



# Connecticut Science & Engineering Fair

## Quinnipiac University

### March 11 - 16, 2019

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

### Preliminary Judging Results

### **Honors Received in Regular Fair Preliminary Judging**

[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]			
Avon	Talcott Mountain Academy	Brigette Zacharczenko	2520	L8	1	Defensive Behavior of Tobacco Hornworm Caterpillars	Student(s)	Tyler Andrews	Grade 8 Town Torrington
Avon	Talcott Mountain Academy	Bridgette Zacharczenko	2006	L7	3	What is the ideal salinity for freshwater insects?	Student(s)	Michael Hoffman	Grade 7 Town Windsor
Avon	Talcott Mountain Academy	Dr. Zacharczenko	2018	L7	3	Placebo: The Power of the Mind	Student(s)	Derrick Li	Grade 7 Town Southington
Avon	Talcott Mountain Academy	Brigette Zacharczenko	2530	L8	2	Survey of Common Types of Cyanobacteria and its Toxins Found in the Recreational Areas of CT	Student(s)	Anishka Perera	Grade 8 Town Torrington
Avon	Talcott Mountain Academy	Lydia Gibb	2515	L8	2	The Bubble	Student(s)	Leo Southam	Grade 8 Town Shelton
Avon	Talcott Mountain Academy	John Lombardo	5028	P7	2	The Vaccinator	Student(s)	Zachary Starr	Grade 7 Town Avon
Bethany	Amity Middle School - Bethany	Kevin Berean	4016	PT	3	Soft Robotic Underwater Inspection System	Student(s)	Sam Anastasio Piyush Bahel	Grade 8 Town Woodbridge Grade 8 Town Woodbridge
Bethany	Amity Middle School - Bethany	Kevin Berean	4029	PT	3	Car-Temp-Bot	Student(s)	Aaron Babajanyan Edgar Babajanyan	Grade 8 Town Woodbridge Grade 8 Town Woodbridge
Bethany	Amity Middle School - Bethany	Kevin Berean	4025	PT	1	Artificial Pancreas to Regulate Blood Sugar Levels	Student(s)	Anchal Bahel Nina Carmeli	Grade 8 Town Woodbridge Grade 8 Town Woodbridge
Bethany	Amity Middle School - Bethany	Kevin Berean	4009	PT	1	Coral Explorer	Student(s)	Zoe Fleischman Aadya Wijesekera	Grade 8 Town Woodbridge Grade 8 Town Bethany

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**Bethany** Amity Middle School - Bethany Kevin Berean  
2528 L8 3 Purifying Grey Water Using a Constructed Wetland  
Student(s) **Nell Grant** Grade 8 Town Woodbridge

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**Bethany** Amity Middle School - Bethany Kevin Berean  
4005 PT 1 Multifunctional Temperature Sensor  
Student(s) **Annie Liu** Grade 8 Town Woodbridge  
**Melinda Lu** Grade 8 Town Woodbridge

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**Bethany** Amity Middle School - Bethany Kevin Berean  
5535 P8 2 The Internal Hearing Processor  
Student(s) **Eric Novak** Grade 8 Town Woodbridge

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**Bethany** Amity Middle School - Bethany Kevin Berean  
5503 P8 2 Preventing Bicycle Injuries Using an Arduino Microcontroller  
Student(s) **Anthony Sharonov** Grade 8 Town Bethany

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**Bethany** Amity Middle School - Bethany Kevin Berean  
4019 PT 3 Waste Watchers  
Student(s) **Elise Sheehe** Grade 8 Town Bethany  
**Audrey Cummings** Grade 8 Town Woodbridge  
**Anushka Acharya** Grade 8 Town Bethany

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**Bethany** Amity Middle School - Bethany Kevin Berean  
4013 PT 3 Safer Football Helmets  
Student(s) **Ethan Torrens** Grade 8 Town Bethany  
**Thomas Martocchio** Grade 8 Town Woodbridge

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**Bethany** Amity Middle School - Bethany Kevin Berean  
4001 PT 2 Taking Flight  
Student(s) **Henry Yang** Grade 8 Town Woodbridge  
**Luhai Tang** Grade 8 Town Woodbridge

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**Bethany** Amity Middle School - Bethany Kevin Berean  
5524 P8 3 Wind Turbine Tree  
Student(s) **Mingyue Zha** Grade 8 Town Woodbridge

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**Bethel** Bethel High School Mr. Grand  
6072 PS 3 Calculating the Best American Launch Vehicle for the Boeing CST-100 Starliner  
Student(s) **Ryan Lemone** Grade 11 Town Bethel

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**Bethel** Bethel High School Mr. Ray Turek  
6011 PS 3 Quasar Luminosity Variability Over Right Ascension and Declination  
Student(s) **Jillian Paulin** Grade 12 Town Bethel

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**Bethel** Bethel High School Joseph Grand  
6099 PS 2 Testing How Different Materials Reduce Frequency and the Effectiveness of that Material in Reducing White Noise  
Student(s) **Brian Salvador** Grade 12 Town Bethel

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**Bethel** St. Mary School Kate McDonald  
5018 P7 3 Projectile Motion  
**Student(s) Vincent Bordash** **Grade 7** **Town** Newtown

**Bethel** St. Mary School Mrs. McDonald  
5522 P8 3 Bio Bottle  
**Student(s) Charlotte Bruce** **Grade 8** **Town** Danbury

**Bethel** St. Mary School Kate McDonald  
5505 P8 3 Conserving Water, One Rinse at a Time  
**Student(s) Anna Kopec** **Grade 8** **Town** Bethel

**Bethel** St. Mary School Katherine McDonald  
5538 P8 2 Solar Powered Tesla Coil  
**Student(s) Kayla O'Marra** **Grade 8** **Town** Bethel

**Bethel** St. Mary School Mrs. Kate McDonald  
2005 L7 3 Will a plant grow faster and stronger with fertilizer, compost, or nothing.  
**Student(s) Thomas Patten** **Grade 7** **Town** Bethel

**Bethel** St. Mary School Kate McDonald  
2016 L7 1 Does Boiling Vegetables Affect Vitamin C Content?  
**Student(s) Jenna Saidman** **Grade 7** **Town** Bethel

**Bethel** St. Mary School Kate McDonald  
5518 P8 2 #SAVETHESIS  
**Student(s) Kerry Tuccinardi** **Grade 8** **Town** Bethel

**Bozrah** Fields Memorial School Mrs. E Brown  
5526 P8 1 Piezo Energy Collection from Quake Vibrations  
**Student(s) Alanna Brady** **Grade 8** **Town** Bozrah

**Bozrah** Fields Memorial School Mrs. Evelyn Brown  
5530 P8 2 Facial Recognition using Raspberry Pi and Python  
**Student(s) Leah Manke** **Grade 8** **Town** Bozrah

**Bozrah** Fields Memorial School Evelyn Brown  
5025 P7 1 Recovering Energy From an A/C Unit Condenser Exhaust Fan  
**Student(s) Elle Okoney** **Grade 7** **Town** Bozrah

**Bozrah** Fields Memorial School Mrs. Evelyn Brown  
2508 L8 1 A Gravimetric and Microscopic Analysis of the Decomposition Rates of Leaves from Different Species of Trees in Varied Climates.  
**Student(s) Norah Tracy** **Grade 8** **Town** Gilman

**Bridgeport** Black Rock School Alexis Davis  
5532 P8 2 Tracking Geomagnetic Storms in the Ionosphere  
**Student(s) Yousra Oukassi** **Grade 8** **Town** Bridgeport

**Bridgeport** Bridgeport Military Academy Arun Kadam  
6080 PS 3 Textiles and Heat Reaction: How Likely to burn if left Under Iron Heat?  
**Student(s) Dafne Hernandez** **Grade 11** **Town** bridgeport

[SchTown] [School] [Teacher]  
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**Bridgeport** Bridgeport Military Academy Samantha Peck  
 3039 LS 3 What Type of Tourniquet Will Stop The Bleed Faster?  
**Student(s)** Vincent Porcaro **Grade** 9 **Town** Easton

**Bridgeport** Bridgeport Military Academy Arun Kadam  
 3519 LST 3 Will Twins Have the Same Fingerprints?  
**Student(s)** Angelina Scrivines **Grade** 11 **Town** Ansonia  
 Jennifer Vilorio **Grade** 11 **Town** Bridgeport

**Bridgeport** Bridgeport Military Academy Mr.Kadam  
 3080 LS 2 The Stroop Effect  
**Student(s)** Gabrielly Zeferino **Grade** 11 **Town** Bridgeport

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 6074 PS 2 Sorption of Hydrogen Sulfide Contaminates Through Methyl Diethanolamine Doped Ceramic Beads Coupled With a Piperazine Catalyst  
**Student(s)** Erica Carpenter **Grade** 12 **Town** Trumbull

**Bridgeport** Bridgeport Regional Aquaculture Center Mr.Shadle  
 6044 PS 2 Candidate Evaluation Of A Replacement Catalyst In A Hydrogen Fuel Cell Oxygen-Reduction Reaction.  
**Student(s)** Shemar Chastanet **Grade** 12 **Town** Bridgeport

