	-	6	6	6
Bridgeport	Central High School	2 x bp x	0	0	-	3	-	3	3	3
Bridgeport	Fairchild Wheeler Magnet High School	2 x bp x	0	0	-	9	-	8	8	9
Bridgeport	Geraldine W. Johnson School	1 x bp x	0	0	1	-	1	-	1	1
Bridgeport	High Horizons Magnet School	1 x bp x	0	0	2	-	2	-	2	2
Bridgeport	Interdistrict Discovery Magnet School	1 x bp x	0	0	2	-	2	-	2	2
Bridgeport	Multicultural Magnet School	1 x bp x	0	0	4	-	4	-	4	4
Bridgeport	Park City Prep Charter School	1 - - x	8	0	8	-	7	-	7	9
Bridgeport	Read School	1 x bp x	0	0	1	-	1	-	1	1
Bridgeport	Roosevelt School	1 x bp x	0	0	1	-	1	-	1	1
Bridgeport	Six to Six Interdistrict Magnet School	1 - - x	3	0	2	-	2	-	2	2
Bridgeport	Warren Harding High School	2 x bp x	0	0	-	3	-	2	2	2
Bristol	St. Matthew School	1 - - -	4	0	4	-	4	-	4	4
Canton	Canton Middle School	1 - - -	5	0	3	-	3	-	3	3
Cheshire	St. Bridget School	1 - - -	2	0	2	-	2	-	2	2
Danbury	Danbury High School	2 - - x	0	5	-	4	-	4	4	4
Danbury	Immaculate High School	2 - - -	0	1	-	1	-	1	1	1
Danbury	St. Gregory the Great School	1 - - -	10	0	9	-	9	-	9	19
Danbury	St. Joseph School	1 - - -	10	0	38	-	10	-	10	12
Darien	Darien High School	2 - - -	0	10	-	12	-	11	11	11
East Hartford	East Hartford High School	2 - - x	0	4	-	1	-	1	1	1
Enfield	St. Martha School	1 - - -	4	0	4	-	4	-	4	11
Fairfield	Fairfield College Preparatory School	2 - - -	0	8	-	8	-	7	7	8
Fairfield	Fairfield Ludlowe High School	2 - - -	0	1	-	1	-	1	1	1
Fairfield	Fairfield Warde High School	2 - - -	0	2	-	1	-	1	1	2
Fairfield	Our Lady of Assumption School	1 - - -	4	0	6	-	4	-	4	4
Fairfield	St. Thomas Aquinas School	1 - - -	10	0	6	-	4	-	4	7
Falls Village	Lee H. Kellogg School	1 - - -	4	0	1	-	1	-	1	1
Farmington	Farmington High School	2 - - -	0	1	-	1	-	1	1	1
Fishers Island	Fishers Island School	2 - - -	0	8	-	8	-	8	8	8
Glastonbury	Glastonbury High School	2 x gp -	0	0	-	15	-	10	10	10
Glastonbury	Glastonbury Public Schools	2 - gp -	4	12	-	-	-	-	-	-
Glastonbury	Smith Middle School	1 x gp -	0	0	4	-	4	-	4	4
Greens Farms	Greens Farms Academy	2 - - -	4	8	4	8	4	7	11	11
Greenwich	Brunswick School	2 - - -	0	15	-	12	-	12	12	18
Greenwich	Central Middle School	1 - - -	10	0	2	-	1	-	1	1
Greenwich	Convent of the Sacred Heart School	2 - - -	0	15	-	11	-	11	11	16
Greenwich	Greenwich Academy	2 - - -	3	8	-	6	-	4	4	7
Greenwich	Greenwich Catholic School	1 - - -	3	0	2	-	2	-	2	4
Greenwich	Greenwich High School	2 - - -	0	15	-	33	-	16	16	16
Groton	Sacred Heart School	1 - - -	10	0	11	-	10	-	10	10
Guilford	E.C. Adams Middle School	1 - - -	5	0	12	-	5	-	5	7
Hamden	Hamden Hall Country Day School	2 - - -	0	4	-	3	-	3	3	3
Hamden	Hamden High School	2 - - -	0	6	-	6	-	5	5	5
Hamden	Hamden Middle School	1 - - -	10	0	6	-	6	-	6	8

School Tracking

Town	School	Type, No Res, Path & UC	Reserved		Registered		Entered			
Project Type: 2 = High or High/ Middle School, 1 = Middle School Only			J1	S1	J2	S2	J3	S3	P3	St3
Hamden	Sacred Heart Academy	2 - - -	0	9	-	36	-	9	9	9
Hartford	Academy of Aerospace and Engineering	2 - - x	0	5	-	5	-	1	1	1
Hartford	Capital Preparatory Magnet School	2 - - x	2	1	1	1	1	-	1	1
Hartford	Environmental Sciences Magnet School at MH	1 - - x	8	0	7	-	7	-	7	7
Hartford	Greater Hartford Academy of Math & Science	2 - - x	0	11	-	12	-	7	7	7
Hartford	Hartford Magnet Trinity College Academy	2 - - x	0	2	-	1	-	1	1	1
Hartford	High School Inc.	2 - - x	0	10	-	16	-	-	-	-
Hartford	SS. Cyril and Methodius School	1 - - -	2	0	2	-	2	-	2	2
Hartford	Two Rivers Magnet High School	2 - - x	0	6	-	4	-	5	5	6
Hebron	RHAM High School	2 - - -	0	2	-	2	-	2	2	3
Hebron	RHAM Middle School (I)	1 - - -	1	0	1	-	1	-	1	1
Kensington	St. Paul School	1 - - -	6	0	1	-	3	-	3	3
Madison	Daniel Hand High School	2 - - -	0	2	-	2	-	2	2	2
Madison	Our Lady of Mercy School	1 - - -	4	0	3	-	4	-	4	4
Manchester	East Catholic High School	2 - - -	0	1	-	1	-	1	1	1
Manchester	Manchester High School	2 - - -	0	3	-	3	-	3	3	3
Manchester	St. Bridget School	1 - - -	2	0	2	-	2	-	2	2
Middletown	Middletown High School	2 - - -	0	5	-	2	-	1	1	1
Milford	St. Gabriel School	1 - - -	6	0	7	-	6	-	6	6
New Britain	Pope John Paul II School	1 - - -	2	0	2	-	2	-	2	2
New Britain	Sacred Heart School	1 - - -	3	0	6	-	3	-	3	3
New Haven	Betsy Ross Arts Magnet School	1 - - x	4	0	4	-	4	-	4	4
New Haven	Cooperative Arts & Humanities High School	2 - - x	0	2	-	2	-	2	2	3
New Haven	Engineering & Science University Magnet Sch	2 - - x	3	3	2	2	2	2	4	4
New Haven	Hill Regional Career High School	2 - - x	0	4	-	4	-	3	3	5
New Haven	St. Aedan- St. Brendan School	1 - - -	4	0	4	-	3	-	3	3
New Haven	Worthington Hooker Middle School	1 - - x	4	0	49	-	4	-	4	7
New London	Science & Technology Magnet High School	2 - - x	0	2	-	2	-	-	-	-
New Milford	New Milford High School	2 - - -	0	5	-	7	-	4	4	4
Newington	St. Mary School	1 - - -	4	0	4	-	4	-	4	4
Newtown	Newtown Middle School	1 - - -	4	0	8	-	4	-	4	4
Newtown	St. Rose of Lima School	1 - - -	10	0	19	-	10	-	10	10
Northfield	Litchfield Montessori School	1 - - -	0	0	-	-	-	-	-	-
Norwalk	Norwalk Public Schools	2 - np x	3	7	-	-	-	-	-	-
Norwalk	The Montessori Middle School	1 - - -	5	0	2	-	2	-	2	2
Norwalk	West Rocks Middle School	1 x np x	0	0	1	-	-	-	-	-
Norwich	Norwich Free Academy	2 - - -	0	1	-	1	-	1	1	1
Oakdale	Leonard J. Tyl Middle School	1 - - -	10	0	2	-	-	-	-	-
Orange	Southern CT Hebrew Academy	1 - - -	6	0	6	-	6	-	6	9
Oxford	Oxford High School	2 - - -	0	15	-	21	-	14	14	14
Pawcatuck	St. Michael School	1 - - -	4	0	5	-	4	-	4	5
Plantsville	J.F. Kennedy Middle School	1 - - -	4	0	4	-	3	-	3	4
Putnam	Putnam Science Academy	2 - - -	0	10	-	7	-	6	6	14
Redding	Joel Barlow High School	2 - - -	0	10	-	17	-	10	10	10
Redding	Southern CT Invitational Sci & Eng Fair	2 - ci -	0	5	-	5	-	5	5	6
Ridgefield	Ridgefield High School	2 - - -	0	7	-	7	-	7	7	7
Sandy Hook	Newtown High School	2 - - -	0	4	-	4	-	3	3	3
Shelton	Shelton High School	2 - - -	0	8	-	8	-	6	6	9
Simsbury	Simsbury High School	2 - - -	0	13	-	14	-	14	14	14
Southington	J.A. DePaolo Middle School	1 - - -	4	0	4	-	4	-	4	6
Southington	St. Thomas School	1 - - -	2	0	2	-	2	-	2	2
Stamford	Bi-Cultural Day School	1 - - -	3	0	3	-	3	-	3	5
Stamford	Rippowam Middle School	1 - - x	1	0	1	-	1	-	1	1
Storrs	E.O. Smith High School	2 - - -	0	3	-	2	-	2	2	2
Stratford	St. Mark School	1 - - -	6	0	6	-	5	-	5	5
Suffield	Suffield High School	2 - - -	0	15	-	11	-	8	8	12
Tolland	Stonewall Academy	2 - - -	0	1	-	1	-	1	1	1
Trumbull	Christian Heritage School	2 - - -	3	3	3	3	3	3	6	6
Wallingford	Choate Rosemary Hall	2 - - -	0	3	-	2	-	2	2	2
Washington	The Gunnery School	2 - - -	0	1	-	1	-	1	1	1
West Hartford	Solomon Schechter Day School	1 - - -	3	0	3	-	3	-	3	3

Town	School	Type, No Res, Path & UC	Reserved		Registered		Entered			
Project Type: 2 = High or High/ Middle School, 1 = Middle School Only			J1	S1	J2	S2	J3	S3	P3	St3
West Hartford	St. Brigid School	1 - - -	2	0	2	-	2	-	2	3
West Hartford	St. Timothy Middle School	1 - - -	4	0	4	-	4	-	4	4
West Haven	Notre Dame High School	2 - - -	0	1	-	1	-	-	-	-
Westport	Staples High School	2 - - -	0	12	-	15	-	11	11	11
Willington	Hall Memorial School	1 - - -	6	0	3	-	3	-	3	4
Wilton	Middlebrook School	1 - - -	4	0	4	-	3	-	3	5
Wilton	Wilton High School	2 - - -	0	1	-	1	-	-	-	-
Windsor	Madina Academy	2 - - -	6	7	4	6	4	5	9	18
Windsor	St. Gabriel School	1 - - -	4	0	4	-	4	-	4	4
Woodbridge	Amity Regional High School	2 - - -	0	15	-	35	-	15	15	15
Woodbridge	Ezra Academy	1 - - -	2	0	1	-	-	-	-	-
Schools = 133			336	379	381	462	254	291	545	648

Abbreviations: bp = Bridgeport Public, ci = SCISEF, np = Norwalk Public, x = no school reservation,
J, S, P = Junior, Senior, and Jr + Sr Projects, St = Students

