



# Connecticut Science & Engineering Fair

## Quinnipiac University

March 14 - 18, 2017

### Special Award Winners

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

**All special award winners are required to attend the awards ceremony on Saturday. Be sure to acknowledge by going to the CHECK-IN page.**

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

**Avon** Avon High School Mrs. Andrea Galuska

6529 PST Virtual Forensics Chemical Lab Simulation App (for Liquids, Metals, and Nonmetal Solids)

Student(s) **Jaya Hari** Grade 9 Town Avon  
**Dheepa Hari** Grade 9 Town Avon

**Avon** Talcott Mountain Academy Ms. Finlayson

2029 L7 The Effects Of Weather On Warblers in Pomfret Ct

Student(s) **Connor Farquhar** Grade 7 Town West Hartford

**Avon** Talcott Mountain Academy Usha Meera

2021 L7 Can Pseudomonas putida purify the air by biodegrading volatile organic compounds ?

Student(s) **Karan Kothari** Grade 7 Town Glastonbury

**Baltic** Sayles School Miss Roy

5041 P7 Wave Generated Beach Erosion

Student(s) **Abigail Staggs** Grade 7 Town Baltic

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

4004 PT Water Turbine

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

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

4010 PT Using Nanotechnology to Clean Oil Spills

Student(s) **Aannah Malik** Grade 8 Town Woodbridge  
**Kathleen Inclima** Grade 8 Town Woodbridge

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

5559 P8 Vision Shoe

Student(s) **Shyam Viswanathan** Grade 8 Town Woodbridge

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

5519 P8 Extinguish-Bot

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

**Bethel** Bethel High School Ray Turek

6086 PS Synthetic Turf Infill Engineering

Student(s) **Rachel Salvador** Grade 12 Town Bethel

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

5008 P7 Orb Characteristics and Containment

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

**Bozrah** Fields Memorial School Mrs. Brown

5001 P7 Building Tesla Coils

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

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**Bozrah** Fields Memorial School Mrs. Brown

5004 P7 Environmental Monitoring System for Dog Safety

**Student(s) Morgan Tainter**

**Grade 7 Town Gilman**

**Bridgeport** Bridgeport Military Academy Evanna Dias

6068 PS Fire Resistance

**Student(s) Evanna Dias**

**Grade 12 Town Bridgeport**

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

3076 LS The efficacy of topical ascorbic acid as an inhibitor to mold and bacteria growth

**Student(s) Cassidy Fawcett**

**Grade 12 Town Fairfield**

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

3068 LS Predicting the Genomic Pathways of Adaptation In Spartina alterniflora Salt Tolerance Proteins LSD1, EDS1, and PAD4 in Response to Sea Level Rises Via Phylogenetic Trees