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 6093 PS 2 Geospatial Analysis of the Martian Surface to Promote the Growth of Photosynthetic Exoagriculture  
**Student(s)** Nick Fawcett **Grade** 12 **Town** Fairfield

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 6022 PS 2 Development and Validation of a Novel Protocol by X-Ray Spetrometry for Determination of Heavy Metals in Organic Samples  
**Student(s)** Joseph Federico **Grade** 12 **Town** Milford

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 6079 PS 2 Maximizing Photodynamic Therapy Through Highly Focused Beam of 200 nanometer - 400 nanometer to Promote Cellular Lysis  
**Student(s)** Jeremy Garskof **Grade** 12 **Town** Fairfield

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 6084 PS 2 Utilizing an electrical charge to stimulate osteogenesis  
**Student(s)** Patrick Hall **Grade** 12 **Town** Milford

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 3096 LS 3 Determining the Role of  $\beta$ -Carotene on the Circadian Rhythm of Neurospora crassa Relative to the Prevention of Parkinson's Disease  
**Student(s)** Britley Learnard **Grade** 12 **Town** Trumbull

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 6001 PS 1 Enhancing Dye Sensitized Solar Cell Efficiency Through the Application of a Silica Structure Microfilm Layer  
**Student(s)** Camryn Mazerolle **Grade** 12 **Town** Shelton

**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle  
 3027 LS 2 Phytoremediation of  $17\beta$  Estradiol Using Lemna minor in Freshwater Bodies  
**Student(s)** Joshua Salem **Grade** 12 **Town** Trumbull

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**Bridgeport** Bridgeport Regional Aquaculture Center Mr. Shadle

3015	LS	2	Effect of Metal Ion Chelation by Curcumin on the Progression of Alzheimer's Disease
<b>Student(s)</b> Elizabeth Silva			<b>Grade</b> 12 <b>Town</b> Bridgeport

**Bridgeport** Bridgeport Regional Aquaculture Center - BCF Mr. Shadle

6032	PS	2	Biofiltration of Ferric Iron Utilizing Citrus Biowaste to Mitigate Freshwater Harmful Algal Blooms.
<b>Student(s)</b> Malcolm Katz			<b>Grade</b> 12 <b>Town</b> Fairfield

**Bridgeport** Bridgeport Regional Aquaculture Center - BCF Mr. Shadle

6026	PS	2	Development of Self Adjusting Slip Clutch Vertical Axis Wind Turbine to Eliminate Torque Damage in High Wind Speeds
<b>Student(s)</b> Gavin Krois			<b>Grade</b> 12 <b>Town</b> Milford

**Bridgeport** Bridgeport Regional Aquaculture Center - BCF Mr. Shadle

3071	LS	3	Extraction of Environmental Deoxyribonucleic Acid and its Preservation in Silk Fibroin
<b>Student(s)</b> Tyler McKenna-Hansen			<b>Grade</b> 12 <b>Town</b> Milford

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Douglas Strickland

6531	PST	3	Panic Avoidance Safety System (P.A.S.S.)
<b>Student(s)</b> Hritish Bhargava			<b>Grade</b> 12 <b>Town</b> Shelton
<b>Christopher Ohlin</b>			<b>Grade</b> 12 <b>Town</b> Stratford

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Mr. Berquist

6059	PS	3	Auto-Attendance
<b>Student(s)</b> Jeramiah Brown			<b>Grade</b> 11 <b>Town</b> Bridgeport

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Mrs. Pearson

3503	LST	1	Queenswap: an experiment to change the subspecies of an Apis Mellifera queen and her colony to a more northeastern acclimated subspecies.
<b>Student(s)</b> Victoria LaGuardia			<b>Grade</b> 12 <b>Town</b> Monroe
<b>Lauren Wokanovicz</b>			<b>Grade</b> 12 <b>Town</b> Shelton

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Michael O'Reilly

6526	PST	3	Detecting Intersection Blind Spots
<b>Student(s)</b> Juan Marin			<b>Grade</b> 12 <b>Town</b> Bridgeport
<b>Javier Zavala-Chavez</b>			<b>Grade</b> 12 <b>Town</b> Bridgeport

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Cynthia Crudale

6023	PS	2	The Link Between Electromagnetic Radiation Exposure from Electronic Devices and Mental Health Issues and How to protect yourself from EMF from electronic devices.
<b>Student(s)</b> Zenobia Moore			<b>Grade</b> 10 <b>Town</b> Bridgeport, CT

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Megan Good

6517	PST	3	R.P.G.
<b>Student(s)</b> Kush Patel			<b>Grade</b> 9 <b>Town</b> Trumbull
<b>Tyron Jones</b>			<b>Grade</b> 9 <b>Town</b> bridgeport

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Mrs. Starks

6071	PS	3	Utterly Surprising
<b>Student(s)</b> Gabriel Rivera			<b>Grade</b> 9 <b>Town</b> Bridgeport

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[SchTown] [School] [Teacher]  
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**Bridgeport** Fairchild Wheeler Interdistrict Magnet Paul Bergquist  
6512 PST 3 Which pain medication is more soluble in stomach acid?  
Student(s) **Aj Stack** Grade 10 Town Bridgeport  
**John Kitengie** Grade 10 Town Bridgeport,

**Bridgeport** Fairchild Wheeler Interdistrict Magnet Ms. Good  
6522 PST 3 The Efficiency of Wind Turbine Blades  
Student(s) **Mya Zayas** Grade 9 Town Bridgeport  
**Chandini Kalidindi** Grade 9 Town Trumbull

**Bridgeport** Geraldine Claytor Magnet Academy Logan Whitley  
2516 L8 2 Optimal Lighting for Gloeocapsa  
Student(s) **Iris Rivera** Grade 8 Town Bridgeport

**Bridgeport** High Horizons Magnet School Mrs Scott-Thiam  
5014 P7 1 Hydraulic Arm  
Student(s) **Deandre Jenkins** Grade 7 Town BRIDGEPORT

**Bridgeport** High Horizons Magnet School Portia Scott-Thiam  
5508 P8 3 A Mouthful Of Minerals  
Student(s) **Ciara Underwood** Grade 8 Town Bridgeport

**Bridgeport** Interdistrict Discovery Magnet School Helena Coatsworth  
5030 P7 2 The Heat is On  
Student(s) **Amelia Bragg-Phillips** Grade 7 Town Stratford

**Bridgeport** Interdistrict Discovery Magnet School Helena Coatsworth  
2501 L8 2 Does Color Effect Memory Retention?  
Student(s) **Zoe Curtin** Grade 8 Town Bridgeport

**Bridgeport** James Curiale School Patrick Borden  
5024 P7 2 Electric Power Generator  
Student(s) **Tajelia Buckley** Grade 7 Town Bridgeport

**Bridgeport** Jettie S. Tisdale School Frances Morra  
5545 P8 3 Is It REALLY Childproof?  
Student(s) **Lindsey Mohammed** Grade 8 Town Bridgeport

**Bridgeport** Jettie S. Tisdale School Frances Morra  
2504 L8 3 Music Memory  
Student(s) **Travis Snow** Grade 8 Town Bridgeport

**Bridgeport** Park City Magnet School Ms. Daria Collins  
5021 P7 3 The Bolt  
Student(s) **Alissa Brown** Grade 7 Town Bridgeport

**Bridgeport** Park City Prep Charter School vicky boudreau  
4002 PT 3 Copper Plating  
Student(s) **Nakai Barros** Grade 7 Town Bridgeport  
**Del'vondre Ramroop** Grade 7 Town bridgeport

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[SchTown] [School] [Teacher]  
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**Bridgeport** Park City Prep Charter School Jonathan Jaekle

2531 L8 1 Improving Fuel Economy

**Student(s)** David Boudreau Jr **Grade 8** **Town** Ansonia

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

2517 L8 3 H 2 KNOW

**Student(s)** Jeremiah Hernandez **Grade 8** **Town** Bridgeport

**Bridgeport** Park City Prep Charter School Vicky Boudreau

2011 L7 1 The Balance of Nature

**Student(s)** Eva Holleran **Grade 7** **Town** Bridgeport

**Bridgeport** Park City Prep Charter School Vicky Boudreau

1020 LT 3 An Apple A Day Keeps The Doctor Away

**Student(s)** Evelise Ramirez **Grade 7** **Town** Bridgeport  
Tatianna Nugent **Grade 7** **Town** Waterbury  
Ali Khan **Grade 7** **Town** Bridgeport

**Bridgeport** Park City Prep Charter School Mrs. Boudreau

1016 LT 3 Which Parsley is better?

**Student(s)** Gabriella-elise Rodrigues **Grade 7** **Town** Waterbury  
Sara Pacheco **Grade 7** **Town** bridgeport

**Bridgeport** Park City Prep Charter School Vicky Boudreau

2004 L7 3 Cleaning coins

**Student(s)** Cristopher Rodriguez **Grade 7** **Town** Bridgeport

**Bridgeport** Park City Prep Charter School vicky Boudreau

1011 LT 2 This project is called egg it on. This project was about what would happen if teeth were to sit in soda for a 7 day time period, but we replaced the teeth with eggs.

