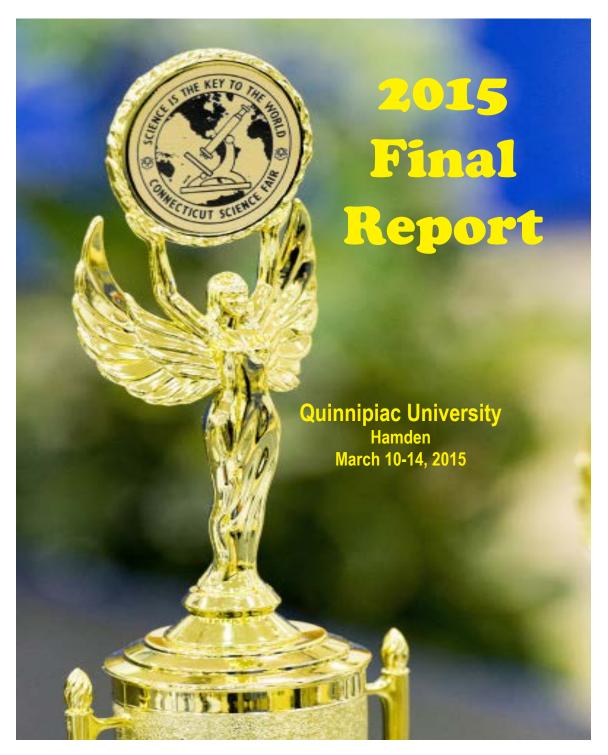
CT Science & Engineering Fair www.ctsciencefair.org



Connecticut Science Fair Association

Affiliate of the Intel International Science and Engineering Fair

67th

Connecticut Science & Engineering Fair

Quinnipiac University
Hamden

March 10 - 14, 2015

Connecticut Science Fair Association

All-volunteer Connecticut non-profit organization Affiliate of the Intel International Science and Engineering Fair

Connecticut Science Fair Association

April 2015

67th Connecticut Science & Engineering Fair

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ISEFhttp://www.societyforscience.org/isef

I-SWEEEPhttp://www.isweeep.org GENIUS Olympiad http://www.geniusolympiad.org

AWARDS

FORMAT KEY

Project No. Category Title

SchTown School Teacher Regional/City Fair Town

Student Hometown Grade Awards Honors

Sponsor Sponsor Award

Life Sciences

1001 LT The Effect of Different Liquids on Plant Growth

North Haven, North Haven Middle School, Teacher - Susan Jasinski

Rahi Patel, North Haven 7 Cecile Tobin North Haven 7 Anna Wootton North Haven 7

Awards: Honors = 3

1002 LT Which cleanser will make a fresh-faced student?

Fairfield, St. Thomas Aquinas Catholic School, Teacher - Mr. Philip Flynn

Olivia Golden, Southport 7 Laura Elwood Fairfield 7

Awards: Honors = 3

1003 LT Do you see what I see?

Danbury, St. Joseph School, Teacher - Mrs. J. Reilly

Olivia Casino, Brewster 7 Brigid Gage Danbury 7

Awards: Honors = 2

1004 LT Vitamin H2Grow

Danbury, St. Gregory the Great School, Teacher - Mrs. Christine Fahey

Kieran Doolabh, Danbury 7 Hunter Swaylik Woodbury 7 Brendan Walsh Danbury 7

Awards: Honors = 2

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

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

Windsor, Madina Academy, Teacher - Mr. Hassan

Ayesha Nazir, Manchester 7 Ruqayyah Paine Terryville 7

Awards: Honors = 3

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

1006 LT So You Think You Can Multitask? A Study of Multitasking: Help or Hinderance to Learning and Recall

Madison, Our Lady of Mercy School, Teacher - Mr Supik

Pamela Engelhart, Madison 7 Christina Coric Madison 7

Awards: Honors = 3

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

Orange, Southern CT Hebrew Academy, Teacher - Karen Howell

Sarah Yaffe, Madison 7 Mindel Yaffe Madison 7

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 1st Place- Life Sciences MS Team- \$100 each & trophy and Invite to Compete Broadcom MASTERS
- Alexion Biotechnology Awards --- 3rd Place- Biotechnology 7th grade- \$100 & trophy
- 1009 LT Bridge Strength

Hamden, Hamden Middle School, Teacher - Mr. Danny Martins

Madeleine Malin, Hamden 8 Ava Albis Hamden 8

Awards: Honors = 2

• Connecticut Science Supervisors Association --- \$125 for a middle school project

1010 LT Which Liquid Prevents Oxidation?

Stamford, Bi-Cultural Day School, Teacher - Mr. Graseck

Maya Jubas, Stamford 7 Rina Marlowe Stamford 7

Awards: Honors = 3

1011 LT How Languages Affect Cognitive Ability

North Haven, North Haven Middle School, Teacher - Susan Jasinski

Matthew Wabunoha, North Haven 7 Timothy Yang North Haven 7 Laekhram Singh North Haven 7

Awards: Honors = 3

1012 LT Bacterial Invasion

Greenwich, Greenwich Catholic School, Teacher - Rebecca Wood (Science teacher)

Samantha Sarelli, Cos Cob 8 Vanessa Comeau Stamford 8 Heather Carr Stamford 8

Awards: Honors = 3

1013 LT Gas Released by Yeast

Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Wasserman

Julia Jackman, Southington 8 Sarah Mathew Southington 8

Awards: Honors = 3

• J.A. Augustine Award --- \$100 for excellence in biology

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

Stamford, Bi-Cultural Day School, Teacher - Mr. Chris Graseck

Gabriel Dweck, Armonk 7 Andrew Ukhanov Stamford 7

Awards: Honors = 3

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

1015 LT Softening Sweets

Southington, J.A. DePaolo Middle School, Teacher - Mrs. Shea

Avery Korp, Southington 7 Megan Mikosz Southington 7

Awards: Honors = 3

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

Orange, Southern CT Hebrew Academy, Teacher - Karen Howell

Miriam Kantor, Westport 8 Chana Katz New Haven 8

Awards: Honors = 1

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

1017 LT The Impact of Acidic Water on Germinating Mung Beans.

Stamford, Bi-Cultural Day School, Teacher - Chris Graseck

Jordana Raich, Stamford 7 Tilly Chamberlain Stamford 7

Awards: Honors = 3

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

1018 LT The relationship between font style and peoples' ability to remember typed information.

North Haven, North Haven Middle School, Teacher - Susan Jasinski

Isabella Morizio, North Haven 7 Christina DeAngelo North Haven 7 Colleen Lucey North Haven 7

Awards: Honors = 3

1019 LT Pill Bugs On Mars?

Bridgeport, Park City Prep Charter School, Teacher - Vicky Boudreau

Saxton Kerr, Bridgeport 7 Tayquon Underhill Bridgeport 7

Awards: Honors = 3

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

Plantsville, J.F. Kennedy Middle School, Teacher - Pamela Pepin

Tara Brock, Southington 7 Hannah Sousa Southington 7

Awards: Honors = 3

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

1021 LT The relation of time that was spent studying compared to the amount of preformed accuracy on a quiz.

North Haven, North Haven Middle School, Teacher - Mrs. Jasinski

Tyler Karasinski, North Haven 7 Stephen Borrelli North Haven 7

Awards: Honors = 3

1022 LT Acid Rain in Wilton, CT

Wilton, Middlebrook School, Teacher - Mrs. Debbie Mallozzi

Elizabeth Yoon, Wilton 8 Anna Yoon Wilton 7

Awards: Honors = 3

- · Environmental Sciences Awards with CACIWC --- MS Finalist CACIWC gifts, CSF Medallion, Acrylic award
- 1023 LT The Trilogy of Light: Fluorescent, LED, Incandescent

Fairfield, St. Thomas Aquinas Catholic School, Teacher - Mr. Philip Flynn

Melissa Caiola, Fairfield 8 Alanna Murphy Fairfield 8

Awards: Honors = 3

1024 LT The Effect of Different Heating Sources on How Fast Water Can Reach Boiling Point

Guilford, E.C. Adams Middle School, Teacher - Kristen L. Meyerjack

Gianni Esposito, Guilford 7 Aidan Henry Guilford 7

Awards: Honors = 3

1025 LT Survive with Salt Water

Greenwich, Greenwich Catholic School, Teacher - Carol Lutz

Daniel Mabes, Greenwich 7 Nicholas Cotaj Stamford 7 Terrence McGrath Stamford 7

Awards: Honors = 2

- National Oceanic and Atmospheric Administration --- Certificate and medallion, and \$50 gift card to Amazon given by CSEF
- 1026 LT Got Gas?

Danbury, St. Gregory the Great School, Teacher - Mrs.Fahey

Royce Maxwell, Danbury 8 Bart Flaherty New Fairfield 8 Ryan Niland Brookfield 8

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 3rd Place- Life Sciences MS Team- trophy and Invite to Compete Broadcom MASTERS
- 2001 L7 The Effects of Wi-fi on Plant Growth

New Haven, Worthington Hooker Middle School, Teacher - Douglas Jones

Michael Bencivengo, New Haven 7

Awards: Honors = 2

- Alexion Biotechnology Awards --- 4th Place- Biotechnology 7th grade- trophy
- 2002 L7 How does Caffeine affect the growth of plants?

Meriden, St. Joseph School, Teacher - Mrs. Pergolotti

Michael Mysatyukow, Meriden 7

Awards: Honors = 3

2003 L7 The Effect of pH Level on the Growth of Algae

Newtown, St. Rose of Lima School, Teacher - Marde Dimon

Natalene Sim, Newtown 7

Awards: Honors = 3

- Southeastern New England Marine Educators --- \$100 award and membership in SENEME 1st Place Junior & T-Shirt
- 2004 L7 Diffusion Confusion: Which Liquid Does Blue Food Coloring Diffuse The Fastest In

Southington, J.A. DePaolo Middle School, Teacher - Mrs. Shea

Sarah McAuliffe, Southington 7

Awards: Honors = 3

2005 L7 Endomycorrhizal and Ectomycorrhizal Fungi and the Effect on Plant Communication Through the Common Mycelial Network Avon, Talcott Mountain Academy, Teacher - Alyson Tockstein

Rayna Bidwell, Ellington 7

Awards: Honors = 2

2016 L7 Music and Memory

West Hartford, Solomon Schechter Day School, Teacher - Sue Prihar

Ariel Gordon, Woodbridge 7

Awards: Honors = 1

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

2017 L7 How Much Sugar is Needed for Bread to Raise the Most

Stamford, Bi-Cultural Day School, Teacher - Mr. Christopher Graseck

Shira Cohen, Stamford 7 Awards: Honors = 2

2018 L7 Curious Cuttings

Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Mrs. Devlin

Brandon Foran, New Britain 7

Awards: Honors = 2

2019 L7 The Stroop Effect

Cheshire, St. Bridget School, Teacher - Mrs. Michelle Carroll

Brendan Canning, Wallingford 7

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- 4th Place- Life Sciences 7th grade- trophy and Invite to Compete Broadcom MASTERS
- 2020 L7 How sweet is it really? Tracking down hidden sugar in drinks.

Guilford, E.C. Adams Middle School, Teacher - Lynn Arnold

Sequoia Kessler, Guilford 7

Awards: Honors = 1

- Pfizer Life Sciences Awards --- Finalist Life Sciences 7th grade CSF Medallion & Acrylic Award
- 2021 L7 Nothing but algae and duckweed

Bridgeport, Park City Prep Charter School, Teacher - Vicky Boudreau

Charlicea Azore, Bridgeport 7

Awards: Honors = 3

2022 L7 Which insulated bag lasts the longest?

Manchester, St. Bridget School, Teacher - Mrs. Maysonet

Danielle Savino, South Windsor 7

Awards: Honors = 3

2023 L7 The Microwave: Is It Safe For Life?

Southington, J.A. DePaolo Middle School, Teacher - Mrs. Shea

Betul Agirman, Southington 7

Awards: Honors = 3

2024 L7 The Effects of Cell Phones on Narcissus Papyraceus Growth and Color

Newtown, St. Rose of Lima School, Teacher - Mrs. Marde Dimon

Michael Bachmann, Redding 7

Awards: Honors = 1

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

2025 L7 Have Your Bread and Eat it Too

Norwalk, The Montessori Middle School, Teacher - Cara Roure Johnson

Magnus Ekstrom, Stamford 7

Awards: Honors = 2

2026 L7 Killing Blackspot: An Organic Struggle

Avon, Talcott Mountain Academy, Teacher - Alyson Tockstein

Julia Hoffman, Windsor 7

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

2006 L7 Water The Power of Life Hydroponics vs. Aquaponics

Danbury, St. Joseph School, Teacher - Mrs. Reilly

Keelan Doherty, Danbury 7

Awards: Honors = 2

2007 L7 Do different sources of light affect the rate a plant transpires?

Bridgeport, Interdistrict Discovery Magnet School, Teacher - Janine Walsh

Joseph Everard, Easton 7

Awards: Honors = 3

2008 L7 Can different categories of leaves contain similar tints

Bridgeport, Classical Studies Magnet Academy, Teacher - Samantha Bookbinder

Melissa Andrade, Bridgeport 7

Awards: Honors = 3

2009 L7 What liquid germinates seeds the fastest?

Newington, St. Mary School, Teacher - Mrs. Giantonio

Michelle Dicicco, New. Britain 7

Awards: Honors = 3

2010 L7 "Pore" My Way to Cleaner Water: The use of flocculants and porous ceramic pots for purifying drinking water in developing countries

Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Pepin

Matthew Maciejewski, Plantsville 7

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 1st Place- Life Sciences 7th grade- \$200 & trophy and Invitation to Compete in Broadcom MASTERS
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- 1st Place Middle School \$500 Cash and Trophy
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- Alexion Biotechnology Awards --- 1st Place- Biotechnology 7th grade- \$300 & trophy
- Ricoh Corporation/Society for Science & the Public --- Certificate, Lapel Pin,\$50 gift card to Amazon given by CSEF
- Talcott Mountain Science Center --- Founder's Award \$450 Saturday Mentorship Course at TMSC Middle School Phys Science
- The Children's Museum --- 1 family 4-Pack of Admission Passes to the Children's Museum
- Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a Middle School student, \$100 cash

2011 L7 The Effect of Acid Rain on the Growth of Tennessee Green Pod Bean Plants

Newtown, St. Rose of Lima School, Teacher - Mrs. Dimon

Sabrina Capodicci, Southbury 7

Awards: Honors = 2

2012 L7 Frozen vs. Fresh

New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones

Lena MacDonald, New Haven 7

Awards: Honors = 2

2013 L7 What is TDS? Are you drinking it?!

New Haven, Betsy Ross Arts Magnet School, Teacher - Ms. Macdonald

Gabby DePino, West Haven 7

Awards: Honors = 3

2014 L7 Operation Jason

Groton, Sacred Heart School, Teacher - Mrs. Sheryl McCarthy

Lauren O'Donnell, Mystic 7

Awards: Honors = 1

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

2015 L7 Troublesome Turf

Bridgeport, Park City Prep Charter School, Teacher - Vicky Boudreau

Tasia Courts, Bridgeport 7

Awards: Honors = 3

AWARDS 2027 L7 How Does Water Impact Plant Growth? Madison, Our Lady of Mercy School, Teacher - Mr. Supik Summer Adams, Madison 7 Awards: Honors = 32028 L7 Lets help plants grow!!! Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Mrs. Devlin Masudur Rahman, Hartford 7 Awards: Honors = 22029 L7 That Is The Reason Why Your Teeth Are Stained Groton, Sacred Heart School, Teacher - Sheryl McCarthy Bethany Chavez, New London 7 Awards: Honors = 32030 L7 A Photosynthesis Lab: The Effect of Light Intensity, Water Temperature, Colored Lights, and Contaminated Water on the Rate of Photosynthesis of the Aquatic Plant, Elodea Densa Stratford, St. Mark School, Teacher - Mr. Michael McMahon Natalie Sciallo, Stratford 7 Awards: Honors = 22031 L7 Hypoxia in Long Island Sound Newtown, St. Rose of Lima School, Teacher - Marde Dimon Carla Fabrizio, Monroe 7 Awards: Honors = 32032 L7 Weed Control: Walnuts to the Rescue! Norwalk, The Montessori Middle School, Teacher - Cara Roure Johnson Alexander Forsyth, Darien 7 Awards: Honors = 32033 L7 Why Did The chicken Cross The Road? Pawcatuck, St. Michael School, Teacher - Michael DeNoia Kathryn Logel, Pawcatuck 7 Awards: Honors = 2• Henderson Award --- Certificate and \$50 Amazon Gift Card given by CSF 2034 L7 All About That Bait Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Kirsten Devlin Brian Valigorsky, Winsted 7 Awards: Honors = 22035 L7 As Temperature Goes, Yeast Grows New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones Juliette Ranelli, New Haven 7

Awards: Honors = 3

2036 L7 Does Music Affect Running Pace?

Groton, Sacred Heart School, Teacher - Sheryl McCarthy

Melissa Mancuso, Mystic 7

Awards: Honors = 3

2037 L7 The Effect of Sugar on Yeast Cells

Guilford, E.C. Adams Middle School, Teacher - Mrs. Arnold

Maddy Norris, Guilford 7

Awards: Honors = 2

2038 L7 Smoking Wars

Bridgeport, Park City Prep Charter School, Teacher - Vicky Boudreau

Willow Marks, Bridegeport 7

2039 L7 Novel Bioluminescent Display using Aliivibrio fischeri for efficiency and low cost

Avon, Talcott Mountain Academy, Teacher - Alyson Tockstein

Yusuf Zaidi, Avon 7 Awards: Honors = 1

• Pfizer Life Sciences Awards --- 5rd Place- Life Sciences 7th grade- trophy

• Alexion Biotechnology Awards --- 2nd Place- Biotechnology 7th grade- \$200 & trophy

2040 L7 Hydroponics

Bridgeport, Barnum School, Teacher - David Nuzzo

Wilson Velez, Bridgeport 7

Awards: Honors = 3

2041 L7 A Study of the Relationship between Apple Price and Vitamin C

West Hartford, St. Timothy Middle School, Teacher - Ms. Breen

Benjamin Lee, West Hartford 7

Awards: Honors = 1

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

2501 L8 Does a Person's Eye Color Affect Their Ability to Identify Colors in Dim Light?

Meriden, St. Joseph School, Teacher - Mrs. Pergolottie

Isabella Kunze, Meriden 8

Awards: Honors = 2

2502 L8 Toxic Chemicals Found In Detergents

Danbury, St. Joseph School, Teacher - Jennifer Reilly

Shea Foye, Danbury 8

Awards: Honors = 2

2503 L8 The Effect of Caffeine on the Heart Rate of Daphnia Magna

Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano

Allie Agnew, Westport 8

Awards: Honors = 3

2504 L8 The Cocktail Party Effect: An Inside Look at Multitasking

West Hartford, Solomon Schechter Day School, Teacher - Sue Prihar

Samara Gordon Wexler, West Hartford 8

Awards: Honors = 2

2505 L8 Brine Shrimp Hatching

Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Mrs. Devlin

Tyler Reeve, New Britain 8

Awards: Honors = 2

2506 L8 The Effect of Dextrose and Fructose on Daphnia.

Danbury, St. Joseph School, Teacher - Mrs. Reilly

Daniel Villalona, Danbury 8

Awards: Honors = 1

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

2507 L8 Aqua-Life

Bridgeport, Black Rock School, Teacher - Helena Coatsworth

Benjamin Clark, Bridgeport 8

Awards: Honors = 3

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

2508 L8 Hand Hygiene Effectiveness in Reducing the Number of Bacterial Colonies.

New Haven, Betsy Ross Arts Magnet School, Teacher - Laggis

Aimee Turcotte, Milford 8

Awards: Honors = 2

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

2509 L8 The Effects of Honey on the Healing and Regeneration of Lumbriculus variegatus

Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano

Lila Wells, Darien 8 Awards: Honors = 3

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

2510 L8 Viscosity and Nutritional Value

Madison, Our Lady of Mercy School, Teacher - Mr. Supik

Sarah Stephens, Madison 8

Awards: Honors = 3

2511 L8 Analysis of Increased CO2 levels in Ocean water and Effect on Crustaceans' and Bivalves' Growth

Orange, Southern CT Hebrew Academy, Teacher - Karen Howell

Adina Katz, New Haven 8

Awards: Honors = 3

- 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
- Randy Gibson Award for Earth Science Research --- \$100 cash and plaque
- Schoepfer Award for Excellence in Local Aquatic Science --- For excellence in a local water quality study, \$100 cash
- 2512 L8 A Battery That Makes Cents

Groton, Sacred Heart School, Teacher - Sheryl mcCarthy

Nicole Lawton, Groton 8 Awards: Honors = 3

2513 L8 Which is the Most Effective Antacid?

Danbury, St. Joseph School, Teacher - Jennifer Reilly

Jared Hewitt, Danbury 8

Awards: Honors = 3

2514 L8 Contemporary Bioremediation

Danbury, Westside Middle School Academy, Teacher - Jonathan Neuhausel

Rishita Bandaru, Danbury 8

Awards: Honors = 2

2515 L8 The Impact of Acid Rain on the Flora of the Environment

New Haven, Betsy Ross Arts Magnet School, Teacher - Roisin Macdonald

Kaitlyn Caple, Ansonia 8

Awards: Honors = 2

2516 L8 Effects of different levels of electromagnetic fields on a variety of grasses and their nutrient content

Orange, Southern CT Hebrew Academy, Teacher - Karen Howell

Ariella Snyder, West Hartford 8

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 4th Place- Life Sciences 8th grade- trophy and Invite to Compete Broadcom MASTERS
- Environmental Sciences Awards with CACIWC --- MS Finalist CACIWC gifts, CSF Medallion, Acrylic award
- Alumni Botany Awards --- Alumni Middle School Botany Award- \$100 Cash
- 2517 L8 Aquaponics: The impact of combining agriculture and aquaculture techniques on plant germination and growth.

Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano

Amy Petschek, Norwalk 8

Awards: Honors = 3

2518 L8 Nutrient Comparison of Lettuce Grown Hydroponically and in Soil

Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Pepin

Hannah Platt, Southington 8

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

2520 L8 Effects of Mnemonic Methods on Memory

Pawcatuck, St. Michael School, Teacher - Michael DeNoia

Kyle Remmert, Pawcatuck 8

Awards: Honors = 2

- American Psychological Association --- Certificate, \$50 gift card to Amazon given by CSEF
- Sister Mary Christine Life Sciences Award --- \$150 and plaque for excellence in the life sciences by a catholic middle school project

2521 L8 Electric Energy Production In A Bio-fuel Cell For Varying Electrogenic Microbial Samples

New Haven, Engineering & Science University Magnet School, Teacher - Mr. Roger L. Rushworth

Sumanth Kondapalli, Milford 8

Awards: Honors = 3

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

2522 L8 Microwave Radiation

Cheshire, St. Bridget School, Teacher - Mrs. Carroll

Sadhana Sankar, Naugatuck 8

Awards: Honors = 3

2523 L8 Not Organic? Don't Panic!

Bethel, St. Mary School, Teacher - Mrs. Kate McDonald

Angela Saidman, Bethel 8

Awards: Honors = 3

2524 L8 An Investigation of the Ingestion of Microscopic Plastic Particles by the Blue Mussel, Mytlus edulis

Newtown, St. Rose of Lima School, Teacher - Mardi Dimon

Catherine Herrick, Sandy Hook 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
- Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
- Project Oceanology --- Individual Book + 2 tickets, First Place Junior, check for \$100, t-shirt

2526 L8 One Sticky Situation

Milford, St. Gabriel School, Teacher - Mr. John Campbell

Aidan Conway, Milford 8

Awards: Honors = 2

2527 L8 Viral Protein 35 Inhibition: A Novel Treatment for Ebola Virus Disease

Hamden, Hamden Middle School, Teacher - Danny Martins

Akshar Agarwal, Hamden 8

Awards: Honors = 3

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

2528 L8 Electrolyte Challenge

Bethel, St. Mary School, Teacher - Kate McDonald

Mackenzy Garden, Danbury 8

Awards: Honors = 2

2529 L8 Indirect measurement of the pliability of vocal folds and singer comfort after direct steam inhalation.

Avon, Talcott Mountain Academy, Teacher - Alyson Tockstein

Tasha Casey, Avon 8 Awards: Honors = 2

2530 L8 How the Cookie Crumbles

Windsor, St. Gabriel School, Teacher - Ms. Rosa

Molly Henderson, Windsor 8

Awards: Honors = 3

2531 L8 Water Types and Plant Growth

Bethel, St. Mary School, Teacher - Mrs. McDonald

Jake Drury, Redding 8 Awards: Honors = 3

2532 L8 How Much Organic Material Can Earthworms Decompose?

Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida

Christopher Stevens, Stratford 8

Awards: Honors = 2

2533 L8 Food & Texture: Does seeing the food affect your liking a food that has changed from its original texture?

Fairfield, St. Thomas Aquinas Catholic School, Teacher - Philip Flynn

Conor Landry, Fairfield 8

Awards: Honors = 2

• United States Public Health Service --- Certificate & \$50 Amazon gift card given by CSEF & medallion

2534 L8 Reaction Time

Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Ms.Devlin

Adreian Feliciano, Hartford 8

Awards: Honors = 3

2535 L8 Optimizing Methane Oxidation by Methanotrophs Through the Engineering Application of Different Environments

New Haven, Engineering & Science University Magnet School, Teacher - Roger Rushworth

Jacob Feuerstein, Woodbridge 8

Awards: Honors = 2

- · Barnes Aerospace Applied Technology Awards --- Middle School Finalist Medallion and acrylic award
- Environmental Sciences Awards with CACIWC --- MS Finalist CACIWC gifts, CSF Medallion, Acrylic award
- Alexion Biotechnology Awards --- Finalist Biotechnology 8th grade CSF Medallion & Acrylic Award
- Air and Waste Management Association, Connecticut Chapter --- \$100 Junior, Environmental Research, waste recycling related
- 2536 L8 Regenerative Nano Particle Films

Greenwich, Central Middle School, Teacher - Jennifer Bresler

Logan Woods, Greenwich 8

Awards: Honors = 3

2537 L8 The Antimicrobial Properties of Papaya

Avon, Talcott Mountain Academy, Teacher - Ms. Tockstien

Zachary Waskowicz, Southington 8

Awards: Honors = 2

- · Alexion Biotechnology Awards --- Finalist Biotechnology 8th grade CSF Medallion & Acrylic Award
- Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 2538 L8 The Effect of Household Acids and Bases on the pH of dirt.