**Student(s) Amanda Hernandez**

**Grade 12 Town Bridgeport**

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

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

**Student(s) Kyle Rosenfeld**

**Grade 12 Town Fairfield**

**Bridgeport** Bridgeport Regional Aquaculture Center Krik Shadle

6038 PS The Application of Ferrofluid paired with Neodymium Rare Earth Magnets to Reduce Friction.

**Student(s) Paul Santandrea**

**Grade 12 Town Fairfield**

**Bridgeport** Bridgeport Regional Aquaculture Center Kirk Shadle

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

**Student(s) Daniel Schaefer**

**Grade 12 Town Stratford**

**Bridgeport** High Horizons Magnet School Portia Scott-Thiam

2513 L8 Hydroponics vs. Fogponics

**Student(s) Rebecca Abirached**

**Grade 8 Town Bridgeport**

**Bridgeport** High Horizons Magnet School Portia Scott-Thiam

4024 PT Sturdiest of Them All

**Student(s) Kayla Keddo**

**Grade 8 Town Bridgeport**

**Dea'ja Jones**

**Grade 8 Town Bridgeport**

**Bridgeport** Multicultural Magnet School Ms. Ciuflea

5032 P7 Natural Power

**Student(s) John Paul Atehortua**

**Grade 7 Town Bridgeport**

**Bridgeport** Park City Prep Charter School Mr. Jonathan Jaekle

2542 L8 Larva -B-Gone: A Safer Way To Eliminate The Threat of Zika and Other Mosquito Borne Diseases

**Student(s) Antonios Boudreau**

**Grade 8 Town Ansonia**

**Bristol** St. Paul Catholic High School Mr. Aliberti

6047 PS A Weather-Based Autonomous Rainwater Irrigation System

**Student(s) Kamila Krawczuk**

**Grade 11 Town New Britain**

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<b>Cheshire</b>	Dodd Middle School	Mr. Brian Lopez	5570	P8	"Organic Waste : A Renewable Source of a Energy"	<b>Student(s)</b> Medha Illindala	<b>Grade</b> 8	<b>Town</b> Cheshire
<b>Danbury</b>	St. Gregory the Great School	Mrs.Christine Fahey	5003	P7	Wind Energy? I'm a Big Fan!	<b>Student(s)</b> Anna Flaherty	<b>Grade</b> 7	<b>Town</b> New Fairfield
<b>Danbury</b>	St. Joseph School	Ms. Jabbour	2007	L7	The Effects of X-ray Radiation on Yeast	<b>Student(s)</b> Conor O'Keefe	<b>Grade</b> 7	<b>Town</b> Danbury
<b>Danbury</b>	St. Joseph School	Miss Jabbour	5561	P8	SINGING WINE GLASSES AND BOTTLES	<b>Student(s)</b> Shelby Weed	<b>Grade</b> 8	<b>Town</b> Danbury
<b>Danbury</b>	Westside Middle School Academy	Dr. Frank LaBanca	2514	L8	Bacteria Morphology and Concentration in yogurt	<b>Student(s)</b> Jason Campisi	<b>Grade</b> 8	<b>Town</b> Danbury
<b>Danbury</b>	Westside Middle School Academy	Jonathan Neuhausel	5531	P8	The Effects of Different Flours on the Breaking Point and Decomposition Rate of an Edible Spoon.	<b>Student(s)</b> Sahana Chinthak	<b>Grade</b> 8	<b>Town</b> Danbury
<b>Danbury</b>	Westside Middle School Academy	Mr. Neuhausel	5538	P8	Creating an Affordable Homemade Meter to Measure Outdoor Levels of Carbon Dioxide	<b>Student(s)</b> Nicholas Raslavsky	<b>Grade</b> 8	<b>Town</b> Danbury
<b>Darien</b>	Darien High School	David Lewis	3047	LS	The Role of Rigosertib Treatment in the Expression and Localization of RASSF1 in RASSF1 Transfected Cancer Cells	<b>Student(s)</b> William Brandon	<b>Grade</b> 12	<b>Town</b> Darien
<b>Farmington</b>	Irving A. Robbins Middle School	Kerry Visone	5530	P8	Making concrete more energy efficient and lightweight.	<b>Student(s)</b> Angela Sadlowski	<b>Grade</b> 8	<b>Town</b> Unionville
<b>Glastonbury</b>	Glastonbury High School	Ms. Diane Pintavalle	3035	LS	IDENTIFYING SMALL MOLECULE TRANSLESION SYNTHESIS PATHWAY INHIBITORS TARGETING REV1-CT PROTEIN-PROTEIN INTERACTION	<b>Student(s)</b> Samantha Chow	<b>Grade</b> 12	<b>Town</b> Glastonbury
<b>Glastonbury</b>	Glastonbury High School	Diane Pintavalle	3083	LS	Analysis of Prey Composition in Ninespine Stickleback (Pungitius pungitius) Infected With Cestode Parasite (Schistocephalus pungitii)	<b>Student(s)</b> Mitchell Johnson	<b>Grade</b> 11	<b>Town</b> Glastonbury
<b>Glastonbury</b>	Glastonbury High School	Diane Pintavalle	3023	LS	INTERACTION BETWEEN HDM2 AND THE UBL3 DOMAIN OF USP7	<b>Student(s)</b> Soham Kale	<b>Grade</b> 12	<b>Town</b> Glastonbury

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[Proj#] [FCat] [Project Title]

**Glastonbury** Glastonbury High School Diane Pintavalle

3042 LS Genomic Analysis of Osteosarcoma to Identify Novel Key Regulatory Pathways in Tumorigenesis  
**Student(s) Samarth Venkata Menta** **Grade 11** **Town** Glastonbury

**Glastonbury** Glastonbury High School Mr. Jerome Maas

3100 LS Natural antimicrobials: Alternatives to antibiotics in the control of ear infections  
**Student(s) Athulya Narayanan** **Grade 10** **Town** Glastonbury

**Greens Farms** Greens Farms Academy Mathieu Freeman

3113 LS Anticorrosive Coatings on AZ31 Magnesium Alloy to Reduce Degradation Rate for Metallic Medical Implants  
**Student(s) Anish Kosanam** **Grade 12** **Town** Stamford