**Student(s)** Alvin Russell **Grade 7** **Town** Bridgeport  
Mia Salaman **Grade 7** **Town** Bridgeport

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

1004 LT 2 Biowarfare: Phages & E. coli

**Student(s)** Imrath Saboor **Grade 8** **Town** Bridgeport  
Parisa Ahad **Grade 8** **Town** Bridgeport

**Bridgeport** Park City Prep Charter School Mrs. Boudreau

2512 L8 2 Turmeric as an Antioxidant

**Student(s)** Laniyah Schultz **Grade 8** **Town** Bridgeport

**Bridgeport** Park City Prep Charter School mrs.Boudreau

2505 L8 3 Cloning Double Trouble

**Student(s)** Anthony Shaw **Grade 8** **Town** Bridgeport

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

2526 L8 3 Memory and Personality

**Student(s)** Bria Williams **Grade 8** **Town** Bridgeport

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[SchTown] [School] [Teacher]  
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**Bridgeport** Roosevelt School Simon  
2525 L8 2 Homemade toothpaste vs regular toothpaste  
**Student(s)** Moez Khawaja **Grade 8** **Town** Bridgeport

**Bridgeport** Thomas Hooker School Mr. James Roman  
5031 P7 2 Taper Dome  
**Student(s)** Rayshon Coty **Grade 7** **Town** Bridgeport

**Brookfield** Saint Joseph Catholic Academy Mrs. Dimon  
2003 L7 3 The Effect of Ocean Acidification on Crepidula Fornicata  
**Student(s)** Abigail Cristaudo **Grade 7** **Town** Brookfield CT

**Brookfield** Saint Joseph Catholic Academy Marde Dimon  
5548 P8 2 THE EFFECT OF SYNTHETIC DYES ON NATURAL AND SYNTHETIC FABRICS  
**Student(s)** Amanda Hoyt **Grade 8** **Town** Danbury

**Brookfield** Saint Joseph Catholic Academy Mrs. Dimon  
2524 L8 1 The Effect of Various Combinations of Materials as Biosand Filters on the Filtration of Fresh Water  
**Student(s)** Shaun McKenna **Grade 8** **Town** Brookfield

**Brookfield** Saint Joseph Catholic Academy Mrs. Dimon  
2023 L7 2 The Effect of Collector Quantity on Solar Heating  
**Student(s)** David Mitchell **Grade 7** **Town** New Milford

**Brookfield** Saint Joseph Catholic Academy Marde Dimon  
5516 P8 2 HOW DOES THE TYPE OF FILTER AFFECT THE AMOUNT OF PHOSPHORUS SEPARATED FROM LANDSCAPE RUNOFF  
**Student(s)** Liam TeeKing **Grade 8** **Town** Brookfield

**Brookfield** Saint Joseph Catholic Academy Mrs. Dimon  
2502 L8 3 The Effect of Fertilizer on Algae  
**Student(s)** Sania Toprani **Grade 8** **Town** New Milford

**Canton** Canton High School Stephen Riley  
6050 PS 2 Analyzing the Structure of Protostellar Core Clusters in an Infrared Dark Cloud  
**Student(s)** Colton Glasgow **Grade 12** **Town** Canton

**Cheshire** Cheshire High School Ms. Barker  
3056 LS 2 A Bioinformatics approach to Hemochromatosis and How its Genetic Mutations Affect Its Victims  
**Student(s)** Koushik Gadhachanda **Grade 10** **Town** Cheshire

**Cheshire** Dodd Middle School Manish Bhardwaj  
5531 P8 1 Vision Assist 2.0  
**Student(s)** Siddhant Bhardwaj **Grade 8** **Town** Cheshire

**Cheshire** St. Bridget School Michelle Carroll  
2002 L7 2 Garbage Gasoline  
**Student(s)** Shreeya Gomathinayagam **Grade 7** **Town** Cheshire

**Cheshire** St. Bridget School Michelle Carroll  
2521 L8 3 The Primacy Effect  
**Student(s)** Hailey Kline **Grade 8** **Town** Meriden



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**Danbury** Danbury High School Ms. McClelland  
3054 LS 2 Molecular Modeling and Analysis of Peptides Derived From the Centipede Scolopendra Subspinipes Mutilans (as a Potential Leukemia Targeted Therapy)  
**Student(s) Sarah Johnson** **Grade 11** **Town Danbury**

**Danbury** Danbury High School Barbara Bogart  
3072 LS 2 Effect of CRP on the Development of Atherosclerosis in ApoE Knockout Mice  
**Student(s) Bradley Kerr** **Grade 11** **Town Danbury**

**Danbury** Danbury High School Meghan Bresson  
6063 PS 2 Engineering a Polyelectic Biomimetic Micro Aerial Vehicle to Pollinate Flowers  
**Student(s) Khushi Parikh** **Grade 9** **Town Danbury**

**Danbury** Immaculate High School Bernice Papia  
6097 PS 1 Unprecedented Biofuel Formation by isomerization and Cross Metathesis of Sunflower Oil  
**Student(s) Elias Haddad** **Grade 10** **Town Danbury**

**Danbury** Saint Joseph School Jennifer Reilly  
5007 P7 3 Turmeric Indicator  
**Student(s) Aneesha Addepalli** **Grade 7** **Town Danbury**

**Danbury** Saint Joseph School Jennifer Reilly  
5539 P8 1 Recycled Plastics As Insulation For Energy Efficient Homes  
**Student(s) Georen Chirayil** **Grade 8** **Town Danbury**

**Danbury** Saint Joseph School Jennifer Reilly  
5013 P7 3 Lemonade vs Sports Drinks  
**Student(s) Aidan Henn** **Grade 7** **Town Danbury**

**Danbury** Saint Joseph School Jennifer Reilly  
5546 P8 3 Ultraviolet Radiation Studying the Reaction Rates in Ultraviolet Beads  
**Student(s) Christian Jeffers** **Grade 8** **Town Danbury**

**Danbury** Saint Joseph School Mrs. Jennifer Reilly  
2021 L7 2 A Plant's Favorite Nutrient  
What helps plants grow best: Distilled Water, Miracle Gro or Bio-Tone Starter Plus  
**Student(s) Carly MacKinnon** **Grade 7** **Town Danbury**

**Danbury** Saint Joseph School Mrs. Reilly  
5020 P7 2 Stick to It  
**Student(s) Nicole Radliff** **Grade 7** **Town New Fairfield**

**Danbury** St. Gregory the Great School Christine Fahey  
5517 P8 1 Testing Different Nano-Particle Inks as Electrodes in a Sunlight-Seeking. Printed, Bio-Photovoltaic System  
**Student(s) Maximilien Coisman** **Grade 8** **Town Danbury**

**Danbury** St. Gregory the Great School Mrs. Christine Fahey  
2503 L8 2 The Effects of Oil on the Removal of Microplastics From Water  
**Student(s) Aiden Doolabh** **Grade 8** **Town Danbury**

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**Danbury** St. Gregory the Great School Christine Fahey  
5010 P7 2 Green Insulation?  
**Student(s)** Tyler Fahey **Grade 7** **Town** Danbury

**Danbury** St. Gregory the Great School Mrs. Fahey  
2518 L8 1 ONE MAN'S TRASH IS ANOTHER MAN'S ENERGY  
**Student(s)** Thomas Fanelli **Grade 8** **Town** Danbury

**Danbury** St. Gregory the Great School Christine Fahey  
2522 L8 3 Go Fresh For Best Vitamin C  
**Student(s)** Michael Green **Grade 8** **Town** Danbury

**Danbury** St. Gregory the Great School Christine Fahey  
1006 LT 1 Fire For Farming  
**Student(s)** Joseph Halas **Grade 7** **Town** Danbury  
Patrick Heslin **Grade 7** **Town** New Milford  
Ryan Devin **Grade 7** **Town** Brookfield

**Danbury** St. Gregory the Great School Christine Fahey  
5035 P7 3 Corrosion Breakdown  
**Student(s)** Thejus Joseph **Grade 7** **Town** Danbury

**Danbury** St. Gregory the Great School Elizabeth Muro  
2010 L7 2 Lights, plants, action  
**Student(s)** Alicia Muro **Grade 7** **Town** Danbury

**Danbury** Westside Middle School Academy Johnathan Neuhausel  
2015 L7 3 Temperature threshold for ultra-cold sanitization of Salmonella-contaminated supermarket chicken  
**Student(s)** Warrick Broecking **Grade 7** **Town** Danbury

**Danbury** Westside Middle School Academy Jonathan Neuhausel  
2020 L7 1 Design, testing, and optimization of Kombucha scoby-based biofilms.  
**Student(s)** Gabriella Brown **Grade 7** **Town** Danbury

**Danbury** Westside Middle School Academy Jon Neuhasel  
1024 LT 2 The effects of Temperature Pollution and Chemical Pollution on Daphnia's Heart Rate  
**Student(s)** Nayeli Guzman **Grade 8** **Town** Danbury  
Eliana Betancourt-Colon **Grade 8** **Town** Danbury

**Danbury** Westside Middle School Academy Mr. Neuhausel  
5005 P7 1 Good Up High, Bad Near By  
**Student(s)** Annabella Jardim **Grade 7** **Town** Danbury

**Danbury** Westside Middle School Academy Jonathan Neuhausel  
2523 L8 2 Impact of Microwave-irradiated Plastic on Microbiological Health Indices  
**Student(s)** Sharva Karthikeyan **Grade 8** **Town** Danbury