Bethel, St. Mary School, Teacher - Mrs McDonald

Rory Daly, Brookfield 8

Awards: Honors = 3

2539 L8 The Impact of Different Water Pollutants on Biological Health Indices

Danbury, Westside Middle School Academy, Teacher - Neuhausel

Kiara Kaltschnee, Danbury 8

Awards: Honors = 1

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

2541 L8 Inexpensive Treatments for Plants Affected from Contaminated Soil by Oil Spills

Windsor, Madina Academy, Teacher - Esslam Hassan

Radevah Ahmed, Bloomfield 8

Awards: Honors = 2

- Alexion Biotechnology Awards --- Finalist Biotechnology 8th grade CSF Medallion & Acrylic Award
- Meyerand Young Woman Scientist Awards --- \$300 cash Middle School Life Sciences
- 2542 L8 Think Before You Drink Analysis of the impact of drinking popular soft drinks on our body.

Milford, St. Gabriel School, Teacher - Campbell

Brian LoCicero, Milford 8

Awards: Honors = 3

2543 L8 Which Side Are You On?

Bridgeport, Park City Prep Charter School, Teacher - Mr. Jaekle

Zaryah Gordon, Bridgeport 8

Awards: Honors = 3

2544 L8 Fruit Fly Fatality

Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Kirsten Devlin

Hunter Rego, Winsted 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 Travelers --- 3rd Place Middle School \$100 and Trophy, Medallion
- Fred Bailey Memorial Award --- \$250 for innovative research- Hartford Urban Middle School Project
- 2545 L8 Finding the Most Efficient Anti-fungal Food Using a Baking Yeast Solution

Danbury, Westside Middle School Academy, Teacher - Jonathan Neuhausel

Jacob Laham, Danbury 8

Awards: Honors = 2

2546 L8 The Effect of Brain Dominance on Memory

West Hartford, Solomon Schechter Day School, Teacher - Sue Prihar

Olivia Rotter, West Hartford 8

Awards: Honors = 1

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

3001 LS A Natural Fighter Against E. Coli

Shelton, Shelton High School, Teacher - Kathleen Hayes

Alyson Shaw, Shelton 11

Awards: Honors = 3

- Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 3002 LS The Effects of Atypical PH on Bay Scallops (Argopecten irradians)

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Dana Perry, Bethany 12

Awards: Honors = 2

- U.S. Metric Association --- Certificate & \$50 gift card to Amazon given by CSEF
- 3003 LS Antimicrobial Activity of Lichen Extracts

Westport, Staples High School, Teacher - Dr. Morse

Pamela Onorato, Westport 12

Awards: Honors = 3

- Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum
- 3004 LS A Comparison of the Efficacy of Genomic Loci and Oligonucleotide Systems in the DNA Barcoding of Vitis Labrusca Norwich, Norwich Free Academy, Teacher - Mrs. Stephani Jones

Connor Provost, Bozrah 11

Awards: Honors = 3

3005 LS Investigating Inhibitors of Dihydrofolate Reductase Enzymes of Streptococcus pyogenes and Staphylococcus aureus Glastonbury, Glastonbury High School, Teacher - Ms.Pintavalle

Sara Tavakoli, Glastonbury 11

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- · University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Microbiology
- 3006 LS Awareness and Knowledge of HPV Among High School Students

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Dana Chung, Orange 12

Awards: Honors = 2

3007 LS Quantitation of Regeneration in Planaria

Westport, Staples High School, Teacher - Michelle Morse

Alexandra Mignucci, Westport 12

Awards: Honors = 3

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

Greenwich, Greenwich High School, Teacher - Mr. Andrew Bramante

Sophia Ertel, Old Greenwich 12

Awards: Honors = 2

- Alexion Biotechnology Awards --- 4th Place- Biotechnology Senior High- \$200 & plaque
- Connecticut Science Supervisors Association --- \$125 for a high school project
- The Connecticut Technology Council Young Woman Innovation Award --- \$150 Cash Award for Technological Innovation
- 3010 LS Deciphering the effects of aerobic glycolysis of tumor cells on host anti-tumor immunity

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Victoria Li, Woodbridge 11

Awards: Honors = 2

3011 LS Bioremediation of Low Density Polyethylene with S. griseus Bacteria and A. niger Fungi in Sterilized Soil

Manchester, Manchester High School, Teacher - Megan Rader

Nikki Pirtel, Manchester 12

Awards: Honors = 3

3012 LS The Effect of pH on DNA Isolation

Oxford, Oxford High School, Teacher - Ms. Scheuer

Shannen Parker, Oxfrod 9

Awards: Honors = 3

3013 LS The Effects of Organic and Chemical Fertilizers on Snails of the Long Island Sound

Hamden, Sacred Heart Academy, Teacher - Mrs. Alyssa Shields

Amy Ziobron, Westbrook 9

Awards: Honors = 2

3014 LS Antimicrobial Properties of Various Plant Leaf Extracts on Escherichia Coli

Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli

Deivydas Giedrimas, Rocky Hill 11

Awards: Honors = 3

3015 LS The Effects of Sulfur Dioxide on Solanum lycopersicum subsp. Tiny Tim and Soil pH in Varying Temperatures

Redding, Joel Barlow High School, Teacher - Katherine Nuzzo

Hannah Villhauer, Redding 12

Awards: Honors = 3

3016 LS The Carbon Dioxide Sequestration of Lawn Plants

New Milford, New Milford High School, Teacher - Eric Hansell

Gregory Hansell, New Milford 12

3017 LS Clinical application of 3D printing technology in cancer radiation therapy: A novel method to improve dose conformity with patient specific treatment aid device

East Lyme, East Lyme High School, Teacher - Lewis Tucker

Du Chen, Niantic 11

Awards: Honors = 2

- Education Connection- Center for 21st Century Skills Awards --- \$100 For innovative use of technology to advance science or engineering
- 3018 LS Exploring strategies for improved calcium and phosphate compatibilities in parenteral nutrition.

New Haven, Wilbur Cross High School, Teacher - Julia Rodi

Maya Geradi, New Haven 9

Awards: Honors = 3

3019 LS Pollutants and there Detrimental Effects on Shrimp

Fishers Island, Fishers Island School, Teacher - Carol Giles

Ellie McCarthy, North Stonington 12

Awards: Honors = 3

3020 LS Effective Optimization of Biogas Production through Alpha-Amylase Utilization

Greenwich, Greenwich High School, Teacher - Andy Bramante

Bryce Anderson, Cos Cob 11

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 4th Place- Life Sciences Senior High- Plaque
- Energize CT/eesmarts Future Sustainability Awards --- 2nd Place High School \$500 Cash and Plaque, Trip to Compete at GENIUS Olympiad, Oswego, NY
- Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, waste recycling related
- 3022 LS Determining the Most Effective Tick Repellent in Replace of DEET Based Products

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Emily Criscuolo, Woodbridge 10

Awards: Honors = 3

3024 LS Effect of Brine Concentration on Wettability on Atomisticly Smooth Surfaces

Putnam, Putnam Science Academy, Teacher - Owen Quantick

Hacibey Catalbasoglu, Putnam 12

Awards: Honors = 2

- ASU Walton Sustainability Solutions Inititatives --- Certificate-Nomination to Compete in 2016 Sustainability Solutions Festival and \$50 Gift Card
- 3025 LS Suicide Reportings in New England

Glastonbury, Glastonbury High School, Teacher - Ms. Dianne Pintavalle

Morgan Tiroff, Glastonbury 12

Awards: Honors = 3

3026 LS Does seed spacing affect plant height?

East Hartford, East Hartford High School, Teacher - Mr.Reid

Jessica Repass, East Hartford 10

Awards: Honors = 3

3027 LS MiRNA Target Sites in the 3' Untranslated Region of West Nile Virus

Hamden, Hamden High School, Teacher - Ms. Stockwell

Aakshi Agarwal, Hamden 10

Awards: Honors = 2

3028 LS Acid Rain Prevention

Oxford, Oxford High School, Teacher - Kristine Scheuer

Catherine Davis, Oxford 12

Awards: Honors = 3

3029 LS Can Metabolism Rates be Used to Differentiate Between Genetically Distinct Cells?

Hamden, Sacred Heart Academy, Teacher - Mrs. Brownell

Katherine Mackey, Cheshire 10

Awards: Honors = 3

3030 LS The Effects of GMO vs Non-GMO Bananas on the Life Span of Fruit Flies

Bridgeport, Central High School, Teacher - Mrs. Nnodum

Amy Siranaula, Bridgeport 11

Awards: Honors = 3

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

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Reid Radulovacki, Greenwich 11

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF
- · Alexion Biotechnology Awards --- Finalist Biotechnology Senior High CSF Medallion & Acrylic Award
- 3032 LS Enhancing the Collagen Yield from Aurelia aurita through Bio Encapsulated Highly Saturated Fatty Acid Feed Bridgeport, Bridgeport Regional Aquaculture School, Teacher Kirk Shadle

Marissa Prizio, Milford 12

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- 3033 LS Is it possible to graft the scion of Non-Leguminous Plant (tomato) to the root stock of a Leguminous Plants (soybeans)?

Westport, Staples High School, Teacher - Dr. Morse

Kristen Onorato, Westport 12

Awards: Honors = 2

3034 LS The Effect of alcoholic, nicotinized, caffeinated, and adrenergic solutions on Arrhythmias

Trumbull, Christian Heritage School, Teacher - Daniel Cote

Valeria Sarmiento, Norwalk 11

Awards: Honors = 3

3035 LS Global Climate Change Affects the Ecosystem by Elevating Carbon and Nitrogen Emissions which Increases Allergies

Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

Alyssa Gontzes, Redding 12

Awards: Honors = 3

3036 LS Does the Color of a Classroom Effect Learning Comprehension?

Fishers Island, Fishers Island School, Teacher - Carol Giles

Connor Beverly, Pawcatuck 11

Awards: Honors = 3

3037 LS The Effect of Iron Levels on Marine Algal Growth

Storrs, E.O. Smith High School, Teacher - Jon Swanson

Luke Stover, Columbia 10

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- 3038 LS Inhibiting the Growth of Triple-Negative Breast Cancer Tumor Growth by Targeting the Proinflammatory Cytokine Greenwich, Greenwich High School, Teacher Andrew Bramante

Madeleine Zhou, Old Greenwich 10

Awards: Honors = 3

3039 LS Zeolite Zaps Cancer Cells

Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Aramli

Jacqueline Klepinger, Wethersfield 11

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

3040 LS Utilizing Piscivorous Birds as Low-Impact Primary Biological Indicators

Bridgeport, Bridgeport Regional Aquaculture School, Teacher - Mr. Kirk P. Shadle

Sophie Kay, Fairfield 12

Awards: Honors = 1

- Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- Senior High Finalist Medallion and acrylic award
- Project Oceanology --- Individual Book + 2 tickets, First Place Senior, check for \$100, t-shirt
- Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum
- 3041 LS Remediating Rivalry?

Fishers Island, Fishers Island School, Teacher - Carol Giles

Mackenzie Switz, Stonington 11

Awards: Honors = 2

- The Goodwin-Niering Center for the Environment --- \$100 for "Excellence in Environmental Conservation Studies"
- 3042 LS Investigation of Osteoclast Activity as an Explanation for Lack of Bone Maturation in Tissue Implantation

Avon, Avon High School, Teacher - Andrea Galuska

Ben Lerner, Avon 12 Awards: Honors = 2

3043 LS The Spread of Zebra Mussels in Lake Lillinonah in 2013 and 2014

Washington, Shepaug Valley School, Teacher - Scott Werkhoven

Nadia Racz, Roxbury 9

Awards: Honors = 2

3044 LS The Effect of Beta Carotene on the Proliferation of Mouse Mammary Carcinoma

Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Aramli

Rounak Gokhale, Rocky Hill 12

Awards: Honors = 3

3046 LS Correlation of frequency of cancer stem cells to patient outcome in osteosarcoma

Glastonbury, Glastonbury High School, Teacher - Ms. Pintavalle

Meaghan Schneider, Glastonbury 12

Awards: Honors = 2

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

Greens Farms, Greens Farms Academy, Teacher - Dr. Freeman

Elizabeth McGonagle, Southport 12

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- 3049 LS Targeted Release of Moringa oleifera Cationic Proteins from Starch-g-poly (sodium acrylate-co-HEMA) Hydrogels for the Remediation of Aqueous Polychlorinated Biphenyls

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Vijay Kadiyala, Old Greenwich 11

Awards: Honors = 2

- Alexion Biotechnology Awards
 Finalist Biotechnology Senior High CSF Medallion & Acrylic Award
- ASU Walton Sustainability Solutions Inititatives --- Certificate-Nomination to Compete in 2016 Sustainability Solutions Festival and \$50 Gift Card
- 3050 LS Poetic Mind

Hartford, High School, Inc., Teacher - David Aleshire

Jahyeliss Minano, Hartford 11

Awards: Honors = 3

3051 LS Exploring the Tunicate Ascidia callosa and its Associated Bacteria for Antimicrobial Compounds and other Marine Natural Products

Darien, Darien High School, Teacher - Mrs. Leventhal

Allegra Molkenthin, Darien 12

Awards: Honors = 3

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

Bridgeport, Bridgeport Regional Aquaculture School, Teacher - Mr. Kirk Shadle

Julia Ennis, Fairfield 12

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition
- 3053 LS The Efficiency of Bivalve Mollusk Filter Feeding in the Long Island Sound

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - L.Ciocci

Elijah Rodriguez, Stratford 9

Awards: Honors = 2

- Yale Peabody Museum --- Family "six-pack" of free passes to the Yale Peabody Museum
- 3054 LS Preparation and Comparison of EGCG-Loaded PLGA and Cellulose Acetate Microparticles for Osteoarthritis Treatment

Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle

Anubhuti Mathur, Glastonbury 12

Awards: Honors = 2

- Alexion Biotechnology Awards --- 2nd Place- Biotechnology Senior High- \$500 & plaque
- Biophysical Society --- Biophysics Award- \$100
- 3055 LS The Effects of Grey Water on the Germination Rate and Growth of a Variety of Grass Species.

Hamden, Sacred Heart Academy, Teacher - Mrs. Nelson

Laura Mocciola, Shelton 9

Awards: Honors = 2

- Environmental Sciences Awards with CACIWC --- 2nd Place HS- \$200, Plaque, CACIWC gifts, Trip to Compete GENIUS Olympiad, Oswego, NY
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist Medallion and Acrylic Award
- Meyerand Young Woman Scientist Awards --- \$300 cash High School, Life Sciences
- Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting
- 3056 LS Analysis of Transport of Nitrogen Species through Right-of-way-Bioswales

Westport, Staples High School, Teacher - Dr. Nick Morgan

Grant Schwabacher, Westport 12

Awards: Honors = 3

- · Environmental Sciences Awards with CACIWC --- HS Finalist CACIWC gifts, CSF Medallion, Acrylic award
- 3057 LS Do Color Words Affect The Reaction of Your Brain?

Hartford, High School, Inc., Teacher - Mr. Aleshire

Yulissa Ortiz-Morales, Hartford 11

Awards: Honors = 3

3058 LS The Role of the Genetic Transfer of Mobile Genetic Elements in the Evolution of Microbial Populations

Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day

Arpita Jajoo, Woodbridge 12

Awards: Honors = 2

3059 LS Honey as an Antibacterial Agent

Hartford, Academy of Aerospace and Engineering, Teacher - Dr. Lili Aramli

Alec Bernardi, Tolland 11

Awards: Honors = 2

- Institute of Food Technologists, Nutmeg Section --- \$50 award + invitation to dinner
- 3060 LS Biochemical Changes in Corneal Collagen Cross-linking: Nondestructive Analysis by Raman Spectroscopy

Lakeville, The Hotchkiss School, Teacher - Sinisa Vukelic

Kyoung A Lee, Lakeville 11

Awards: Honors = 2

3061 LS The Relationship Of Major Vein Density on Leaf Shape and Size in the Plant Genus Pelargonium

Glastonbury, Glastonbury High School, Teacher - Ms. Pintavalle

Jennifer King, Glastonbury 11

3062 LS The Effect of Osmotic Pressure on Gram-Positive and Gram-Negative Bacteria

Shelton, Shelton High School, Teacher - Mr.Goddard

Veina Pillai, Shelton 12 Awards: Honors = 2

3063 LS Restricting the Growth of Lactamase-producing Bacterial Strains of Enterobacter aerogenes through Minimum Inhibitory Concentrations of Essential Oil Extracts

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Sanjeev-kumar Sathish, Greenwich 10

Awards: Honors = 2

3064 LS The Effectiveness of Homeopathic Antibiotics Versus Pharmaceutical Antibodies on the eradication of E. Coli.

Oxford, Oxford High School, Teacher - Mrs. Scheur

Noah Lisewski, Oxford 12

Awards: Honors = 3

3066 LS Calories consumed during lunch by students from the Joel Barlow HS cafeteria compared to their GPA

Redding, Joel Barlow High School, Teacher - Catherine Cheng

Benjamin El-wardany, Easton 9

Awards: Honors = 3

3067 LS An Investigation of an alternate treatment method, bacteriophage, for bacterial infections and the use of bacteriophages for an antibiotic

Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli

Sydney Wimberley, Windsor 11

Awards: Honors = 2

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

Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino

Sarah Banker, Greenwich 12

Awards: Honors = 3

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

3069 LS Elucidating the Ethylene Signal Pathway in Arabidopsis

Darien, Darien High School, Teacher - Christine Leventhal

Christian Kanlian, Darien 12

Awards: Honors = 3

3071 LS The Effect of Neotame on Lifespan and Pharyngeal Pumping Rate in Daf-2 Mutant Caenorhabditis Elegans

Greenwich, Greenwich Academy, Teacher - Dr. Decker

Alexa Murray, Greenwich 11

Awards: Honors = 2

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

Cheshire, Cheshire High School, Teacher - Casey King

Shangda Xu, Cheshire 11

Awards: Honors = 1

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

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

Bridgeport Regional Aquaculture School, Teacher - Mr. Kirk Shadle

Shana Isidoro, Monroe 12

Awards: Honors = 1

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

3074 LS The Stroop Effect

Bridgeport, Central Magnet High School, Teacher - Robert Pascarell

Toni-Lyn Turner, Bridgeport 9

Awards: Honors = 2

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

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

Andrew Pan, Old Saybrook 12

Awards: Honors = 2

- · Alexion Biotechnology Awards --- Finalist Biotechnology Senior High CSF Medallion & Acrylic Award
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Cell and Molecular Biology
- 3076 LS The Effect of FGF2 on Hypoxia in the Mouse DG: A Model for Human Perinatal Hypoxia

Darien, Darien High School, Teacher - Mr. David Lewis

Kate Halabi, Darien 12 Awards: Honors = 3

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

Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli

Leon Novak, Rocky Hill 11

Awards: Honors = 2

- · CASE Urban School Challenge Awards with Travelers --- Senior High Finalist Medallion and acrylic award
- Society for In Vitro Biology --- Certificate and \$50 gift card to Amazon given by CSEF
- 3078 LS Neurochemical signature of cerebral vasospasm in patients with subarachnoid hemorrhage

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Rohan Patel, Orange 10

Awards: Honors = 2

3079 LS Accumulation and Biomagnification of Microplastics in Marine Bivalves and Gastropods

Greenwich, Brunswick School, Teacher - Dana Montanez

Colin MacFaddin, Cos Cob 10

Awards: Honors = 3

3080 LS Stabilization of CXCR4 for Crystallization by Tyrosine Sulfation of the N-Terminus

Westport, Staples High School, Teacher - Dr. Michele Morse

Malin Hovstadius, Westport 12

Awards: Honors = 2

3081 LS The Effect of Gut Denitrification of Dressina polymorpha on the Nitrate and Nitrite Availability in the Freshwater System of Eichler's Cove,

Newtown Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

Gillian Storey, Redding 11

Awards: Honors = 2

3082 LS The Effect of Elevated Glucose Levels on the Maternal-Fetal Interface

Hamden, Sacred Heart Academy, Teacher - Sr. Mary Jane Paolella

Ashley Garcia, Deep River 12

Awards: Honors = 3

3083 LS Magic Magnets

Shelton, Shelton High School, Teacher - Mr. Charles Fowler

Deloshene Sittambalam, Shelton 9

Awards: Honors = 3

3084 LS An Evaluation of Machine Learning Methods for Genetic Variant Error Detection

Westport, Staples High School, Teacher - Dr. Nicholas Morgan

Zachary Effman, Westport 12

3085 LS Applying the Friendship Paradox to Trends within the High School Population

Redding, SCSEF - Amity Regional High School, Teacher - Deborah Day

Julia Nadelmann, Woodbridge 10

Awards: Honors = 2

3086 LS How Music Affects Concentration

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - L Ciocci

Rhea Grant, Milford 9 Awards: Honors = 3

3087 LS Natural Dye Treatments of Gossypium hirsutum using several Naturopathic sources in combination with the mordant of Aluminum Potassium Sulfate

Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

Devon Grey, Redding 11

Awards: Honors = 3

3088 LS Unprecedented Glycerol-Free Biodiesel Production using Enzyme Catalysis

Danbury, Immaculate High School, Teacher - Mrs. Bridget Henry

Martha Haddad, Danbury 10

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- 3090 LS Analyzing Cathode Placement in a Simple Single Vessel Microbial Fuel Cell: Potential Implications for Efficiency and Practical Applications

Hamden, Sacred Heart Academy, Teacher - Mrs. Pamela Brownell

Elizabeth LoPreiato, New Britain 10

Awards: Honors = 3

- · Environmental Sciences Awards with CACIWC --- HS Finalist CACIWC gifts, CSF Medallion, Acrylic award
- 3091 LS An Investigation of Drone Downdraft as a Viable Alternative for Insect Pollination of Essential Crops

Greenwich, Brunswick School, Teacher - Mrs. Montanez

Andreas Kern, Greenwich 11

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 5th Place- Life Sciences Senior High- Plaque
- · Barnes Aerospace Applied Technology Awards --- Senior High Finalist Medallion and acrylic award
- 3092 LS Enhancement of antibiotic effects on various species of bacterium via infusion of silver nanoparticles

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Andrew Lim, Old Greenwich 11

Awards: Honors = 3

- Society for In Vitro Biology --- Certificate and \$50 gift card to Amazon given by CSEF
- University of Connecticut Physics Department --- UCONN Early College Experience Program: Life Sciences Co-Op \$100 Gift Certificate
- 3093 LS The Affect of Ocean Acidification on Nannochloropsis sp.