**Greens Farms** Greens Farms Academy Mathieu

6076 PS Designing and Implementing a Flexible Support System for the Finger Injury Prevention in High-Impact Sports and Applications  
**Student(s) Charles Thompson** **Grade 12** **Town** Southport

**Greenwich** Brunswick School Dana Montanez

3015 LS An Investigation of Natural Alternatives to Chlorine When Treating Microbial-Contaminated Water  
**Student(s) Asher Porphy** **Grade 10** **Town** Harrison

**Greenwich** Greenwich Catholic School Mrs. Carol Lutz

2012 L7 BITE BRIGHT a Natural Tooth Paste  
**Student(s) Monica Marino** **Grade 7** **Town** Riverside

**Greenwich** Greenwich High School Andrew Bramante

3032 LS Crowd-Sourced Detection and Mapping of Nitrate Water Pollutants via a Mobile Web-Based Image Analysis System  
**Student(s) Luca Barcelo** **Grade 11** **Town** Old Greenwich

**Greenwich** Greenwich High School Andrew Bramante

3125 LS PDE-4 Inhibitor-Assisted Antibiotic Suppression of Borrelia Biofilm Growth for Treatment of Chronic Lyme  
**Student(s) Sophia Chow** **Grade 11** **Town** Old Greenwich

**Greenwich** Greenwich High School Mr. Bramante

6053 PS Renewable Energy Generation of a Hybridized Saltwater Electrochemical and Hydrokinetic Energy System  
**Student(s) Bennett Hawley** **Grade 10** **Town** Cos Cob

**Greenwich** Greenwich High School Andrew Bramante

3086 LS Detection of Premalignant Pancreatic Cancer via Computational Analysis of Serum Proteomic Profiles  
**Student(s) Shobhita Sundaram** **Grade 11** **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante

6015 PS Development of a CNT/ZnO/TiO<sub>2</sub> membrane for visible-light induced photocatalytic filtration of water-borne organic and bacterial pollutants  
**Student(s) Michelle Xiong** **Grade 11** **Town** Riverside

**Hamden** Hamden High School Sophia Michalatos

3092 LS Caffeine's Effect on Anxiety in Teens  
**Student(s) Zoe Bassett** **Grade 10** **Town** Hamden

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<b>Hamden</b>	Hamden Middle School	Michelle DeLucia	5545	P8	Constructing a CoreXY Dual Extrusion Fused Filament Fabrication Apparatus	<b>Student(s)</b> Conner Larocque	<b>Grade</b> 8	<b>Town</b> Hamden
<b>Hamden</b>	Sacred Heart Academy	Mrs. Susan Nelson	3108	LS	Heat from Global Warming Affecting Bioluminescence in Pyrocystis fusiformis	<b>Student(s)</b> Julianna Milidantri	<b>Grade</b> 9	<b>Town</b> Durham
<b>Hamden</b>	Sacred Heart Academy	Dr. Sibani Sengupta	3142	LS	Adherence Rates of Escherichia coli to Mono-filament, Multi-filament, and Barbed Sutures	<b>Student(s)</b> Adalyn Schommer	<b>Grade</b> 9	<b>Town</b> Cheshire
<b>Hartford</b>	Environmental Sciences Magnet School at Mary	Rebecca Hays	2534	L8	The Effects of Food on Breeding Xiphophorus Helleirii	<b>Student(s)</b> Natalie Reeves	<b>Grade</b> 8	<b>Town</b> Southington
<b>Hartford</b>	Sport and Medical Sciences Academy	Christine Demusz	5508	P8	Natural Plastic: Milk Plastic Biodegradation vs. Commercial Plastic Degradation	<b>Student(s)</b> Madison Lee	<b>Grade</b> 8	<b>Town</b> Rocky Hill
<b>Hebron</b>	Oei Homeschool	Ellen McHugh	5537	P8	Developing a Prototype Atmospheric Water Generator System as a Clean, Safe and Sustainable Water Source	<b>Student(s)</b> John Oei	<b>Grade</b> 8	<b>Town</b> Hebron
<b>Meriden</b>	ACES Thomas Edison Middle School	Todd Solli	4014	PT	Fats In Cooking Oils	<b>Student(s)</b> Ariana Alston Selena Galvan	<b>Grade</b> 7 <b>Grade</b> 7	<b>Town</b> Meriden <b>Town</b> Meriden
<b>Middlebury</b>	Memorial Middle School	Allyson Debe	2531	L8	Does Intra-articular Hip Steroid Injection Increase The Rate of Infection With Subsequent Total Hip Replacement Surgery?	<b>Student(s)</b> Alexander Kennon	<b>Grade</b> 8	<b>Town</b> Middlebury
<b>New Canaan</b>	St. Aloysius School	deborah phillips	4027	PT	Mars Exploration	<b>Student(s)</b> Kaloyan Dimitrov Andrew Tully Alex Lanzillotti	<b>Grade</b> 7 <b>Grade</b> 7 <b>Grade</b> 7	<b>Town</b> Norwalk <b>Town</b> Norwalk <b>Town</b> Stamford
<b>New Haven</b>	Engineering Science University Magnet School	Roger Rushworth	2510	L8	How do Different Types of Street Lights Impact Our Environment and What is the Safest Way to Illuminate Our Streets?	<b>Student(s)</b> Eva Heaphy	<b>Grade</b> 8	<b>Town</b> New Haven
<b>New Haven</b>	Worthington Hooker Middle School	Douglas Jones	1009	LT	Seaweed & Tsunamis	<b>Student(s)</b> Amelia Cox Sage Urban	<b>Grade</b> 7 <b>Grade</b> 7	<b>Town</b> New Haven <b>Town</b> New Haven