School Summary for 2014

Total Contacts = 133 Schools
(Unregistered schools are included)

Registered Schools = 118
Regular Schools = 117
Home Schools = 1

Non-Registered Schools = 15
Bridgeport Public Schools = 12
Glastonbury Public Schools = 2
Norwalk Public Schools = 1

2014 CSEF Schools
Total Contacts 133

In Fair 121
Withdraws 002
City Fairs 003
No-Shows 007

	<u>Sch</u>	<u>Proj</u>	<u>Stu</u>
School Reservations	118	715	----
Project Registrations	128	843	---
Sch Approved Proj	128	590	---
Entered Fair	121	545	648

Returning Students

Yrs	Student		Hometown	Grade	School	SchTown	Honors
6 Years - 1 Student							
6	Oei	Bridget	Hebron	12	East Catholic High School	Manchester	1
5 Years - 2 Students							
5	Ahmed	Aasiya	Windsor	11	Madina Academy Upper School	Windsor	2
5	Kerr	Janine	Danbury	11	Danbury High School	Danbury	1
4 Years - 7 Students							
4	Avci	Selman	Middletown	12	Putnam Science Academy	Putnam	1
4	Gulati	Gazal	Fairfield	11	Fairfield Warde High School	Fairfield	3
4	Gulati	Sagar	Fairfield	11	Fairfield Warde High School	Fairfield	3
4	Mahmood	Rigel	Shelton	12	Shelton High School	Shelton	2
4	Myrzatay	Almas	Putnam	12	Putnam Science Academy	Putnam	1
4	Provost	Connor	Bozrah	10	Norwich Free Academy	Norwich	3
4	Roychoudhury	Shayan	Madison	11	Daniel Hand High School	Madison	2
3 Years - 21 Students							
3	Agarwal	Aakshi	Hamden	9	Hamden High School	Hamden	2
3	Agarwal	Ank	Hamden	11	Hamden High School	Hamden	2
3	Ashraf	Rayyan	Windsor	11	Madina Academy Upper School	Windsor	2
3	Catalbasoglu	Hacibey	Putnam	11	Putnam Science Academy	Putnam	1
3	Choudhury	Shakeel	Bloomfield	11	Madina Academy Upper School	Windsor	2
3	Curtis	Jamie	Redding	12	Joel Barlow High School	Redding	3
3	ElSherbini	Osama	Windsor	9	Madina Academy Upper School	Windsor	2
3	Giebisch	Daniel	Woodbridge	11	Amity Regional High School	Woodbridge	3
3	Gombos	Peter	Easton	11	Joel Barlow High School	Redding	3
3	Haddad	Martha	Danbury	9	Immaculate High School	Danbury	2
3	Han	Paul	Glastonbury	10	Glastonbury High School	Glastonbury	3
3	Hovstadius	Malin	Westport	11	Staples High School	Westport	3
3	Johnson	Kayla	Hamden	9	Hamden High School	Hamden	2
3	Khan	Aden	Windsor	11	Madina Academy Upper School	Windsor	2
3	Kharbouch	Rami	Bridgeport	11	Bassick High School	Bridgeport	1
3	Mannan	Lamisa	Orange	12	Amity Regional High School	Woodbridge	2
3	Qureshi	Usra	Windsor	11	Madina Academy Upper School	Windsor	2
3	Roychoudhury	Ankita	Madison	9	Daniel Hand High School	Madison	2
3	Siveyer	Jonathan	Monroe	9	Fairfield College Preparatory School	Fairfield	2
3	Thomas	Justin	Hamden	12	Hamden High School	Hamden	3
3	Vora	Ninad	Glastonbury	9	Glastonbury High School	Glastonbury	3
2 Years - 111 Students							
2	Abbasi	Eeman	Orange	12	Southern CT Invitational Sci & Eng Fair	Redding	2
2	Afzaal	Lariab	Windsor	10	Two Rivers Magnet High School	Hartford	3
2	Ashraf	Nuha	Windsor	8	Madina Academy	Windsor	2
2	Attina	Amanda	Danbury	8	St. Joseph School	Danbury	2
2	Austin	Samantha	Bethany	12	Amity Regional High School	Woodbridge	2
2	Backhaus	Olivia	Stonington	12	Fishers Island School	Fishers Island NY	3
2	Baker	Lukas	Suffield	10	Suffield High School	Suffield	3
2	Banbury	Sara	Westport	12	Staples High School	Westport	2
2	Bandyopadhyay	Mitali	Farmington	10	Sacred Heart Academy	Hamden	2
2	Baumann	Rachel	Simsbury	9	Simsbury High School	Simsbury	1
2	Bender	Evan	Southington	8	J.A. DePaolo Middle School	Southington	1
2	Brennan	Mairead	New Haven	11	Cooperative Arts and Humanities High Sch	New Haven	2
2	Brown	Kirya	Bridgeport	9	Central High School	Bridgeport	3
2	Cazzaniga	Nicolas	Bethel	10	Bethel High School	Bethel	1
2	Choudhury	Jareen	Bloomfield	8	Madina Academy	Windsor	2
2	Christofor	Gabrielle	Wallingford	8	Betsy Ross Arts Magnet School	New Haven	2
2	Chung	Dana	Orange	11	Amity Regional High School	Woodbridge	3
2	Cirino	Margaret	Greenwich	9	Greenwich High School	Greenwich	1
2	Cirrito	Joseph	Bozrah	8	Fields Memorial School	Bozrah	2
2	Curra	Dominick	Danbury	8	St. Gregory the Great School	Danbury	2

STATS PLUS

Yrs	Student		Hometown	Grade	School	SchTown	Honors
2	Dascano	Kendra	Danbury	8	St. Gregory the Great School	Danbury	3
2	DeFeo	Noah	Plantsville	8	St. Thomas School	Southington	3
2	Dexheimer	Eric	Westport	12	Greens Farms Academy	Greens Farms	2
2	Diaz	Ian	Shelton	10	Shelton High School	Shelton	2
2	Doelp	Arthur	Darien	12	Greens Farms Academy	Greens Farms	2
2	Dorsey	Michael	Southington	8	J.A. DePaolo Middle School	Southington	1
2	Draughn	Darrell	Hamden	8	St. Aedan-St. Brendan School	New Haven	3
2	El-Dirany	Mohamed	Glastonbury	12	Glastonbury High School	Glastonbury	2
2	Englander	Ryan	Suffield	12	Grtr Hartford Academy of Math & Science	Hartford	3
2	Fabian	Ava	Bridgeport	8	Interdistrict Discovery Magnet School	Bridgeport	1
2	Fahey	James	Danbury	8	St. Gregory the Great School	Danbury	1
2	Ferguson	Amber	Fishers Island	12	Fishers Island School	Fishers Island NY	3
2	Folan	Hannah	Bethel	8	St. Mary School	Bethel	2
2	Gallant	Noah	Bethany	11	Southern CT Invitational Sci & Eng Fair	Redding	2
2	Geffert	Zachary	Oxford	11	Oxford High School	Oxford	2
2	Geradi	Maya	New Haven	8	Worthington Hooker Middle School	New Haven	1
2	Golbazi	Arvene	Bethany	11	Amity Regional High School	Woodbridge	2
2	Gold	Rebecca	West Hartford	8	Solomon Schechter Day School	West Hartford	2
2	Gorneault	Ryan	Bristol	8	Talcott Mountain Academy	Avon	2
2	Grimard	Paul	Suffield	12	Suffield High School	Suffield	3
2	Hawkes	Dylan	Trumbull	11	Fairfield College Preparatory School	Fairfield	2
2	Hernandez	Sarah	Bridgeport	8	Multicultural Magnet School	Bridgeport	2
2	Hoch	Nora	Wilton	8	Middlebrook School	Wilton	1
2	Hora	Niyati	Glastonbury	8	Smith Middle School	Glastonbury	3
2	Horton	Brittany	So Glastonbury	12	Glastonbury High School	Glastonbury	1
2	Hosny	Yara	East Haven	12	Hill Regional Career High School	New Haven	3
2	Jarboe	Makinsey	Danbury	8	St. Joseph School	Danbury	3
2	Jung	Hyojune	Bridgeport	8	Six to Six Interdistrict Magnet School	Bridgeport	3
2	Kantor	Max	Westport	12	Staples High School	Westport	2
2	Kasem	Nader	Glastonbury	8	Madina Academy	Windsor	1
2	Khan	Ayesha	Windsor	10	Madina Academy Upper School	Windsor	3
2	Kleine	Francesca	Hamden	10	Hamden High School	Hamden	3
2	Krawczuk	Kamila	New Britain	8	Pope John Paul II School	New Britain	1
2	Lam	Justin	Windsor	8	St. Gabriel School	Windsor	2
2	Liu	Victoria	Bethany	11	Amity Regional High School	Woodbridge	2
2	LoCicero	Michael	Milford	8	St. Gabriel School	Milford	2
2	Low	Lauren	Hamden	9	Engineering & Science University Magnet	New Haven	1
2	Luk	Michaela	Stratford	8	St. Mark School	Stratford	3
2	Ma	Andrew	Riverside	11	Greenwich High School	Greenwich	1
2	Mahamoon	Sithy	Windsor	10	Madina Academy Upper School	Windsor	1
2	Martin	Roque	Easton	12	Greens Farms Academy	Greens Farms	2
2	Mathew	Irene	Danbury	11	Danbury High School	Danbury	3
2	McCann	Emilie	Wilton	8	Middlebrook School	Wilton	1
2	McCoy	Kevin	Danbury	8	St. Gregory the Great School	Danbury	2
2	McGee	Clara	Oxford	12	Oxford High School	Oxford	2
2	McGowan	Andrea	Redding	11	Joel Barlow High School	Redding	3
2	McMurphy	Reed	Stamford	11	Brunswick School	Greenwich	1
2	McNamara	Jake	Danbury	8	St. Gregory the Great School	Danbury	1
2	Minichetti	Maxmillian	Greenwich	11	Greenwich High School	Greenwich	1
2	Mo	Junlin	Bridgeport	9	Fairfield College Preparatory School	Fairfield	3
2	Montinaro	Alessandro	Greenwich	11	Brunswick School	Greenwich	3
2	Mossberg	Max	Windsor	8	St. Gabriel School	Windsor	1
2	Niski	Joseph	Shelton	10	Shelton High School	Shelton	2
2	Novek	Ethan	Greenwich	9	Greenwich High School	Greenwich	1
2	Ouellette	Andrew	Burlington	8	Talcott Mountain Academy	Avon	3
2	Palinkos	Erin	Southington	8	J.A. DePaolo Middle School	Southington	2
2	Patel	Vishal	East Haven	10	Hill Regional Career High School	New Haven	3
2	Peck	Amelia	Tolland	9	Stonewall Academy	Tolland	2
2	Pendo	Kevin	Darien	11	Brunswick School	Greenwich	2
2	Peracha	Arooba	Tolland	9	Madina Academy Upper School	Windsor	3