New London, Science & Technology Magnet HS of SE CT, Teacher - Mr. Mulligan

Chloe Sherman-Watson, New London 10

Awards: Honors = 2

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

Fairfield, Fairfield College Preparatory School, Teacher - Mrs. Kiel

Jonathan Siveyer, Monroe 10

Awards: Honors = 1

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

3096 LS Temperature-Independent, Portable, and Rapid Field Detection of Ebola via a Silk-Derived Lateral-Flow System Greenwich. Greenwich High School. Teacher - Andy Bramante

Olivia Hallisey, Greenwich 10

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High- \$500 & Plaque, Trip to compete at Intel ISEF
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering in partnership with CCAT --- Life Sci. Senior 1st HS- \$1,000, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
- Alexion Biotechnology Awards --- 1st Place- Biotechnology Senior High- Trip to compete at Intel ISEF, \$1000 & plaque,
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- 3097 LS The Correlation of Written and Spoken Language Development With Intelligence Quotient Throughout Reading Instruction Woodbridge, Amity Regional High School, Teacher Deborah Day

James He, Woodbridge 10

Awards: Honors = 2

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

Hartford, University High School of Sci & Eng, Teacher - Michael Fromerth

Gabriel Mesa, Canton 9

Awards: Honors = 1

- Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- Fred Bailey Memorial Award --- \$250 for innovative research- Hartford Urban High School Project
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- 3100 LS Determining the Ras-like Structure of the Gai2 Protein

Hamden, Sacred Heart Academy, Teacher - Dr. Lolis

Gabrielle Hummel, Wallingford 12

Awards: Honors = 2

3101 LS The Effects of Curcumin and Eucalyptus Oil on the Growth and Apoptotic Properties of Breast Cancer Cells

Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Lili Aramli

Emily Gombotz, Berlin 11

Awards: Honors = 2

3103 LS Natural vs. Chemical Cleaners

New Haven, Engineering & Science University Magnet School, Teacher - Roger Rushworth

Saimanasa Juluru, Milford 9

Awards: Honors = 3

3104 LS The Laws of Attraction

Hartford, High School, Inc., Teacher - David Aleshire

Madyson Frame, Hartford 10

Awards: Honors = 3

3105 LS The effect of nitrate uptake in aquatic plants with varying nitrate exposure.

New London, Science & Technology Magnet HS of SE CT, Teacher - Mr.Mulligan

Katie Hanrahan, New London 10

Awards: Honors = 3

3106 LS Differences in the measurements and numbers of nuclear pores and nuclear pore complexes in wildtype stem cell lines and Huntington's Disease stem cell lines

Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle

Kanika Malani, Glastonbury 11

Awards: Honors = 2

• Mu Alpha Theta --- Certificate, \$50 gift card to Amazon given by CSEF

3108 LS The Effects of Different Environments on the Germination of Radish Seeds

New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan

Samantha Sprecace, New London 10

Awards: Honors = 3

• Alumni Botany Awards --- Alumni High School Botany Award- \$100 Cash

3109 LS DNA Barcoding in "Health Bars"

Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino

Lilly Morriss, Rye 11 Awards: Honors = 3

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

Greenwich, Greenwich High School, Teacher - Mr. Andrew Bramante

William Yin, Greenwich 10

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 3rd Place- Life Sciences Senior High- \$200 & Plaque
- · Alexion Biotechnology Awards --- Finalist Biotechnology Senior High CSF Medallion & Acrylic Award
- Otero Family Award --- The Otero Family Award; \$200 cash
- 3111 LS The Effect of Zinc Oxide Nanoparticles on the Growth of Bacterial Infections

Hartford, Academy of Aerospace and Engineering, Teacher - Dr. Lili Aramli

Shivani Dave, Middletown 11

Awards: Honors = 2

3112 LS The Effect of Brain-Derived Neurotrophic Factor on Retinoic Acid Differentiated SH-SY5Y Cells: A Model for Striatal-Enriched Protein Tyrosine Phosphatase in Parkinson's Disease

Wallingford, Choate Rosemary Hall, Teacher - Rachel Gritzer

Archeta Rajagopalan, Glastonbury 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
- 3113 LS Endothelial microRNA-1 Controls Tumor Growth Through Regulation of Angiocrine Signalling

Hamden, Sacred Heart Academy, Teacher - Dr. Seyedtaghi Takyar

Isabella Siegel, Hamden 12

Awards: Honors = 2

3114 LS A Novel Antibody-Functionalized Graphene Transistor Lab-On-A-Chip for Selective Detection of Malaria Pathogens Greenwich, Greenwich High School, Teacher - Andy Bramante

Paul Hansel, Old Greenweih 11

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- Alexion Biotechnology Awards --- 5th Place- Biotechnology Senior High- \$100 & plaque
- Milton Fisher Science Fair Award for Innovation and Creativity --- For Excellence in Creativity and Innovation by a High School student, \$200 cash
- 3116 LS An Investigation of Superparamagnetic Iron Nanoparticle Hyperthermia to Inhibit Growth of Agrobacterium tumefaciens Greenwich, Brunswick School, Teacher Dana Montanez

Andrew Mellert, Greenwich 10

Awards: Honors = 1

- · Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- 3117 LS Stroop Effect

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Mrs. Ciocci

Sabrina Keo, Bridgeport 11

Awards: Honors = 2

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

Bridgeport, Bridgeport Regional Aquaculture School, Teacher - Mr. Shadle

Eunsun Hong, Shelton 12

Awards: Honors = 1

- Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- 1st Place High School \$500 and Plaque, Medallion and trip to compete at Intel Int. Sci. & Eng. Fair
- H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering in partnership with CCAT --- Urban School Challenge 1st HS- \$1,000, Silver Medal of Excellence, Invite to CASE Annual Mtg & \$500 cash award to School Science Department for equipment/supplies
- · Alexion Biotechnology Awards --- Finalist Biotechnology Senior High CSF Medallion & Acrylic Award
- · University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Biochemistry
- 3119 LS Assessing Changes in Growth Rate of the American Lobster Under Different Environmental Stressors as Modeled by the Red Swamp Cravfish

Fishers Island, Fishers Island School, Teacher - Mrs. Giles

Elias Kane. Groton 11

Awards: Honors = 2

- Yale Peabody Museum --- One-Year Family Membership to the Yale Peabody Museum
- 3120 LS Isolation and Use of Antimicrobial Polypeptides found in Grains to Inhibit the Growth of Gram-Positive and Gram-Negative Bacteria

Greenwich, Brunswick School, Teacher - Mrs. Montanez

Alex Wada, Old Greenwich 10

Awards: Honors = 3

3122 LS Disinfection By-Products in Water

Hamden, Sacred Heart Academy, Teacher - Dr. Elizabeth Christophy

Jordan Earl, Hamden 10

Awards: Honors = 3

3123 LS miRNA Analysis of Exosomes from Osteosarcoma Cells

Glastonbury, Glastonbury High School, Teacher - Sara Almeida

Leelakrishna Channa, Glastonbury 11

Awards: Honors = 3

3124 LS The Optimization of Conditions for an Enzymatic Bio-Battery

New Haven, Engineering & Science University Magnet School, Teacher - Heather Toothaker

Lauren Low, Hamden 10

Awards: Honors = 1

- Pfizer Life Sciences Awards --- Finalist Life Science Senior High CSF Medallion & Acrylic Award
- · CASE Urban School Challenge Awards with Travelers --- Senior High Finalist Medallion and acrylic award
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist Medallion and Acrylic Award
- 3126 LS Phytoplankton's Effect on Ocean Acidification

Fishers Island, Fishers Island School, Teacher - Carol

Sophia Streimer, Mystic 12

Awards: Honors = 3

3127 LS Making a Portable, Low Cost Hydroponics System

Oxford, Oxford High School, Teacher - Mrs. Scheuer

Sviatoslav Kit, Oxford 10

Awards: Honors = 3

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

Hartford, Greater Hartford Academy of Math & Science, Teacher - Dr. Aramli

Bryan Tassavor, Rocky Hill 11

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

3130 LS Ultraviolet Bacterial Eradication Using Low Cost Light Emitting Diodes

Oxford, Oxford High School, Teacher - Mrs. Scheuerk

Tyler Fallas, Oxford 12

Awards: Honors = 3

- American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
- 3131 LS What is the Best Way to Deliver Light to Plants?

Hamden, Sacred Heart Academy, Teacher - Susan Nelson

Maia Jakubowski, Cheshire 9

Awards: Honors = 3

3132 LS Changing Construction Factors To Create Different Morphologies Of Phospholipid Aggregates

Glastonbury, Glastonbury High school, Teacher - Ms. Pintavalle

Nathaniel Reynolds, Glastonbury 12

Awards: Honors = 3

3133 LS Zostera marina's Effect on Carbon Dioxide Levels in Long Island Sound and Predicted Effects

Redding, Joel Barlow High School, Teacher - Katherine Nuzzo

Nathaniel Tomczak, Easton 11

Awards: Honors = 2

- Southeastern New England Marine Educators --- \$100 award and membership in SENEME 1st Place Senior & T-Shirt
- 3134 LS Ambiguous Beats: Using EEG to measure how movement influences rhythmic processing in young infants

Darien, Darien High School, Teacher - David Lewis

Sonia Gandhi, Darien 12

Awards: Honors = 3

- · Connecticut Academy of Audiology --- \$150 Cash Award High School- For Excellence in Audiology and Acoustics
- 3501 LST The Turbidity of Water Affects the Health of Aquatic Ecosystems

Suffield, Suffield High School, Teacher - Mitchell Charkiewicz

Yash Mehta, Suffield 10 Jason Werenski Suffield 10

Awards: Honors = 3

3502 LST Temperature Rising: Exhausted Efforts

Shelton, Shelton High School, Teacher - Christine McNamara

Marta Brzostowska, Shelton 12 Gina Ciambriello Shelton 12

Awards: Honors = 3

3503 LST The Effect of the Angle of Solar Radiation on Plant Growth

New London, $\,$ Science & Technology Magnet HS of SE CT, $\,$ $\,$ Teacher - Mr. Mulligan

Pariya Prama, Waterford 10 Princesse-Lola Omotosho New London 10

Awards: Honors = 3

3504 LST Maintaining a Better Society by Decreasing CO2 Levels Through the Growth of Large Trees and Plants

Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev

Ahmet Akarsu, Putnam 11 Kerven Saryyev Putnam 11

Awards: Honors = 2

3505 LST DNA Barcoding to Detect Mislabeling and Endangered Species in Turtle Meat

Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino

Madeleine DeVita, Darien 11 Isabella Caponiti Rye 11

Awards: Honors = 3

3506 LST Plant Growth Research

New London, Science & Technology Magnet HS of SE CT, Teacher - Chuck Mulligan

Nate Skrabacz, New London 10 D. Major Roman New London 10

Awards: Honors = 3

3507 LST Use of Saccharomyces Cerevisiae and Biosorption in the Purification of Industrially Polluted Waters Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev Enes Cicek, Putnam 11 Murat Acar Putnam 10 Amir Edris Putnam 10 Awards: Honors = 1• Pfizer Life Sciences Awards --- 3rd Place - Life Sciences Senior High Team - Plaque • Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition 3508 LST Target Identification: Frequency of the PV92 Alu Insertion within a Given Population Greenwich, Brunswick School, Teacher - Dana Montañez Jamie MacFarlane, Greenwich 11 Nick VanBelle Stamford 11 Eric Ganshaw Greenwich 11 Awards: Honors = 1• Pfizer Life Sciences Awards --- 1st Place- Life Sciences Senior High Team- \$500 (split) & Plaque 3509 LST The Effects of Seed Priming New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan Sylvia Guijarro-Sines, New London 10 Maeve Pierce New London 10 Awards: Honors = 33510 LST The Designing and Application of the Single-Cell Immunoplex Device Watertown, The Taft School, Teacher - Jim Lehner Leon Vortmeyer, New Haven 11 James Lee Watertown 11 Awards: Honors = 33511 LST The Behavioral Effect of Molting Patterns in Hermit Crabs New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan Jacqueline Kral, Lisbon 10 Geraldine Chirieleison Norwich 10 Awards: Honors = 33512 LST The Influence of Time Consistency and Processing Speed on Multimodal Perceptual Experience Woodbridge, Amity Regional High School, Teacher - Deborah Day Eli Silvert, Woodbridge 11 Yiran Zhang Orange 11 Awards: Honors = 23513 LST The Effect of Prescribed Burns on Soil Nutrients New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan Deven-Leigh Rafuse, Norwich 10 Jane Coates Mystic 10 Awards: Honors = 33514 LST The Effect of Vitamin C on Echinoderm Leg Regeneration Hamden, Sacred Heart Academy, Teacher - Pamela Brownell Monika Krah, Hamden 10 Alexa Fiala Cheshire 10 Awards: Honors = 23515 LST Manure to Methane Hebron, RHAM High School, Teacher - Kristin Spinelli Taylor Brysgel, Marlborough 9 Darren Lin Marlborough 9 Awards: Honors = 2• Energize CT/eesmarts Alternative/Renewable Energy Awards --- 3rd Place High School - \$200 Cash and Plaque • Energize CT/eesmarts Future Sustainability Awards --- High School Finalist - Medallion and Acrylic Award • NYUC Pony Club Equine Award --- \$50 Cash Award or excellence in equine studies

3516 LST The Effect of Soil Alkalinity on the Lycopersicon Esculenta (plum tomato)

New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan

Aidan Brennan, New London 9 Talon Close East Haddam 10

3517 LST DNA Barcoding of Invasive Species on a Suburban Campus

Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino

Madeline Henrie, Stamford 11 Katherine Siciliano Stamford 11 Lillian Pura Greenwich 11 Awards: Honors = 2

- Sister Mary Christine Life Sciences Award --- \$250 and plaque for excellence in the life sciences by a catholic high school project
- Banning Family Life Science Award --- For excellence in invasive species research, \$100 cash
- 3518 LST Using Fall Foliage as an Alternative for Paper Production to Reduce Deforestation

Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev

Omer Aydin, Putnam 11 Yunus Demirkol Putnam 11 Mehmet Coskun Putnam 11

Awards: Honors = 3

3519 LST The Effect of Reduced pH on Submerged Aquatic Vegetation

New London, Science & Technology Magnet HS of SE CT, Teacher - Mr. Mulligan

Chloe Murphy, New London 10 Caroline Tanner New London 10

Awards: Honors = 3

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

Putnam, Putnam Science Academy, Teacher - Caron Quantick

Omer Tekin, Putnam 12 Abidin Emhan Putnam 12 Taha Cangoz Putnam 12

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High Team- \$300 (split) & Plaque
- Jon Stone Memorial Award --- \$150 cash for Innovative Engineering
- 3521 LST The Effect of pH Levels in Presoaking Liquids on Fruit Dehydration Duration

New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan

Brynn Doughty, Ledyard 10 Leslie Abreu New London 10

Awards: Honors = 3

- Institute of Food Technologists, Nutmeg Section --- \$100 award + invitation to dinner
- 3522 LST Desalination by Portulaca oleracea: Maintaining and stabilizing overall growth and production of Omega-3 Fatty Acids

Greenwich, Brunswick School, Teacher - Dana Montañez

Christopher Peisch, Greenwich 11 Thomas Kern Greenwich 11

Awards: Honors = 3

3523 LST The Thermal Stress Of A Coenbita Clypeatus(Land Hermit Crab)

New London, Science & Technology Magnet HS of SE CT, Teacher - Mr. Mulligan

Precious Ehwarieme, Norwich 10 Sigfredo Hidalgo Groton 10

Awards: Honors = 3

3524 LST Fish Finders: DNA to Expose Fish Fraud

Greenwich, Convent of the Sacred Heart, Teacher - Mary Musolino

Lucy Alderson-Smith, Rye 11 Cynthia Thomas Harrison 11

Awards: Honors = 3

3525 LST The Effects of Aspirin on Pisum sativum var. saccharatum

New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan

Alysia Sanchez, New London 10 Dahyir Croft New London 10

Awards: Honors = 3

Physical Sciences

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

New Haven, Worthington Hooker Middle School, Teacher - Douglas Jones

Jake Wang, New Haven 8 George Wang New Haven 8

Awards: Honors = 1

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

4002 PT Temperature effects on a basketball

Danbury, St. Joseph School, Teacher - Mrs. Reilly

Diego Echavarria, New Milford 7 Shayne Simmons Danbury 7

Awards: Honors = 2

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

Orange, Southern CT Hebrew Academy, Teacher - Karen Howell

Meira Shleifer, Waterbury 8 Zahava Klein New Haven 8

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Jr Team CSF Medallion & Acrylic Award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist Medallion and Acrylic Trophy
- American Society for Metals Hartford Chapter --- \$100 Check
- TurnKey Compliance Solutions Environmental Awards --- \$300 Cash Award For excellence in environmental sciences
- Unilever Trumbull R&D --- Shadow Day at Unilever Trumbull R&D Centre
- 4004 PT Snow Melting

Enfield, St. Martha School, Teacher - Mrs. Gonzalez

Jasmine Yard, Somers 8 Rachel Lagasse Enfield 8

Awards: Honors = 2

4006 PT Meltdown

Bridgeport, Park City Prep Charter School, Teacher - Vicky Boudreau

Julia Majewski, Bridgeport 7 Jade Williams Bridgeport 7 Kayla Clark Bridgeport 7

Awards: Honors = 3

4007 PT Is density a quality?: Density Intensity

Danbury, St. Gregory the Great School, Teacher - Mrs. Fahey

Rodolph Antonios, Danbury 8 Jack Sorrentino Danbury 8

Awards: Honors = 2

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

Windsor, Madina Academy, Teacher - Esslam Hassan

Maryam Moghul, Bloomfield 8 Ibrahim Moghul Bloomfield 7

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place- Physical Sciences MS Team- \$100 each & trophy, invite to compete Broadcom MASTERS
- · Environmental Sciences Awards with CACIWC --- MS Finalist CACIWC gifts, CSF Medallion, Acrylic award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist Medallion and Acrylic Trophy
- 4009 PT Surface Tension

Fairfield, St. Thomas Aquinas Catholic School, Teacher - Philip Flynn

Joseph Kulaga, Fairfield 8 Michael Fickes Fairfield 8

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

Orange, Southern CT Hebrew Academy, Teacher - Karen Howell

Esther Lipsker, Stamford 8 Chana Kalmanson New Haven 8

Awards: Honors = 1

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

4011 PT Fore!

Windsor, St. Gabriel School, Teacher - Miss Rosa

Brenden Bellinger, Windsor 7 Logan Doyle Windsor 7

Awards: Honors = 2

4012 PT What it takes to clear the loop.

Danbury, St. Joseph School, Teacher - Mrs.Reilly

Michael Campisi, Danbury 8 Ismael Ricardo Danbury 8

Awards: Honors = 2

4014 PT Hydroelectric Energy

Southington, J.A. DePaolo Middle School, Teacher - Shea

Evan DeSandre, Southington 7 Ryan Asido Southington 7

Awards: Honors = 2

4015 PT Ramps, Textures, and Cars, Oh My!

Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Maringola

Sarah Falcetti, Plantsville 7 Kiralyn Wadman Southington 7

Awards: Honors = 2

4016 PT What is the Best Ice Insulator?

Shelton, Shelton Intermediate School, Teacher - Genova

Hailey Greenleaf, Shelton 7 Bridgette Kline Shelton 7

Awards: Honors = 2

4017 PT The Sensing Cane

Bethany, Amity Reg Middle School, Bethany Campus, Teacher - Kevin Berean

Kate Yuan, Woodbridge 8 Catalina Betancur Woodbridge 8

Awards: Honors = 1

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

4018 PT Raining Rust Causing Corrosion

New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones

Audrey Knight, New Haven 8 Kateryna Omelchenko New Haven 8

Awards: Honors = 2

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

Orange, Southern CT Hebrew Academy, Teacher - Mrs. Karen Howell

Batya Koenigsberg, New Haven 8 Breindel Piekarski Hamden 8

Awards: Honors = 1

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

4020 PT Peer Pressure and Robots

Bethany, Amity Reg Middle School, Bethany Campus, Teacher - Kevin Berean

Romulus Sottile, Woodbridge 8 Aman Thombre Woodbridge 8

Awards: Honors = 3

4021 PT Keep Out!: An Animal Proof Garden Enclosure.

Greenwich, Greenwich Catholic School, Teacher - Carol Lutz

Andrew Lencyk, Stamford 7 Dylan Allman Stamford 7

Awards: Honors = 3

4022 PT A science fair project on how a trebuchets arm length affects the projectile distance.

New Haven, Worthington Hooker Middle School, Teacher - Douglas Jones

Musa Hussain, New Haven 8 Minjae Ko New Haven 8

Awards: Honors = 2

4023 PT Wind Power: How the Shape of the Blade Affects the amount of Power Produced.

Hamden, Hamden Middle School, Teacher - Andrew Marzano

Ingrid Schwarz, Hamden 8 Quennie Callanta Hamden 8

Awards: Honors = 2

• American Meteorological Society --- Certificate & \$50 Amazon gift card given by CSEF

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

Windsor, Madina Academy, Teacher - Mahmood Mohammed

Adelisa Cecunjanin, Windsor 8 Alina Mohammed Windsor 8

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Jr Team CSF Medallion & Acrylic Award
- Environmental Sciences Awards with CACIWC --- 2nd Place MS-\$200, Trophy, CACIWC gifts
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist Medallion and Acrylic Trophy
- 4026 PT Structure Vs Nature: The Effect of Landslide Duration on Different House Structures

Plantsville, J.F. Kennedy Middle School, Teacher - Mr Cipollini

Mia Langston, Southington 8 Abigail Lo Presti Plantsville 8

Awards: Honors = 2

- Connecticut Architecture Foundation --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- 4027 PT Shape Affects Speed

Southington, J.A. DePaolo Middle School, Teacher - Ms. Shay

Jessica Griffin, Southington 8 Olivia Sherwood Southington 8

Awards: Honors = 2

• U.S. Air Force --- Certifcate and Amazon \$50 gift card given by CSEF

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

Windsor, St. Gabriel School, Teacher - Margaret Rosa

Alma Clark, Windsor 7 Benjamin Clark Windsor 7

Awards: Honors = 3

- Alexion Biotechnology Awards --- Finalist Biotechnology 7h grade CSF Medallion & Acrylic Award
- 4029 PT Incorporating the Flutter Effect in Flags to Produce Energy

Bethany, Amity Reg Middle School, Bethany Campus, Teacher - Kevin Berean

Thomas Livesay, Woodbridge 8 Felix Liu Woodbridge 8

Awards: Honors = 2

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 1st Place Middle School \$300 Cash and Trophy
- 4030 PT To Melt or Not To Melt: Using Natural Materials As Insulators

Southington, J.A. DePaolo Middle School, Teacher - Mrs. Shea

Jonathan Breski, Southington 7 Chris Chaplinsky Southington 7

Awards: Honors = 2

4031 PT Radiation Stopper

Bridgeport, Jettie S. Tisdale School, Teacher - Mr. Bell

Matthew Vásconez Gilces, Bridgeport 7 Idaliz Acevedo Bridgeport 7

4032 PT Sugar Rainbow

Enfield, St. Martha School, Teacher - Christie Gonzalez

Ciara Logan, Somers 8 Shelby Arcouette Enfield 8 Madison Langh Enfield 8

Awards: Honors = 3

4033 PT BabyBot: Creating a Robot to Soothe a Crying Infant

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

Neha Sudhir, Woodbridge 8 Rosie Du New Haven 8 Allison Fischman Woodbridge 8

Awards: Honors = 1

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

4034 PT The Designing and Testing of a Self-Constructed Aircraft

Newington, Martin Kellogg Middle School, Teacher - Mrs. Blustein

Michael Stamm, Newington 8 Patrick Nguyen Newington 8 Anthony Carlson Newington 8