**Danbury** Westside Middle School Academy Mr. Neuhausel  
5017 P7 2 Extracting Fingerprints From 3D Printed Objects  
**Student(s)** Julia Porto **Grade 7** **Town** Danbury

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[SchTown] [School] [Teacher]  
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**Danbury** Westside Middle School Academy Jonathan Neuhausel  
5509 P8 1 The Study of Effectiveness of Different Separation Methods in Removing Suspended Microplastics from Water  
**Student(s)** Srishti Ramakrishnan **Grade 8** **Town** Danbury

**Danbury** Westside Middle School Academy Jonathan Neuhausel  
2024 L7 1 Molecular Health Indices of the Kalmia Latifolia  
**Student(s)** Maria Eduarda Sousa Lopes **Grade 7** **Town** Danbury

**Danbury** Westside Middle School Academy J. Neuhausel  
5027 P7 1 DIY WiFi Booster  
**Student(s)** Chase Tomaino **Grade 7** **Town** Danbury

**Danbury** Westside Middle School Academy Jonathan Neuhausel  
5536 P8 2 The Effect of Different Cleaning Agents on the Levels of Pesticides in Lemons  
**Student(s)** Jacob Williams **Grade 8** **Town** Danbury

**East Hartford** St. Christopher School Mr. Golas  
5506 P8 2 Heat It Up!  
**Student(s)** Ahjeiza Adrian **Grade 8** **Town** Manchester

**East Lyme** East Lyme High School Frederic Clark  
3102 LS 3 Investigating How Different Types of Milks Affect Dextrose Levels by Using an Enzyme Substrate Complex Assay  
**Student(s)** Aditya Kabra **Grade 9** **Town** Niantic

**Ellington** Ellington Middle School David Gerlach  
5552 P8 2 Research, Analysis, and Experimentation of CO2-Style Engines  
**Student(s)** John Gerlach **Grade 8** **Town** Ellington

**Fairfield** Fairfield College Preparatory School Mrs. Kiel  
3068 LS 2 Oil Spill Bioremediation  
**Student(s)** Antonios Boudreau **Grade 10** **Town** Ansonia

**Fairfield** Fairfield College Preparatory School Deborah Kiel  
6033 PS 3 The Medicine Case  
**Student(s)** Michael Coyne **Grade 9** **Town** Woodbridge

**Fairfield** St. Thomas Aquinas Catholic School Philip Flynn  
4007 PT 1 Wind Energy  
**Student(s)** Andrew Cimmino **Grade 8** **Town** FAIRFIELD  
Joshua Dixon **Grade 8** **Town** Bridgeport

**Farmington** Farmington High School Tim Walsh  
3057 LS 2 Use of Machine Learning to Predict Undetermined Coronary Related Chest Pain-Angina  
**Student(s)** Angela Sadlowski **Grade 10** **Town** Unionville

**Fishers Island** Fishers Island School Carol Giles  
3047 LS 3 The Effect of Fertilizer Application on the Nutrition of Kale Plants as Measured in Brix and Visible Growth.  
**Student(s)** Ellanora Lerner **Grade 11** **Town** New London

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**Glastonbury** Glastonbury High School Ms. Diane Pintavalle  
6091 PS 1 SELECTIVE OXIDATION OF BENZYL ALCOHOL TO BENZALDEHYDE USING A VANADIUM DOPED CERIA MESOPOROUS CATALYST

**Student(s)** Ananya Aggarwal **Grade** 11 **Town** South Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
6006 PS 2 INFLUENCE OF IONIC STRENGTH ON THE CLEAVAGE RATE OF DNAZYME -TETHERED NANOCAPSULES

**Student(s)** Dina Allam **Grade** 12 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
6039 PS 2 Synthesis of Novel, Mesoporous Metal Oxides

**Student(s)** Shannu Channa **Grade** 11 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
3031 LS 3 Using Surface-Exposed Loop Regions of putative FadL-like Outer membrane proteins of Treponema pallidum as Vaccine Targets.

**Student(s)** Arthur Chiu **Grade** 11 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
3025 LS 3 Genetic Examination of Chromatin Structure in Yeast Cells

**Student(s)** Anmol Chowdhary **Grade** 10 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
3040 LS 2 Designing a Metal Organic Framework-Nanocapsule for delivering hydrophilic drug cargo

**Student(s)** Cassandra George **Grade** 12 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
6078 PS 2 Effect Of Lengthening Tungsten-Based  $\beta$ -sheet Models On Hydrogen Bonding Behavior

**Student(s)** Rebecca Lee **Grade** 12 **Town** Glastonbury

**Glastonbury** Glastonbury High School Ms. Diane Pintavalle  
6066 PS 2 USING A CONFORMAL PIEZOELECTRIC PLLA-BASED MICROPHONE FOR IMPROVED PHONOCARDIOGRAPHY AND BOWEL SOUND ANALYSIS

**Student(s)** Abhi Mohnani **Grade** 12 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
3101 LS 2 INVESTIGATING THE EFFICACY OF ALPHA-LIPOIC ACID FOR REDUCING SKIN CANCER

**Student(s)** Athulya Narayanan **Grade** 12 **Town** GLASTONBURY

**Glastonbury** Glastonbury High School Diane Pintavalle  
3097 LS 2 A Centrosome Checkpoint in Dedifferentiated Gonial Blasts

**Student(s)** Naiya Patel **Grade** 11 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle  
3108 LS 2 Chirality of ClavA peptide may have effects on antimicrobial activity

**Student(s)** Andrei Radulescu **Grade** 11 **Town** Glastonbury

**Glastonbury** Glastonbury High School Ms. Pintavalle  
3001 LS 2 The Effect of Nitrogen on the Carbon Utilization of Microbial Communities in Different Types of Urban Ponds

**Student(s)** Meg Shah **Grade** 11 **Town** Glastonbury

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**Glastonbury** Glastonbury High School Ms. Diane Pintavalle

6010 PS 3 APPLYING MACHINE LEARNING AND SENTIMENT ANALYSIS TECHNIQUES TO PREDICT THE FUTURE PRICES OF INDIVIDUAL STOCKS

**Student(s)** Leonard Tang **Grade** 12 **Town** Glastonbury

**Glastonbury** Glastonbury High School Diane Pintavalle

3004 LS 2 Live Cell Fluorescence Imaging Showcases Autophagy in Mammalian Cell when Mitochondria are Depolarized

**Student(s)** Shiyun Tang **Grade** 12 **Town** GLASTONBURY

**Glastonbury** Glastonbury High School Diane Pintavalle

3036 LS 3 Clinician's Opinions Regarding Measuring Gait Speed in Clinical Settings

**Student(s)** Sheela Tavakoli **Grade** 11 **Town** Glastonbury

**Greens Farms** Greens Farms Academy Modupe Oshin

1022 LT 3 Building a Pressurized Submersible to Create a Safe and Sustainable Environment for Marine Life Collected in the "Twilight Zone" and Brought Up to the Surface .

**Student(s)** Lauren Lior **Grade** 8 **Town** Fairfield

Sophie Galaburda **Grade** 8 **Town** Westport

**Greens Farms** Greens Farms Academy Dr. Mathieu Freeman

3111 LS 2 Trx2 Deficiency Induced Impaired Mitochondrial Integrity and Adipocyte Dysfunction

**Student(s)** Grace McGonagle **Grade** 12 **Town** Southport

**Greens Farms** Greens Farms Academy Mathieu Freeman

3104 LS 1 The Effects of Mobile Phone Induced Radiation on Honeybee Behavior

**Student(s)** Quinn Mullineaux **Grade** 12 **Town** Fairfield

**Greens Farms** Greens Farms Academy Modupe Oshin

5008 P7 2 PediGenerator: Turning Steps Into Energy Using PiezoElectric Generators to harness, convert and store the energy needed to charge a mobile device

**Student(s)** Tolani Oshin **Grade** 7 **Town** West Haven

**Greens Farms** Greens Farms Academy Ms. Modupe Oshin

5003 P7 1 Mobility Assistance Device for the Visually Impaired

**Student(s)** Chad Ruggiero **Grade** 7 **Town** Greenwich, CT

**Greens Farms** Greens Farms Academy Mrs.Oshin

5515 P8 3 Bike Rack Redesigning the Problems of Modern Bike Racks

**Student(s)** Zoma Tessema **Grade** 8 **Town** Bridgeport

**Greens Farms** Greens Farms Academy Dr. Mathieu Freeman

6018 PS 2 Carboxyl-functionalized multi-walled carbon nanotubes and PTPN22 specific antibodies in detecting abnormal levels of PTP for immunosensor applications

**Student(s)** Lila Wells **Grade** 12 **Town** Westport

**Greens Farms** Greens Farms Academy Mathieu Freeman

6013 PS 1 The effect of growth temperature and annealing on the degradation rate of AZ31 magnesium alloy for biomedical engineering applications

**Student(s)** Eva (Yihua) Zhang **Grade** 12 **Town** Fairfield

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**Greenwich** Brunswick School Dana Montanez  
6515 PST 3 Constructing a Cruise Ship Sulfur Dioxide Emission Scrubber