Returning Students

Yrs	Student		Hometown	Grade	School	SchTown	Honors
2	Provost	Katie	Bozrah	8	Fields Memorial School	Bozrah	1
2	Rahman	Khaleel	Windsor	8	Madina Academy	Windsor	1
2	Raman	Mahesh	Stamford	11	Brunswick School	Greenwich	1
2	Rashan	Trinity	Waterford	8	Sacred Heart School	Groton	2
2	Raymond	Matthew	Fairfield	12	Bridgeport Regional Aquaculture Center	Bridgeport	2
2	Robinson	Cooper	Riverside	11	Brunswick School	Greenwich	2
2	Rogers	Matthew	Suffield	10	Suffield High School	Suffield	2
2	Russell	Peter	Riverside	11	Greenwich High School	Greenwich	1
2	Santiago	Yucel	Hartford	8	SS. Cyril and Methodius School	Hartford	3
2	Saviano	Tiffany	Danbury	8	St. Mary School	Bethel	2
2	Saxe	Sarah	Woodbridge	9	Southern CT Invitational Sci & Eng Fair	Redding	3
2	Schumitz	Kevin	Oxford	12	Oxford High School	Oxford	2
2	Shafran	Ashley	Southington	8	J.A. DePaolo Middle School	Southington	2
2	Simons	Cole	Guilford	8	Our Lady of Mercy School	Madison	2
2	Smith	Elizabeth	Madison	10	Sacred Heart Academy	Hamden	1
2	Spell	Jacob	New Haven	8	St. Aedan-St. Brendan School	New Haven	3
2	Stitzer	Franklin	Greenwich	11	Brunswick School	Greenwich	3
2	Sud	Sivan	Greenwich	12	Brunswick School	Greenwich	2
2	Suleyman	Berk	Putnam	11	Putnam Science Academy	Putnam	1
2	Tanner	Christian	Rye	11	Brunswick School	Greenwich	2
2	Vissak	Quinn	Bethel	11	Bethel High School	Bethel	2
2	Walawalkar	Isha	Glastonbury	12	Glastonbury High School	Glastonbury	2
2	Walker	Nicholas	Danbury	8	St. Gregory the Great School	Danbury	2
2	Wargo	Julia	Easton	12	Joel Barlow High School	Redding	3
2	Wendt	Ryan	Easton	11	Joel Barlow High School	Redding	3
2	Westgate	Brian	Oxford	12	Oxford High School	Oxford	2
2	Windsor	Evan	Bozrah	8	Fields Memorial School	Bozrah	2
2	Zakoworotny	Kristin	Woodbridge	12	Amity Regional High School	Woodbridge	3
2	Zhao	Dorry Xun	Darien	12	Darien High School	Darien	2
2	Zhu	Jennifer	Bethany	12	Amity Regional High School	Woodbridge	3
2	Zielinski	Kyle	Suffield	11	Suffield High School	Suffield	3

Total Returns = 142 Students

2014 Intel ISEF

May 11 - 16, 2014
Los Angeles, CA

2014 I-SWEEEP

April 30 - May 5, 2014
Houston, Texas

2014 Genius Olympiad

June 16 - 20, 2014
Oswego, New York

Beyond Connecticut Science & Engineering Fair

Many projects have won trips to other competitions. The following pages show some of those projects with their CSEF awards and abstracts.

Intel ISEF

CSEF Life Sciences

Megan Boyer, Manchester High School, Manchester

Emma Goodman, Greenwich High School, Greenwich

CSEF Physical Sciences

Isabelle Goldstein, Ridgefield High School, Ridgefield

Anubhuti Mathur, Glastonbury High School, Glastonbury

CSEF Special Categories

Alexion Biotechnology - **Bridget Oei**, East Catholic High School, Manchester

Urban School Challenge - **Janine Kerr**, Danbury High School, Danbury

I-SWEEEP

Bridget Oei, East Catholic High School, Manchester

Cagri Aytekin, Berk Suleyman and Erkam Curuk, Putnam Science Academy, Putnam

Ethan Novek, Greenwich High School, Greenwich

GENIUS

Lauren Low, Engineering & Science University Magnet School, New Haven

Kenneth Dorian, Greenwich High School, Greenwich

Sylwia Zambrzycka and Meeshali Patel, Hill Regional Career High School, New Haven

Grace Herrick, The Gunnery, Washington

Intel International Science & Engineering Fair (ISEF) Competitors

CSEF Life Sciences

1st place winner will represent Urban Challenge at ISEF.

2nd place winner will represent Alexion Biotechnology at ISEF.

3rd and 4th place winners will represent CSEF Life Sciences at ISEF.

3068 LS The Kinematics of Barefoot and Shod Running

Manchester, Manchester High School, Teacher - Megan Rader

Megan Boyer, Manchester 12

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- U.S. Metric Association --- Certificate & \$50 gift card to Amazon given by CSEF

3007 LS Synergistic Antimicrobial Activity of Manuka Honey and Silver Nitrate

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Emma Goodman, Riverside 11

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque
- Lunch with a Patent Attorney --- Lunch with a Patent Attorney

Alexion Biotechnology

3087 LS Investigating the Efficacy of Bioluminescent Mushroom Panellus Stipticus as a Biosensor to Detect the Toxicity of Water Contaminants

Manchester, East Catholic High School, Teacher - Paul Oei

Bridget Oei, Hebron 12

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF
- Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
- EnergizeCT/CL&P/esmarts Future Sustainability Awards --- 1st Place High School - \$800 Cash, Plaque, and Trip to Compete I-SWEEEP, Houston
- Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- Trip to compete at Intel ISEF, \$1000 & plaque,
- Connecticut Science Supervisors Association --- \$125 for a high school project
- Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash
- University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Sustainability

Intel International Science & Engineering Fair (ISEF) Competitors**CSEF Physical Sciences**

- 6066 PS Partitioning gamma-ray sources in Fermi Large Area Telescope observations for spatial and spectral analysis
Ridgefield, Ridgefield High School, Teacher - Michael Yagid
Isabelle Goldstein, Ridgefield 12
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 1st Place - Physical Sciences Senior High Individual - \$500 & Plaque, trip to compete at Intel ISEF
 - H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT --- Physical Sciences 1st HS \$1,000 cash, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
 - Astronomical Society of Greater Hartford --- Senior Project-\$150, subscription to Sky and Telescope magazine and ASGH meeting invitation -1st place
- 6093 PS Synthesis and Characterization of EGCG-PLAGA Conjugates and Mixtures
Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle
Anubhuti Mathur, Glastonbury 11
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual - \$300 & Plaque, trip to compete at Intel ISEF
 - Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate

Urban School Challenge

- 3098 LS Biological Control of the Invasive Eurasian Watermilfoil Using Aquatic Weevils
Danbury, Danbury High School, Teacher - Mr. John LaRosa
Janine Kerr, Danbury 11
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque, Trip to compete at Intel ISEF
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 1st Place High School - \$500 and Plaque, Medallion and trip to compete at Intel Int. Sci. & Eng. Fair
 - Environmental Sciences Awards with CACIWC --- HS Finalist - CACIWC gifts, CSF Medallion, Acrylic award
 - H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT --- Life Sci. Senior 1st HS- \$1,000 cash, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
 - H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT --- \$500 to 1st Place HS Urban School Challenge Science Department for Equipment/Supplies
 - American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
 - Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash
 - Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash
 - Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum

ISEF Abstracts - CSEF Life Sciences**NAME: Megan Boyer****SCHOOL:** Manchester High School, Manchester**TEACHER/MENTOR:** Megan Rader**TITLE:** The Effects of Barefoot and Shod Running on Risk of Injury in High School, Female, Recreational Runners

While previous studies have investigated the incidence of injuries among high school cross country runners, there has yet to be a study conducted to compare barefoot and shod running in this population. My experiment investigates the influence of these two conditions on biomechanical risk factors that have previously been associated with injuries in female high school runners. Eleven recreational runners participated in this study. Ten trials were conducted per condition for each runner. A trial was defined as one run down the fifty foot long track with the runners striking the force plate with their right foot. Step frequency, step length, contact time, knee flexion angle in the stance phase, sole angle at touchdown, the peak impact force, and the length of time the maximum force was sustained for were compared between both conditions. Stride length and contact time were both shorter in the barefoot condition, which led to less prominent rearfoot striking among the majority of runners. The knee flexion angle and sole angle were also smaller when barefoot, which are both impact reducing mechanisms. Impact forces were higher in the barefoot condition, as was expected for runners who typically run with shoes. However, other biomechanical adaptations were clearly made. This includes a shorter period of time during which the maximum force was sustained during barefoot running in comparison to shod running. This information could be used to support a prospective study that follows barefoot and shod high school runners to determine the incidence of injury in each group.

NAME: Emma Goodman**SCHOOL:** Greenwich High School, Greenwich**TEACHER/MENTOR:** Andrew Bramante**TITLE:** Synergistic Antimicrobial Activity of Manuka Honey and Silver Nitrate

Antibiotic resistance is a significant problem in contemporary medicine. Drug-resistant microbial strains limit the number of treatments available to patients, which has led to a push for new antibiotic therapies. Traditional topical antibacterial agents such as honey and silver are once again gaining favor due to their low propensity to induce microbial resistance and effectiveness in treating infected wounds. This research investigates synergistic combinations of manuka honey (MH) and aqueous silver cations (Ag^+) that could act as a new antimicrobial treatment with increased effectiveness and a broad spectrum of activity against many different types of bacteria. *E. coli* K-12 W1485, which closely mimics the behavior of pathogenic O157-H7, was cultured in broth and subjected to broth dilution susceptibility testing to determine minimum inhibitory concentrations (MIC) of MH and Ag^+ . To investigate synergistic interaction between MH and Ag^+ against *E. coli*, a 96-wellplate checkerboard was created with 2.5-160 μM AgNO_3 and 0-20% MH. The MICs were observed as the lowest concentrations that lacked visible growth, which was confirmed via OD650. Samples from the wells that inhibited bacterial growth were then plated and checked for visible growth after 24 hours to look for synergistic bactericidal activity. The combination index was calculated as 0.75, indicating synergistic growth inhibition. Cytotoxicity studies using human epidermal keratinocytes (HEKa), a MTS cell proliferation assay, and microscopy will be conducted to confirm that MH/ Ag^+ is not harmful to normal skin cells. Combined results will demonstrate that a MH/ Ag^+ regimen will be effective as an antimicrobial treatment for infected wounds.

ISEF Abstracts - CSEF Physical SciencesNAME: **Isabelle Goldstein**

SCHOOL: Ridgefield High School, Ridgefield

TEACHER/MENTOR: Michael Yagid

TITLE: Partitioning Gamma-Ray Sources in Fermi Large Area Telescope Observations for Spatial and Spectral Analysis

The Weakly Interacting Massive Particle (WIMP) theory for dark matter predicts the production of gamma radiation from WIMP annihilation and decay. To examine the possibility of WIMP dark matter, gamma ray sources from M31 are partitioned from the Fermi Gamma-ray Space Telescope from the LAT instrument with 5 years of clean and ultraclean cut-data in the 1 – 300 GeV range. Background, halo, and point source distributions are then used in a spectral and spatial analysis. The spectrum is well described by a power law, but the polar averaged radial density is a good fit with a line of sight integral of the linear and squared Navarro - Frenk - White (NFW) density profile with an $R^2 = 0.9992$. The NFW fit also exhibits a significantly larger contribution coefficient from decay processes than annihilation. The correlation between theory and predictions suggests that either WIMPs are the source of the radiation, astrophysical processes are influenced by dark matter that follows this density fall off, or astrophysical processes follow this profile randomly. These findings raise fundamental questions on the origin of galactic halo gamma rays, and warrants continued research in the field.