Awards: Honors = 3

• U.S. Air Force --- Laptop backpack, ear buds, 1 GB flash drive, 4 Port USB hub, certificate

5001 P7 BOBS (Baby on Board) System

Bridgeport, Park City Prep Charter School, Teacher - Vicky Boudreau

Johann Warren, Bridgeport 7

Awards: Honors = 2

- American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- Bob Harris Fix It Award --- \$100 and Certificate for ingenuity in using material and tools

5002 P7 How much air is needed to allow a weighted structure to rise?

Danbury, Westside Middle School Academy, Teacher - Jonathan Neuhausel

Siara Pittman, Danbury 7

Awards: Honors = 2

5003 P7 Do Wheels Increase Distance On a Trebuchet?

Groton, Sacred Heart School, Teacher - Sheryl McCarthy

Alexander Warmus, Ledyard 7

Awards: Honors = 2

5004 P7 The Effects of Boiling on the pH and nitrite Levels of Water

Guilford, E.C. Adams Middle School, Teacher - Mrs. Hayash

Adella Cho, Guilford 7

Awards: Honors = 2

5005 P7 Parachutes: Does Size Matter?

New Haven, St. Aedan-St. Brendan Catholic School, Teacher - Mr. Michael Celentano

Jeremiah Vidal, New Haven 7

Awards: Honors = 2

5006 P7 A Test of Batteries

New Haven, Worthington Hooker Middle School, Teacher - Mr. Jones

Albert Glowacki, New Haven 7

Awards: Honors = 2

5007 P7 Changing the Water Content in Soil to Generate Electricity in form of an Earth Battery

Danbury, Westside Middle School Academy, Teacher - Mr. Neuhausel

Rashmi Pai, Danbury 7

Awards: Honors = 2

5008 P7 Crossing the Gap... But With What?

Shelton, St. Joseph School, Teacher - Kieran Hyland

Ethan Novicio, Shelton 7

Awards: Honors = 2

5009 P7 The Impact of Turbine Blades on Power Output

Wilton, Middlebrook School, Teacher - Mrs. Randall

Vignesh Subramanian, Wilton 7

Awards: Honors = 1

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

5010 P7 Which is Better for the Garden? Aspirin vs. Super Thrive

Norwalk, The Montessori Middle School, Teacher - Patricia Clahar

Madison Tomas, Wilton 7

Awards: Honors = 2

5011 P7 Let There Be Light!

Danbury, St. Gregory the Great School, Teacher - Christine Fahey

George Hyland, New Fairfield 7

Awards: Honors = 2

5012 P7 Die sensitized solar cell

Greenwich, Central Middle School, Teacher - Mrs. Bresler

Josephine Fischer, Greenwich 7

Awards: Honors = 3

5013 P7 Build a raft powered by surface tension

New Haven, St. Aedan-St. Brendan Catholic School, Teacher - Michael Celentano

Rehab Senanu, New haven 7

Awards: Honors = 3

5014 P7 Can The Weight of a Car be Accurately Weighed by Using an Air Pressure Gauge and a Ruler?

Manchester, St. Bridget School, Teacher - Mrs. Kim Maysonet

Ashleigh Purcell, Manchester 7

Awards: Honors = 2

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

5015 P7 Salt Water Floating Food Production using low cost desalination techniques.

Hebron, Independent - RHAM Middle School, Teacher - Robert Clarke

Isabelle Benson-Clarke, Marlborough 7

Awards: Honors = 3

5016 P7 The Effect of Water Depth and Beach Surface on the Onshore Height of a Tsunami

Newtown, St. Rose of Lima School, Teacher - Mrs. Marde Dimon

Hunter Kirkman, Sandy Hook 7

Awards: Honors = 2

- American Meteorological Society --- Certificate & \$50 Amazon gift card given by CSEF
- Connecticut College-Physics, Astronomy, & Geophysics Dept. --- \$150 and certificate, Junior Physics & teeshirt
- Dreams Unlimited --- \$100 Cash Award + Certificate

5017 P7 Foam Dissolving Methods

Danbury, St. Gregory the Great School, Teacher - Mrs. Fahey

Erik Stedman, New Milford 7

Awards: Honors = 3

5018 P7 Heat Output

Bridgeport, Interdistrict Discovery Magnet School, Teacher - Janine Walsh

Manuel Figueroa, Bridgeport 7

Awards: Honors = 3

5019 P7 Baking with Fantastic Flours

Bridgeport, Park City Magnet School, Teacher - Sarah Simone

Anne Ho, Bridgeport 7 Awards: Honors = 2

5020 P7 Self-Inflating Balloons

New Haven, Engineering & Science University Magnet School, Teacher - Mr. Rushworth

James Rodrigues, Milford 7

Awards: Honors = 3

5021 P7 Rust A Bunch

Bridgeport, G.W. Johnson School, Teacher - Kaitlin Dinet

Alejandro Ramos, Bridgeport 7

Awards: Honors = 3

5022 P7 Cu at the Bottom

West Hartford, St. Timothy Middle School, Teacher - Ms. Vitali

Robert Sarkisian, West Hartford 7

Awards: Honors = 3

5023 P7 Which Variables Affect The Flight Of A Rocket?

Bozrah, Fields Memorial School, Teacher - Mrs. E. Brown

Brendan Toth, Bozrah 7

Awards: Honors = 1

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

5024 P7 Measuring Acceleration on an Inclined Plane

Fairfield, St. Thomas Aquinas Catholic School, Teacher - Philip Flynn

Matthew Wiig, Southport 7

Awards: Honors = 3

5025 P7 Can You Taste the Difference Between tap and spring water?

Meriden, St. Joseph School, Teacher - Sarah Pergoltti

Alexis Wozdusiewicz, Meriden 7

Awards: Honors = 3

5026 P7 The Power of Wind

Danbury, St. Joseph School, Teacher - Jennifer Reilly

Sean Guiry, Danbury 7

Awards: Honors = 1

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

5027 P7 How common acidic solutions affect the rate of corrosion of brass.

New Haven, Betsy Ross Arts Magnet School, Teacher - Ms.Macdonald

Amanee Amin, West Haven 7

Awards: Honors = 3

5028 P7 Which Metal Will Corrode the Fastest?

Milford, St. Gabriel School, Teacher - John Campbell

Luke McDonald, Milford 7

Awards: Honors = 3

5029 P7 Sound Barriers: How does the type of material affect the amount of sound that carries through a surface?

Glastonbury, Smith Middle School, Teacher - Mary Coburn

Arjun Ahilan, Glastonbury 7

Awards: Honors = 1

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

5030 P7 Opening a Garage Door with Raspberry Pi

Danbury, Westside Middle School Academy, Teacher - Mr. Neuhausel

Sarah Johnson, Danbury 7

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place- Physical Sciences 7th Grade Ind.- \$200 & trophy, invite to compete Broadcom MASTERS
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- IEEE, Connecticut Section --- \$100 Honorable Mention
- 5031 P7 Design and Build a working Hovercraft

Newtown, St. Rose of Lima School, Teacher - Mrs. Dimon

Adam Kliczewski, Newtown 7

Awards: Honors = 2

5032 P7 Maximizing the Energy Output of a Wind Turbine

Bozrah, Fields Memorial School, Teacher - Mrs. Evelyn Brown

Dravyn Okoney, Bozrah 7

Awards: Honors = 2

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist Medallion, Acrylic Award
- 5033 P7 Changing the pH of Soil to Generate Electricity in the Form of a Microbial Fuel Cell

Danbury, Westside Middle School Academy, Teacher - Mr. Neuhausel

Nila Narayan, Danbury 7

Awards: Honors = 3

- · CASE Urban School Challenge Awards with Travelers --- Middle School Finalist Medallion and acrylic award
- Environmental Sciences Awards with CACIWC --- 1st Place MS \$300, Trophy, CACIWC gifts
- 5034 P7 Wood Toughness

Bridgeport, Read School, Teacher - Mr. Tharson

Alexia Andrade, Bridgeport 7

Awards: Honors = 3

- CASE Urban School Challenge Awards with Travelers --- Middle School Finalist Medallion and acrylic award
- 5035 P7 Keepin' Warm

Bethel, St. Mary School, Teacher - Mrs. McDonald

Madeline Suarez, Bethel 7

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences 7th Grade CSF Medallion & Acrylic Award
- 5036 P7 The Amount of Critical Mass Needed to Make a Sustainable Chain Reaction

Newtown, St. Rose of Lima School, Teacher - Marde Dimon

Mary Locke, Sandy Hook 7

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 4th Place- Physical Sciences 7th Grade Ind.- trophy, invite to compete Broadcom MASTERS
- ISA International Society for Automation --- 1st \$125 award
- 5037 P7 Using Different Plant Xylem to Filter Phosphates

Danbury, Westside Middle School Academy, Teacher - Jonathan Neuhausel

Anjeli Joseph, Danbury 7

Awards: Honors = 3

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

5038 P7 Frozen

Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Kirsten Devlin

Devon Christie, Hartford 7

Awards: Honors = 3

5039 P7 Wrap the Apple Save the Apple

Danbury, St. Gregory the Great School, Teacher - Christine Fahey

Raechel Langan, Danbury 7

5040 P7 Effectiveness of Fertilizer Application Techniques in Reducing Fertilizer Runoff and Pollution

Falls Village, Lee H. Kellogg School, Teacher - Joseph Markow

Jenna Luz, Falls Village 7

Awards: Honors = 3

Association for Women Geoscientists --- Certificate & \$50 gift card to Amazon given by CSEF

5041 P7 Free Energy

Milford, St. Gabriel School, Teacher - Campbell

Ethan Wicko, MIlford 7

Awards: Honors = 3

5042 P7 Drone for Science

Newtown, St. Rose of Lima School, Teacher - Marde Dimond

John Queenan, Southbury 7

Awards: Honors = 3

5043 P7 A Matter of Facts: Designing a Math App to Help Kids Learn Their Math Facts

Bethel, St. Mary School, Teacher - Mrs. McDonald

Kevin Legnard, Bethel 7

Awards: Honors = 2

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

5044 P7 What is the most effective treatment for melting ice?

Pawcatuck, St. Michael School, Teacher - Michael Denoia

Sean Peglow, Old Mystic 7

Awards: Honors = 2

5046 P7 The Effect of Different Temperatures on the Strength of a Magnet

Guilford, E.C. Adams Middle School, Teacher - Miss Meyerjack

Rose McDermott, Guilford 7

Awards: Honors = 2

5048 P7 Let's Beet Slippery Roads

Bethel, St. Mary School, Teacher - Mrs McDonald

Valerie Quish, Bethel 7

Awards: Honors = 3

5049 P7 Self-Inflating Balloons

Wilton, Middlebrook School, Teacher - Ms. Paige Randall

Trisha Mhatre, Wilton 7

Awards: Honors = 3

5050 P7 I'm Dye-ing To Find Out What Dyes Are Used In My Favorite Candies: A Candy Chromatography Experiment

Groton, Sacred Heart School, Teacher - Sheryl McCarthy

Emma Smith, Groton 7

Awards: Honors = 3

5051 P7 Which Bridge Design Is Best?

Milford, St. Gabriel School, Teacher - Campbell

Griffin Congdon, MIlford 7

Awards: Honors = 2

ASM Materials Education Foundation --- Certificate & \$50 gift card to Amazon given by CSEF

5052 P7 Does the Number of Fins on a Rocket Effect How Long It Stays in the Air?

Newtown, St. Rose of Lima School, Teacher - Marde Dimon

Nathan Erdtmann, Roxbury 7

Awards: Honors = 3

5053 P7 Which Wheat Flour Has the Most Gluten?

Madison, Our Lady of Mercy School, Teacher - Mr. Supik

Allison Tuttle, Killingworth 7

Awards: Honors = 1

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

5054 P7 Development of a technique to detect explosive residue for use in avoiding terrorism threats.

Danbury, St. Joseph School, Teacher - Mrs. Reilly

Bradley Kerr, Danbury 7

Awards: Honors = 1

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

5055 P7 How Do Environmental Conditions Affect the Performance of Duct Tape?

Bozrah, Fields Memorial School, Teacher - Mrs. Brown

Tori Smith, Bozrah 7 Awards: Honors = 2

5056 P7 Electromagnetic Energy and Innovative Applications

West Hartford, St. Timothy Middle School, Teacher - Mrs. Christina Simao-Breen

Steven Liu, West Hartford 7

Awards: Honors = 3

 Barker Mohandas Award for Transportation Research --- \$100 Cash & Plaque for Excellence in Transportation Related Research- Middle School

5057 P7 What's in this water?

Groton, Sacred Heart School, Teacher - Mrs. Sheryl McCarthy

Breanna Hoth, Gales Ferry 7

Awards: Honors = 3

5058 P7 The Voltage Changes from Different Wavelength Radiations on a Solar Panel

Shelton, Shelton Intermediate School, Teacher - Mrs. Genova

Siddharth Jain, Shelton 7

Awards: Honors = 2

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

5059 P7 Relinquishing Rust

Stratford, St. Mark School, Teacher - Michael McMahon

Kelly DeRosa, Stratford 7

Awards: Honors = 3

5060 P7 Ice Matters

New Britain, St. John Paul II School, Teacher - Jennifer Nypert

Connor Olson, New Britain 7

Awards: Honors = 3

5061 P7 Bubble Blowing

Meriden, St. Joseph School, Teacher - Pergolotti

Natalie Scotto, Meriden 7

Awards: Honors = 3

5062 P7 Paper Chromatography: The Science of Color Separation

Southington, J.A. DePaolo Middle School, Teacher - Mrs. Shea

Delaney Farr, Southington 7

5063 P7 How Accurate can your Local Weather Applications Be?

Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Marongolia

Trevor Messina, Southington 7

Awards: Honors = 1

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

5064 P7 Cooling Mints

Enfield, St. Martha School, Teacher - Chrisie Gonzalez

Shannon Kelley, Suffield 7

Awards: Honors = 2

5502 P8 Water Filtration and Flocculation Methods

Bozrah, Fields Memorial School, Teacher - Evelyn Brown

Rebecca Ramthun, Bozrah 8

Awards: Honors = 1

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

5503 P8 Evaporation Rate Of An Ice Cube In Liquids With Varying Densities

Hamden, Hamden Middle School, Teacher - Mr. Marzano

Matthew Ticotsky, Hamden 8

Awards: Honors = 3

5504 P8 Green Energy Ferris Wheel

Bethany, Amity Reg Middle School, Bethany Campus, Teacher - Kevin Berean

Isabel Salazar, Woodbridge 8

Awards: Honors = 3

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

5505 P8 Does temperature matter?

Bridgeport, Blackham School, Teacher - Ms. O'Neil

Malik Williams, Bridgeport 8

Awards: Honors = 3

5506 P8 Effect of Blade Angle and Wind Angle on Rotation Speed of a Home-Built Wind Turbine

Danbury, Westside Middle School Academy, Teacher - Jonathan Neuhausel

Micah Chen, Danbury 8

Awards: Honors = 2

5507 P8 Music Metrics and Fractals: Analyzing Different Genres of Digitized Music to Identify Input Metrics for Programming Fractal Representations of the Music with Mathematica

Bozrah, Fields Memorial School, Teacher - Evelyn Brown

Genevieve Buckridge, Bozrah 8

Awards: Honors = 1

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

5508 P8 The effects of cloud coverage on the out put of solar panels

Orange, Amity Reg Middle School, Orange Campus, Teacher - Mr. Foley

Garrett Young, Orange 8

Awards: Honors = 2

5509 P8 The Effect of Using Foam to Create a More Sophisticated Highway Barrier on Lessening the Spike of G-forces During an Impact

Trumbull, Christian Heritage School, Teacher - Mrs. Oshin

Daniel Colgate, Bridgeport 8

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences 8th Grade CSF Medallion & Acrylic Award
- American Society of Safety Engineers, CT Valley Chapter --- \$100 grade 7-8 project
- Dakers Award for Transportation Engineering --- \$100 Award For Innovative Transportation Engineering
- 5511 P8 What Materials can block a Wifi Signal

Danbury, St. Joseph School, Teacher - Jennifer Reilly

Allen Riego de Dios, Danbury 8

Awards: Honors = 3

5512 P8 Design, build and program a robot using an Arduino Mega 2560 R3 through an Android app to cheer up or relax children at a hospital

Orange, Southern CT Hebrew Academy, Teacher - Karen Howell

Ben Bruder, New Haven 8

Awards: Honors = 2

- · Barnes Aerospace Applied Technology Awards --- 2nd Place Middle School \$200 and Trophy, Medallion
- Xerox Computer Science Awards --- 2nd Place Middle School \$200, Trophy and Medallion
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- 5513 P8 How To Insulate Your House and Reduce Your Fuel Bills

Trumbull, Christian Heritage School, Teacher - Mrs. Oshin

Garrett Kalker. Monroe 8

Awards: Honors = 2

- Barnes Aerospace Applied Technology Awards --- Middle School Finalist Medallion and acrylic award
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
- 5514 P8 Substitution of Metals in a Salt-Water Engine to Increase Energy-Efficiency

Greenwich, Central Middle School, Teacher - Ms. Bresler

Bennett Hawley, Cos Cob 8

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 5th Place- Physical Sciences 8th Grade Ind. trophy, invite to compete Broadcom MASTERS
- Barnes Aerospace Applied Technology Awards --- Middle School Finalist Medallion and acrylic award
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- Middle School Finalist Medallion, Acrylic Award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist Medallion and Acrylic Trophy
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- Middle School- Certificate, \$50 gift card to Amazon given by CSEF
- Constellation An Excelon Company --- For Excellence in clean renewable / sustainable energy Grades 7 & 8
- IEEE, Connecticut Section --- \$100 Honorable Mention
- MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, middle school, \$100 cash award
- American Society for Metals Hartford Chapter --- \$50 Check
- 5515 P8 Measurement of Tensile Strength of Various Wet & Dry Woods

Bozrah, Fields Memorial School, Teacher - Evelyn Brown

Abigail Tracy, Gilman 8

Awards: Honors = 2

- ASM Materials Education Foundation --- Certificate & \$50 gift card to Amazon given by CSEF
- American Society for Metals Hartford Chapter --- \$100 Check
- 5516 P8 Home-Made Particle Accelerator

Hamden, Hamden Middle School, Teacher - Danny Martins

Michael Loalbo, Hamden 8

5517 P8 Burning Biofuels: An Alternate Form of Energy

Plantsville, J.F. Kennedy Middle School, Teacher - Mrs. Pepin

Mary Bilodeau, Plantsville 8

Awards: Honors = 2

• Association for Women Geoscientists --- Certificate & \$50 girt card to Amazon given by CSEF

5518 P8 Strength Of An Electromagnet

Bridgeport, Park City Prep Charter School, Teacher - Jonathan Jaekle

Jacob Tay, Bridgeport 8 Awards: Honors = 3

5519 P8 Instrument Science: Bell Flares

Hamden, Hamden Middle School, Teacher - Danny Martins

Miles Singer, Hamden 8 Awards: Honors = 2

5520 P8 The Heat is On

Danbury, St. Gregory the Great School, Teacher - Mrs. Fahey

Anthony Dascano, Danbury 8

Awards: Honors = 3

5521 P8 Zap That Zit

Shelton, St. Joseph School, Teacher - Mr Kieran Hyland

Shelby Plotkin, Seymour 8

Awards: Honors = 3

5522 P8 Thermodynamics of the Stirling Cycle: Testing the Effects of the Relative Temperature Difference on Stirling Engine Output

Avon, Talcott Mountain Academy, Teacher - Alyson Tockstein

Varun Aggarwal, South Glastonbury 8

Awards: Honors = 2

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

5523 P8 Power Wind

Bridgeport, High Horizons Magnet School, Teacher - Mrs. Scott-Thiam

Diego Garcia, Bridgeport 8

Awards: Honors = 3

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

5524 P8 Are soccer balls affected by air pressure?

Meriden, St. Joseph School, Teacher - Mrs. Perolotti

Riley Carey, Durham 8 Awards: Honors = 2

5525 P8 Solid Ground?

Groton, Sacred Heart School, Teacher - Mrs. Sheryl McCarthy

Joshua Terry, Ivoryton 8

Awards: Honors = 2

5526 P8 Do expensive basketball sneakers outperform inexpensive basketball sneakers?

Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida

Matthew Carrara, Bridgeport 8

Awards: Honors = 2

5527 P8 Hot Vs. Cold

Groton, Sacred Heart School, Teacher - Sheryl McCarthy

Mary Balagna, Mystic 8

Awards: Honors = 3

5528 P8 Efficiency of Piezoelectric Materials for Electric Production

New Haven, Engineering & Science University Magnet School, Teacher - Mr. Roger Rushworth

Prastik Mohanraj, Ansonia 8

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences 8th Grade CSF Medallion & Acrylic Award
- · CASE Urban School Challenge Awards with Travelers --- Middle School Finalist Medallion and acrylic award
- IEEE, Connecticut Section --- \$100 Honorable Mention
- 5529 P8 Impact of Angular Positions for Basketball Bank Shots

Manchester, Assumption School, Teacher - Sister Loreto

Michael Hills, Bolton 8

Awards: Honors = 2

5530 P8 What's Shaking? - A Study of Soil Liquefaction

Hamden, Hamden Middle School, Teacher - Mr. Martins

Andrew Larocque, Hamden 8

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 4th Place- Physical Sciences 8th Grade Ind. trophy, invite to compete Broadcom MASTERS
- · Society of Women Engineers Hartford Section --- Scientific Calculator
- 5531 P8 Gauss Launcher Efficiency

Windsor, St. Gabriel School, Teacher - Ms. Rosa

Elena Anderson, Windsor 8

Awards: Honors = 2

5532 P8 Can Humans Distinguish What an Object is Just by Feel?

Meriden, St. Joseph School, Teacher - Sarah Pergolotti

Shannon Carey, Durham 8

Awards: Honors = 3

5533 P8 How Fast Can A Human Solve the Rubik's Cube

New Britain, St. John Paul II School, Teacher - Jennifer Nypert

Lukasz Burkacki, New Britain 8

Awards: Honors = 3

5535 P8 Thermoelectricity Phenomenon

Bridgeport, Multicultural Magnet School, Teacher - Walter Mayorga

Elizabeth Silva, Bridgeport 8

Awards: Honors = 2

5536 P8 Tap Water vs Bottled Water- Is There a Difference?

Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida

Mylz Voss, Bridgeport 8

Awards: Honors = 3

5537 P8 The Effect of Processing on the Vitamin C Content of Orange Juice

Orange, Amity Reg Middle School, Orange Campus, Teacher - Thomas Foley

Alexandra Bonat, Orange 8

Awards: Honors = 3

5539 P8 Weather Conditions And Its Effect On Football Pressure.

Shelton, Shelton Intermediate School, Teacher - Mrs. Genova

Andrew Cortes, Shelton 8

Awards: Honors = 2

5540 P8 How Does the pH Level of Liquids Used to Take Medication Pills Affect Dissolvability?

Bethel, St. Mary School, Teacher - Mrs. Kate McDonald

Emily Marcone, Danbury 8

5541 P8 Spot On! The Use of the Visible Electromagnetic Spectrum to Determine the Effectiveness of Stain Removers

West Hartford, St. Timothy Middle School, Teacher - Mrs. Christina Simao-Breen

Michael Baldini, West Hartford 8

Awards: Honors = 2

5542 P8 Measuring The Amount of Acid in Vinegar By Using Titration

Bridgeport, Park City Prep Charter School, Teacher - Mr. Johnathan Jaekle

Mario Williams, Bridgeport 8

Awards: Honors = 3

5543 P8 The Performance of Greener Alternatives vs. Standard Hydraulics Fluid

Orange, Amity Reg Middle School, Orange Campus, Teacher - Tom Foley

Lien Har, Orange 8 Awards: Honors = 2

5544 P8 Does highlighting facts in a paper help people comprehend better

Meriden, St. Joseph School, Teacher - Sarah Pergolotti

Ashley Suzio, Meriden 8

Awards: Honors = 3

5545 P8 Using Induced Wind Force to Increase the Efficiency of an Electric Vehicle Battery

Stratford, St. Mark School, Teacher - Mr. Michael McMahon

Emily Fedor, Derby 8

Awards: Honors = 1

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

5546 P8 Is Your House Radioactive?

Norwalk, The Montessori Middle School, Teacher - Cara Roure Johnson

Saira Munshani, Easton 8

Awards: Honors = 3

5547 P8 How Everyday Substances Affect the Freezing Point of Water

Orange, Amity Reg Middle School, Orange Campus, Teacher - Mr. Dahn/Foley

Arianna Pargen, Orange 8

Awards: Honors = 3

5548 P8 Making Music Louder Without Electricity

Pawcatuck, St. Michael School, Teacher - Michael DeNoia

Drew Babineau, Charlestown 8

Awards: Honors = 2

5549 P8 The Effect of Catapult Arm Length on the Distance the Projectile Travels

Trumbull. Christian Heritage School. Teacher - Mrs Oshin

Nicholas Rosselli, Trumbull 8

Awards: Honors = 2

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

5551 P8 UV-C Lighting As A Supplemental Method Of Preservation In Refrigerators To Reduce Energy Consumption

Danbury, Westside Middle School Academy, Teacher - Jonathan Neuhausel

Christopher Hwang, Danbury 8

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences 8th Grade CSF Medallion & Acrylic Award
- CASE Urban School Challenge Awards with Travelers --- 1st Place Middle School \$300 and Trophy, Medallion and Project Oceanology's Ocean Camp
- · Barnes Aerospace Applied Technology Awards --- Middle School Finalist Medallion and acrylic award
- Energize CT/eesmarts Sustainable Resources and Practices Awards --- Middle School Finalist Medallion and Acrylic Trophy
- Connecticut Academy of Science and Engineering Middle School Urban School Challenge Award --- Urban School Challenge 1st MS- \$250 Cash Award, Invite to attend CASE's Annual Mtg & \$500 to School Science Department for Equipment/Supplies
- Alexion Biotechnology Awards --- 5th Place- Biotechnology 8th grade- trophy
- Ricoh Corporation/Society for Science & the Public --- Certificate, Lapel Pin,\$50 gift card to Amazon given by CSEF
- 5552 P8 How can I make my own rubber pointe shoes?