<b>Student(s)</b>	<b>Leyton Borcherding</b>	<b>Grade</b> 10	<b>Town</b> Greenwich
	<b>Coulter Mackesy</b>	<b>Grade</b> 10	<b>Town</b> Bronxville

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**Greenwich** Brunswick School Dana Montanez  
6508 PST 2 The Use of Piezoelectricity as a Power Source for Light

<b>Student(s)</b>	<b>Tristan Chang</b>	<b>Grade</b> 10	<b>Town</b> Greenwich
	<b>Ryan Winston</b>	<b>Grade</b> 10	<b>Town</b> Greenwich

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**Greenwich** Brunswick School Dana Montanez  
3521 LST 1 Extracting, Cloning, and Targeting the Glyceraldehyde 3-Phosphate Dehydrogenase Gene in Invasive Plant Species

<b>Student(s)</b>	<b>Logan Darrin</b>	<b>Grade</b> 11	<b>Town</b> Greenwich
	<b>David Swigart</b>	<b>Grade</b> 11	<b>Town</b> Greenwich

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**Greenwich** Brunswick School Dana Montanez  
6046 PS 3 Oil Containment following an Accidental Spill: Temporarily preventing the spread of crude oil in Aquatic Environments

<b>Student(s)</b>	<b>Lucas Delgado</b>	<b>Grade</b> 11	<b>Town</b> Riverside
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**Greenwich** Brunswick School Dana Montanez  
6096 PS 2 Creating a More Efficient Wind Harvester Using Kite Power Technology

<b>Student(s)</b>	<b>Ryan Glanville</b>	<b>Grade</b> 11	<b>Town</b> Greenwich
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**Greenwich** Brunswick School Dana Montanez  
3502 LST 1 Identifying Segmented Nuclei to Advance Medical Research Using Convolutional Neural Networks

<b>Student(s)</b>	<b>Ali Hindy</b>	<b>Grade</b> 10	<b>Town</b> Greenwich
	<b>Thomas Fouts</b>	<b>Grade</b> 10	<b>Town</b> Rye

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**Greenwich** Brunswick School Dana Montanez  
6518 PST 3 Harnessing the Circular Force of Water to Produce Energy and Maintain Pristine Natural Environments

<b>Student(s)</b>	<b>Peter Lehrman</b>	<b>Grade</b> 11	<b>Town</b> Greenwich
	<b>Alex Burdick</b>	<b>Grade</b> 11	<b>Town</b> Riverside

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**Greenwich** Brunswick School Dana Montanez  
6077 PS 2 The Utilization Of a Miniaturized Wind Turbine to Charge An Electronic Device Using The Wind Produced By Blowing

<b>Student(s)</b>	<b>Noah Levi</b>	<b>Grade</b> 10	<b>Town</b> Wilton
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**Greenwich** Brunswick School Montanez  
6504 PST 2 The Application of the Venturi Effect to Passively Accelerate Wind as a Means to Improve Wind Turbine Efficiency

<b>Student(s)</b>	<b>Eric Meindl</b>	<b>Grade</b> 11	<b>Town</b> Riverside
	<b>William McLaren</b>	<b>Grade</b> 11	<b>Town</b> Greenwich

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**Greenwich** Brunswick School Dana Montanez  
3028 LS 2 Creation and Development of a Neural Network to Diagnose Alzheimer's Disease and Dementia

<b>Student(s)</b>	<b>Jamison Meindl</b>	<b>Grade</b> 11	<b>Town</b> Riverside
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**Greenwich** Brunswick School Dana Montanez  
3082 LS 2 Analyzing the Environmental Effects of Solar Farms and Wind Farms in the Gobi Desert  
Student(s) **Alex Morgan** Grade 11 Town Greenwich

**Greenwich** Brunswick School Dana Montanez  
3505 LST 1 Developing an Organic Buffer System to Negate Oceanic Algal Blooms and Acidification  
Student(s) **Colin Mulshine** Grade 10 Town Riverside  
**Brooks Ferguson** Grade 10 Town Greenwich

**Greenwich** Greenwich Catholic School Carol Ann Lutz  
1023 LT 1 Breathe Better  
Student(s) **William Carragher** Grade 7 Town Stamford  
**Joseph Pizzurro** Grade 7 Town Stamford  
**Ryan McIntire** Grade 7 Town Darien

**Greenwich** Greenwich Catholic School Carol Ann Lutz  
4021 PT 3 Garbage Gangsterz  
Student(s) **Benjamin Coutant** Grade 7 Town Stamford  
**Marcello Saviano** Grade 7 Town Stamford  
**Nicholas Psychopaidas** Grade 7 Town Stamford

**Greenwich** Greenwich Catholic School Carol Lutz  
4023 PT 3 Screen Saver  
Student(s) **Evan LiVigni** Grade 8 Town Stamford  
**John Psychopaidas** Grade 8 Town Stamford  
**Lucas Chrostowski** Grade 8 Town Stamford

**Greenwich** Greenwich Catholic School Carol Lutz  
1018 LT 1 Factor Fiction  
Student(s) **Carmelia Zuniga** Grade 8 Town Stamford  
**Emily Cook** Grade 8 Town Stamford  
**Catherine May** Grade 8 Town Stamford

**Greenwich** Greenwich Country Day School Sam Rosenfeld  
5553 P8 1 Tracking Plastic Bottles on Blockchain - Better Environmental Policies and Accountability through Economic and Accurate, Real-Time Management  
Student(s) **C. Brooks Harris** Grade 8 Town Greenwich

**Greenwich** Greenwich High School Andrew Bramante  
6047 PS 1 A Green Nanotechnological Approach for Energy Efficiency and Conservation: Tungsten-doped Vanadium Dioxide Thermochromic Smart Windows  
Student(s) **Cynthia Chen** Grade 11 Town Riverside

**Greenwich** Greenwich High School Andrew Bramante  
3053 LS 1 A Rapid, Solar-Powered, Portable Breast Cancer Diagnosis via Salivary CA15-3 Detection.  
Student(s) **Halla Clausi** Grade 10 Town Cos Cob

**Greenwich** Greenwich High School Andrew Bramante  
6068 PS 2 Measuring Convexneses of Electoral Districts Using Graph Theory to Flag Potentially Gerrymandered Districts  
Student(s) **Sam Florin** Grade 10 Town Greenwich

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**Greenwich** Greenwich High School Andrew Bramante

6089 PS 1 Single-Use, Insulative Tableware Made from Cornstarch and a Hydrophobic Edible Thin Film, as a Biodegradable Replacement for Styrofoam

**Student(s)** Tyler Fox

**Grade 11** **Town** Cos Cob

**Greenwich** Greenwich High School Andrew Bramante

3093 LS 2 "Magnetically-Positioned, Lipase-Induced Degradation of Arterial Plaques with Simultaneous Smartphone Detection of Post-Dissolution Products."

**Student(s)** Hiba Hussain

**Grade 11** **Town** Old Greenwich CT

**Greenwich** Greenwich High School Andrew Bramante

3007 LS 1 Control of Varroa Destructor Infestation with a Dual-function, Thymol-Emitting Honey Bee Hive

**Student(s)** Raina Jain

**Grade 11** **Town** Riverside

**Greenwich** Greenwich High School Andrew Bramante

3106 LS 1 Rapid, Low-cost, Paper-based Immunosensor for Early Detection of Dengue Virus via Salivary Dengue NS1 Antigen

**Student(s)** Matthew Jester

**Grade 11** **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante

3058 LS 2 Design of Melittin Encapsulated PLGA Nanoparticles that Cross the Blood-Brain-Barrier to Target (Lipid Simulated) Cancer Cells

**Student(s)** Autumn Kim

**Grade 10** **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante

6017 PS 2 Development of Highly-Efficient, Earth-Abundant Crystalline Perovskite - Carbon Film Solar Cells

**Student(s)** Anne-Emilie Rouffiac

**Grade 11** **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante

6036 PS 1 Portable, Simple Filtration of (Modeled) V. cholerae Infected Water using Electrified, Silver-SWCNT Nanostructures within a Sari-Cloth Textile

**Student(s)** Shun Sakai

**Grade 11** **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante

3088 LS 2 Design of a Dual-Acting Riboflavin and UV-Enhanced Contact Lens Disinfecting System

**Student(s)** Justin Speaker

**Grade 11** **Town** Greenwich

**Greenwich** Greenwich High School Mr. Andy Bramante

6094 PS 2 Using Vibrational Spectroscopy to Analyze DNA in Museum-type Bone Specimens

**Student(s)** John Trudeau

**Grade 9** **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante

6002 PS 2 Simple Creation of Portable Renewable Energy using a Recycled/Repurposed Water Bottle – C. reinhardtii Biophotovoltaic System

**Student(s)** Zachary Wang

**Grade 11** **Town** Greenwich

**Greenwich** Greenwich High School Andrew Bramante

3030 LS 1 Rapid, Smartphone-Based Diagnosis of Skin Melanoma through Differences in Tumor Cell Thermal Regulation Combined with Diffuse Spectroscopic Analysis

**Student(s)** Melissa Woo

**Grade 11** **Town** Riverside



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**Greenwich** Greenwich High School Andrew Bramante