NAME: **Anubhuti Mathur**

SCHOOL: Glastonbury High School, Glastonbury

TEACHER/MENTOR: Diane Pintavalle

TITLE: The Synthesis and Characterization of EGCG-PLGA Conjugates and Mixtures: A Novel Biomaterial for Tissue Engineering

The engineering of biomaterials with suitable biochemical, physiochemical, and mechanical properties is a major challenge in tissue engineering. There is a need to develop novel materials that have desired physics properties that also incorporate biomolecules that enhance their biological response. Epigallocatechin gallate, or EGCG, has successfully been used in several medical applications, such as in cancer therapeutic drugs. The goal of this project is to explore EGCG's potential as a biomolecule for enhancing the functionality of structures called scaffolds for tissue repair and regeneration. EGCG was encapsulated into scaffolds composed of a well established polymer called poly(lactic-coglycolic acid), or PLGA, of three types: microparticles, electrospun matrices, and thin films. The products were subjected to analytical techniques that confirmed the presence of EGCG in the PLGA scaffolds, including loading efficiency analysis, Fourier Transform Infrared Spectroscopy, and Scanning Electron Microscopy imaging. In addition, EGCG and PLGA were chemically conjugated. The chemical conjugation was supported using Differential Scanning Calorimetry, through which the glass transition temperature of the conjugates and PLGA were seen to be different. Cartilage cell studies were conducted with electrospun matrices encapsulated with EGCG due to the decreased diameter and increased hydrophilicity of the fibers in that increased the surface area of the matrix and created a more favorable environment for cells to grow on. The cell studies showed that cartilage cells exhibited greater confluency on EGCG-PLGA electrospun than on electrospun matrices of only PLGA. Future studies include assessing cartilage cell performance on electrospun matrices of EGCGPLGA chemical conjugates.

ISEF Abstracts - CSEF Special Categories**NAME: Bridget Oei****SCHOOL:** East Catholic High School, Manchester**TEACHER/MENTOR:** Paul Oei**TITLE:** Investigating the Efficacy of Bioluminescent Mushroom *Panellus Stipticus* as a Biosensor to Detect the Toxicity of Water Contaminants

Conventional chemical assays of water samples typically target certain chemicals and are difficult to apply to a broad range of water contaminants. An economical and robust bioassay method for determining the toxicity of water contaminants should help improve public health worldwide. This research explored the effect of six common water contaminants - CuSO₄, ZnSO₄, NaNO₃, HgCl₂, Atrazine, and Permethrin, on the bioluminescence of the *Panellus Stipticus* mushroom. *Panellus Stipticus* was cultivated using two methods; a nutrient culture method and a plug spawn method. The harvested mushrooms were introduced to contaminants that were diluted according to EPA Maximum Contaminant Level values and at other varying concentrations. Decay in *Panellus Stipticus* bioluminescence intensity was visually monitored as well as measured using a Sper Lux/FC meter. Decay can be visibly observed with bioluminescent intensity reduction of 10%. The bioluminescent intensity of *Panellus Stipticus* was measured at 4.7 lux. 30 minutes exposure to metal salts, CuSO₄, HgCl₂, and ZnSO₄, reduced the bioluminescent intensity by 68-72%. 90 minutes exposure to alkali metal salt contaminant, NaNO₃, showed a reduction of bioluminescence intensity by 15%. *Panellus Stipticus* subjected to Atrazine and Permethrin contaminants showed a reduction of bioluminescence intensity by 12-13% after 150 minutes. Bioluminescence intensity decay of 10% or greater could be detected within 130 minutes under all contaminant concentrations. This makes *Panellus Stipticus* a viable qualitative and quantitative biosensor to detect toxicity of water sources.

NAME: Janine Kerr**SCHOOL:** Danbury High School, Danbury**TEACHER/MENTOR:** Mr. John LaRosa**TITLE:** Biological Control of the Invasive Eurasian Watermilfoil Using Aquatic Weevils

Eurasian water milfoil (EWM) is an invasive species of aquatic plant that grows in thick mats with stems that grow up to three meters long. The milfoil grows and spreads rapidly, crowding out native plants, interfering with recreational activity, and causing severe ecological damage. Since its accidental introduction into the United States in the 1940's, milfoil has been found in almost every state. Present methods of control include the use of dangerous chemical herbicides that cause mortality in non-target species such as native plants and aquatic vertebrates and invertebrates. I developed an approach to control EWM using small native aquatic insects that feed on it called milfoil weevils. Adult weevils lay their eggs on the stems of milfoil plants, and once hatched the larvae burrow into the stems destroying them. Milfoil was harvested from a local lake and grown in fish tanks. After four weeks exposure to the milfoil weevils I measured both the stem growth rate and overall biomass of the milfoil stems and roots. I found that the weevils were effectively able to control the growth of EWM dependent upon weevil stocking density significantly reducing milfoil growth by 54%. In addition, I compared the effect of weevils to the herbicide Diquat. Although efficacious, Diquat was toxic to non-target species and aquatic invertebrates. Therefore, I was able to demonstrate that biological control using milfoil weevils is a promising and environmentally-safe approach towards controlling the growth of this ecologically dangerous and economically threatening invasive species.

International Sustainable World (I-SWEEEP) Competitors

3087 LS Investigating the Efficacy of Bioluminescent Mushroom *Panellus Stipticus* as a Biosensor to Detect the Toxicity of Water Contaminants

Manchester, East Catholic High School, Teacher - Paul Oei

Bridget Oei, Hebron 12

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF
- Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
- EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- 1st Place High School - \$800 Cash, Plaque, and Trip to Compete I-SWEEEP, Houston
- Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- Trip to compete at Intel ISEF, \$1000 & plaque,
- Connecticut Science Supervisors Association --- \$125 for a high school project
- Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash
- University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Sustainability

3520 LST A Novel Approach to Removing Oil Spills from Seawater by using Sustainable and Cost-efficient Materials

Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev

Cagri Aytekin, Putnam 11 **Berk Suleyman** Putnam 11 **Erkam** Curuk Putnam 11

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque
- Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500, Plaque, CACIWC gifts , Trip to Compete I-SWEEEP, Houston
- EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award
- University of New Haven 11-12th Grade Awards in Engineering & Science --- \$100 For Top High School Project in Environmental Science

6074 PS Creation of Tidal Power from Infiltrating Coastal Ground Water via a Novel Tidal Barrage System

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Ethan Novek, Greenwich 9

Awards: Honors = 1

- Dominion Nuclear Connecticut 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
- EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- 1st Place High School - \$500 Cash and Plaque, 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
- Connecticut Association of Physics Teachers --- \$100 Senior project
- Long Island Sound Foundation, Inc. --- \$500 Life Science/Environmental Science/Physical science
- Connecticut Invention Convention --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"

I-SWEEEP Abstracts

NAME: **Bridget Oei**

SCHOOL: East Catholic High School, Manchester

TEACHER/MENTOR: Paul Oei

TITLE: Investigating the Efficacy of Bioluminescent Mushroom *Panellus Stipticus* as a Biosensor to Detect the Toxicity of Water Contaminants

Conventional chemical assays of water samples typically target certain chemicals and are difficult to apply to a broad range of water contaminants. An economical and robust bioassay method for determining the toxicity of water contaminants should help improve public health worldwide. This research explored the effect of six common water contaminants - CuSO₄, ZnSO₄, NaNO₃, HgCl₂, Atrazine, and Permethrin, on the bioluminescence of the *Panellus Stipticus* mushroom. *Panellus Stipticus* was cultivated using two methods; a nutrient culture method and a plug spawn method. The harvested mushrooms were introduced to contaminants that were diluted according to EPA Maximum Contaminant Level values and at other varying concentrations. Decay in *Panellus Stipticus* bioluminescence intensity was visually monitored as well as measured using a Sper Lux/FC meter. Decay can be visibly observed with bioluminescent intensity reduction of 10%. The bioluminescent intensity of *Panellus Stipticus* was measured at 4.7 lux. 30 minutes exposure to metal salts, CuSO₄, HgCl₂, and ZnSO₄, reduced the bioluminescent intensity by 68-72%. 90 minutes exposure to alkali metal salt contaminant, NaNO₃, showed a reduction of bioluminescence intensity by 15%. *Panellus Stipticus* subjected to Atrazine and Permethrin contaminants showed a reduction of bioluminescence intensity by 12-13% after 150 minutes. Bioluminescence intensity decay of 10% or greater could be detected within 130 minutes under all contaminant concentrations. This makes *Panellus Stipticus* a viable qualitative and quantitative biosensor to detect toxicity of water sources.

NAME: **Cagri Aytekin, Berk Suleyman and Erkam Curuk**

SCHOOL: Putnam Science Academy, Putnam

TEACHER/MENTOR: Serdar Haytiyev

TITLE: A Novel Approach to Removing Oil Spills from Seawater by using Sustainable and Cost-efficient Materials

The aim of this project is to find cheaper, less harmful, and more efficient alternative to the current oil spill cleaning methods in contaminated oceans and seas, a global problem that is overlooked and thus leading to the death of many biotic and abiotic marine species. In order to accomplish this, we have researched natural absorbents. 10 different natural materials (sawdust, peanut shells, corn cob, coconut shards, chicken feathers, sheep fur, goat fur, human hair, sunflower seed shells and pumpkin seed shells) were found that seemed to have high absorption rates and were deemed waterproof. Several water tanks filled with saltwater were used and crude oil was added to them. Then, materials were dipped in the oil for specific periods of time. Then, materials were weighted again and the purity of the water inside the tanks was measured. Following that, tested absorbent materials were placed inside a centrifuge and measured how much oil each of the materials had absorbed. After a look at the recorded results, we came to the conclusion that chicken feathers have had the greatest amount of oil absorbed, with 0.32 liters per 100 grams of water. This shows that softer materials have better oil absorption rates, and surface area may contribute to this. This experiment has also shown that the amount of feathers does not affect the ratio of oil collected. All in all, this method should be put into effect immediately, so no more harm is caused by oil onto the marine life.

I-SWEEEP AbstractsNAME: **Ethan Novek**

SCHOOL: Greenwich High School, Greenwich

TEACHER/MENTOR: Andrew Bramante

TITLE: Creation of Tidal Power from Infiltrating Coastal Ground Water via a Novel Tidal Barrage System

Tidal power is a predictable, clean, renewable energy resource with a significant capacity factor. Problems with tidal power systems including harm to marine life, restricted access to open water, and damage by floating debris, have hindered their adoption and implementation. Harnessing the tidal energy of ocean water infiltrating beaches is a viable solution to these issues. This solution captures energy from changes in tides below the beachfront surface, through a variation of the tidal barrage from ocean water infiltrating coastal beaches. This research tests the viability of the system through a three step process: 1) Calculate and Test Water Infiltration/Seepage, 2) Determine Electricity Production, and 3) Build and Test Working Prototype. Seepage and optimal seepage region size were calculated using Darcy's law, which concludes the seepage area can have 5x less volume than the storage area in coarse sand, 10m distance from ocean. The experiments conclude seepage follows local tides at a 1/4" delay in coarse sand (~8.5ft tide) and ~3.5-4" (10m distance, ~6ft tide) in fine/uniform sand. In part two, electricity production was calculated using the formula $E=1/2A\rho gh^2$. A 1000m³ water storage region would generate 16kwh, 26.66kwh and 53.33kwh per day at 3m, 5m and 10m tides respectively. In part 3, a working prototype with a 32-gallon storage tank was tested 10m from the ocean in a fine/uniform sand beach. Electricity output was 0.315 watts (predicted 0.34 watts) at a 20" head height, confirming electricity production calculations and proving adequate seepage in low hydraulic conductivity beaches.