Greenwich, Greenwich Catholic School, Teacher - Ms. Rebecca Wood

Maura McHugh, Stamford 8

Awards: Honors = 3

5553 P8 Effect of different soil types on Hyacinth plants.

Greenwich, Central Middle School, Teacher - Jennifer Bresler

Nicholas Woo, Greenwich 8

Awards: Honors = 3

5554 P8 How Substances Affect Tonic Water Glow

Stratford. St. Mark School. Teacher - Mr. Michael McMahon

Sophie Kirn, Stratford 8

Awards: Honors = 2

5555 P8 Powerful Propellers

Bridgeport, Multicultural Magnet School, Teacher - Mr. Walter Mayorga

Abigail Cloud, Bridgeport 8

Awards: Honors = 2

- · CASE Urban School Challenge Awards with Travelers --- Middle School Finalist Medallion and acrylic award
- Society of Women Engineers Hartford Section --- Scientific Calculator
- John S. Kendall Memorial Award --- \$300 John S. Kendall Award for Excellence In Mechanical Engineering Middle School
- 5556 P8 Is your lipstick toxic?

Fairfield, Our Lady of the Assumption School, Teacher - Kathy Almeida

Elizabeth Ereshena, Bridgeport 8

Awards: Honors = 2

5557 P8 Injury Reducing Characteristics of Running Shoes Using Innovation and Design

Greens Farms, Greens Farms Academy, Teacher - Sara Campolettano

Lilah McCormick, Westport 8

Awards: Honors = 2

5558 P8 The Effects of Acid Rain on Magnetism

Orange, Amity Reg Middle School, Orange Campus, Teacher - Mr. Tom Foley

Mounisha Anumolu, Orange 8

Awards: Honors = 2

5559 P8 Soaking it Up?

Southington, St. Thomas School, Teacher - Mrs. Pauline Pelczar

Dennis Cawley, Southington 8

5560 P8 Energy Scavenging--Proving the Seebeck Effect with a Homemade Thermoelectric Generator: A Source of Free, Sustainable, Low-Voltage Power

Stratford, St. Mark School, Teacher - Mr. Michael McMahon

Kristen Robertson, Stratford 8

Awards: Honors = 1

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

5561 P8 Fireplaces - To Heat Or Not To Heat, That Is The Question!

Milford, St. Gabriel School, Teacher - Mr. John Campbell

Spencer Mehan, Milford 8

Awards: Honors = 3

5562 P8 Shrouded Wind Turbine and the Venturi Effect

Wilton, Middlebrook School, Teacher - Mrs. Festa

Jonathan Wu, Wilton 8 Awards: Honors = 2

5563 P8 Conduction Junction

Danbury, St. Gregory the Great School, Teacher - Christine Fahey

Frank Chieffalo, Danbury 8

Awards: Honors = 2

5564 P8 Can you change the rate of a chemical reaction by changing the particle size of the reactants?

New Haven, Davis Street Interdistrict Magnet School, Teacher - Cora Johnson

Tanayja London, Branford 8

Awards: Honors = 3

5565 P8 The Universal Soccer Shoe

Newtown, Newtown Middle School, Teacher - Mrs. Andracchi

Miles Martiska, Newtown 8

Awards: Honors = 1

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

5566 P8 Can Common Household Cleaning Products Be Used As Makeshift Stain Removers?

Newington, St. Mary School, Teacher - Debbie Giantonio

Kate Morelli, New Britain 8

Awards: Honors = 2

5567 P8 Super Suds

West Hartford, St. Brigid School, Teacher - Zoe Mendal

Dylan Errico, West Hartford 8

Awards: Honors = 2

5568 P8 Can you walk longer with or without music?

Hartford, Environmental Sciences Magnet School at Mary Hooker, Teacher - Mrs. Devlin

Shamsun Begum, Hartford 8

Awards: Honors = 3

5569 P8 Spandex: Speedy or Spendy?

Groton, Sacred Heart School, Teacher - Sheryl McCarthy

Grace Murphy, Gales Ferry 8

Awards: Honors = 3

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

Greenwich, Brunswick School, Teacher - Dana Montanez

Lachlan Rosato, Greenwich 10

Awards: Honors = 1

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

6002 PS Developing an Alternative Technique of Mechanically Exfoliating Topological Insulator Bismuth Telluride

Westport, Staples High School, Teacher - Dr Nicholas Morgan

Kyle Baer, Westport 12

Awards: Honors = 2

6003 PS Boiling Water with Nano Particles.

Sandy Hook, Newtown High school, Teacher - Tim Dejulio

Christopher Gamble, Newtown 12

Awards: Honors = 2

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

Simsbury, Independent - Simsbury High School, Teacher - Danny Martins

Rachel Baumann, West Simsbury 10

Awards: Honors = 1

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

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

Greenwich, Greenwich High School, Teacher - Mr. Andrew Bramante

Maxmillian Minichetti, Greenwich 12

Awards: Honors = 1

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

6006 PS Low Temperature Thermal Cracking of High-Density Polyethylene via Zeolite and Pillared Clay Catalyts

Bridgeport, Bridgeport Regional Aquaculture School, Teacher - Mr. Shadle

Stephen Jepsen, Stratford 12

Awards: Honors = 2

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

Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

Justin Pusztay, Easton 11

Awards: Honors = 1

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

6008 PS Study to Improve the Constraint of Ultra-High Performance Concrete Double-T Bridge Girders by Adjusting the Architecture of Steel Fibers in the Web

Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle

Andrew Dauphinais, Glastonbury 12

Awards: Honors = 3

6009 PS An app to assimilate information during a presentation without note taking

Suffield, Suffield High School, Teacher - Mitch Charkiewicz

Madison D'Ostuni, Suffield 10

6010 PS Wax On, Wax Off

Fishers Island, Fishers Island School, Teacher - Carol Giles

Gabrielle Krysiewicz, Ouaker Hill 11

Awards: Honors = 3

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

Bridgeport, Bridgeport Regional Aquaculture School, Teacher - Kirk Shadle

Daniel Munteanu, Fairfield 12

Awards: Honors = 2

- · CASE Urban School Challenge Awards with Travelers --- 3rd Place High School \$ 300 and Plaque, Medallion
- 6012 PS Robots in the Classroom: The Effect of Social Robots on Student Memorization and Participation

Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day

Sarah Saxe, Woodbridge 10

Awards: Honors = 2

6013 PS Chemical Looping Combustion: A Zero CO2 Footprint Energy Conversion Process

Westport, Staples High School, Teacher - Dr. Morse

Rees Chang, Westport 11

Awards: Honors = 2

- Air and Waste Management Association, Connecticut Chapter --- \$100 Senior, Environmental Research, air pollution related
- 6014 PS The physics of the space elevator construction.

Salisbury, Salisbury School, Teacher - Tobias Aver

Kyungmin Lee, Salisbury 11

Awards: Honors = 3

- People's United Bank Mathematics Awards with ATOMIC --- 3rd Place High School Plaque, \$200 from People's United Bank
- Xerox Computer Science Awards --- Senior High Finalist Medallion, Acrylic Award
- Barker Mohandas Award for Transportation Research --- \$200 Cash & Plaque for Excellence in Transportation Related Research- High School
- 6015 PS Synthesis of an Electromagnetically-Controlled Corn-Starch/PVA Biopolymer Microstructure for Extended and Targeted Drug Delivery

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Margaret Cirino, Greenwich 10

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Individual -\$300 & Plaque, trip to compete at Intel ISEF
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- Alexion Biotechnology Awards --- 3rd Place- Biotechnology Senior High- \$300 & plaque
- U.S. Metric Association --- Certificate & \$50 gift card to Amazon given by CSEF
- · Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- 6016 PS More Holes More Goals

East Hartford, East Hartford High School, Teacher - Timothy Reid

Alyssa Vannalath, East Hartford 10

Awards: Honors = 3

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

Tolland, Stonewall Academy, Teacher - Don Peck

Amelia Peck, Tolland 10

Awards: Honors = 2

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

6019 PS Passive Solar Energy

Broad Brook, Homeschool - Masthay, Teacher - Melissa Masthay

Jamie Masthay, Broad Brook 9

Awards: Honors = 3

6020 PS Printlet (combination between a printer and a tablet)

Suffield, Suffield High School, Teacher - Mitchell Charkiewicz

Tyler Zolciak, Suffield 11

Awards: Honors = 3

6021 PS Measuring the Feasibility of an In-Home In Situ Carbonation Device Utilizing Calcium Rich Basalt

Redding, Joel Barlow High School, Teacher - Katherine Nuzzo

Justin Schachter, Redding 11

Awards: Honors = 2

6022 PS The Effect of Electric Charge on the pH of a Magnesium Sulfate Solution

Trumbull, Christian Heritage School, Teacher - Mr. Daniel Cote

Catherine Reid, Oxford 11

Awards: Honors = 3

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

Greenwich, Brunswick School, Teacher - Dana Montanez

William Gorman, Bedford 10

Awards: Honors = 2

- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist Medallion and Acrylic Award
- U.S. Coast Guard Research and Development Center --- Summer internship to conduct research aboard ship or at a USCG base + \$50 Amazon Gift Card given by CSEF. ALTERNATE 2
- 6025 PS Program your Diet

Avon, Avon High School, Teacher - Galuska

Nivedha Natchiappan, Avon 10

Awards: Honors = 3

- · Xerox Computer Science Awards --- Senior High Finalist Medallion, Acrylic Award
- 6026 PS Investigation of a Bacteriorhodopsin-Pt/TiO2 Hybrid System for Enhanced Nanophotocatalytic Production of Hydrogen Greenwich, Greenwich High School, Teacher Andrew Bramante

Mark Stich, Greenwich 11

Awards: Honors = 2

- Environmental Sciences Awards with CACIWC --- HS Finalist CACIWC gifts, CSF Medallion, Acrylic award
- Yale Science & Engineering Association, Inc. --- Certificate, \$50 gift card to Amazon given by CSEF
- 6027 PS Financially Superior Energy Source for Subterranean Inhabitants

Glastonbury, Glastonbury High School, Teacher - Ms. Pintavalle

Ashley Gartland, Glastonbury 11

Awards: Honors = 2

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist Medallion
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist Medallion and Acrylic Award
- ASU Walton Sustainability Solutions Inititatives --- Certificate-Nomination to Compete in 2016 Sustainability Solutions Festival and \$50 Gift Card
- Connecticut Architecture Foundation --- \$250 Gift Certificate to Barnes and Noble from the Connecticut Architecture Foundation, William M. Mack, AIA Award.
- 6028 PS An analysis of particle-driven physics simulations when compared with entity-driven simulations

Oxford, Oxford High School, Teacher - Ms. Scheuer

Dylan Ramsay, Oxford 12

Awards: Honors = 3

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

Fairfield, Fairfield College Preparatory School, Teacher - Mrs. Kiel

Junlin Mo, Bridgeport 10

Awards: Honors = 3

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

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

Oxford, Oxford High School, Teacher - Mrs. Scheuer

Zachary Frew, Oxford 12

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior High CSF Medallion & Acrylic Award
- · Barnes Aerospace Applied Technology Awards --- 1st Place High School \$500 and Plaque, Medallion
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition
- Connecticut Invention Convention "Next Step Inventors" --- \$50 gift certificate & invitation to present at CT Invention Convention as "CIC Next Step Inventors"
- 6031 PS Biodiesel: The Fuel of the Future

New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan

Woodrich Pierre-Louis, New London 10

Awards: Honors = 3

6032 PS Effect of dark matter halo on merging

Glastonbury, Glastonbury High School, Teacher - Ms. Pintavalle

Alexander Sobelman, Glastonbury 12

Awards: Honors = 2

6033 PS Transforming Keyboard Strike Vibrations Into Electricity Via Piezoelectric Sensors

Greenwich, Greenwich Academy, Teacher - Ann Decker

Darren Drittel, Greenwich 11

Awards: Honors = 2

6034 PS The Synchronous Rotation of the Eris/Dysnomia Binary System

Darien, Darien High School, Teacher - Christine Leventhal

Yasi Owainati, Darien 12

Awards: Honors = 3

6035 PS The European Centre for Medium Range Forecasts vs the Global Forecasting System

Westport, Staples High School, Teacher - Michele Morse

Scott Pecoriello, Westport 12

Awards: Honors = 3

6037 PS The Effect of 2-dimyristoyl-sn-glycero-3-phosphocholine (DMPC) Dillutions on Nanoparticle Radius Using Small Angle Neutron Scattering (SANS)

Woodbridge, Amity Regional High School, Teacher - Ms. Deborah Day

Ryan Oleynik, Woodbridge 11

Awards: Honors = 2

6039 PS Optimization of Reflectivity of GaN for Solar Applications

Greens Farms, Greens Farms Academy, Teacher - Dr. Freeman

Matthew Lichtenberg, Satmford 11

Awards: Honors = 1

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

6040 PS Gender-Specific Copepod Susceptibility to Phytoplankton Neurotoxins at Various Concentrations

Redding, SCSEF - Ridgefield High School, Teacher - Michael Yagid

Lily Meyers, Ridgefield 12

Awards: Honors = 2

6041 PS Using a Hydraulic System and a Heat-Induced Magnetic Adhesive to Create a Manipulatable Array that Increases the Efficiency of Piezoelectric Generators

West Hartford, Kingswood Oxford School, Teacher - Tim Allerton/Sheeba Zaidi

Humza Zaidi, Avon 9 Awards: Honors = 2

6042 PS Biomimicry of Whale Fins

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - L. Ciocci

Emilie Alber, Milford 9 Awards: Honors = 2

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

Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

Lia Bozzone, West Redding 11

Awards: Honors = 2

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

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

Ridgefield, Ridgefield High School, Teacher - Patrick Hughes

Randy Deng, Ridgefield 12

Awards: Honors = 2

- Xerox Computer Science Awards --- Senior High Finalist Medallion, Acrylic Award
- Connecticut Association of Physics Teachers --- \$100 Senior project
- IEEE, Connecticut Section --- \$100 Honorable Mention
- 6048 PS Is The Money Worth It?

Fishers Island, Fishers Island School, Teacher - Carol Giles

Shelby Lusker, Fishers Island 12

Awards: Honors = 2

6049 PS Recovering carbon nanotube fluorescence through conformational change of side chains

Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle

Christopher Augustinos, Glastonbury 12

Awards: Honors = 2

6050 PS Using wastewater to reclaim energy

Bethel, Bethel High School, Teacher - Mr. Turek

Victoria Palmer, Bethel 11

Awards: Honors = 2

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

Greenwich, Brunswick School, Teacher - Dana Montanez

Angus Fraser, Darien 11

Awards: Honors = 2

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

6052 PS Fabrication of Enhanced Organic Solar Cells Using 3m Micro Prismatic Technology

West Haven, Notre Dame High School, Teacher - Katie Saxon

Christopher Gaiser, North Haven 11

Awards: Honors = 2

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

Westport, Staples High School, Teacher - Dr. Nicholas D. Morgan

Leo Andriuk, Westport 12

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

6054 PS A field study on the widespread effect of three viruses on the domesticated honeybee, the Apis mellifera

Darien, Darien High School, Teacher - Leventhal

Elizabeth Drippe, Darien 12

Awards: Honors = 2

6055 PS A Novel Method of Controlling Size of Carbon Nanotubes

Redding, SCSEF - Amity Regional High School, Teacher - Ms. Deborah Day

Joseph Neumann, Woodbridge 12

Awards: Honors = 2

6056 PS A Field Study Analysis of Carbon Fiber Electrode Weaves and Conductors in the Design of Sedimentary Microbial Fuel Cells Norwich, Norwich Free Academy, Teacher - Stephani Jones

Katie Provost, Bozrah 9

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior High CSF Medallion & Acrylic Award
- Environmental Sciences Awards with CACIWC --- 3rd Place HS- \$100, Plaque, CACIWC gifts
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- 6058 PS Move Over Opec/Oil from Biomass

Shelton, Shelton High School, Teacher - Dr. Tosca Rivera

James Peck, Shelton 10

Awards: Honors = 2

6059 PS A Statistical Analysis on the Effects of Volcanic Sulfate Emissions on Precipitation Patterns as Analogue for Geoengineering Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

Megan Siedman, Redding 11

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
- · Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- 6060 PS Hydrogen Fuel Cells: How Electrode Material Affects Them

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Mr. Anthony

Graham Bonnell, Southport 11

Awards: Honors = 2

- · CASE Urban School Challenge Awards with Travelers --- Senior High Finalist Medallion and acrylic award
- 6061 PS The Effect of Sunspot Number on Radio Propagation

Bethel, Bethel High School, Teacher - Mr. Turek

Reeya Bhavsar, Bethel 12

Awards: Honors = 2

6062 PS Ferromagnetism: Using ferromagnetic fluid to control prosthetics

Madison, Daniel Hand High School, Teacher - Madhuparna Roychoudhury

Shayan Roychoudhury, Madison 12

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior High CSF Medallion & Acrylic Award
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
 University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Mechanical
- 6063 PS Testing the Effectiveness of an improved French Trench.

Bethel, Bethel High School, Teacher - MR. Turek

Caitlyn Peterson, Bethel 12

Awards: Honors = 2

6064 PS Power generation via downdraft of humidified dry air

Madison, Daniel Hand High School, Teacher - Madhuparna Roychoudhury

Ankita Roychoudhury, Madison 10

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior High CSF Medallion & Acrylic Award
- University of Connecticut Physics Department --- UCONN Early College Experience Program: Physical Sciences Co-Op \$100 Gift Certificat
- Westinghouse Electric Company/New England Chapter of North American Young Generation in Nuclear --- 1st place, Excellence in Energy Research, \$100 cash award
- · David and Torrey Fenton Awards --- For creative work in the physical sciences- high school; \$200 cash
- 6066 PS Biochar Electrodes Incorporated with Cuprous Oxide Substrates to Optimize Solar Cells' Efficiency

Bridgeport, Bridgeport Regional Aquaculture School, Teacher - Mr. Shadle

Nicolas Santandrea, Fairfield 12

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior High CSF Medallion & Acrylic Award
- ASU Walton Sustainability Solutions Inititatives --- Certificate-Nomination to Compete in 2016 Sustainability Solutions Festival and \$50 Gift Card
- 6067 PS Efficient Soundproofing: Design of a System using Multiple Technologies

Greenwich, Brunswick School, Teacher - Dana Montanez

Tucker Calcano, Greenwich 10

Awards: Honors = 2

- American Society of Safety Engineers, CT Valley Chapter --- \$150 grade 9-12 project
- 6068 PS Evaluation of Several Resonant Power Electronic Converters in Capacitively Coupled Wireless Energy Transmitters

Glastonbury, Glastonbury High School, Teacher - Dr. Ali Bazzi

Paul Han, Glastonbury 11

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior High CSF Medallion & Acrylic Award
- Mu Alpha Theta --- Certificate, \$50 gift card to Amazon given by CSEF
- IEEE, Connecticut Section --- \$250 Honors Award -Senior
- John B. Trevor Award in Electrical Engineering --- \$500 cash award for an innovative electronic or electrical project
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Engineering: Electrical
- 6069 PS Bio-Fuel Magnetic Levitation Vehicle

Greenwich, Greenwich Academy, Teacher - Antoinette Decker

Jadesola Ariyibi, Greenwich 11

Awards: Honors = 3

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

Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev

Abdulkadir Yilmaz, Putnam 11

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

6072 PS Omni-Directional Maglev Cableless Elevator

Suffield, Suffield High School, Teacher - Mitch Charkiewiecz

Lukas Baker, Suffield 11

Awards: Honors = 3

6073 PS Chef NAO: The Humanoid Cooking Robot

Glastonbury, Glastonbury High School, Teacher - Ms. Pintavalle

Kiele Sacco, Glastonbury 12

Awards: Honors = 2 • Xerox Computer Science Awards --- Senior High Finalist - Medallion, Acrylic Award

6074 PS Converting Ambient Water Vapor to Potable Drinking Water Inspired by the Shorebird beak

Greenwich, Brunswick School, Teacher - Dana Montanez

Siyan Shaikh, Stamford 10

Awards: Honors = 2

6075 PS Energy Transfer Using Laser Power Beaming

Suffield, Suffield High School, Teacher - Mr. Mitchell Charkiewicz

Joseph Howarth, Suffield 11

Awards: Honors = 2

- · Barnes Aerospace Applied Technology Awards --- Senior High Finalist Medallion and acrylic award
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 2nd Place High School \$300 Cash and Plaque, Trip to Compete GENIUS Olympiad, Oswego, NY
- Coherent, Inc. Richard Hart Award for Excellence in Photonics --- \$300 cash, plaque, invitation to lunch and tour Coherent factory
- 6076 PS Novel Approches of Making Human to Robot Interaction Possible for the Handicapped.