3022 LS 2 Early Diagnosis and Tracking of Parkinson's Disease via Supervised Machine Learning Algorithms

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

**Groton** Sacred Heart School Dr. Juan Pacheco

5523 P8 1 Building a Better Hearing Aid Using Noise Cancellation

**Student(s)** Payton Noe **Grade** 8 **Town** East Lyme

**Groton** Sacred Heart School Dr. Pacheco

2513 L8 3 Which fruit contains the most vitamin c?

**Student(s)** Jazmyn Towpasz **Grade** 8 **Town** Groton

**Hamden** Hamden Hall Country Day School Dr. Gasparro

2019 L7 1 Does Dog Saliva Kill Germs & What Else Might?

**Student(s)** Lorraine Hillgen-Santa **Grade** 7 **Town** Stratford

**Hamden** Hamden High School Sophia Michalatos

6004 PS 2 Diagnosing Parkinson's Disease with Artificial Intelligence

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

**Hamden** Sacred Heart Academy Pam Brownell

6503 PST 2 Creation of a Fire Resistant Membrane in the Makeup of a Wall

**Student(s)** Mia Celentano **Grade** 10 **Town** Hamden

Aliya Cameron **Grade** 10 **Town** Hamden

**Hamden** Sacred Heart Academy Dr. Sibani Sengupta

3110 LS 2 Exploring the World of Healing Herbs: Comparison of Antibacterial Properties in Coriandem Sativum, Ocimum Basilicum and Rosmarinus Officinalis

**Student(s)** Mehr Chhatre **Grade** 9 **Town** Hamden

**Hamden** Sacred Heart Academy Mrs. Brownell

6076 PS 2 Extending the Life Expectancy of Fruits

**Student(s)** Julianna Corniello **Grade** 10 **Town** northford

**Hamden** Sacred Heart Academy Katherine Tubis

6085 PS 3 Green, Clean, Solar Machine: An effective and Natural Way to Clean Solar Panels

**Student(s)** Julia DiAngelo **Grade** 9 **Town** Wallingford

**Hamden** Sacred Heart Academy Sibani Sengupta

3073 LS 3 In Search of the Perfect Broth : Investigating the Effect of Cook Time on Glutamate levels in Bone Broth

**Student(s)** Nikita Khanna **Grade** 9 **Town** Derby

**Hamden** Sacred Heart Academy Dr. Sibani Sengupta

3044 LS 2 The Effect of Sucrose on Inhibiting Photosynthetic Pigments Found in Invasive Algae

**Student(s)** Julianna Milidantri **Grade** 11 **Town** Durham

**Hamden** Sacred Heart Academy Pamela Brownell

6095 PS 2 Is There a Sliver of Reason Behind Metals in Rosin

**Student(s)** Kristine Roy **Grade** 10 **Town** Wallingford

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**Hamden** Sacred Heart Academy Sibani Sengupta  
3006 LS 3 Investigating APOE Gene Expression in Cancer & Alzheimer's Patients: A Bioinformatics Study  
**Student(s) Adalyn Schommer** **Grade 11** **Town** Cheshire

**Hamden** Sacred Heart Academy Dr. Elizabeth Christophy  
3055 LS 3 Oysters: The Forgotten Filters  
**Student(s) Julia Tangari** **Grade 10** **Town** Wallingford

**Hartford** Environmental Sciences Magnet School at Mary Rebecca Hays  
5019 P7 3 Grow Plant Grow  
**Student(s) Prithvik Kalidasan** **Grade 7** **Town** Rocky Hill

**Hartford** Environmental Sciences Magnet School at Mary Rebecca Hays  
5023 P7 3 Just The Surface  
**Student(s) Saul Lawrence** **Grade 7** **Town** Windsor

**Hartford** Environmental Sciences Magnet School at Mary Mr.Clark  
5521 P8 3 Watch Out  
**Student(s) Mellisa Lopez** **Grade 8** **Town** Hartford

**Hartford** Environmental Sciences Magnet School at Mary Mr.Clark  
2507 L8 2 If People Can Handle Salt, Can Plants?  
**Student(s) Faiza Nadeem** **Grade 8** **Town** East Hartford

**Hartford** Environmental Sciences Magnet School at Mary Becca  
5551 P8 2 Cool Cups: A study of insulation efficiency in travel mugs  
**Student(s) Julio Palas Garcia** **Grade 8** **Town** Hartford

**Hartford** Environmental Sciences Magnet School at Mary Mr.Clark  
5544 P8 2 The Battle of The Fabrics  
**Student(s) K'Tiannie Rowland** **Grade 8** **Town** Hartford

**Hartford** Environmental Sciences Magnet School at Mary Becca Hays  
2527 L8 2 Artemia Vs. Ocean Acidification  
**Student(s) Brianna Sanchez** **Grade 8** **Town** enfield

**Hartford** Renzulli Academy Raymond Cocola  
1007 LT 3 POP! chew on this!  
**Student(s) Murthida Salaou** **Grade 7** **Town** Hartford  
**Tierra'Mari Jones** **Grade 7** **Town** New Britain

**Hartford** Renzulli Academy Raymond Cocola  
2012 L7 3 Exhausted  
**Student(s) Damarion Stanford** **Grade 7** **Town** Hartford

**Hebron** RHAM High School Ms Mitchell  
6075 PS 2 Computer Simulation of Airborne Ultrafine Particles (UFP) Environmental and Socio-Economic Factors on Alzheimer's Mortality Rates  
**Student(s) Isabelle Benson-Clarke** **Grade 11** **Town** Marlborough

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**Kent** Kent School Ben Nadire

6048 PS 1 Intuitive Control Algorithm Development of 4WIS/4WID Using A SpaceMouse

**Student(s)** Taewook Kim **Grade** 11 **Town** Kent

**Kent** Kent School Jesse Klingebiel

3003 LS 2 Topological Analysis of Protein Folding of LRRK2 Mutants in Parkinson's Disease

**Student(s)** Anna Su **Grade** 11 **Town** Kent

**Manchester** Manchester High School Megan Rader

3076 LS 3 Nitrate absorbing plants effect on acidic water

**Student(s)** Cambria Andrews **Grade** 12 **Town** Manchester

**Manchester** Manchester High School Megan Rader

3024 LS 3 Application of Cyanobacteria Anthospira Platensis as a Polyfiber Biopaper

**Student(s)** Tyler Greene **Grade** 12 **Town** Manchester

**Manchester** Manchester High School Ms. Rader

3018 LS 3 Investigating the Effects of Social Media on Loneliness

**Student(s)** Jennifer Rivard **Grade** 12 **Town** Manchester

**Manchester** Saint James School Mary J. Plante

4017 PT 2 What Material Creates the Most Static Electricity?

**Student(s)** Ryan Chacaga **Grade** 7 **Town** Vernon

David LaMonica **Grade** 7 **Town** Manchester

**Manchester** Saint James School Mary J. Plante

4022 PT 1 THE BERNOULLI EFFECT

**Student(s)** Carson Herr **Grade** 7 **Town** South Windsor

Andrew Burnham **Grade** 7 **Town** Mansfield

**Manchester** Saint James School Mary J. Plante

1002 LT 1 I'm Dyeing to Find Out

**Student(s)** Marion Patsalides **Grade** 7 **Town** Manchester

Shreya Senthil **Grade** 7 **Town** South Windsor

**Manchester** Saint James School Mrs. Plante

4027 PT 3 What Makes Ice Melt Faster?

**Student(s)** Holden Riley **Grade** 7 **Town** East Hampton

Benjamin Blackwell **Grade** 7 **Town** Manchester

**Manchester** Saint James School Mary J. Plante

4030 PT 3 Effects of Different Chemicals to Remove Stains on Clothing

**Student(s)** Isabel Taclawan **Grade** 7 **Town** East Hartford

Annabelle Krueger **Grade** 7 **Town** Willington

**Meriden** ACES-Thomas Edison STEM Middle School Mrs.Lombardi

1017 LT 3 What Makes it Grow?

**Student(s)** Ahella Bedir **Grade** 7 **Town** Meriden

Meryam Atid **Grade** 7 **Town** Meriden

Nora Elsaadani **Grade** 7 **Town** Meriden

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**Meriden** ACES-Thomas Edison STEM Middle School Caitlin Lombardi  
1021 LT 1 Does Water Temperature Affect Plant Growth  
Student(s) **Karry Guo** Grade 7 Town Middletown  
**Alyssa Arce** Grade 7 Town Meriden

**Meriden** ACES-Thomas Edison STEM Middle School Caitlin Lombardi  
1008 LT 2 What is better: Greenhouses or hydroponics?  
Student(s) **Daren Johnson** Grade 7 Town Meriden  
**Gabriel Panora** Grade 7 Town Meriden

**Meriden** ACES-Thomas Edison STEM Middle School Caitlin Lombardi  
5529 P8 3 Blown Away  
Student(s) **Haley Jordan** Grade 8 Town Meriden

**Meriden** ACES-Thomas Edison STEM Middle School Caitlin Lombardi  
1013 LT 3 Water filtration methods  
Student(s) **Eve Lapointe** Grade 7 Town Meriden  
**Naima Islam** Grade 7 Town Meriden