GENIUS Olympiad Competitors

- 3084 LS The Affect of Pseudomonas putida on the Biodegradation of Plastics
New Haven, Engineering & Science University Magnet School, Teacher - Roger Rushworth
Lauren Low, Hamden 9
Awards: Honors = 1
- Pfizer Life Sciences Awards --- Finalist - Life Science Senior High - CSF Medallion & Acrylic Award
 - CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- Senior High Finalist - Medallion and acrylic award
 - Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque, CACIWC gifts, Trip to Compete GENIUS Olympiad, Oswego, NY
 - United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
 - University of Connecticut - Physics Department --- UCONN Early College Experience Program: Life Sciences - Co-Op \$100 Gift Certificate
 - GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor
- 3104 LS The Remediation of Heavy Metals from Wastewater Using an Aspergillus niger Activated Flow Filter
Greenwich, Greenwich High School, Teacher - Andy Bramante
Kenneth Dorian, Riverside 11
Awards: Honors = 1
- Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
 - EnergizeCT/CL&P/eesmarts Future Sustainability Awards --- 2nd Place High School - \$500 Cash and Plaque, Trip to Compete at GENIUS Olympiad, Oswego, NY
 - Stockholm Junior Water Prize --- Certificate, Letter,\$50 gift card to Amazon given by CSEF, possible advance to further competition
 - The Goodwin-Niering Center for the Environment --- \$100 for “Excellence in Environmental Conservation Studies”
 - TurnKey Compliance Solutions Environmental Awards --- \$200 Cash Award High School- For excellence in environmental sciences
 - GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor
- 3515 LST Saving the World from Brain Eating Amoebas
New Haven, Hill Regional Career High School, Teacher - Mr. Dimoulas
Sylwia Zambrzycka, Shelton 11 **Meeshali Patel** New Haven 11
Awards: Honors = 3
- CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers --- 3rd Place High School - \$ 300 and Plaque, Medallion
 - GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor
- 6034 PS Evaluating the Performance of a Model Solar Concentrating System Using Thermoelectric Generating Technology
Washington, The Gunnery, Teacher - Steven Bailey
Grace Herrick, Sandy Hook 9
Awards: Honors = 1
- Dominion Nuclear Connecticut Physical Sciences Awards --- Finalist - Physical Sciences Senior High - CSF Medallion & Acrylic Award
 - People’s United Bank Mathematics Awards - with ATOMIC --- 3rd Place High School - Plaque, \$200 from People’s United Bank
 - Barnes Aerospace Applied Technology Awards --- 2nd Place High School - \$300 and Plaque Medallion
 - EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards --- 2nd Place High School - \$300 Cash and Plaque, Trip to Compete GENIUS Olympiad, Oswego, NY
 - United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
 - Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Physical Sciences
 - GENIUS Olympiad --- GENIUS Olympiad Competition for HS student (s) and advisor

GENIUS Olympiad AbstractsNAME: **Lauren Low**

SCHOOL: Engineering & Science University Magnet School, New Haven

TEACHER/MENTOR: Roger Rushworth

TITLE: The Affect of *Pseudomonas putida* on the Biodegradation of Plastics

Plastic products, used by our society daily, require biodegradation, which is becoming a necessity for removal from the environment. The goal of this project was to evaluate if exposure to *pseudomonas putida* (*P. putida*) induces biodegradation of plastic. Six plastics (polyethylene terephthalate, high-density polyethylene, polyvinyl chloride, low-density polyethylene, polypropylene, and polystyrene) were exposed to *P. putida*. High-Density Polyethylene was expected to demonstrate the largest degradation after *P. putida* exposure because it is known to breakdown more rapidly than any other plastic. Samples from six plastics were weighed using a Mettler Toledo analytical balance. *P. putida* (Carolina Biological) was placed into media for 5 days to expand the population. *P. putida* solution (5 mL) was pipetted into 30 test tubes. 5 mL of media broth was pipetted into 30 additional test tubes as a control. Plastic samples were inserted into the 60 test tubes kept at 25C for seven days. Plastic samples were removed from media, dried for 24 hours, and weighed for final measurement. The primary outcome was the difference in weight before and after the samples were exposed to *P. putida*. For additional information regarding plastic degradation, scanning electron microscope (SEM) was used for photographs of six samples. The data demonstrates weight reduction in all plastics, except polyvinyl chloride, following *P. putida* exposure. However, these differences did not reach statistical significance. The largest weight difference was found in polyethylene terephthalate, mean difference of 0.202275 (control 0.00002). Limitations to this experiment were the duration of exposure and period of drying.

NAME: **Kenneth Dorian**

SCHOOL: Greenwich High School, Greenwich

TEACHER/MENTOR: Andy Bramante

TITLE: The Remediation of Heavy Metals from Wastewater Using an *Aspergillus niger* Activated Flow Filter

In a society where economic efficiency results in water pollution, methods to extract toxins require attention. Heavy metals lead and arsenic, for example, pose direct threats to ecosystem health and stability. Fungus is one attractive biological metal remediation solution that has yet to be investigated thoroughly. This research investigates one fungus, *Aspergillus niger*, and its remediation potential. Unlike many organisms that utilize intrinsic functional groups for remediation, *A. niger* naturally creates superoxides, which oxidize and bind native metal cations in water. To measure *A. niger*'s potential to remediate lead and arsenic, the fungus was cultivated and applied separately to a flow membrane. Remediation efficiency was measured at various time points via atomic absorption analysis of the aqueous filtrate. In initial experiments where 7.5g of *A. niger* was suspended in contaminated water, 45% of lead and 14% of arsenic were remediated in 48hrs from separate 10 and 50ppm solutions, respectively. In 24hrs of exposure, 1g of suspended fungus remediated 9.9% of lead and 5.4% of arsenic from the same initial concentrations. A novel Fungal Flow Filter was constructed to include 50g of *A. niger*. The surface area of the fungus, and thus remediation efficiency was maximized by employing a fungi-coated coil to which contaminated water is exposed. Remediation trials demonstrate that 96% of a 10ppm lead solution and 9.4% of a 50ppm arsenic solution were removed within 24hrs. In a solution where the metal ions were combined, 96% of lead and 14% of arsenic were removed in the same time interval.

GENIUS Olympiad Abstracts

NAME: **Sylwia Zambrzycka and Meeshali Patel**

SCHOOL: Hill Regional Career High School, New Haven

TEACHER/MENTOR: Mr. Dimoulas

TITLE: Saving the World from Brain Eating Amoebas

Who would have thought that brain eating amoebas would be found in the water supply that is used by individuals around the world? How can we prevent this from occurring? This experiment focuses on finding an effective and affordable material to use in filters. A material which could be added as an additive to decrease the amount of amoebas found in the water supply after filtering. Rocks, aluminum, plastic and copper were used. Amoebas were filtered through four different filters, each filter contained a separate material. Samples were gathered and they were ran through a Fluorescence Activated Cell Sorting (FACS) machine which quantified the number of amoebas and counted the number of events. We hypothesized that plastic would be the best material to use as an additive in filters, based off of our previous science fair experiment. After conducting all the sample tests by using the FACS machine, we focused on the standard deviation to explain and analyze data. The FACS machine provided us with numbers of events, so we looked at one standard deviation above and below the average. This allowed us to see if the material was effective compared to the control. The data gathered suggested that plastic would be the best additive to use in filters. The control was 1509 events and the standard deviation was 1171.8 above and 1007.54 below the mean. We arrived at a solid conclusion that plastic is the most effective material that would keep individuals safe from brain eating amoebas.

NAME: **Grace Herrick**

SCHOOL: The Gunnery, Washington

TEACHER/MENTOR: Steven Bailey

TITLE: Evaluating the Performance of a Model Solar Concentrating System Using Thermoelectric Generating Technology

Thermoelectric generator modules, TEG, using the Seebeck Effect are being developed with increasing power conversion efficiencies. Traditional TEG's consist of Bi₂ and Te₃. It is known that thermoelectric materials have the capacity to generate electrical energy. That energy can be utilized for cogeneration, producing electrical power while heating water. A model solar concentrating system, comprised of a parabolic dish, TEG, and water heating system was investigated using inexpensive materials. Measurements were made to assess the value of this alternative method of power generation. The combined efficiencies of electric generation and water heating will surpass solar panels with respect to capturing solar energy. TEG modules were characterized by subjecting the modules to known temperature differences and measuring the output power and internal resistance or losses. A solar concentrator comprised of a 77 cm diameter, 43 cm focal length parabolic mirror, using a manual tracking mount, was used to concentrate solar radiation onto the TEG array. A water circulating system for cooling TEG's was used to provide the heat removal on the cold side to create the temperature difference and produce heated water. The heat energy was calculated with the flow rate and rise in temperature across the TEG cooling block. A 12 watt buck-boost DC-to-DC power converter was used to change the variable output voltage of the TEG to a constant 12 volts for running the circulating pump and providing external power. For solar irradiance of approximately 900 watts per square meter, efficiencies are estimated at 5% electrical and 50% thermal.

INDEX

INDEX

Schools

Avon

Farmington Valley Academy Montessori	5552			
Talcott Mountain Academy	2011	2015	2041	
	2524	2533	5507	

Bethany

Amity Regional Middle School-Bethany	1005	4014	4026	
	4033	5560		

Bethel

Bethel High School	3004	3025	3050	3109
	3157	6019	6024	
St. Mary School	2043	2539	4031	5009
	5052	5520	5533	5543
	5548	5557		

Bozrah

Fields Memorial School	5031	5045	5508	
	5524	5565		

Branford

Connecticut Experiential Learning Center	2003	4012	5018	
	5053	5558	5566	
St. Mary School	2016	2517	5511	

Brewster NY

Brewster High School	6037	6056		
H.H. Wells Middle School	2036	5532		

Bridgeport

Bassick High School	6089			
Bridgeport Hope School	2522	4021	4025	
Bridgeport Military Academy	6003	6515		
Bridgeport Regional Aquaculture Center	3126	6026	6029	
	6039	6091	6110	
Central High School	3012	6031	6057	
Fairchild Wheeler Magnet High School	3008	3038	3118	
	3125	6025	6036	
	6071	6522		
Geraldine W. Johnson School	5522			
High Horizons Magnet School	2535	5526		
Interdistrict Discovery Magnet School	2532	5020		
Multicultural Magnet School	2024	2035	5542	5550
Park City Prep Charter School	2029	4013	4027	5012
	5057	5503	5523	
Read School	5022			
Roosevelt Elementary School	5023			
Six to Six Interdistrict Magnet School	2028	5564		
Warren Harding High School	6001	6070		

Canton

Canton Middle School	2545	5518	5561	
----------------------	------	------	------	--

Cheshire

St. Bridget School	5058	5527		
--------------------	------	------	--	--

Danbury

Danbury High School	3010	3098	6022	6107
Immaculate High School	6051			
St. Gregory the Great School	1004	1011	1015	4002
	4006	4017	5013	5037
	5545			
St. Joseph School	1014	2026	2505	2519
	2529	2536	4003	5027
	5039	5054		

Darien

Darien High School	3035	3067	3073	3093
	3105	3111	3141	3145
	3151	6015	6061	

East Hartford

East Hartford High School	3018			
---------------------------	------	--	--	--

Enfield

St. Martha School	1007	4007	4015	4019
-------------------	------	------	------	------