Bristol, St. Paul Catholic High School, Teacher - Mr Alberti

Kamila Krawczuk, New Britain 9

Awards: Honors = 2

- Xerox Computer Science Awards --- 2nd Place High School \$300, Plaque, Medallion
- Intel Excellence in Computer Science Award --- \$200 & certificate
- Leask/Francoeur Family Awards --- Award for excellence and innovation in electrical engineering or computer science \$200 cash
- 6077 PS A Novel Solar Powered Photobioreactor Design for Waste Water Treatment and Producing Biofuel From Micro-Algae Washington, The Gunnery, Teacher Steven Bailey

Grace Herrick, Sandy Hook 10

Awards: Honors = 2

- Arthur Mensing Award --- \$1000 cash award for excellence in the physical sciences
- 6078 PS Exoplanet Discovery: The Transit Method

Danbury, Immaculate High School, Teacher - Dennis Ames

Nolan Ames, Danbury 9

Awards: Honors = 3

6079 PS The Application of Sub-undulatory Locomotion Principles Utilized by Sub-carangiform Swimmers to Increase Submersible Efficiency

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Mr. Ryan Anthony

Anubhav Dhar, Trumbull 10

Awards: Honors = 2

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

Greenwich, Brunswick School, Teacher - Mrs. Montanez

David Ruf, Greenwich 12

Awards: Honors = 2

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

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

Suffield, Suffield High School, Teacher - Mitchell Charkiewicz

Matthew Rogers, Suffield 11

Awards: Honors = 2

- Barnes Aerospace Applied Technology Awards --- Senior High Finalist Medallion and acrylic award
- Energize CT/eesmarts Future Sustainability Awards --- High School Finalist Medallion and Acrylic Award
- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition
- Wisner Award --- \$250 cash and plaque
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Sustainability
- John S. Kendall Memorial Award --- \$500 John S. Kendall Award for Excellence In Mechanical Engineering High School
- U.S. Coast Guard Research and Development Center --- Summer internship to conduct research aboard ship or at a USCG base + \$50 Amazon Gift Card given by CSEF. ALTERNATE 1
- 6082 PS Creating a Semantic Search Engine with Voice Integration

Woodbridge, Amity Regional High School, Teacher - Deborah Day

David Wang, Bethany 11

Awards: Honors = 2

- Xerox Computer Science Awards --- Senior High Finalist Medallion, Acrylic Award
- U.S. Coast Guard Research and Development Center --- Summer internship to conduct research aboard ship or at a USCG base + \$50 Amazon Gift Card given by CSEF.
- 6083 PS Engineering of ZnO Tapered Pillar Nanostructures as Antireflection Coatings on Silicon Solar Cells

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Sricharan Kadimi, Orange 12

Awards: Honors = 2

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

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Victoria Liu, Bethany 12

Awards: Honors = 2

- · Barnes Aerospace Applied Technology Awards --- Senior High Finalist Medallion and acrylic award
- 6085 PS Creation of a Fresnel Lens Array for use in Water Purification

Greenwich, Brunswick School, Teacher - Dana Montanez

John Stefanou, Old Greenwich 10

Awards: Honors = 2

- Stockholm Junior Water Prize --- Certificate, \$50 gift card to Amazon given by CSEF, possible advance to further competition
- 6086 PS Maximization of the Profit of a Large, Prestigious University in the Presence of a State University

Ridgefield, Ridgefield High School, Teacher - Michael Yagid

Adam Davidovich, Ridgefield 12

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
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Mathematics
- 6087 PS Application of Manganese-Based Ionic Liquid for Optimized Performance of Non-aqueous / Aqueous Redox Flow Batteries Greenwich, Greenwich High School, Teacher Andrew Bramante

Nicholas Szabo, Glenville 11

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 3rd Place- Physical Sciences Senior High Individual -\$200 & Plaque
- Barnes Aerospace Applied Technology Awards --- 2nd Place High School \$300 and Plaque Medallion
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- 6088 PS Impact of the manipulation of the viscosity of ethanol on the particulate matter output and the efficiency of combustion.

Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

John Mulcahy, Redding 11

6090 PS The effect of application of a solenoid on the magnetic properties of gadolinium at varying temperatures and current levels.

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Max Marcussen, Riverside 11

Awards: Honors = 2

• University of Connecticut - Physics Department --- UCONN Physics Department - Co-Op \$100 Gift Certificate

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

Westport, Staples High School, Teacher - Dr. Nick Morgan

Xiaotian Zhang, Westport 11

Awards: Honors = 2

- People's United Bank Mathematics Awards with ATOMIC --- High School Finalist Medallion & Acrylic Award
- Astronomical Society of Greater Hartford --- Senior Project-\$100, subscription to Sky and Telescope magazine and ASGH
 meeting invitation
- 6093 PS How does the weight of a wind turbine's blade affect energy production?

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Mr. Ryan Anthony

Thomas Pond, Fairfield 11

Awards: Honors = 3

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

Trumbull, Christian Heritage School, Teacher - Daniel Cote

Sarah Mack, West Haven 11

Awards: Honors = 2

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist Medallion
 Meyerand Young Woman Scientist Awards --- \$300 cash - High School, Physical Sciences
- 6095 PS Novel Creation of a versatile, low-cost water purification system via a graphene oxide-TiO2 composite membrane with incorporated electrified nanostructures

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Sophie Bardos, Riverside 11

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior High CSF Medallion & Acrylic Award
- Environmental Sciences Awards with CACIWC --- 1st Place HS- \$500, Plaque, CACIWC gifts, Trip to Compete I-SWEEEP, Houston
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Environmental Science
- Fox Pest Control Award for Environmental Management --- \$150 Cash for Excellence in Environmental Management
- Unilever Trumbull R&D --- Shadow Day at Unilever Trumbull R&D Centre
- 6098 PS The Development of an Immunosorbant Assay (ELISA) for detection of IgG and IgA antibodies against Tissue Transglutaminase for the diagnosis of Celiac disease.

Redding, Joel Barlow High School, Teacher - Dr. Katherine Nuzzo

Andrea McGowan, Redding 12

Awards: Honors = 1

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

6099 PS Algae Balls

East Hartford, East Hartford High School, Teacher - Tim Reid

Tyrese Fenty, East Hartford 10

Awards: Honors = 3

6100 PS Exploring the Optical Audio Link

Darien, Darien High School, Teacher - Christine Leventhal

Mallory Zabrocky, Darien 12

Awards: Honors = 3

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

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Ethan Novek, Greenwich 10

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place Physical Sciences Senior High Individual -\$500 & Plaque, trip to compete at Intel ISEF
- Energize CT/eesmarts Future Sustainability Awards --- 1st Place High School \$800 Cash, Plaque, and Trip to Compete I-SWEEEP, Houston
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering in partnership with CCAT --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, high school, \$100 cash award
- 6102 PS Investigation of Mesoporous Cobalt-Doped Cerium Oxide in the Water-Gas Shift

Glastonbury, Glastonbury High School, Teacher - Diane Pintavalle

Kevin Wijendra, South Glastonbury 11

Awards: Honors = 2

6103 PS Hardening of electronics and satellite communication systems from sunspots and coronal mass ejections

Trumbull, Christian Heritage School, Teacher - Daniel Cote

Jiabei Jin, Trumbull 11

Awards: Honors = 2

6104 PS Investigating the Benefits of Receiving Information Through Video

Fishers Island, Fishers Island School, Teacher - Carol Giles

Aaron Kane, Groton 12

Awards: Honors = 2

6105 PS 3D Printer for Creating Domestic Utilities for Developing Countries

Sandy Hook, Newtown High school, Teacher - Timothy Dejulio

David Corsi, Sandy Hook 12

Awards: Honors = 2

- Spirit of Invention Award --- \$100 Cash and Plaque for Inventive Concepts
- 6501 PST "Are Your Eyes Playing Tricks on You?"

Bridgeport, Fairchild Wheeler Magnet High School, Teacher - Mrs. Ciocci

Danna Portillo-Serrano, Bridgeport 10 Sydney Kmetz Milford 10

Awards: Honors = 3

6502 PST Heat Retention

New London, Science & Technology Magnet HS of SE CT, Teacher - Charles Mulligan

Robert Pilj, New London 10 Jogaintz Ledoux New London 10

Awards: Honors = 3

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

Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev

Cagri Aytekin, Putnam 12 Furkan Sahin Putnam 10 Furkan Aldemir Putnam 11

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place- Physical Sciences Senior High Team- \$500 (split) & Plaque
- Barnes Aerospace Applied Technology Awards --- 3rd Place High School \$ 200 and Plaque, Medallion
- Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist Medallion
- Constellation An Excelon Company --- For Excellence in clean renewable / sustainable energy Grades 9 12
- American Institute of Aeronautics & Astronautics Connecticut Section --- \$200 award, certificate
- 6504 PST An investigation on the effects of radiation emitted from the three most popular mobile phone operating systems.

Middletown, Xavier High School, Teacher - Mr. David Applegate

Evan Rigsby, Kensington 11 Christopher Yerxa Guilford 11

6505 PST Determining the Effects of Different Products on Desalination

Suffield, Suffield High School, Teacher - Mitch Charkiewicz

Rachel Roncaioli, Suffield 10 Katherine Baker Suffield 10 Caitlin Kirschbaum Suffield 10

Awards: Honors = 2

6506 PST Validating the Effectiveness of Biosensor Imaging of Redundant Deviation in Shifts

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Vincent Silverman, Woodbridge 11 Kevin Dardik Bethany 11

Awards: Honors = 2

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

Putnam, Putnam Science Academy, Teacher - Serdar Haytiyev

Ahmet Sirrik, Putnam 11 Tarik Kesen Putnam 11 Ali Akcakir Putnam 11

Awards: Honors = 1

- · Connecticut Science & Engineering Fair Physical Sciences Awards --- 3rd Place Physical Sciences Senior High Team Plaque
- · Energize CT/eesmarts Alternative/Renewable Energy Awards --- High School Finalist Medallion
- 6508 PST What Is "Good Music?"

Middletown, Middletown High School, Teacher - Roberta Downer

Saket Pandit, Middletown 12 Kendar Serindag Middletown 12

Awards: Honors = 3

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

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Daniel Giebisch, Woodbridge 12 Noah Gallant Bethany 12

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 2nd Place- Physical Sciences Senior High Team-\$300(split) & Plaque
- Xerox Computer Science Awards --- 1st Place High School \$400, Plaque, Medallion
- Intel Excellence in Computer Science Award --- \$200 & certificate
- IEEE, Connecticut Section --- \$100 Honorable Mention
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Computer Science
- 6510 PST 3D Animation and Ebola

New London, Science & Technology Magnet HS of SE CT, Teacher - Mr. Mulligan

Trenton Robledo-Thompson, New London 10 John Madden New London 10

Awards: Honors = 3

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

Greenwich, Brunswick School, Teacher - Dana Montanez

Ryan Callaghan, Wilton 11 Alessandro Mariani Greenwich 11

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- Finalist Physical Sciences Senior Team CSF Medallion & Acrylic Award
- · Barnes Aerospace Applied Technology Awards --- Senior High Finalist Medallion and acrylic award
- IEEE, Connecticut Section --- \$250 Honors Award -Junior
- 6512 PST Using Plants to Reduce Atmospheric Carbon Dioxide

Hamden, Sacred Heart Academy, Teacher - Dr. Sibani Sengupta

Jennifer Piciw, Shelton 11 Mitali Bandyopadhyay Farmington 11

Awards: Honors = 2

- Connecticut Nurserymen's Foundation, Inc. --- \$200 Cash Award & paid registration to the CT Nursery and Landscape Summer Meeting
- 6515 PST Exploring the Effects of Ammonia on the Electrical Resistivity of Graphene

Woodbridge, Amity Regional High School, Teacher - Deborah Day

Arvene Golbazi, Bethany 12 Owais Khan Orange 12

Awards: Honors = 2

6516 PST The Use of Carbon Nanotubes for the Filtration of Heavy Metal Ions From Water

Windsor, Madina Academy Upper School, Teacher - Esslam Hassan Usra Qureshi, Windsor 12 Aasiya Ahmed Windsor 12

Intel ISEF

CSEF Life Sciences

1st place winner Olivia Hallisey, Greenwich High School, Greenwich will represent Alexion Biotechnology at ISEF

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

Reid Radulovacki, Greenwich High School, Greenwich, Teacher - Andrew Bramante

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

William Yin, Greenwich High School, Greenwich, Teacher - Mr. Andrew Bramante

CSEF Physical Sciences

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

Ethan Novek, Greenwich High School, Greenwich, Teacher - Andrew Bramante

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

Margaret Cirino, Greenwich High School, Greenwich, Teacher - Andrew Bramante

CSEF Special Categories

Alexion Biotechnology

3096 Temperature-Independent, Portable, and Rapid Field Detection of Ebola via a Silk-Derived Lateral-Flow System **Olivia Hallisey,** Greenwich High School, Greenwich, Teacher - Andy Bramante

Urban Challenge

3118 Development of Non-toxic Photostabilized Phycoerythrin for Application in Dye Sensitized Solar Cells **Eunsun Hong,** Bridgeport Regional Aquaculture School, Bridgeport, Teacher - Mr. Shadle

I-SWEEEP

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

Angus Fraser, Brunswick School, Greenwich, Teacher - Dana Montanez

6095 Novel Creation of a versatile, low-cost water purification system via a graphene oxide-TiO2 composite membrane with incorporated electrified nanostructures

Sophie Bardos, Greenwich High School, Greenwich, Teacher - Andrew Bramante

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

Ethan Novek, Greenwich High School, Greenwich, Teacher - Andrew Bramante

GENIUS Olympiad

3020 Effective Optimization of Biogas Production through Alpha-Amylase Utilization **Bryce Anderson**, Greenwich High School, Greenwich, Teacher - Andy Bramante

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

Laura Mocciola, Sacred Heart Academy, Hamden, Teacher - Mrs. Nelson

6075 Energy Transfer Using Laser Power Beaming

Joseph Howarth, Suffield High School, Suffield, Teacher - Mr. Mitchell Charkiewicz

Winning Projects of Regular Categories

A		CSE	F – Life Scie	ences			CSEF-	– Physical S	ciences	
Award	LT	L7	L8	LS	LST	PT	P7	P8	PS	PST
1	1008	2010	2524	3096	3508	4008	5030	5545	6101	6503
2	1016	2041	2546	3031	3520	4001	5026	5560	6015	6509
3	1026	2014	2544	3110	3507	4017	5029	5507	6087	6507
4		2019	2516	3020			5036	5530	6098	
5		2039	2518	3091			5054	5514	6005	
M		2016	2506	3005		4003	5009	5502	6001	6511
M		2020	2539	3032		4010	5023	5509	6004	
M		2024		3037		4019	5035	5528	6007	
M		2026		3040		4025	5053	5551	6030	
M				3047		4033	5063	5565	6039	
M				3052					6053	
M				3072					6056	
M				3073					6062	
M				3088					6064	
M				3095					6066	
M				3098					6068	
M				3114					6071	
M				3116					6095	
M				3118						
M				3124						

Winning Projects of Special Categories

Award	E	Biotechnolog	y	Urban C	hallenge
Awaru	7th grade	8th grade	9-12th gr	Middle	High
1	2010	2521	3096	5551	3118
2	2039	2527	3054	2521	3073
3	1008	2509	6015	2544	6011
4	2001	2508	3009		
5	1020	5551	3114		
M	1004	1016	3031	2507	3039
M	1005	2535	3049	5033	3040
М	1017	2537	3075	5034	3077
M	4028	2541	3110	5523	3124
М	5037	4010	3118	5528	3128
M				5555	6060
M					
M					

Winning Projects of Special Categories

Award	Compute	r Science	Mathe	matics	Applie	d Tech	Envir S	Science
Awaru	Middle	High	Middle	High	Middle	High	Middle	High
1	5507	6509	5507	6086	4017	6030	5033	6095
2	5512	6076	5043	6059	5512	6087	4025	3055
3	5522	6071	5063	6014	5054	6503	1005	6056
M	4017	6014	5014	3072	2535	3091	1014	3056
M	4033	6025	5549	6029	5513	6071	1022	3068
M	5043	6047		6091	5514	6075	2516	3073
M		6073			5551	6081	2535	3090
M		6082				6084	4008	6026
M						6511		6046
M								
M								
M								
M								
M								

Award	Ene	ergy	Sustainabl	e Resource	Future Sustainability	
Awaru	Middle	High		Middle	High	
1	4029	6051		2010	6101	
2	5560	6075		5545	3020	
3	5026	3515		5502	6051	
M	5032	6027		4003	3055	
M	5058	6080		4008	3124	
M	5514	6094		4025	3515	
M		6503		5504	6018	
M		6507		5514	6023	
M				5551	6027	
M				5560	6081	
M						
M						
M						
M						
M						

UTC		CSTA	CASE	QU		Engineering	
Middle	High	Middle	High	Middle	High	Middle	High
2010	6015	2524	3096		3039	2010	3096
2521	6030	5545	3118		3128	5054	3114
5030	6039		6101			5512	6087
	6056						6101
	6101						

Beyon	Beyond CSF						
I-SWP	GENIUS						
6051	3020						
6095	3055						
6101	6075						

ISEF					
Sponsor	Project				
CSEF	3031				
CSEF	3096				
CSEF	6015				
CSEF	6101				
Alexion	3096				
USC	3118				

STATS PLUS

Projects

Project Category	JrTm	7th	8th	Sr	SrTm	Total	%
Life Sciences	25	41	43	118	25	252	49%
Physical Sciences	31	62	64	91	14	262	51%
Total	56	103	107	209	39	514	
Percent	11%	20%	21%	41%	8%		

Project Grade	7	8	9	10	11	12	Total
Life Sciences	59	50	15	36	47	45	252
Physical Sciences	72	85	6	24	39	36	262
Total	131	135	21	60	86	81	514
Percent	25%	26%	4%	12%	17%	16^	100%

Project Gender	7	8	9	10	11	12	Total
Male	61	64	7	26	51	36	245
Female	70	71	14	34	35	44	268
Not Given						1	1
Total	131	135	21	60	86	81	514

Students

Student Category	JrTm	7th	8th	Sr	SrTm	Total	%
Life Sciences	57	41	43	118	55	314	50%
Physical Sciences	66	62	64	91	31	314	50%
Total	123	103	107	209	86	628	
Percent	20%	16%	17%	33%	14%		100%

Student Grade	7	8	9	10	11	12	Total
Life Sciences	83	58	16	50	59	48	314
Physical Sciences	84	108	6	30	46	40	314
Total	167	166	22	80	105	88	628
Percent	27%	26%	4%	13%	17%	14%	100%

Student Gender	7	8	9	10	11	12	Total
Male	78	75	8	35	65	41	302
Female	89	91	14	45	40	46	325
Not Given						1	1
Total	167	166	22	80	105	88	628

STATS PLUS Fair Data

Summary

		Students		Student Gender Schools					
Category	Jr	Sr	Total	Male	Fem	Total	Jr	Sr	Total
Life Sciences	141	173	314	126	188	314			
Physical Sciences	192	122	314	176	137	314			
Total	333	295	628	302	325	628	69	64	127
Percent							Not to be totaled		

	Projects			Individual Projects			Team Projects		
Category	Jr	Sr	Total	Jr	Sr	Total	Jr	Sr	Total
Life Sciences	109	143	252	84	118	202	25	25	50
Physical Sciences	157	105	262	126	91	217	31	14	45
Total	266	248	514	210	209	419	56	39	95
Percent	52%	48%		50%	50%		59%	41%	

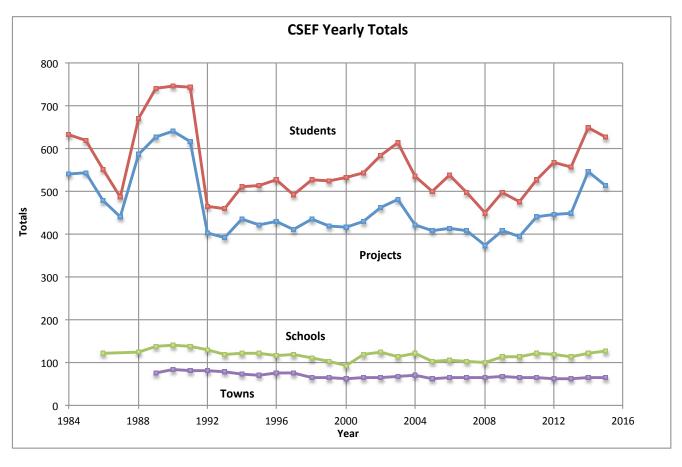
Awards

Regular = Reg + SpCat

Projects>	Regular Awards			Special Awards			All Awards		
Category	Jr	Sr	Total	Jr	Sr	Total	Jr	Sr	Total
Life Sciences	34	35	69	19	40	59	42	53	95
Physical Sciences	44	45	89	32	39	71	55	52	107
Total	78	80	158	51	79	130	97	105	202
Percent	49%	51%		39%	61%		48%	52%	

Honors

			Pro	jects		Students			
Category	Hon	Jr	Sr	Total	%	Jr	Sr	Total	%
Life Sciences	1	19	23	42		23	29	52	
Physical Sciences		28	22	50		37	28	65	
Sub Total		47	45	92	18%	60	57	117	19%
Life Sciences	2	35	49	84		41	56	97	
Physical Sciences		67	59	126		82	66	148	
Sub Total		102	108	210	41%	123	122	245	39%
Life Sciences	3	55	71	126		77	88	165	
Physical Sciences		62	24	86		73	28	101	
Sub Total		117	95	212	41%	150	116	266	42%
Total				514				628	



Graph Note (also see pages 66 and 68) -

- 1988 Junior Individuals (LJ, PJ) were separated into L7, L8 and P7, P8 to reduce size of categories for judging prcess.
- 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	Twn
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
2015	Quinnipiac University, Hamden	514	628	127	66

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
2015	25	41	43	118	25	31	62	64	91	14

STATS PLUS

Town Project Type: 2 = H	School ligh or High/ Middle School, 1 = Middle School Only	Type, No Res, Path & UC	Reserved J1 S1	Registered J2 S2	Entered J3 S3 P3 St3
Avon	Avon High School	2	0 3	- 2	- 2 2 2
Avon	Farmington Valley Academy Montessori	1	2 0		
Avon	Talcott Mountain Academy	1	6 0	6 -	6 - 6 6
Bethany	Amity Reg Middle School, Bethany Campus	1	8 0	7 -	5 - 5 10
Bethel	Bethel High School	2	0 4	- 3	- 3 3 3
Bethel	St. Mary School	1	10 0	8 -	8 - 8 8
Bozrah	Fields Memorial School	1	4 0	6 -	6 - 6 6
Branford	Connecticut Experiential Learning Center	1	2 0		
Bridgeport	Barnum School	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	Black Rock School	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	Blackham School	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	Bridgeport Regional Aquaculture Center	2 x bp x	0 0	- 8	- 8 8 8
Bridgeport	Bridgeport School District	2 - bp x	15 20	0 0	0 0 0 0
Bridgeport	Central High School	2 x bp x	0 0	- 1	- 1 1 1
Bridgeport	Central Magnet High School	2 x bp x	0 0	- 1	- 1 1 1
Bridgeport	Classical Studies Magnet Academy	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	Fairchild Wheeler Magnet High School	2 x bp x	0 0	- 8	- 8 8 9
Bridgeport	G. W. Johnson School	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	High Horizons Magnet School	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	Interdistrict Discovery Magnet School	1 x bp x	0 0	2 -	2 - 2 2
Bridgeport	James J. Curiale School	1 x bp x	0 0	1 -	
Bridgeport	Jettie S. Tisdale School	1 x bp x	0 0	1 -	1 - 1 2
Bridgeport	Multicultural Magnet School	1 x bp x	0 0	2 -	2 - 2 2
Bridgeport	Park City Magnet School	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	Park City Prep Charter School	1 x	10 0	10 -	9 - 9 12
Bridgeport	Read School	1 x bp x	0 0	1 -	1 - 1 1
Bridgeport	Six to Six Interdistrict Magnet School	1 x	$\begin{array}{ccc} 1 & 0 \\ 0 & 0 \end{array}$		
Bridgeport Bristol	Warren Harding High School	2 x bp x 2	$\begin{array}{ccc} 0 & 0 \\ 0 & 1 \end{array}$	- 1	1 1 1
Broad Brook	St. Paul Catholic High School	2 2 - I -	0 1		- 1 1 1
	Homeschool - Masthay	2 - 1 -	0 1	- 1	
Canton Cheshire	Canton High School Cheshire High School	2	0 2	- 1	- 1 1 1
Cheshire	St. Bridget School		2 0	2 -	2 - 2 2
Danbury	Immaculate High School	2	$0 \qquad 2$	- 2	- 2 2 2
Danbury	St. Gregory the Great School	1	8 0	8 -	8 - 8 13
Danbury	St. Joseph School	1	10 0	10 -	10 - 10 13
Danbury	Westside Middle School Academy	1 x	10 0	10 -	10 - 10 13
Darien	Darien High School	2	0 11	- 8	- 7 7 7
East Hartford	East Hartford High School	2 x	0 6	- 3	- 3 3 3
East Lyme	East Lyme High School	$\begin{bmatrix} 2 & - & - & \lambda \\ 2 & - & - & - \end{bmatrix}$	0 1	- 1	- 1 1 1
Enfield	St. Martha School	1	5 0	3 -	3 - 3 6
Fairfield	Fairfield College Preparatory School	2	0 6	- 6	- 2 2 2
Fairfield	Our Lady of Assumption School	1	4 0	4 -	4 - 4 4
Fairfield	St. Thomas Aquinas School	1	6 0	6 -	5 - 5 8
Falls Village	Lee H. Kellogg School	1	2 0	1 -	1 - 1 1
Fishers Island	Fishers Island School	2	0 8	- 8	- 8 8 8
Glastonbury	Glastonbury High School	2	0 15	- 16	- 15 15 15
Glastonbury	Smith Middle School	1	4 0	1 -	1 - 1 1
Greens Farms	Greens Farms Academy	2	4 4	4 4	4 2 6 6
Greenwich	Brunswick School	2	0 15	- 14	- 14 14 18
Greenwich	Central Middle School	1	5 0	6 -	4 - 4 4
Greenwich	Convent of the Sacred Heart School	2	0 15	- 6	- 5 5 9
Greenwich	Greenwich Academy	2	1 3	- 3	- 3 3 3
Greenwich	Greenwich Catholic School	1	4 0	4 -	4 - 4 9
Greenwich	Greenwich High School	2	0 15	- 17	- 17 17 17
Groton	Sacred Heart School	1	10 0	10 -	10 - 10 10
Guilford	E.C. Adams Middle School	1	5 0	5 -	5 - 5 6
Hamden	Hamden High School	2	0 5	- 1	- 1 1 1
Hamden	Hamden Middle School	1	10 0	8 -	7 - 7 9
Hamden	Sacred Heart Academy	2	0 11	- 11	- 11 11 13
Hartford	Academy of Aerospace and Engineering High	2 x	0 8	- 4	- 2 2 2