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**New London** Science and Technology Magnet HS David Brown  
3123 LS Bacterial Analysis of Kefir Products  
**Student(s) Yasmin Aguilar** **Grade 11** **Town** New London

**New London** Science and Technology Magnet HS Mr. Mulligan  
3103 LS Implicating the Tolerance of Glyphosate on Artemisia Vulgaris  
**Student(s) Tori Johnston** **Grade 11** **Town** Waterford

**New London** Science and Technology Magnet HS Mr. Mulligan  
3541 LST The Effect Half and Full Day Illumination Periods Have On Aquaponical and Conventional Methods  
**Student(s) Xaryia Melendez** **Grade 10** **Town** Colchester  
**Bria Fielding** **Grade 10** **Town** New London

**New London** Science and Technology Magnet HS Charles Mulligan  
3081 LS Effectiveness of American Beach Grass Restoration  
**Student(s) Tessa Rock** **Grade 11** **Town** New London

**Newtown** St. Rose of Lima School John Dalton  
2028 L7 THE INVESTIGATION OF ACIDITY ON ZEBRA MUSSEL SHELLS  
DRIESSENA POLYMORPHA  
**Student(s) Katerina Crowe** **Grade 7** **Town** Southbury

**Newtown** St. Rose of Lima School John Dalton  
2001 L7 The Effect of Petroleum Products on the Growth of Ramshorn Snails (Planorbis Rebrum)  
**Student(s) Gregory Gargano** **Grade 7** **Town** Sandy Hook

**Orange** Amity Reg Middle School - Orange Campus Mr. Dahn/Foley  
5521 P8 Silicone-Filled Drumsticks can Reduce Vibration Impact in a Drummer's Hand  
**Student(s) Sebastian Todeasa** **Grade 8** **Town** Orange

**Pawcatuck** St. Michael School Mrs. Anna-Helene Grossomanides  
2018 L7 Hydroponics - A World Without Dirt  
**Student(s) Anne Drago** **Grade 7** **Town** Pawcatuck

**Ridgefield** Ridgefield High School Ryan Gleason  
3146 LS Analyzing Rhythmic Processing Abilities in Children Ages Five to Fifteen  
**Student(s) Nora Maerean** **Grade 11** **Town** Ridgefield

**Sandy Hook** Newtown High School Tim DeJulio  
6032 PS Using Octadecanol to Limit Freshwater Evaporation in Areas of Droughts  
**Student(s) Kelsey O'Connor** **Grade 12** **Town** Newtown

**Shelton** Shelton High School Christine McNamara  
6023 PS Biodegradable Plastic Study to Prevent Oceanic Pollution  
**Student(s) Marissa Peck** **Grade 12** **Town** Shelton

**Shelton** Shelton High School Lucia Dunham  
6002 PS Hot Glass  
**Student(s) Jacob Zuklie** **Grade 11** **Town** Shelton

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**Southington** J.A. DePaolo Middle School Ms. Shea