Fairfield

Fairfield College Preparatory School		3070	3079	6018
	6028	6054	6079	6505
Fairfield Ludlowe High School	3106			
Fairfield Warde High School	3507			
Our Lady of the Assumption School		2509	2534	5501
		5547		
St. Thomas Aquinas School	1019	2004	2010	4032

Falls Village

Lee H. Kellogg School	2025			
-----------------------	------	--	--	--

Farmington

Farmington High School	3081			
------------------------	------	--	--	--

Fishers Island NY

Fishers Island School	3011	3076	3080	3090
	6047	6077	6100	6120

Forestville

St. Matthew School	2013	2027	2525	5536
--------------------	------	------	------	------

Glastonbury

Glastonbury High School	3023	3043	3099	3124
	3140	6014	6030	6060
	6075	6093		
Smith Middle School	5028	5535	5539	5559

Greens Farms

Greens Farms Academy	2005	2014	2017	2520
	3044	3152	6009	6038
	6049	6073	6113	

Greenwich

Brunswick School	3003	3016	3022	3032
	3088	3509	3519	6090
	6508	6510	6516	6520
Central Middle School	2526			
Convent of the Sacred Heart	3031	3055	3155	3501
	3513	3516	3521	6007
	6012	6058	6072	
Greenwich Academy	3504	3508	6010	6020
Greenwich Catholic School	2032	4018		
Greenwich High School	3007	3034	3040	3061
	3104	3107	3115	3163
	6040	6045	6074	6078
	6095	6101		
	6105	6116		

Groton

Sacred Heart School	2009	5014	5024	5035
	5042	5050	5055	5506
	5525	5541		

INDEX

Guilford

E.C. Adams Middle School 2008 2039 4011 5026
5046

Hamden

Hamden Hall Country Day School 3047 3085 6094
Hamden High School 3014 3060 3075
3082 6106
Hamden Middle School 1009 2037 2511
2527 2538 4005
Sacred Heart Academy 3017 3041 3058 3077
3097 3132 3137 3146
3161

Hartford

Academy of Aerospace and Engineering 3131
Capital Preparatory Magnet School 2523
Environmental Sciences Magnet at Mary Hooker 2006 2022
2501 2506 2513
2530 2541
Grtr Hartford Academy of Math & Science 3020 3103 3120
3128 3138 3143 3158
Hartford Magnet Trinity College Academy 3049
SS. Cyril and Methodius School 2040 5502
Two Rivers Magnet High School 3505 6002 6080
6119 6123

Hebron

RHAM High School 6111 6518
RHAM Middle School (I) 2543

Kensington

St. Paul School 2033 5025 5555

Madison

Daniel Hand High School 3002 6064
Our Lady of Mercy School 2019 2042 2510 5521

Manchester

East Catholic High School 3087
Manchester High School 3064 3068 6005
St. Bridget School 2504 2508

Middletown

Middletown High School 3037

Milford

St. Gabriel School 2001 2031 2514 5048
5513 5531

New Britain

Pope John Paul II School 5021 5556
Sacred Heart School 5512 5529 5534

New Haven

Betsy Ross Arts Magnet School 2516 2544 5006 5036
Cooperative Arts and Humanities High School 3071 6503
Engineering & Science University Magnet School 3084 5016
5041 6032
Hill Regional Career High School 3013 3515 6511
St. Aedan-St. Brendan School 2515 5043 5544
Worthington Hooker Middle School 1002 1018 1021
5515

New Milford

New Milford High School 3006 3065 6098 6117

Newington

St. Mary School 5004 5017 5551 5567

Newtown

Newtown Middle School 5514 5528 5537 5549
St. Rose of Lima School 2002 2012 2020 5001
5005 5011 5032 5038
5049 5056

Norwalk

The Montessori Middle School 2021 5034

Norwich

Norwich Free Academy 6121

Orange

Southern Connecticut Hebrew Academy 1006 2507 4009
4020 5517 5519

Oxford

Oxford High School 3046 3059 3149 3156
6006 6013 6016 6023
6052 6062 6067 6084
6108 6125

Pawcatuck

St. Michael School 2023 4004 5010 5044

Plantsville

J.F. Kennedy Middle School 1016 2007 2045

Putnam

Putnam Science Academy 3502 3512 3520 6502
6506 6509

Redding

Joel Barlow High School 3019 3024 3033 3063
3078 6017 6027 6035
6081 6112
Southern CT Invitational Sci & Eng Fair 3072 3102 3514
6008 6059

Ridgefield

Ridgefield High School 3091 3101 3110 3142
6066 6088 6099

Sandy Hook

Newtown High School 6050 6065 6076

Shelton

Shelton High School 3026 3042 3116 6043
6504 6512

Simsbury

Simsbury High School 3001 3015 3030 3048
3052 3057 3086 3089
3096 3119 3136 6041
6044 6068

Southington

J.A. DePaolo Middle School 1008 4010 5033 5504
St. Thomas School 5516 5538

Sprague Sayles School 2521 2542 Stamford Bi-Cultural Day School 2030 4016 5051 Rippowam Middle School 5563 Storrs E.O. Smith High School 3028 3117 Stratford St. Mark School 2044 2503 2518 5007 5553 Suffield Suffield High School 3074 6083 6096 6126 6501 6507 6514 6517 Tolland Stonewall Academy 3051 Trumbull Christian Heritage School 2502 5510 5554 6087 6103 6122 Wallingford Choate Rosemary Hall 3009 3162 Washington The Gunnery 6034					West Hartford Solomon Schechter Day School 2018 2038 2528 St. Brigid School 2034 4008 St. Timothy Middle School 5008 5040 5509 5562 Westport Staples High School 3054 3114 3121 3127 3135 3147 3150 3153 3159 6011 6042 Willington Hall Memorial School 2512 2540 4022 Wilton Middlebrook School 1010 4024 5030 Windsor Madina Academy 1001 1012 4030 5029 Madina Academy Upper School 3511 3518 6118 6513 6521 St. Gabriel School 5003 5015 5505 5540 Woodbridge Amity Regional High School 3005 3021 3029 3036 3069 3083 3095 3108 3122 3134 3144 3154 6033 6086 6124				
<p style="text-align: center;">City Fairs</p> Bridgeport Public Schools, Bridgeport Bassick High School 6089 Bridgeport Military Academy 6003 6515 Bridgeport Regional Aquaculture Center 3126 6026 6029 6039 6091 6110 Central High School 3012 6031 6057 Fairchild Wheeler Magnet High School 3008 3038 3118 3125 6025 6036 6071 6522 Geraldine W. Johnson School 5522 High Horizons Magnet School 2535 5526 Interdistrict Discovery Magnet School 2532 5020 Multicultural Magnet School 2024 2035 5542 5550 Read School 5022 Roosevelt Elementary School 5023 Six to Six Interdistrict Magnet School 2028 5564 Warren Harding High School 6001 6070 Glastonbury Public Schools, Glastonbury Glastonbury High School 3023 3043 3099 3124 3140 6014 6030 6060 6075 6093 Smith Middle School 5028 5535 5539 5559					<p style="text-align: center;">Regional Fairs</p> Southern CT Invitational Sci & Eng Fair, Redding Woodbridge, Amity Reg High School 3072 3102 3514 6008 6059 <p style="text-align: center;">Homeschooled Students</p> Tolland, Stonewall Academy 3051 <p style="text-align: center;">Independent Students</p> Hebron, RHAM Middle School (I) 2543				

INDEX

Regular Award Sponsors

Alexion Biotechnology Awards
see **Biotechnology** awards, page 60

Barnes Aerospace Applied Technology Awards
see **Applied Technology** awards, page 61

CASE Urban School Challenge Awards with Bristol-Myers Squibb & Travelers
see **Urban School Challenge** awards, page 60

Connecticut Science Teachers Association's Marty Tafel Student Research Award
see **CSTA** awards, page 61

Dominion Nuclear Connecticut Physical Sciences Awards
see **Physical Sciences** awards, page 60

EnergizeCT/CL&P/eesmarts Future Sustainability Awards
see **Future Sustainability** awards, page 61

EnergizeCT/CL&P/eesmarts Sustainable Resources & Practices Awards
see **Sustainable Resources** awards, page 61

EnergizeCT/UI/eesmarts Alternative/Renewable Energy Awards
see **Energy** awards, page 61

Environmental Sciences Awards with CACIWC
see **Environmental Sciences** awards, page 61

H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering with CCAT
see **CASE** awards, page 61

People's United Bank Mathematics Awards - with ATOMIC
see **Mathematics** awards, page 61

Pfizer Life Sciences Awards
see **Life Sciences** awards, page 60

Quinnipiac University Scholarships
see **QU** awards, page 61

United Technologies Corporation Awards
see **UTC** awards, page 61

UTC Aerospace Systems Awards for Excellence in Engineering
see **Engineering** awards, page 61

Xerox Computer Science Awards
see **Computer Science** awards, page 61

Special Award Sponsors

Air and Waste Management Association, Connecticut Chapter
3055 3137 5034 5508

Alumni Botany Awards
1021 2007 3098

American Institute of Aeronautics & Astronautics - Connecticut Section
5040 6023

American Meteorological Society
2545 4012 4020 5034

American Psychological Association
2013 2521

American Society for Metals - Hartford Chapter
5012 6041 6105

American Society for Quality - Thames Valley Section
5509

American Society of Safety Engineers, CT Valley Chapter
2514 2527 3098 3137 4020 6047

Arthur Mensing Award
6101

ASM Materials Education Foundation
5045 5536

Association for Women Geoscientists
5011 5563

Astronomical Society of Greater Hartford
6042 6066

Banning Family Life Science Award
3098

Barker Mohandas Award for Transportation Research
6508

Biophysical Society
3082

Bob Harris Fix It Award
5563

Cell Analysis and Modeling Award - Center for Cell Analysis and Modeling at UCHC
3044 3114