School Tracking

Town	School	Type, No Res,	Reserved	Registered	Entered
	igh or High/ Middle School, 1 = Middle School Only	Path & UC	J1 S1	J2 S2	J3 S3 P3 St3
Hartford	Environmental Sciences Magnet at Mary Hooker	1`` x	10 0	8 -	8 - 8 8
Hartford	Greater Hartford Academy of Math & Science	2 x	0 14	- 13	- 7 7 7
Hartford	Hartford Magnet Trinity College Academy	2 x	0 1		
Hartford	High School, Inc.	2 x	0 10	- 4	- 3 3 3
Hartford	University High School of Sci & Eng	2 x	0 1	- 1	- 1 1 1
Hebron	RHAM High School	2	0 1	- 1	- 1 1 2
Lakeville	The Hotchkiss School	2	0 2	- 1	- 1 1 1
Madison	Daniel Hand High School	2	0 2	- 2	- 2 2 2
Madison	Our Lady of Mercy School	1	4 0	4 -	4 - 4 5
Manchester	Assumption School	1	3 0	1 -	1 - 1 1
Manchester	Manchester High School	2	0 1	- 1	- 1 1 1
Manchester	St. Bridget School	1	2 0	2 -	2 - 2 2
Marlborough	Independent Benson-Clarke - RHAM Middle	1 - I -	1 0	1 -	1 - 1 1
Meriden	St. Joseph School	1	10 0	7 -	7 - 7 7
Middletown	Middletown High School	2	0 1	- 1	- 1 1 2
Middletown	Xavier High School	2	0 1	- 1	- 1 1 2
Milford	Jonathan Law High School	2	0 1	- 1	
Milford	St. Gabriel School	1	6 0	7 -	6 - 6 6
New Britain	St. John Paul II School	1	2 0	2 -	2 - 2 2
New Haven	Betsy Ross Arts Magnet School	1 x	4 0	4 -	4 - 4 4
New Haven	Celentano Biotech, Health & Medical Magnet	1 x	2 0	1 -	
New Haven	Davis Street Interdistrict Magnet School	1 x	10 0	2 -	1 - 1 1
New Haven	Engineering & Science University Magnet Sch	2 x	7 4	4 2	4 2 6 6
New Haven	Hill Regional Career High School	2 x	0 1		
New Haven	St. Aedan- St. Brendan School	1	4 0	3 -	2 - 2 2
New Haven	Wilbur Cross High School	2 x	0 1	- 1	- 1 1 1
New Haven	Worthington Hooker Middle School	1 x	8 0	7 -	7 - 7 10
New London	Science & Technology Magnet High School	2 x	0 15	- 16	- 16 16 28
New Milford	New Milford High School	2	0 8	- 1	- 1 1 1
Newington	Martin Kellogg Middle School	1	1 0	1 -	1 - 1 3
Newington	St. Mary School	1	2 0	2 -	2 - 2 2
Newtown	Newtown Middle School	1	4 0	1 -	1 - 1 1
Newtown	St. Rose of Lima School	1	10 0	10 -	10 - 10 10
North Haven	North Haven Middle School	1	10 0	4 -	4 - 4 11
Norwalk	The Montessori Middle School	1	5 0	4 -	4 - 4 4
Norwich	Norwich Free Academy	2	0 5	- 3	- 2 2 2
Old Saybrook	SCSEF - Old Saybrook Senior High School	2 x sc -	0 0	- 1	- 1 1 1
Orange	Amity Reg Middle School, Orange Campus	1	6 0	5 -	5 - 5 5
Orange	Southern CT Hebrew Academy	1	8 0	8 -	8 - 8 13
Oxford	Oxford High School	2	0 10	- 9	- 7 7 7
Pawcatuck	St. Michael School	1	4 0	4 -	4 - 4 4
Plantsville	J.F. Kennedy Middle School	1	8 0	8 -	8 - 8 12
Putnam	Putnam Science Academy	2	0 8	- 9	- 8 8 19
Redding	Joel Barlow High School	2	0 15	- 15	- 12 12 12
Redding	Southern CT Science & Eng Fair	2 - sc -	0 6	0 0	0 0 0 0
Ridgefield	Ridgefield High School	2	0 6	- 2	- 2 2 2
Ridgefield	SCSEF - Ridgefield High School	2 x sc -	0 0	- 1	- 1 1 1
Salisbury	Salisbury School	2	0 1	- 1	- 1 1 1
Sandy Hook	Newtown High School	2	0 3	- 2	- 2 2 2
Shelton	Shelton High School	2	0 8	- 5	- 5 5 6
Shelton	Shelton Intermediate School	1	3 0	3 -	3 - 3 4
Shelton	St. Joseph School	1	2 0	2 -	2 - 2 2
Southington	J.A. DePaolo Middle School	1	8 0	7 -	7 - 7 11
Southington	St. Thomas School	1	2 0	2 -	1 - 1 1
Stamford	Bi-Cultural Day School	1	4 0	4 -	4 - 4 7
Storrs	E.O. Smith High School	2	0 3	- 1	- 1 1 1
Stratford	St. Mark School	1	6 0	5 -	5 - 5 5
Suffield	Suffield High School	2	0 15	- 8	- 7 7 10
Tolland	Homeschool - Stonewall Academy	2 - I -	0 1	- 1	- 1 1 1
Trumbull	Christian Heritage School	2	3 4	3 4	3 4 7 7
Wallingford	Choate Rosemary Hall	2	0 2	- 1	- 1 1 1
-	•				

STATS PLUS School Tracking

Town	Town School		e, N	o R	es,	Rese	erved	Registered		·	Entered		1
Project Type: 2 = I	High or High/ Middle School, 1 = Middle School Only	Pa	th	& I	J C	J1	S1	J2	S2	J3	S3	P3	St3
Washington	Shepaug Valley High School	2	-	-	-	0	1	-	1	-	1	1	1
Washington	The Gunnery	2	-	-	-	0	1	-	1	-	1	1	1
Waterbury	North End Middle School	1	-	-	X	3	0	1	-	-	-	-	-
Watertown	The Taft School	2	-	-	-	0	2	-	1	-	1	1	2
West Hartford	Kingswood-Oxford School	2	-	-	-	0	1	-	1	-	1	1	1
West Hartford	Solomon Schechter Day School	1	-	-	-	3	0	3	-	3	-	3	3
West Hartford	St. Brigid School	1	-	-	-	2	0	1	-	1	-	1	1
West Hartford	St. Timothy Middle School	1	-	-	-	4	0	4	-	4	-	4	4
West Haven	Notre Dame High School	2	-	-	-	0	1	-	1	-	1	1	1
West Simsbury	Independent Rachel Baumann - Simsbury High	2	-	I	-	0	1	-	1	-	1	1	1
Westport	Staples High School	2	-	-	-	0	15	-	14	-	11	11	11
Wilton	Middlebrook School	1	-	-	-	4	0	4	-	4	-	4	5
Windsor	Madina Academy	2	-	-	-	5	5	4	3	4	1	5	9
Windsor	St. Gabriel School	1	-	-	-	4	0	4	-	4	-	4	6
Windsor	Windsor High School	2	-	-	-	0	0	-	-	-	-	-	-
Woodbridge	Amity Regional High School	2	-	-	-	0	15	-	16	-	16	16	20
Woodbridge	SCSEF - Amity Regional High School	2	X	sc	-	0	0	-	2	-	2	2	2
Schools = 139						332	350	280	280	266	248	514	628

Abbreviations: bp = Bridgeport Public, sc = SCSEF, I = Homeschool/Independent, x = Urban Challenge, J, S, P = Junior, Senior, and Jr + Sr Projects, St = Students

School Summary for 2015

Total Contacts = 139 Schools Sch In Fair = 127

Registered Schools = 119 Regular Schools = 115 Homeschools = 2 Independents = 2

Non-Registered Schools = 20 Bridgeport Public Schools = 17 So CT Sci and Eng Fair = 3

	Sch	Proj	Stu
School Reservations	139	682	
Project Registrations	139	769	923
Sch Approved Proj	131	560	
Entered Fair	127	514	628

2015 CSEF Schools										
Total Contacts	139									
In Fair	127									
Withdraws	001									
City Fairs	002									
No-Shows	009									

Yrs	Stude	ent	Hometown	Gr	ade School	SchTown	Honors
	6 Years - 2 Stude	nts					
6	Ahmed	Aasiya	Windsor	12	Madina Academy Upper School	Windsor	2
6	Roychoudhury	Shayan	Madison	12	Daniel Hand High School	Madison	1
	5 Years - 1 Stude	nt					
5	Provost	Connor	Bozrah	11	Norwich Free Academy	Norwich	3
	4 Years - 12 Stud	ents					
4	Agarwal	Aakshi	Hamden	10	Hamden High School	Hamden	2
4	Catalbasoglu	Hacibey	Putnam	12	Putnam Science Academy	Putnam	2
4	Giebisch	Daniel	Woodbridge	12	Amity Regional High School	Woodbridge	1
4	Haddad	Martha	Danbury	10	Immaculate High School	Danbury	1
4	Han	Paul	Glastonbury	11	Glastonbury High School	Glastonbury	1
4	Hansel	Paul	Old Greenweih	11	Greenwich High School	Greenwich	1
4	Herrick	Grace	Sandy Hook	10	The Gunnery	Washington	2
4	Hovstadius	Malin	Westport	12	Staples High School	Westport	2
4	LoPreiato	Elizabeth	New Britain	10	Sacred Heart Academy	Hamden	3
4	Qureshi	Usra	Windsor	12	Madina Academy Upper School	Windsor	2
4	Roychoudhury	Ankita	Madison	10	Daniel Hand High School	Madison	1
4	Siveyer	Jonathan	Monroe	10	Fairfield College Preparatory School	Fairfield	1
	3 Years -19 Stude	ents					
3	Baker	Lukas	Suffield	11	Suffield High School	Suffield	3
3	Bandyopadhyay	Mitali	Farmington	11	Sacred Heart Academy	Hamden	2
3	Baumann	Rachel	West Simsbury	10	Independent - Simsbury High School	Simsbury	1
3	Chung	Dana	Orange	12	Amity Regional High School	Woodbridge	2
3	Cirino	Margaret	Greenwich	10	Greenwich High School	Greenwich	1
3	Gallant	Noah	Bethany	12	Amity Regional High School	Woodbridge	1
3	Geradi	Maya	New Haven	9	Wilbur Cross High School	New Haven	3
3	Golbazi	Arvene	Bethany	12	Amity Regional High School	Woodbridge	2
3	Krawczuk	Kamila	New Britain	9	St. Paul Catholic High School	Bristol	2
3	Liu	Victoria	Bethany	12	Amity Regional High School	Woodbridge	2
3	Low	Lauren	Hamden	10	Engineering & Science University Magnet	New Haven	1
3	McGowan	Andrea	Redding	12	Joel Barlow High School	Redding	1
3	Minichetti	Maxmillian	Greenwich	12	Greenwich High School	Greenwich	1
3	Mo	Junlin	Bridgeport	10	Fairfield College Preparatory School	Fairfield	3
3	Novek	Ethan	Greenwich	10	Greenwich High School	Greenwich	1
3	Peck	Amelia	Tolland	10	Stonewall Academy	Tolland	2
3	Provost	Katie	Bozrah	9	Norwich Free Academy	Norwich	1
3	Rogers	Matthew	Suffield	11	Suffield High School	Suffield	2
3	Saxe	Sarah	Woodbridge	10	Amity Regional High School	Woodbridge	2
	2 Years - 105 Stu						
2	Agarwal	Akshar	Hamden	8	Hamden Middle School	hamden	3
2	Aggarwal	Varun	S Glastonbury	8	Talcott Mountain Academy	Avon	2
2	Agnew	Allie	Westport	8	Greens Farms Academy	Greens Farms	3
2	Ames	Nolan	Danbury	9	Immaculate High School	Danbury	3
2	Anderson	Bryce	Cos Cob	11	Greenwich High School	Greenwich	1
2	Antonios	Rodolph	Danbury	8	St. Gregory the Great School	Danbury	2
2	Arcouette	Shelby	Enfield	8	St. Martha School	Enfield	3
2	Ariyibi	Jadesola	Greenwich	11	Greenwich Academy	Greenwich	3
2	Aytekin	Cagri	Putnam	12	Putnam Science Academy	Putnam	1
2	Babineau	Drew	Charlestown	8	St. Michael School	Pawcatuck	2
2	Baker	Katherine	Suffield	10	Suffield High School	Suffield	2
2	Balagna	Mary	Mystic	8	Sacred Heart School	Groton	3
2	Baldini	Michael	West Hartford	8	St. Timothy Middle School	West Hartford	2
2	Banker	Sarah	Greenwich	12	Convent of the Sacred Heart	Greenwich	3
2	Bardos	Sophie	Riverside	11	Greenwich High School	Greenwich	1
2	Bilodeau	Mary	Plantsville	8	J.F. Kennedy Middle School	Plantsville	2

Yrs	Stud	ent	Hometown	Gra	de School	SchTown	Honors
2	Bonnell	Graham	Southport	11	Fairchild Wheeler Magnet High School	Bridgeport	2
2	Buckridge	Genevieve	Bozrah	8	Fields Memorial School	Bozrah	1
2	Callaghan	Ryan	Wilton	11	Brunswick School	Greenwich	1
2	Casey	Tasha	Avon		Talcott Mountain Academy	Avon	2
2	Chieffalo	Frank	Danbury	8	St. Gregory the Great School	Danbury	2
2	Conway	Aidan	Milford		St. Gabriel School	Milford	2
2	Corsi	David	Sandy Hook	12	Newtown High school	Sandy Hook	2
2	Daly	Rory	Brookfield	8	St. Mary School	Bethel	3
2	Dascano	Anthony	Danbury		St. Gregory the Great School	Danbury	3
2	Dhar	Anubhav	Trumbull	10	Fairchild Wheeler Magnet High School	Bridgeport	2
2	Earl	Jordan	Hamden	10	Sacred Heart Academy	Hamden	3
2	Edris	Amir	Putnam	10	Putnam Science Academy	Putnam	1
2	Effman	Zachary	Westport	12	Staples High School	Westport	3
2	Emhan	Abidin	Putnam	12	Putnam Science Academy	Putnam	1
2	Errico	Dylan	West Hartford	8	St. Brigid School	West Hartford	2
2	Feuerstein	Jacob	Woodbridge	8	Engineering & Science University Magnet	New Haven	2
2	Flaherty	Bart	New Fairfield	8	St. Gregory the Great School	Danbury	1
2	Fraser	Angus	Darien	11	Brunswick School	Greenwich	2
2	Frew	Zachary	Oxford	12	Oxford High School	Oxford	1
2	Ganshaw	Eric	Greenwich		Brunswick School	Greenwich	1
2	Garcia	Ashley	Deep River	12	Sacred Heart Academy	Hamden	3
2	Gordon Wexler	Samara	West Hartford		Solomon Schechter Day School	West Hartford	2
2	Grey	Devon	Redding		Joel Barlow High School	Redding	3
2	Herrick	Catherine	Sandy Hook		St. Rose of Lima School	Newtown	1
2	Hewitt	Jared	Danbury		St. Joseph School	Danbury	3
2	Jajoo	Arpita	Woodbridge		Amity Regional High School	Woodbridge	2
2	Kane	Aaron	Groton		Fishers Island School	Fishers Island	2
2	Kantor	Miriam	Westport		Southern CT Hebrew Academy	Orange	1
2	Katz	Chana	New Haven		Southern CT Hebrew Academy	Orange	1
2	Keo	Sabrina	Bridgeport		Fairchild Wheeler Magnet High School	Bridgeport	2
2	Kern	Andreas	Greenwich		Brunswick School	Greenwich	1
2	Kern	Thomas	Greenwich		Brunswick School	Greenwich	3
2	Khan	Owais	Orange		Amity Regional High School	Woodbridge	2
2	Kirschbaum	Caitlin	Suffield		Suffield High School	Suffield	2
2	Koenigsberg	Batya	New Haven		Southern CT Hebrew Academy	Orange	1
2	Lagasse	Rachel	Enfield		St. Martha School	Enfield	2
2	Landry	Conor	Fairfield		St. Thomas Aquinas Catholic School	Fairfield	2
2	Langh	Madison	Enfield		St. Martha School	Enfield	3
2	Li	Victoria	Woodbridge		Amity Regional High School	Woodbridge	2
2	Lichtenberg	Matthew	Satmford		Greens Farms Academy	Greens Farms	1
2	Lim	Andrew	Old Greenwich		Greenwich High School	Greenwich	3
2	LoCicero	Brian	Milford		St. Gabriel School	Milford	3
2	Logan	Ciara	Somers		St. Martha School	Enfield	3
2	Lusker	Shelby	Fishers Island		Fishers Island School	Fishers Island	2
2	MacFarlane	Jamie	Greenwich		Brunswick School	Greenwich	1
2	Mariani	Alessandro	Greenwich		Brunswick School	Greenwich	1
2	Mathur	Anubhuti	Glastonbury		Glastonbury High School	Glastonbury	2
2	Maxwell	Royce	Danbury		St. Gregory the Great School	Danbury	1
2	McCarthy	Ellie	N Stonington		Fishers Island School	Fishers Island	3
2	Mesa	Gabriel	Canton		University High School of Sci & Eng	Hartford	3 1
2	Moghul	Maryam	Bloomfield		Madina Academy	Windsor	1
2	Mohammed	Alina	Windsor		Madina Academy Madina Academy	Windsor	1
2	Mohanraj	Prastik	Ansonia		Engineering & Science University Magnet	New Haven	1
2	Morelli	Kate	New Britain		St. Mary School	Newington	2
2	Murphy	Grace	Gales Ferry		Sacred Heart School	Groton	3
2	Neumann	Joseph	Woodbridge		SCSEF - Amity Regional High School	Redding	2
2	Niland	Ryan	Brookfield		St. Gregory the Great School	Danbury	1
2	Peisch	Christopher	Greenwich		Brunswick School	Greenwich	3
2	Peterson	Caitlyn Jennifer	Bethel Shelton		Bethel High School Sacred Heart Academy	Bethel	2 2
2	Piciw					Hamden	

Yrs	S	tudent	Hometown	G	rade School	SchTown	Honors
2	Piekarski	Breindel	Hamden	8	Southern CT Hebrew Academy	Orange	1
2	Pillai	Veina	Shelton	12	Shelton High School	Shelton	2
2	Platt	Hannah	Southington	8	J.F. Kennedy Middle School	Plantsville	1
2	Rajagopalan	Archeta	Glastonbury	12	Choate Rosemary Hall	Wallingford	2
2	Ramthun	Rebecca	Bozrah	8	Fields Memorial School	Bozrah	1
2	Rego	Hunter	Winsted	8	Environmental Sci Magnet at Mary Hooker	Hartford	1
2	Rigsby	Evan	Kensington	11	Xavier High School	Middletown	2
2	Robertson	Kristen	Stratford	8	St. Mark School	Stratford	1
2	Ruf	David	Greenwich	12	Brunswick School	Greenwich	2
2	Saidman	Angela	Bethel	8	St. Mary School	Bethel	3
2	Sarmiento	Valeria	Norwalk	11	Christian Heritage School	Trumbull	3
2	Siegel	Isabella	Hamden	12	Sacred Heart Academy	Hamden	2
2	Silva	Elizabeth	Bridgeport	8	Multicultural Magnet School	Bridgeport	2
2	Silvert	Eli	Woodbridge	11	Amity Regional High School	Woodbridge	2
2	Streimer	Sophia	Mystic	12	Fishers Island School	Fishers Island	3
2	Tay	Jacob	Bridgeport	8	Park City Prep Charter School	Bridgeport	3
2	Tekin	Omer	Putnam	12	Putnam Science Academy	Putnam	1
2	Terry	Joshua	Ivoryton	8	Sacred Heart School	Groton	2
2	VanBelle	Nick	Stamford	11	Brunswick School	Greenwich	1
2	Villalona	Daniel	Danbury	8	St. Joseph School	Danbury	1
2	Wang	George	New Haven	8	Worthington Hooker Middle School	New Haven	1
2	Wang	Jake	New Haven	8	Worthington Hooker Middle School	New Haven	1
2	Waskowicz	Zachary	Southington	8	Talcott Mountain Academy	Avon	2
2	Wells	Lila	Darien	8	Greens Farms Academy	Greens Farms	3
2	Wu	Jonathan	Wilton	8	Middlebrook School	Wilton	2
2	Yard	Jasmine	Somers	8	St. Martha School	Enfield	2
2	Zaidi	Humza	Avon	9	Kingswood Oxford School	West Hartford	2
2	Zhang	Yiran	Orange	11	Amity Regional High School	Woodbridge	2
2	Ziobron	Amy	Westbrook	9	Sacred Heart Academy	Hamden	2

Total Returns = 139 Students

2015 Intel ISEF

May 10-15, 2015 Pittsburgh, PA

2015 I-SWEEEP

May 7-10, 2015 Houston, Texas

2015 Genius Olympiad

June14-19, 2015 Oswego, New York Many Connecticut Science & Engineering Fair projects have won trips to other competions. The following pages show some of those projects with their CSEF awards and abstracts.