**Meriden** ACES-Thomas Edison STEM Middle School Caitlin Lombardi  
4032 PT 3 Paper Towel Strength  
Student(s) **Candida Meza** Grade 8 Town Meriden  
**Verenice Reyes** Grade 8 Town Meriden

**Meriden** ACES-Thomas Edison STEM Middle School Anker  
1003 LT 1 Natural Sugar Banana Count  
Student(s) **Alyssa Tack** Grade 8 Town meriden  
**Giuliana Mazzarelli** Grade 8 Town Waterbury

**Meriden** ACES-Thomas Edison STEM Middle School Caitlin Lombardi  
2022 L7 2 Electric Food  
Student(s) **Julian Valentin** Grade 7 Town meriden

**Meriden** ACES-Thomas Edison STEM Middle School Heidi Everett-Cacopardo  
2533 L8 3 Dirty sponges: investigating microbial growth on different sponge materials  
Student(s) **Arielle Vargas** Grade 8 Town Waterbury

**Meriden** Our Lady of Mount Carmel Mrs. Shemkovitz  
4020 PT 3 Measuring the variability in the strength between plexiglass and wood.  
Student(s) **Lindsay Amenta** Grade 8 Town Meriden  
**Kush Patel** Grade 8 Town Meriden

**Meriden** Our Lady of Mount Carmel Mrs. Shemkovitz  
4011 PT 2 Do Expensive Brand Name Apple Phone Chargers Charge Faster Than Less Expensive Third Party iPhone Chargers?  
Student(s) **Katelyn Feest** Grade 8 Town Meriden  
**Emma Ormsby** Grade 8 Town Meriden  
**Nicole Murzyn** Grade 8 Town Meriden

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**Meriden** Our Lady of Mount Carmel Mrs. Shemkovitz

1019 LT 3 Can dry dog food support the growth of a plant?

<b>Student(s)</b>	<b>Calvin Henderson</b>	<b>Grade 8</b>	<b>Town</b> Meriden
	<b>Michael O'Connor</b>	<b>Grade 8</b>	<b>Town</b> Meriden
	<b>Marcellino Sabino</b>	<b>Grade 8</b>	<b>Town</b> West haven

**Meriden** Our Lady of Mount Carmel Mrs. Shemkovitz

1010 LT 3 Which Soda Can Start Up Decomposition the Fastest

<b>Student(s)</b>	<b>Wesley Ong</b>	<b>Grade 8</b>	<b>Town</b> Middletown
	<b>Gabby Cioffi</b>	<b>Grade 8</b>	<b>Town</b> Meriden
	<b>Sophia Papciak</b>	<b>Grade 8</b>	<b>Town</b> Meriden

**Milford** Jonathan Law High School Tracy Turcotte

3012 LS 3 How could medications intended to cure Ebola through the NPC1 protein, negatively effect our bodies by latching onto different proteins?

<b>Student(s)</b>	<b>Rachna Vipparla</b>	<b>Grade 10</b>	<b>Town</b> Milford
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**Milford** Platt Technical High School Mrs. Stamp

6528 PST 2 Flood Remediation In-House Dehumidification System

<b>Student(s)</b>	<b>Alain Bolduc</b>	<b>Grade 11</b>	<b>Town</b> Milford
	<b>Adam-Nathaniel Soltis</b>	<b>Grade 11</b>	<b>Town</b> Stratford
	<b>Scott Clark</b>	<b>Grade 12</b>	<b>Town</b> milford

**Milford** Platt Technical High School Jessica Stamp

6524 PST 2 Natural Disaster Relief Housing

<b>Student(s)</b>	<b>Victoria St. Peter</b>	<b>Grade 10</b>	<b>Town</b> Hamden
	<b>Alyssa Ciarleglio</b>	<b>Grade 10</b>	<b>Town</b> West Haven
	<b>Johanatis Rivera</b>	<b>Grade 11</b>	<b>Town</b> Bridgeport

**New Britain** Goodwin Technical High School Caitlin McIlveen

3517 LST 2 Cosmic Powered Microbe Water Filtration System

<b>Student(s)</b>	<b>Michael Lopez</b>	<b>Grade 11</b>	<b>Town</b> Bristol
	<b>Jason Folcik</b>	<b>Grade 11</b>	<b>Town</b> bristol
	<b>Jamarys Rivera</b>	<b>Grade 11</b>	<b>Town</b> New Britain

**New Canaan** St. Aloysius School Deborah Phillips

5011 P7 3 Remote Control Ceiling Car

<b>Student(s)</b>	<b>Sofie Brauweiler</b>	<b>Grade 7</b>	<b>Town</b> New Canaan
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**New Haven** Betsy Ross Arts Magnet School Katarzyna Cichus

5513 P8 2 Friction Frenzy

<b>Student(s)</b>	<b>Sydney Herard</b>	<b>Grade 8</b>	<b>Town</b> East Haven
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**New Haven** Betsy Ross Arts Magnet School Ms Macdonald

2008 L7 3 Salty Plants

<b>Student(s)</b>	<b>Julia Murphy</b>	<b>Grade 7</b>	<b>Town</b> Stratford
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**New Haven** Betsy Ross Arts Magnet School Roisin Macdonald

2532 L8 1 From Clean to Clean

<b>Student(s)</b>	<b>Matilda Petrnick</b>	<b>Grade 8</b>	<b>Town</b> Stratford
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# Conn. Science & Engineering Fair

## Preliminary Judging Results

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

**New Haven** Engineering and Science University Magnet School Roger Rushworth  
6082 PS 2 The Effect of Continuous External Stimuli on Human Time Perception  
**Student(s)** Aiman-Imran Anuar **Grade 9** **Town** West Haven

**New Haven** Engineering and Science University Magnet School Roger Rushworth  
6513 PST 2 The Effect of Spatial Attention on Oratorical Performance  
**Student(s)** Patricia Joseph **Grade 9** **Town** Hamden  
Maryam Shabazz **Grade 9** **Town** West Haven

**New Haven** Engineering and Science University Magnet School Roger Rushworth  
3067 LS 3 The effect of heavy metals on plants with varying adapted environments  
**Student(s)** Kawtar Nadama **Grade 9** **Town** West Haven

**New Haven** Engineering and Science University Magnet School Roger Rushworth  
6502 PST 3 Faster and efficient ocean salt remover  
**Student(s)** Brandon Parson **Grade 9** **Town** New Haven  
Alexander Potter **Grade 9** **Town** West haven

**New Haven** Hopkins School Philip Stewart  
3107 LS 1 Finding a therapy for Wolfram Syndrome: Exploring a calcium signaling pathway as a target for a disease without a cure.  
**Student(s)** Saira Munshani **Grade 11** **Town** Easton

**New Haven** Hopkins School Prof. Wei Zhu  
3075 LS 2 Combinations of Phloroglucinol, Kaempferol, 3,5 Dimethoxyphenol and 1,3,5 Trimethoxybenzene as Novel Treatments for Non-Hodgkin Lymphoma  
**Student(s)** David Zhou **Grade 10** **Town** Westport

**New Haven** St. Bernadette School Kerry Martens  
5547 P8 3 What Local Town is the Best for Stargazing?  
**Student(s)** Grace Gogliettino **Grade 8** **Town** New Haven

**New Haven** St. Bernadette School Mr. Martens  
5026 P7 2 Is a Beam Bridge stronger than a Suspension Bridge?  
**Student(s)** Alex Goodwin **Grade 7** **Town** East Haven

**New Haven** Wilbur Cross High School Nick Farrell  
3052 LS 1 Developing a Functional Tracheal Replacement Graft: Studying the Effects of Graft Stiffness on Host Response  
**Student(s)** Sophie Edelstein **Grade 12** **Town** New Haven

**New Haven** Wilbur Cross High School Brendan Hare  
6054 PS 2 Designing an Integrated System for Biofeedback Measurement  
**Student(s)** Carlin Eswarakumar **Grade 12** **Town** New Haven

**New Haven** Wilbur Cross High School Brendan Hare  
3020 LS 1 Association of Music Perception and Memory  
**Student(s)** Alexandra Northrup **Grade 10** **Town** New Haven

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## Preliminary Judging Results

[SchTown] [School] [Teacher]  
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**New Haven** Worthington Hooker Middle School Mr. Jones

4014 PT 3 Off to the Starch Races

**Student(s)** Sophia Arnaut **Grade 8** **Town** New Haven  
Alexander Robinson **Grade 8** **Town** New Haven

**New Haven** Worthington Hooker Middle School Mr. Jones

5540 P8 1 Saving The Ocean: 700,000 Microplastics at a Time

**Student(s)** Athena Brown **Grade 8** **Town** New Haven

**New Haven** Worthington Hooker Middle School Mr. Jones

2017 L7 2 Melting Ice for a Living, Killing Plants on the Side

**Student(s)** Kate Kim **Grade 7** **Town** New Haven

**New Haven** Worthington Hooker Middle School Mr. Jones

4006 PT 3 Cold Pack Chemistry

**Student(s)** Maisie Moreland **Grade 7** **Town** New Haven  
Nia Lampley **Grade 7** **Town** New Haven

**New Haven** Worthington Hooker Middle School Mr. Jones

1015 LT 3 The Greenhouse Effect

**Student(s)** Hannah Ziesche **Grade 7** **Town** New Haven  
Lucy June Dunn **Grade 7** **Town** New Haven

**New London** Science and Technology Magnet High School Charles Mulligan

6514 PST 2 Thermal Performance of Alternatives to Silicone Based Thermal Interface Materials

**Student(s)** Zachary Bachofner **Grade 10** **Town** North Stonington  
Adam Bryant **Grade 10** **Town** Pawcatuck

**New London** Science and Technology Magnet High School Isabella Moniz

3070 LS 1 The Correlation Between Nitrogenous Species and the Aboveground and Belowground Biomass of *Spartina alterniflora* (common cordgrass) in a restored Salt Marsh, Barn Island, CT