Coherent, Inc. Richard Hart Award for Excellence in Photonics
6079

Connecticut Academy of Audiology
3514 5031

Connecticut Architecture Foundation
3137 6083

Connecticut Association for the Gifted
5031

Connecticut Association of Physics Teachers
6074

Connecticut College-Physics, Astronomy, & Geophysics Dept.
5550 6043

Connecticut Invention Convention
5507 5561 5563 6040 6074 6101

Connecticut Nurserymen, Æôs Foundation, Inc.
3034 6058

Connecticut Science Supervisors Association
1006 3087

CSF Board of Directors Award
4030 6086

David and Torrey Fenton Awards 5550 6040	Project Oceanology 3050 5011
Demos R Us 5516	Randy Gibson Award for Earth Science Research 5056
Dreams Unlimited 6117	Ricoh Corporation/Society for Science & the Public 2028 5508
Education Connection- Center for 21st Century Skills Awards 6096 6121	Schoepfer Award for Excellence in Local Aquatic Science 2507
Environmental/ Energy Award- Urban Public School Award 5515	Sister Mary Christine Life Sciences Award 5529 6058
Fred Bailey Memorial Award 2541 3049	Society for In Vitro Biology 3099 3162
GENIUS Olympiad 3084 3104 3515 6034	Society of Women Engineers - Hartford Section 5508 6041 6051 6064
Henderson Award 5558	Southeastern New England Marine Educators 5508 6035
IEEE, Connecticut Section 5031 5556 5565 6101 6105 6506	Spirit of Invention Award 4033
Institute of Food Technologists, Nutmeg Section 2044 3042 3057 3077 3501	Stanley Lessoff Award for Excellence In Analytical Technique 4009
Intel Excellence in Computer Science Award 6054 6121	Stockholm Junior Water Prize 3104 6078
ISA - International Society for Automation 5562 5566 6062	Talcott Mountain Science Center 2044 5563
J.A. Augustine Award 2002	The Children's Museum 2008
John B. Trevor Award in Electrical Engineering 6124	The Connecticut Technology Council Young Woman Innovation Award 6091
John S. Kendall Memorial Award 6014	The Goodwin-Niering Center for the Environment 3104
Jon Stone Memorial Award 1006	TurnKey Compliance Solutions Environmental Awards 3104 5517
Leask/Francoeur Family Awards 4026 6054	U.S. Air Force 1010 5557 5567
Long Island Sound Foundation, Inc. 3080 5011 6074	U.S. Metric Association 3068 6059
Lunch with a Patent Attorney 3007	United States Public Health Service 2503
Meyerand Young Woman Scientist Awards 1021 3091 5045 6034	University of Connecticut - Physics Department 3084 6049 6117
Milton Fisher Science Fair Award for Innovation and Creativity 1006 3087	University of Connecticut Academic Excellence Scholarship 6095
MIT Club of Hartford K-12 Initiative 5507 6040	University of New Haven 11-12th Grade Awards in Engineering & Science 3044 3087 3101 3163 3520 6012 6014 6054 6056 6124 6521
Mu Alpha Theta 3029 6078	Westinghouse Electric Company/New England Chapter of North American Young Generation in Nuclear 6089
Mystic Aquarium 3028	Wisner Award 5008
National Oceanic and Atmospheric Administration 1004	Yale Peabody Museum 2019 2541 3050 3098 3121 3134 3135
Office of Naval Research- U.S. Navy / U.S. Marine Corps 2523 2526 3150 5045 5540 5550 5580 6014 6026 6093 6095	Yale Science & Engineering Association, Inc. 6040 6078
Otero Family Award 6095	

INDEX

Abbasi	Eeman	3072	Berrigan	Kellyn	6061
Abrams	Jessie	6515	Bessell	Sung Bok	2522
Acar	Ahmet	6509	Bilenker	Dean	4016
Ackerman	Ella	3143	Bilodeau	Mary	2045
Addonizio	Cole	6105	Blum	Laura	3117
Afzaal	Lariab	6123	Bolanos	Alexandra	3516
Agarwal	Aakshi	3014	Bonnell	Graham	6071
Agarwal	Akshar	2037	Boyer	Megan	3068
Agarwal	Ank	3082	Brandon	Grace	3105
Aggarwal	Alisha	6050	Brennan	Mairead	6503
Aggarwal	Varun	2015	Briscoe	Thomas	2020
Agnew	Alexandra	2017	Brown	Kirya	6031
Agonito	Thomas	5547	Bryan	Bishop	6119
Ahmed	Aasiya	6521	Buckridge	Genevieve	5031
Aiudi	Alexis	5008	Buonaiuto	Nicholas	4017
Alamo	Nicky	6515	Burns	Jeffrey	3121
Aldieri	Abby	5536	Buscarello	Alexzandrea	3058
Ali	Humza	3064	Byer	Elizabeth	2021
Alino	Nelson	5527	Caiati	Sean	2025
Allen	Abigail	1011	Callaghan	Ryan	6520
Alveranga	Karim	5522	Campion	Noah	3089
Andelmen	Jillian	4007	Canas	Isabella	4005
Anderson	Bryce	6116	Cangoz	Taha	3502
Angele-Kuehn	Johanna	1009	Carroll	Molly	3155
Angell	Aly	4019	Carrozzi	Sabrina	3501
Antonios	Rodolph	4006	Casey	Ryan	2032
Aquino	Maximilian	5020	Casey	Tasha	2011
Arcouette	Shelby	4015	Cassidy	Jeanne Marie	3097
Ariyibi	Jadesola	3508	Catalbasoglu	Hacibey	3512
Arkhurst	Bettina	3035	Cazzaniga	Nicolas	3109
Armbrust	Natasha	3142	Cazzetta	Brigid	3052
Arruda	Sophia	6518	Chaverri	Patrick	6087
Arslan	Ahmet	6502	Chieffalo	Frank	5037
Ashraf	Nuha	1012	Choi	Kayoung	4021
Ashraf	Rayyan	6513	Choudhury	Jareen	1001
Askew	Kylinn	3521	Choudhury	Shakeel	3511
Atkins	Luke	5566	Christofor	Gabrielle	2516
Attina	Amanda	2519	Chung	Dana	3036
Augeri	Ronnie	6126	Cirikovic	Merisa	3096
Austin	Samantha	3134	Cirino	Margaret	6045
Avci	Selman	6506	Cirone	Kristen	2002
Aytekkin	Cagri	3520	Cirrito	Joseph	5524
Babineau	Drew	2023	Claybourne	Bryn	4027
Backhaus	Olivia	3011	Coley	Matthew	3151
Baker	Katherine	6514	Colon	Nathan	2006
Baker	Lukas	6083	Connolly	Emma	2505
Balagna	Mary	5014	Conway	Aidan	5048
Balakumar	Poorna	5006	Corsi	David	6076
Baldini	Michael	5040	Costello	Ruby	4004
Balgobin	Mallika	6080	Crager	Jack	4032
Banbury	Sara	3159	Creighton	Denica	3012
Bandyopadhyay	Mitali	3146	Criscuolo	Edward	4033
Banker	Sarah	6058	Crockett	Michael	6094
Bardos	Sophie	3040	Crouse	Emma	6019
Barrett	Joshua	5018	Cummings	Brendan	3048
Baum	Sophie	4026	Cunningham	Emily	2538
Baumann	Rachel	6041	Curra	Dominick	1004
Bay	Gabriel	3106	Curtis	Jamie	6035
Ben-Salahuddin	Ade	3071	Curuk	Erkam	3520
Bender	Evan	1008	Daly	Rory	5052
Benson-Clarke	Gabrielle	2543	Daly	Sean	4002
Berberian	Caroline	3017	Dascano	Anthony	4006
Beringer	Martha	6501	Dascano	Kendra	1011

DeFeo	Noah	5538	Fluet	Joey	4022
DeLaurentis	Shaye	2509	Folan	Hannah	2539
DelMastro	Matthew	3140	Forrester	Ardale	3505
DeMarco	Stephen	5520	Forti	Ben	2507
DeMeo	Kelly	6091	Foster	Jonathan	2009
Deming	Amanda	3025	Foster	Kyle	6018
Demkowicz	Patrick	3081	Fountaine	Elizabeth	5050
DeNardis	Mario	4003	Fraser	Angus	6508
DePinto	Danielle	5528	Fratoni-Jaskiewicz	Brielle	4004
Desai	Molee	3103	Frew	Zachary	6062
Desai	Sana	5028	Frick	Jakob	4012
DeVita	Anthony	6507	Frieden	Elizabeth	4014
DeVito	Joseph	4019	Gagne	Nicole	3145
Dexheimer	Eric	6038	Gallant	Noah	6059
Dhar	Anubhav	6036	Ganshaw	Eric	3509
Dhond	Mansi	2526	Garofalo	Francesca	3152
Diaz	Ian	6504	Geffert	Zachary	6125
DiBella	Simone	2035	Geno	Annika	3030
Ding	Howard	4033	Genussa	Andrew	6056
Doelp	Arthur	6049	Geradi	Maya	5515
Donaghy	Abigail	2540	Gerig	Virginia	3147
Dorian	Kenneth	3104	Gethings	Jack	2527
Dorsey	Michael	1008	Giebisch	Daniel	6124
Draughn	Darrell	5544	Ging	Meaghan	5552
Dugas	Alison	6030	Goda	Abram	5542
Dugentas	Devon	6002	Golbazi	Arvene	6033
Duggan	Elizabeth	1019	Gold	Rebecca	2528
Durno	Carter	6113	Goldstein	Isabelle	6066
Earl	Jordan	3132	Gombos	Peter	3033
Edelstein	Sophie	1021	Goodman	Emma	3007
Edris	Amir	6509	Goodrich	Joshua	4013
Effman	Zach	6042	Gordon	Darius	5503
Eklund	Zoe	1009	Gordon	Isabelle	6088
El-Dirany	Mohamed	6060	Gordon-Wexler	Samara	2038
Elenteny McQuown	Guinnevere	5042	Gorham	Kelly	6044
Ellithorpe	Chris	6517	Gorneault	Ryan	2524
ElSherbini	Ayman	4030	Granath	Gavin	6505
ElSherbini	Osama	6513	Grandolfi	Alex	5055
Elwood	Maryjane	1019	Granser	Alexa	3501
Emhan	Abidin	3502	Greenbaum	Casey	2018
Englander	Ryan	3128	Grenier	Emily	1014
Eom	Hanul	4025	Grey	Devon	3019
Eraslan	Burak	3512	Grimard	Paul	6507
Ercolani	Alexander	3026	Guiry	Jack	2529
Errico	Dylan	2034	Gulati	Gazal	3507
Esposito	Jennifer	6012	Gulati	Sagar	3507
Esposito	Serena	2033	Gund	Devin	6099
Essenfeld	Ethan	2030	Guo	Cindy	3108
Essenfeld	Samuel	5051	Gupta	Deepak	1005
Eswarakumar	Carlin	1002	Habjan	Christine	3006
Fabian	Ava	2532	Haddad	Martha	6051
Fahey	James	4017	Hall	Dannel	6001
Falco	Joseph	6515	Han	Paul	6075
Fanning	Stephen	4003	Hao	Sammy	5026
Fay	Aidan	6108	Harper	Chase	2012
Feibusch	Veronica	3008	Hart	Cameron	2036
Ferguson	Amber	6100	Hasbani	Jacob	5517
Fernandes	Jessica	3138	Hassan Belal	Afnan	6511
Feuerstein	Jacob	5016	Hawkes	Dylan	6054
Figueroa	Humberto	5526	Hayman	Alexandria	6017
Flaherty	Bart	1015	Hecht	Braeden	5532
Fletcher	Benjamin	5543	Hecht	Yaacov	1006
Flores	Melba	6503	Heineman	Brent	6517