5026 P7 Snap Crackle Pop

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

**Stamford** Bi-Cultural Day School Christopher Graseck

2025 L7 An Analysis of Nitrogen and Phosphate Fertilizer on Algae Growth

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

**Storrs** EO Smith High School Cheryl Granger

3044 LS Patterns in the Overall Performance of Baseball Players at Different Positions

**Student(s)** Alexander Chandy **Grade** 10 **Town** Storrs

**Stratford** St. Mark School Ms. Lynn Olins

2005 L7 "Watts" the efficiency of solar cells?

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

**Suffield** Suffield High School Mitchell Charkiewicz

3012 LS Self Defogging Ski Goggles

**Student(s)** Ryan Cleaves **Grade** 12 **Town** Canton

**Suffield** Suffield High School Mitchell Charkiewicz

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

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

**Suffield** Suffield High School Mitchell Charkiewicz

6073 PS A Small Spectrometer to Find Peanut Ingredients in Food.

**Student(s)** Zachariah Service **Grade** 11 **Town** Suffield

**Suffield** Suffield Middle School Charkiewicz

2511 L8 How age affects short term memory

**Student(s)** Akshita Jindal **Grade** 8 **Town** Suffield

**Trumbull** Christian Heritage School Theresa Miller

5555 P8 The fabrication and testing of various fruit juice dye-sensitized solar cells with the addition of preservatives

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

**West Hartford** King Philip Middle School Robert Felekey

5038 P7 Slip Hazard Alarm Robot--H2OhNobot

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

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

2505 L8 Ecological Refrigerator

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

**Weston** Weston Middle School Darcy Ronan

2516 L8 Homemade RC Plane

**Student(s)** Matthew Krauss **Grade** 8 **Town** Weston

**Wilton** Middlebrook Middle School Jessica Garcia

2504 L8 A Novel Method for Oil Spill Cleanup Using Biomass

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



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**Windsor** Academy of Aerospace and Engineering Michelle Bellinger  
 6098 PS Effects of Concentration and Cooling Rate on Microstructural and Macroscopic Properties of Tin-Zinc Binary Alloys  
**Student(s) Jay Aindow** **Grade 12** **Town** Tolland

**Windsor** Academy of Aerospace and Engineering Dr. Michelle Bellinger  
 6019 PS The effect of adding a second polymer to polyethylene terephthalate on the mechanical properties and morphology of the polymer blend systems  
**Student(s) Nikhil Bhat** **Grade 12** **Town** Rocky Hill

**Windsor** Greater Hartford Academy of Math and Science Dr. Lili Aramlli  
 3002 LS The Effect of Collect Nutrient Powder on Mus Musculus Lewis Lung Carcinoma Cell Confluence, Viability and Growth Rate  
**Student(s) Marissa Guzzo** **Grade 11** **Town** Suffield

**Windsor** Greater Hartford Academy of Math and Science Dr. Lili Aramlli  
 3131 LS Viability of Cloud-Bacteria Transportation  
**Student(s) Jason Vailionis** **Grade 12** **Town** Rocky Hill

**Windsor** Madina Academy Saqib Chariwala  
 4013 PT Light Intensity and Photosynthesis: How different colors of light and their intensities affect photosynthesis?  
**Student(s) Sakinah Caesar** **Grade 7** **Town** Simsbury  
**Sheza Chaudhry** **Grade 7** **Town** Windsor Locks

**Woodbridge** Amity Regional High School Deborah Day  
 6093 PS Designing a Protective Cap To Reduce Impact Force and Head Trauma  
**Student(s) Quinnlan Burke** **Grade 11** **Town** Woodbridge

**Woodbridge** Amity Regional High School Ms. Day  
 3135 LS Correlations Between Specific Gut Flora and Different Body Mass Type Changes  
**Student(s) Jacob Feuerstein** **Grade 10** **Town** Woodbridge

**Woodbridge** Amity Regional High School Deborah Day  
 6510 PST Analysis and Proving of "Cycloid" Universe Using Friedmann Equations and Torsion Cosmology  
**Student(s) Kelsey McCormack** **Grade 12** **Town** Orange  
**Himay Dharani** **Grade 12** **Town** Orange

**Woodbridge** Amity Regional High School Deborah Day  
 6080 PS Comparing the efficiency of water-filtering materials and developing an affordable, effective, water filtration system for the developing world  
**Student(s) Julia Todeasa** **Grade 10** **Town** Orange

**Woodbridge** Amity Regional High School Deborah Day  
 6004 PS Analysis of Mercury Content in Sediments of New Haven Harbor  
**Student(s) Kate Yuan** **Grade 10** **Town** Woodbridge

**Woodbridge** Ezra Academy Rebecca Tishkoff  
 5523 P8 Tracking the movements of a human being.  
**Student(s) Ethan Lavi** **Grade 8** **Town** Woodbridge