Intel ISEF

CSEF Life Sciences

1st place winner, Olivia Hallisey, will represent Alexion Biotechnology at ISEF
Reid Radulovacki, Greenwich High School, Greenwich
William Yin, Greenwich High School, Greenwich

CSEF Physical Sciences

Ethan Novek, Greenwich High School, Greenwich Margaret Cirino, Greenwich High School, Greenwich

CSEF Special Categories

Alexion Biotechnology - Olivia Hallisey, Greenwich High School, Greenwich Urban School Challenge - Eunsun Hong, Bridgeport Regional Aquaculture School, Bridgeport

I-SWEEEP

Angus Fraser, Brunswick School, Greenwich Sophie Bardos, Greenwich High School, Greenwich Bryce Anderson, Greenwich High School, Greenwich (Alternate for Ethan Novek, Greenwich High School, Greenwich)

GENIUS

Bryce Anderson, Greenwich High School, Greenwich
Laura Mocciola, Sacred Heart Academy, Hamden
Joseph Howarth, Suffield High School, Suffield
(Joseph Howarth will not attend competition, no alternate chosen)

Intel International Science & Engineering Fair (ISEF) Competitors

CSEF Life Sciences

1st place winner, Olivia Hallisey, will represent Alexion Biotechnology at ISEF

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

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Reid Radulovacki, Greenwich 11

Awards: Honors = 1

- Pfizer Life Sciences Awards --- 2nd Place- Life Sciences Senior High- \$300 & Plaque, Trip to compete at Intel ISEF
- · Alexion Biotechnology Awards --- Finalist Biotechnology Senior High CSF Medallion & Acrylic Award
- 3110 LS Hybridized Manganese Dioxide & Gold-Iron Oxide Nanoparticle Inhibition of Tumor Growth via Radiosensitization and Tumor Microenvironment Control

Greenwich, Greenwich High School, Teacher - Mr. Andrew Bramante

William Yin, Greenwich 10

Awards: Honors = 1

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

Alexion Biotechnology

3096 LS Temperature-Independent, Portable, and Rapid Field Detection of Ebola via a Silk-Derived Lateral-Flow System Greenwich, Greenwich High School, Teacher - Andy Bramante

Olivia Hallisey, Greenwich 10

Awards: Honors = 1

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

Intel International Science & Engineering Fair (ISEF) Competitors

CSEF Physical Sciences

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

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Ethan Novek, Greenwich 10

Awards: Honors = 1

- Connecticut Science & Engineering Fair Physical Sciences Awards --- 1st Place Physical Sciences Senior High Individual -\$500 & Plaque, trip to compete at Intel ISEF
- Energize CT/eesmarts Future Sustainability Awards --- 1st Place High School \$800 Cash, Plaque, and Trip to Compete I-SWEEEP, Houston
- UTC Aerospace Systems Awards for Excellence in Engineering --- \$1,000 cash and plaque for excellence in engineering
- United Technologies Corporation Awards --- \$500 in UTC Common Stock, Plaque, Backpack, Book, and Annual Report
- H. Joseph Gerber Medal of Excellence, an award of the Connecticut Academy of Science and Engineering in partnership with CCAT --- Physical Sciences 1st HS \$1,000, Solid Silver Medal of Excellence, invite to CASE Annual Mtg
- Office of Naval Research- U.S. Navy / U.S. Marine Corps --- High School- Certificate, \$75.00 gift certificate
- MIT Club of Hartford K-12 Initiative --- For excellence in science & technology of energy related research, high school, \$100 cash award
- 6015 PS Synthesis of an Electromagnetically-Controlled Corn-Starch/PVA Biopolymer Microstructure for Extended and Targeted Drug Delivery

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Margaret Cirino, Greenwich 10

Awards: Honors = 1

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

Urban School Challenge

3118 LS Development of Non-toxic Photostabilized Phycoerythrin for Application in Dye Sensitized Solar Cells Bridgeport, Bridgeport Regional Aquaculture School, Teacher - Mr. Shadle

Eunsun Hong, Shelton 12

Awards: Honors = 1

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

ISEF Abstracts - CSEF Life Sciences

NAME: Reid Radulovacki

SCHOOL: Greenwich High School, Greenwich TEACHER/MENTOR: Andrew Bramante

TITLE: Chocolate's Theobromine, and not Caffeine, Significantly Reduces Sleep in Drosophila

Chocolate and caffeine are well-known to affect the quality of sleep. Chocolate, however, contains only minimal traces of caffeine but larger amounts of theobromine, a related alkaloid stimulant, whose effect on sleep has not been documented. Studying the effect of theobromine on the sleep/wake cycle of Drosophila melanogaster, whose circadian cycles are the same as humans, may allow us to better understand its impact on human sleep. This research investigates whether theobromine increases wakefulness and reduces sleep for D. melanogaster, relative to caffeine, a known stimulant. Theobromine and caffeine were separately administered to the Sucrose/Agar food supply of white-eyed adult D. melanogaster at relative concentrations of 8:1 (respectively) typically found in chocolate. For each alkaloid added, the Circadian sleep pattern (24-hour fly activity) for single test subjects was monitored for five days using a Trikinetics Sleep Chamber and Drosophila Activity Monitor (DAM). Sleep and wake times were collected, and later processed using pySolo. Analysis of circadian sleep cycle data in D. melanogaster, for relative amounts of theobromine to caffeine (8:1 ratio) found in chocolate, suggests that theobromine disrupts sleep, while caffeine plays only a limited role. Theobromine-fed flies register 30% less total sleep at night versus the control group, while for caffeine-fed flies, only a 4% reduction in sleep is observed. Moreover, theobromine-fed flies demonstrate a 90% increase in activity during the daytime vs. both caffeine-fed and control flies. These results suggest that theobromine, and not caffeine, may be the dominant chemical in chocolate that affects the human sleep/wake cycle.

NAME: William Yin

SCHOOL: Greenwich High School, Greenwich TEACHER/MENTOR: Andrew Bramante

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

While controlled bombardment of cancer cells via ionizing radiation remains the leading form of cancer treatment, its effectiveness is often limited by damage caused to neighboring healthy tissue. Recent innovation in cancer treatment focuses on the use of paramagnetic Au-Fe3O4 nanoparticles that, once positioned, display strong surface plasmon resonance, which leads to thermal ablation, a natural and oxygen-free method of heat generation that quickly kills targeted and localized cancer cells. Separately, A-MnO2 nanoparticles have been shown to regulate cancer tumor microenvironments through simultaneously limiting hypoxia and acidosis to enhance radiation response by preventing tumor aggressiveness. This research investigates novel synthesis of biocompatible hybrid A-MnO2-Au-Fe3O4 nanoparticles, so that both therapies can be realized concurrently, once the magnetically-responsive hybrid NPs are accurately positioned. 15nm A-MnO2 nanoparticles were synthesized via a modified Prassad method, while 2-14nm Au-Fe3O4 NPs were synthesized via a modified Yu method, all of which were supported by SEM/EDS. Hybrid A-MnO2-Au-Fe3O4 were then formed by the combination of A-MnO2:Au-Fe3O4 (1:3M) via 60oC sonication in 0.2% PVA. SEM/EDS analyses confirm the creation of PVA coated hybrid nanoclusters (PVA-HNC; ~20nm), that remain magnetically responsive. In a simulated tumor environment, these PVA-HNCs would limit hypoxia, or slow tumor aggressiveness, as 45M quenched 94% of 1.1mM H2O2 in 40min. Additionally, surface plasmon resonance of the PVA-HNCs was achieved. Irradiation of 100M PVA-HNC demonstrated increased radiation signature versus a PVA-Fe3O4 colloidal suspension of equal scattering concentration. Overall, PVA-HNCs performed markedly better than the individual parts.

ISEF Abstracts - CSEF Physical Sciences

NAME: Ethan Novek

SCHOOL: Greenwich High School, Greenwich TEACHER/MENTOR: Andrew Bramante

TITLE: Novel Low Grade Waste Heat Recovery System with Simultaneous Electricity Generation, Carbon Sequestration and Urea Production

Over 60% of energy generated during electricity production is discarded as low-grade waste heat. Concurrently, modern power plants are reluctant to capture and sequester flue-gas CO2, due to high cost and significant efficiency reductions. The novel system invented in this research converts untapped low grade waste heat into valuable byproducts including—electricity, captured CO2, and Urea. The system generates electricity by engineering a concentration gradient using CO2 emissions and recycled NH3(aq) in an Osmotic Heat Engine. An NH4HCO3 solution then selectively decomposes into pure CO2 and NH3 gas streams for carbon capture and Urea production. The performance of each component was separately evaluated, and integrated to determine viability of the complete process. In electricity generation, a high concentration solution was created through NH3(g) (recycled) and CO2(g) absorption with pH 8.6 and NH3:CO2 1.3:1, parameters exceeding draw solution requirements. 14.4Wh electricity was produced per kg CO2 scrubbed, translating to 180 MWh per day from a 500 MW power plant. The Pressurization-Depressurization CO2(g) capture at 45oC produced 98% NH3(g), 1.02atm; 99% CO2(g), 2.1atm and was 85.5% more efficient than current carbon- capture systems. Ammonium Carbamate/Urea production achieved conversion efficiencies of up to 99% and was carbon negative, net sequestering 770 kg CO2/ton Urea. Based on the CO2 emissions of 500MW coal power plant, the system will produce 335 metric tons of Urea/hour respectively. The proposed integrated system dramatically lowers the cost of carbon capture/sequestration and converts otherwise waste products into valuable Urea, while simultaneously improving the efficiency of power plants and industrial facilities.

NAME: Margaret Cirino

SCHOOL: Greenwich High School, Greenwich TEACHER/MENTOR: Andrew Bramante

TITLE: Synthesis of an Electromagnetically-Controlled Corn-Starch/PVA Biopolymer Microcube for Extended and Targeted Drug Delivery

There has been recent focus on water-soluble polymer matrices with integrated protein or starch bases to increase mechanical characteristics of extended-release drug delivery devices. Unfortunately, a biocompatible, dissolvable micro-carrier that can be maneuvered throughout the body has rarely been researched despite its potential for extended-release and targeted drug delivery. This research proposes the novel synthesis of a water-soluble cornstarch/PVA biopolymer matrix embedded with microclusters of iron colloidal spheres for subcutaneous maneuverability via external electromagnetic fields. Biopolymer films were synthesized with a 2:3 ratio of PVA (Mw-100,000) to cornstarch, using modified methods from Othman et. al. Fe3O4 magnetic nanoparticles (NPs) were prepared by co-precipitation of ferric and ferrous ions in an aqueous ammonia

solution under N2-atmosphere. Resultant NPs were then coated with PVA to ensure homogeneous mixing of colloidal spheres with the biopolymer, which was molded using a printed three-dimensional template. Coating of the biopolymer matrices were supported by FTIR/SEM analyses. Anticancer chemotherapy drug, doxorubicin hydrochloride (DOX), was loaded onto the PVA/Fe3O4 NPs. DOX loading, and subsequent release into aqueous medium (to mimic drug delivery), was quantified using the drugs native fluorescence at 553/590nm, with a 230nm excitation. 1.2g DOX/mg PVA/Fe3O4 loading was achieved in as little as 5days, with as much as 75% release of the drug in only 50hours, into slightly acidic aqueous medium at 37°C. 100mm3 cornstarch/PVA films with embedded DOX/PVA/Fe3O4 colloidal-NPs were constructed, and found to be magnetically motorized and water soluble over 7hours, for release of the DOX load in ~1day from mimicked tumor-site localization.

ISEF Abstracts - CSEF Special Categories

NAME: Olivia Hallisey

SCHOOL: Greenwich High School, Greenwich TEACHER/MENTOR: Andrew Bramante

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

Up to 90% of Ebola victims will die without early diagnosis and medical intervention, which can reduce fatalities by 50% and are critical to preventing future epidemics. Current detection methods are expensive, time-consuming and utilize complex instrumentation and chemicals that require uninterrupted refrigeration. Successfully maintaining the reagents cold-chain from laboratory to point of use is highly problematic in regions with poor infrastructure, where Ebola is most common. This research sought to devise a rapid, simple and inexpensive Ebola detection platform that can be stored and transported without refrigeration. To begin, current Ebola ELISA reagents were embedded in silk fibroin, which possesses stabilizing properties, allowing storage of otherwise refrigerated reagents at room temperature. To confirm ELISA colorimetric detection of Ebola after prolonged, non-refrigerated storage of the kits reagents, the Ebola ELISA was conducted in a 96-wellplate format (A450nm) at 0-7days from initial mixing and dilutions. Results indicate Ebola ELISA detection is viable in water dilutions only on the day of mixing. For silk-embedded reagents, successful detection was realized for up to one week of RoomTemp-storage. Silk-film embedded Ebola ELISA reagents were used to construct a four-channel, paper-based, fluidic detection card, with colorimetric reagents positioned to create timed, visible detection of Ebola antigens. In this new device, that is stable and stored at room temperature, 30l drops of water were used to dissolve silk-embedded reagents, initiating a timed-flow towards a center detection zone, where a positive (colored) result confirmed the presence of 500pg/ml Ebola(+)control antigens in 30min, at a cost of \$25.

NAME: Eunsun Hong

SCHOOL: Bridgeport Regional Aquaculture School, Bridgeport

TEACHER/MENTOR: Mr. Shadle

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

Phycoerythrin is a light harvesting phycobilin protein extracted from the red seaweed species Chondrus crispus. Phycoerythrin has the potential to be used as the sensitizer in dye sensitized solar cells (DSSC). DSSC's are cost efficient and absorb more sunlight per surface area than silicon-based solar cells. However, phycoerythrin which is currently sold in the market is photo stabilized with highly toxic sodium azide and rapidly denatures within 72 hours, without stabilization, when exposed to light. To eliminate the toxicity and increase photostability, five solutions were employed with trehalose, myo- inositol, guanidine hydrochloride, a solution of trehalose and guanidine hydrochloride and a solution of myo-inositol and guanidine hydrochloride to prevent denaturation. The solutions were placed underneath ambient light ~210 (lumens). The maximum absorption of the untreated phycoerythrin control group decreased indicating degradation after 72 hours, when compared to the phycoerythrin in the solution of myo- inositol and guanidine hydrochloride maintained photostability beyond 30 days (720 hours). When incorporated to the DSSC, the phycoerythrin generated 1.2 milliwatts while the industry standard technique titanium based control cell generated 0.4 milliwatts. The phycoerythrin based DSSC produced 60% more electrical output than the titanium based control cell. The results indicate that phycoerythrin can be stabilized with non-toxic additives and can be applied as the sensitizer for DSSC. With further research, phycoerythrin could be applied in food dye and ink or other materials that require a non-toxic natural red pigment

International Sustainable World (I-SWEEEP) Competitors

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

Greenwich, Brunswick School, Teacher - Dana Montanez

Angus Fraser, Darien 11

Awards: Honors = 2

- Energize CT/eesmarts Alternative/Renewable Energy Awards --- 1st Place High School \$500 Cash and Plaque, Trip to Compete I-SWEEEP, Houston
- Energize CT/eesmarts Future Sustainability Awards --- 3rd Place High School \$300 Cash and Trophy
- Yale Science & Engineering Association, Inc. --- Certificate, \$50 gift card to Amazon given by CSEF
- University of New Haven High School Awards in Engineering & Science --- \$100 For High School Project in Energy & Transportation
- 6095 PS Novel Creation of a versatile, low-cost water purification system via a graphene oxide-TiO2 composite membrane with incorporated electrified nanostructures

Greenwich, Greenwich High School, Teacher - Andrew Bramante

Sophie Bardos, Riverside 11

Awards: Honors = 1

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

(Alternate for Ethan Novek, Greenwich High School, Greenwich)

3020 LS Effective Optimization of Biogas Production through Alpha-Amylase Utilization

Greenwich, Greenwich High School, Teacher - Andy Bramante

Brvce Anderson, Cos Cob 11

Awards: Honors = 1

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

I-SWEEEP Abstracts

NAME: Angus Fraser

SCHOOL: Brunswick School, Greenwich TEACHER/MENTOR: Dana Montanez

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

The purpose of this engineering project was to build an inexpensive wooden chair that could power either an LED or a USB charging port with the heat radiated by the human body. The project was completed in four phases. The first phase involved building one large peltier tile that consisted of 16 small peltier tiles enclosed between two square pieces of aluminum sheeting. The small peltier tiles were soldered together in a series circuit and connected to the larger aluminum tiles by thermal compound. The second phase included the construction of a full size wooden chair. A section in the seat of the chair was chiseled and removed to allow the tile to fit. A low voltage step up circuit was designed and assembled to amplify the output voltage of the large tile, and in the final phase the generated electricity was directed and connected to a USB port and a LED built into the arms of the chair. The objective of this project was met, proving that an affordable thermoelectric chair could be utilized by consumers to potentially reduce household energy charges, power their own reading light, and benefit third world countries that do not have electricity.

NAME: Sophie Bardos

SCHOOL: Greenwich High School, Greenwich TEACHER/MENTOR: Andrew Bramante

TITLE: Novel Creation of a versatile, low-cost water purification system via a graphene oxide-TiO2 composite membrane with incorporated electrified nanostructures

Today, one-third of all nations suffer from clean water scarcity, most prevalently in underdeveloped nations. The problem for many is not simply access to water itself, but rather access to drinkable, uncontaminated water. Harmful chemical contaminants include herbicides and insecticides, of which oral consumption results in vomiting, diarrhea, developmental/reproductive defects, and cancer. Current filtration measures require energy and are too complex for routine use in rural areas. Recent studies have shown that graphene oxide can be modified in regards to capillary size via insertion of a metal oxide. This modification allows graphene to function as a filtration membrane for chemical compounds, as the inserted metal increases the distance between graphene sheets. This research investigated the synthesis of a graphene oxide (GO)-titanium oxide (TiO2) freestanding membrane for the purification of 2,4- Dichlorophenoxyacetic (2,4-D) herbicide contaminated water. Synthesized freestanding composite filter membranes were characterized via SEM and were found to exhibit a layered-stacking pattern, more so than the plain graphene oxide films. Deionized water with 100 ppm 2,4-D (moderate toxicity) was passed through the GO-TiO2 membrane, housed in an inexpensive and simple plastic cartridge, and the filtrate's herbicide content was determined via HPLC. Results indicate that 86% of 2,4-D was removed (100 to 14 ppm) with a single pass through the composite filter. Two additional filtrations reduced the 2,4-D content to <1ppm. AA analysis of the GO-TiO2 filtrate indicates that it is free of titanium, while SEM analysis of "used filter membranes" show minimal fouling, suggesting prolonged filtration service prior to membrane replacement.

I-SWEEP Abstracts

NAME: Bryce Anderson (Alternate for Ethan Novek)

SCHOOL: Greenwich High School, Greenwich

TEACHER/MENTOR: Andy Bramante

TITLE: Effective Optimization of Biogas Production through Alpha-Amylase Utilization

On average, people throw away one-third of all their food. This waste food can be turned into useful energy (Biogas) through the relatively uncommon process of anaerobic digestion. The main downfall to this renewable energy resource is the duration of digestion. Being that another one-third of the food waste produced is polysaccharides, it was logical to target the expedition of the hydrolysis of long-chain carbohydrates. This research examined the effectiveness of a low-cost enzyme, Alpha-Amylase, in expediting the anaerobic digestion of carbohydrates and thereby in expediting the production of Biogas. To begin, five separate 100mL batches were digested. Each held equal quantities of homogenized potato and inoculum. Catalyst was added to most batches, all based upon the weight of the potatoes. The first batch had 0% catalyst and, through Gas-Chromatography analysis, was observed to peak at ~3.138 moles of methane produced, peaking after approximately 8 days of digestion. The second batch contained a weight of catalyst that was 4% of the weight of the potatoes (25 grams of potatoes, thus 1 gram of alpha-amylase). This batch experienced a peak of ~3.2 moles of methane produced, peaking after around 6 days. The third batch contained 8% catalyst in weight, and it experienced a peak of ~3.2 moles of methane produced, peaking after about 5 days. The 12% batch peaked after 5 days, producing ~3.22 moles of methane. The 16% batch peaked after around 5 days as well, producing ~3.22 moles of methane. Production from the batches was analyzed to have followed the expected normal distribution path, having an average correlation of .983. pH was also monitored throughout digestion, analysis of which showed the proper fluctuations and ranges of pH existed. These results demonstrate the potential of alpha-amylase as an effective means to create useful energy in biogas from wasted foodstuffs.

GENIUS Olympiad Competitors

3020 LS Effective Optimization of Biogas Production through Alpha-Amylase Utilization

Greenwich, Greenwich High School, Teacher - Andy Bramante

Bryce Anderson, Cos Cob 11

Awards: Honors = 1

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

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

Hamden, Sacred Heart Academy, Teacher - Mrs. Nelson

Laura Mocciola, Shelton 9

Awards: Honors = 2

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

(Joseph Howarth will not attend competition, no alternate chosen)

6075 PS Energy Transfer Using Laser Power Beaming

Suffield, Suffield High School, Teacher - Mr. Mitchell Charkiewicz

Joseph Howarth, Suffield 11

Awards: Honors = 2

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

GENIUS Olympiad Abstracts

NAME: Bryce Anderson

SCHOOL: Greenwich High School, Greenwich

TEACHER/MENTOR: Andy Bramante

TITLE: Effective Optimization of Biogas Production through Alpha-Amylase Utilization

On average, people throw away one-third of all their food. This waste food can be turned into useful energy (Biogas) through the relatively uncommon process of anaerobic digestion. The main downfall to this renewable energy resource is the duration of digestion. Being that another one-third of the food waste produced is polysaccharides, it was logical to target the expedition of the hydrolysis of long-chain carbohydrates. This research examined the effectiveness of a low-cost enzyme, Alpha-Amylase, in expediting the anaerobic digestion of carbohydrates and thereby in expediting the production of Biogas. To begin, five separate 100mL batches were digested. Each held equal quantities of homogenized potato and inoculum. Catalyst was added to most batches, all based upon the weight of the potatoes. The first batch had 0% catalyst and, through Gas-Chromatography analysis, was observed to peak at ~3.138 moles of methane produced, peaking after approximately 8 days of digestion. The second batch contained a weight of catalyst that was 4% of the weight of the potatoes (25 grams of potatoes, thus 1 gram of alpha-amylase). This batch experienced a peak of ~3.2 moles of methane produced, peaking after around 6 days. The third batch contained 8% catalyst in weight, and it experienced a peak of ~3.2 moles of methane produced, peaking after about 5 days. The 12% batch peaked after 5 days, producing ~3.22 moles of methane. The 16% batch peaked after around 5 days as well, producing ~3.22 moles of methane. Production from the batches was analyzed to have followed the expected normal distribution path, having an average correlation of .983. pH was also monitored throughout digestion, analysis of which showed the proper fluctuations and ranges of pH existed. These results demonstrate the potential of alpha-amylase as an effective means to create useful energy in biogas from wasted foodstuffs.

NAME: Laura Mocciola

SCHOOL: Sacred Heart Academy, Hamden TEACHER/MENTOR: Mrs. Nelson

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

Fresh water is our most precious natural resource. Conservation is key in preserving our fresh water supply. Reusing water in our homes is an important measure to support this global crisis. Grey water is water used in a home, like washing machine, sink, and shower water. Using grey water to irrigate grass is ideal. My project is to observe the effects of grey water on the growth of Triticum aestivum, Festuca rubra molate, and Elymus trachycaulus. It was hypothesized that if a grass species is watered with pure grey water, then the growth of that grass species will be less compared to that of a grass species watered with filtered grey water or tap water. Fifty seeds of each of the three grass species were planted in individual containers and watered with grey water, filtered grey water, or tap water. Three trials of each were performed for a total of 27 containers. I observed the days it took for each to sprout and measured the growth of each of the grasses initially daily and then every 5 days for a total of 60 days. Germination tests were performed with the different waters. A homemade filtration system was used to make filtered grey water. The pH of the different waters was also recorded. The average of the three trials showed that the grasses watered with tap water or filtered grey water grew 19-26% more. The data collected proved my hypothesis to be true, but, overall, all the grasses grew similarly.

GENIUS Olympiad Abstracts

(Joseph Howarth will not attend competition, no alternate chosen)

NAME: Joseph Howarth

SCHOOL: Suffield High School, Suffield TEACHER/MENTOR: Mr. Mitchell Charkiewicz

TITLE: Energy Transfer Using Laser Power Beaming

While traditional copper transmission cables work well connecting permanent electrical users to power sources, their necessary physical connection makes them impossible for moving applications, such as UAVs, manned aircraft, spacecraft and ships, and their large initial cost makes them prohibitive for temporary outposts, such as oil rigs and military bases. A high power, targeted laser- photovoltaic receiver pair provides a solution to such transmission challenges. The transmitter would consist of a Continuous Wave (CW) laser operating in the infrared wavelengths and several devices could be configured in an array to supply demands as high as a hundred kilowatts. When receiving monochromatic light, photovoltaic cells can achieve efficiencies as high as 50-60% while staying compact compared to microwave rectennas for use on aircraft or other space sensitive settings. To reduce risk of accidental contact with the beam, four or more low power beams would surround the main beam and if their connections were broken, the laser would immediately power down until the space cleared. I constructed a small scale version using 200mW and 1.7W lasers, optics and a small solar panel to measure the output voltage and total wattage at different distances and visibility conditions. While efficiencies were low, improvements to calibration, optics and a monochromatic PV panel would likely push practical efficiency to 20-50% of laser output power. For applications where standard copper transmission cables are either prohibitively expensive to construct or impossible and advantages of off site power production compensate for transmission loss, laser power beaming offers promising solutions.

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Thombre	Aman	4020	Zhang	Yiran	3512
Ticotsky	Matthew	5503	Zhou	Madeleine	3038
Tiroff	Morgan	3025	Ziobron	Amy	3013
Tobin	Cecile	1001	Zolciak	Tyler	6020
Tomas	Madison	5010			
Tomczak	Nathaniel	3133			
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Next Year

2016 Connecticut Science & Engineering Fair

68th Year March 15-19, 2016 Quinnipiac University, Hamden