INDEX

Hengel	Austin	6098	Kleine	Francesca	6106
Henn	Ryan	5054	KleinStern	Carly	6117
Hernandez	Sarah	5550	Kocka	Lucas	6112
Hernandez	Xiomara	2028	Koenigsberg	Batya	4009
Herrick	Catherine	5011	Kostick	Paisley	6518
Herrick	Grace	6034	Krawczuk	Kamila	5556
Hesburgh	Claren	3513	Kreitler	Joshua	6029
Hewitt	Jared	5027	Kuroski	Quinn	5009
Hill	Megan	5010	Kyem	Nana	3131
Hinkle	Tabitha	4007	Labkoff	Joshua	4016
Hipsky	James	4022	Laflin	Hannah	6003
Hoch	Nora	1010	Lagasse	Rachel	1007
Holland	Miranda	4005	Lagrange	Michael	6505
Holler	Monica	6512	Lam	Justin	5505
Holliday	Andrew	6073	Landry	Conor	2010
Hora	Niyati	5535	Lane	Devon	5509
Horton	Brittany	6014	Langh	Madison	4015
Hosny	Yara	6511	Latorre	Michael	3110
Hoth	Alexander	5525	Lavoie	Benjamin	5562
Hovstadius	Malin	3127	Law	Logan	6016
Hutchings	Sheila	1002	Le	Thi	5518
Iassogna	Alexander	4002	Leckey	Bryce	5558
Immanuel	Judah	5554	Lee	Sophie	2523
Iskra	Kelly	5021	Leparik	Alexandra	2001
Jagtiani	Kiran	5563	Levy	Ronan	2506
Jajoo	Arpita	3154	Lewis	Griffin	4018
Jansson	Madeleine	6010	Li	Victoria	3095
Jarad	Haya	6008	Lightman	Hunter	6081
Jarboe	Makinsey	1014	Lim	Andrew	3034
Jeudy	Adanya	5003	Links	Nathan	4016
Johnson	Kayla	3075	Liu	Helen	3122
Johnson	Megan	3091	Liu	Victoria	3029
Jung	Hyojune	5564	LoCicero	Brian	2031
Kachru	Ananya	4026	LoCicero	Michael	2514
Kaffman	Boaz	2511	Logan	Ciara	4007
Kane	Aaron	3080	Longworth	Shannon	6072
Kane	Grace	5044	LoPreiato	Elizabeth	3137
Kantor	Max	3135	Lord	Michael	6103
Kantor	Miriam	4020	Low	Lauren	3084
Karanam	Ananya	1016	Lugay	Mia	4021
Karosy	Robert	2534	Luk	Michaela	5553
Karthikeyan	Ramagopal	6107	Lusker	Shelby	6077
Kasem	Nader	4030	Lynders	Maria	2042
Kasliwala	Qayyoom	3018	Ma	Andrew	6078
Katz	Chana	4020	MacDonald	Cameron	5537
Kawall	Rachel	1021	MacFarlane	Jamie	6510
Kelly	Abbie	3099	Mahamoon	Sithy	6118
Kelly	Karl	5001	Mahmood	Rigel	6043
Kembaren	Natalia	3038	Makam	Anushya	3508
Kennedy	Patrick	5025	Malani	Abhishek	5539
Kern	Andreas	6510	Malik	Ayaan	5560
Kern	Thomas	6520	Maltese	Maeve	5551
Kerr	Janine	3098	Manfredonia	Peter	6065
Khan	Aden	6521	Mannan	Lamisa	3021
Khan	Ayesha	3518	Marano	Jeffrey	6037
Khan	Owais	3144	Marchak	Carolyn	5058
Kharbouch	Rami	6089	Marchand	Taylor	2541
Kim	Jin Joo	3101	Mariani	Alessandro	6090
Kim	Minkyung	4025	Marks	Eve	3125
King	Kaitie	3505	Martin	Roque	6009
King	Kevin	6052	Martinez	Katie	3055
King	Margaret	2510	Martinez	Matias	5034
Kirschbaum	Caitlin	6514	Mastalerz	Erik	2008

Mathew	Irene	6022	Oei	Bridget	3087
Mathews	Natalie	3010	Onorato	Sylvia	3065
Mathur	Anubhuti	6093	Ortiz	Luis	6070
Matonis	Spencer	6095	Ouellette	Andrew	2533
Mattos	Doulas	5523	Palinkos	Erin	4010
Maxwell	Royce	1015	Palinkos	Kathryn	3120
May	Robert	2039	Paolicelli	Christina	6007
McCann	Emilie	1010	Park	Ashley	2512
McCarthy	Elizabeth	3090	Parker	Ethan	2005
McConnell	Meredith	5511	Patel	Jagvi	1016
McCoy	Kevin	1004	Patel	Meeshali	3515
McDermott	Jack	5032	Patel	Shyam	6032
McGann	Erin	6501	Patel	Vishal	3013
McGee	Clara	6006	Payne	Angela	5549
McGowan	Andrea	3024	Payne	Emily	5514
McGuinness Getzinger	Emilia	5056	Peabody	Hannah	6047
McKenney	Grace	3501	Peccerillo	Cara	5036
McLaughlin	Austin	3073	Peck	Amelia	3051
McMurchy	Reed	6516	Peck	Jared	6512
McNamara	Jake	4017	Peisch	Christopher	3022
McNamara	Mark	4011	Pendo	Kevin	3032
McNeece	Liam	6522	Peracha	Arooba	3518
Mealha	Nicole	4008	Petno	Ethan	3044
Medvecky	Hugh	4011	Petno	Owen	2520
Medvedev	Evgeniy	2504	Pevsner	Spencer	3107
Meehan	Grace	3054	Piciw	Jennifer	3077
Meehan	Michael	5557	Piechota	Victoria	5512
Meltzer	Fraydy	5519	Piekarski	Breindel	4009
Mesa	Gabriel	5561	Pillai	Veina	3042
Meyers	Bailey	4011	Piraneque	Cristian	5510
Mezei	Isabel	2004	Pires	Diana	5501
Millerick	Danielle	5541	Plankey	Emma	3156
Minichetti	Maxmillian	6101	Platt	Hannah	2007
Mistri	Amy	1007	Pocwierz	Dean	1005
Mneimne	Maia	3118	Pomroy	Margaret	2517
Mo	Junlin	3079	Pontes	David	2029
Moghul	Maryam	5029	Preskenis	Timothy	3086
Mohammed	Alina	1012	Provost	Connor	6121
Mohanraj	Prastik	5041	Provost	Katie	5508
Montinaro	Alessandro	3519	Prusak	Lidia	5033
Moore	Colton	6025	Pyatt	Mary	3015
Morelli	Kate	5004	Qureshi	Usra	6521
Morris-Woods	Benjamin	2508	Rackson	Alyson	3153
Morrison	Emma	6020	Rahman	Khaleel	4030
Mossberg	Max	5540	Rahman	Rahnumar	2535
Moulder	Aidan	5049	Rajagopalan	Archeta	3162
Murillo	Keily	2040	Raman	Mahesh	6516
Murphy	Grace	5035	Ramos	Dallanara	4027
Myrzatay	Almas	6506	Ramthun	Rebecca	5045
Nangia	Gayatri	3504	Rashan	Trinity	5506
Neumann	Joseph	6086	Raymond	Matthew	6039
Ng	Alexandra	3163	Redgate	Leo	4032
Nguyen	Kevin	6068	Rego	Hunter	2022
Nguyen	Terry	3037	Restrepo	Andrew	4013
Nichols	Nolan	5053	Riegle	Coleman	4012
Nicholson	Liam	4018	Rigsby	Joshua	5555
Niland	Ryan	5013	Roberts	Liam	2003
Niski	Joseph	6504	Robertson	Kristen	2044
Novek	Ethan	6074	Robinson	Cooper	3088
Novick	Emma	3521	Rogers	Matthew	6096
O'Donnell	Declan	4032	Roney	Emily	3141
O'Hara	Christian	4031	Rosadio	Eduardo	3136
Odom	Constance	2542	Rosenberg	Stephanie	3001

INDEX

Students

Roth	Griffin	6028	Tapanes	Jake	5005
Rotondo	Catherine	6011	Tay	Jacob	5012
Roychoudhury	Ankita	6064	Tedeschi	Anthony	5567
Roychoudhury	Shayan	3002	Tedeschi	Joseph	5017
Rubio	Samantha	6512	Tekin	Omer	3502
Ruf	David	6508	Terry	Joshua	5024
Russell	Peter	6040	Thach	Sally	4014
Ryan	Clare	3504	Thomas	Justin	3060
Rybczyk	James	2525	Thomas	Ronald	5043
Sabia	Emily	3513	Timmons	Grace	6120
Saeedosman	Samar	1001	Tinson	Chelsey	6005
Saidman	Angela	2043	Tolmie	Stratton	3126
Samson	Cara	2016	Tomaselli	Christina	1015
Sanders	Emma	3078	Torres	Miguel	5022
Santiago	Yucel	5502	Treash	Caileigh	2502
Saperstein	Alyson	3057	Trehan	Akhil	3085
Sauyet	Kayleigh	6111	Trotta	Devin	1004
Saviano	Tiffany	5533	Tuite	Brendan	4018
Saxe	Sarah	3102	Tureaud	Andrew	5039
Scanlan	Cody	6522	Tuylu	Berkan	6502
Scanlon	Melissa	1007	Valentine	Dominique	2536
Scharfman	Olivia	3061	Valigorsky	Ben	2501
Schroeter	Marissa	2545	Valley	Alex	2027
Schultz	Jacob	4031	Van de Graaf	Cameron	3093
Schumitz	Kevin	6067	VanBelle	Nick	3509
Scott	Oscar	5046	VanBuiten	Hannah	3149
Seales	Michaela	6023	Vanholtan	Ja'hShawn	5057
Sechen III	George	2521	Vasavada	Anjali	3161
Sedlack	Alex	6015	Velasquez	Alejandro	4002
Seepersaud	Serena	2530	Veltri	Adriana	3059
Sellhausen	Isabel	3111	Vetter	Daniel	2518
Shafran	Ashley	4010	Villalona	Daniel	2026
Shah	Saloni	3020	Villodas	Molly	5038
Shaikh	Sameeha	3049	Vilsaint	Rebecca	5023
Shandrowski	Skylar	2503	Vissak	Quinn	3004
Shaner-Bradford	Nikki	6024	Vissers	Claire	2019
Shea	Anthony	5516	Vogel	Duncan	4024
Shen	Tian	3124	Vohra	Haarith	3511
Sholomicky	Kenneth	5007	Vora	Ninad	3023
Shugrue	Kyle	5531	Wagener	Danika	3050
Shwayhat	Emile	5015	Walawalkar	Isha	3043
Silva	Elizabeth	2024	Walker	Nicholas	5545
Silvert	Eli	3514	Walsh	Lora	6110
Simons	Cole	5521	Wang	George	1018
Siveyer	Jonathan	3070	Wang	Jake	1018
Siveyer	Nicholas	6079	Wang	Jing-Jing	3047
Smith	Abigail	3031	Wargo	Julia	6027
Smith	Elizabeth	3041	Waskowicz	Zachary	2041
Smith	Kathryn	5534	Wei	Albert	4024
Sondhi	Tushar	5559	Weiss	Connor	3114
Sonenclar	Liana	3150	Wells	Lila	2014
Sorbaro	Morgan	3508	Wendt	Ryan	3063
Sou	Kelly	3116	Westgate	Brian	6013
Spell	Jacob	2515	Whichard	Wayde	2544
Stephens	Thea	6057	Whitehill	Matt	3069
Stitzer	Franklin	3519	Wiener	Julia	4008
Streimer	Sophia	3076	Williams	Hannah	5513
Stuart	Sarah Kate	3119	Wilson	Abbi	3516
Suarez	Joseph	5548	Wilson	Victor	2513
Sud	Sivan	3016	Windsor	Evan	5565
Suleyman	Berk	3520	Wolf	Caroline	3046
Tait	William	6026	Wootton	Olivia	3157
Tanner	Christian	3003	Wu	Jonathan	5030

Wu	Michelle	3009	Zaidi	Humza	5507
Yaffe	Avraham	1006	Zakoworotny	Kristin	3005
Yamashiro	Kotaro	3115	Zambrzycka	Sylwia	3515
Yard	Jasmine	4015	Zhang	Yiran	3514
Yetil	Deniz	3158	Zhao	Dorry Xun	3067
Yetman	Charles	6084	Zhou	Joyce	3028
Youn	Jejun	6122	Zhu	Jennifer	3083
Yu	Lydia	5504	Zielinski	Kyle	3074
Yurkevych	Kateryna	5529	Zwolinski	Stefan	2013

2015 Connecticut Science & Engineering Fair
 67th Year
 March 10-14, 2015
 Quinnipiac University, Hamden