**Student(s)** Sara Bouchard **Grade 11** **Town** Waterford

**New London** Science and Technology Magnet High School Mr. Brown

3011 LS 3 The Effects of Negative Thermal Stress on the Germination of Invasive Ornamental Seeds in Connecticut

**Student(s)** Elizabeth Brown **Grade 9** **Town** Ledyard

**New London** Science and Technology Magnet High School Mr. Mulligan

6034 PS 3 Correlations Between Home Insulator Composition and Potential Heat Retention

**Student(s)** Jaylen Callender **Grade 10** **Town** uncasville

**New London** Science and Technology Magnet High School Charles Mulligan

3511 LST 2 Cigarette vs. E-Cigarette Affect on Lungs

**Student(s)** Bryson Doughty **Grade 10** **Town** New London  
Alex DeGunia **Grade 10** **Town** Waterford

**New London** Science and Technology Magnet High School Mr. Brown

3045 LS 2 Phytoremediation of Lead-Contaminated Water by Sunflowers

**Student(s)** Laurelou Doyonnas **Grade 9** **Town** Mystic

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[SchTown] [School] [Teacher]  
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**New London** Science and Technology Magnet High School Mr. Brown

3078 LS 3 Optimal brownfield environment for sunflower growth

**Student(s)** Giovanni Galatioto **Grade** 10 **Town** New London

**New London** Science and Technology Magnet High School Charles Mulligan

3021 LS 1 The Efficiency Of Copper Removal Using Phytoremediation Techniques

**Student(s)** Skyler Hatter **Grade** 10 **Town** GROTON

**New London** Science and Technology Magnet High School Mr. Mulligan

6069 PS 2 ALTERNATIVE ACOUSTIC ABSORBING MATERIALS AND THEIR EFFICIENCY OF DECREASING ACOUSTIC VOLUME

**Student(s)** Esoha Kadambaya **Grade** 10 **Town** Norwich

**New London** Science and Technology Magnet High School David Brown

6028 PS 3 The Impact of Sugarcane on the Demineralization of Teeth

**Student(s)** Mary Lembree **Grade** 9 **Town** East Lyme

**New London** Science and Technology Magnet High School Mrs. Moniz

3065 LS 3 Acid Rain Effects on Marigolds

**Student(s)** Madison Moran **Grade** 11 **Town** Uncasville

**New London** Science and Technology Magnet High School Mrs. Moniz

6015 PS 3 The Effectiveness of an Inline Sodium Hydroxide (NaOH) Scrubber to Remove CO2 from Car Emissions

**Student(s)** Derek Raymond **Grade** 11 **Town** Mystic

**New London** Science and Technology Magnet High School Mr. Mulligan

3016 LS 2 Effects of the Acidic Components of Acid Deposition on the Growth of Raphanus Sativus (Radishes)

**Student(s)** Emilia Skrabacz **Grade** 10 **Town** New London

**New London** Science and Technology Magnet High School Charles Mulligan

3035 LS 3 Flu Strain and Vaccine DNA Sequence Similarity and Its Effect On the Season's Outcome: A Predictive Model

**Student(s)** Finella Smith **Grade** 10 **Town** Pawcatuck

**New London** Science and Technology Magnet High School Mulligan

3091 LS 3 How Does Different Atmosphere Temperatures Affect Plant Growth

**Student(s)** Zachary Verraneault **Grade** 10 **Town** Griswold

**New London** Science and Technology Magnet High School David Brown

3087 LS 3 Testing how Environmental Factors Affect the Decomposition Rates and pH levels of Common Household Materials

**Student(s)** Anissah White **Grade** 9 **Town** New London

**Newtown** St. Rose of Lima School Mrs. Valerie Petrillo

5029 P7 1 How Does the Shape of an Airplane Affect Its Speed and Lift?

**Student(s)** Rohan Carey **Grade** 7 **Town** Sandy Hook

**Newtown** St. Rose of Lima School Valerie Petrillo

5004 P7 3 How Much Glucose Is In That?

**Student(s)** Ava Faruol **Grade** 7 **Town** Brookfield



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[SchTown] [School] [Teacher]  
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**Newtown** St. Rose of Lima School Mrs. Valerie Petrillo  
 5009 P7 3 Which substance makes ice crystals the fastest?  
**Student(s)** Joshua Schumacher **Grade** 7 **Town** Sandy Hook

**Norwich** Norwich Free Academy Jason Croteau  
 6507 PST 2 power plants how to increase efficiency  
**Student(s)** Simon Carle **Grade** 10 **Town** Norwich  
 Ibrahim Hasson **Grade** 10 **Town** Norwich

**Norwich** Norwich Technical High School Ernest Todd  
 6527 PST 3 Robotic Talking Head  
**Student(s)** Briana Diskin **Grade** 11 **Town** Norwich  
 Justin Relaz **Grade** 12 **Town** Norwich

**Norwich** Norwich Technical High School Aleatha Pelloni  
 3518 LST 1 Effects of Metformin on the Regeneration in Planarians  
**Student(s)** Leslie Garcia **Grade** 11 **Town** Taftville  
 Angela Datilus **Grade** 11 **Town** Norwich

**Norwich** Norwich Technical High School Ms. Pelloni  
 3507 LST 1 Generation of probiotic strains with increased lactose degradation capabilities for lactose-free yogurt production  
**Student(s)** Jace Goodrow **Grade** 11 **Town** Lisbon  
 Michel Hernandez **Grade** 11 **Town** Norwich  
 Hailey Bill **Grade** 12 **Town** Baltic

**Norwich** Norwich Technical High School Jesse Morin  
 3504 LST 3 Developing a Vertical Aquaponic Garden that is not Reliant on an Electrical Source  
**Student(s)** Samantha Grott **Grade** 12 **Town** Bozrah  
 John Coleman **Grade** 12 **Town** Norwich  
 Aaron Toof **Grade** 12 **Town** Voluntown

**Norwich** Norwich Technical High School Jesse Morin  
 3510 LST 3 The Effect of Caffeine on Learning and Memory in C. Elegans  
**Student(s)** Emerald Haller **Grade** 12 **Town** Preston  
 Nathanael Padgett **Grade** 12 **Town** Lebanon

**Norwich** Norwich Technical High School Aleatha Pelloni  
 3501 LST 2 The Effect of the PRK-2 Gene on Cancer-Related Pathways in C. elegans using Mitoxantrone, which Inhibits the Human Homolog of PRK-2, PIM-1 Genes.  
**Student(s)** Dakota Ladd **Grade** 11 **Town** Taftville  
 Dylan Jencks **Grade** 11 **Town** Lisbon  
 Ashley Czech **Grade** 12 **Town** Colchester

**Norwich** Norwich Technical High School Aleatha Pelloni  
 3522 LST 1 The Effect of Biochar on Microbial Growth and Plant Growth  
**Student(s)** Jared Michaud **Grade** 11 **Town** Norwich  
 Douglas Rediger **Grade** 12 **Town** Hanover  
 Joshua McConnell **Grade** 12 **Town** Baltic

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

**Norwich** Norwich Technical High School Jesse Morin

3514 LST 3 Developing a Biopesticide BT Strain Both More Resistant to UV Rays and More Effective Against Agricultural Lepidopteran Pests

**Student(s)** Kelsey Williams **Grade** 12 **Town** Gales Ferry  
Edward Russell **Grade** 12 **Town** Colchester

**Pawcatuck** St. Michael School Mrs. Anna-Helene Grossomanides

5033 P7 2 Agar vs. Gelatin in Diffusion

**Student(s)** Rebecca Benin **Grade** 7 **Town** Pawcatuck

**Pawcatuck** St. Michael School Anna-Helene Grossomanides

5006 P7 1 LEGO MINDSTORMS EV3 - Can Accuracy Be Improved?

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

**Pawcatuck** St. Michael School Anna-Helena Grossomanides

5511 P8 3 How do boats hydrofoil?

**Student(s)** Dylan Flack **Grade** 8 **Town** Stonington

**Pawcatuck** St. Michael School Anna-Helene Grossomanides

5501 P8 3 Forces on a Sailboat

**Student(s)** Molly Kulick **Grade** 8 **Town** MYSTIC

**Pawcatuck** St. Michael School Anna-Helene Grossomanides

2007 L7 1 The Articulated Hand

**Student(s)** Lauren Vossler **Grade** 7 **Town** Pawcatuck

**Redding** CT STEM Fair - Amity Regional High School Deborah Day

3002 LS 3 Comparing the Extent of the Effect of Peer Pressure and Autonomy Support in High School Students and Teachers

**Student(s)** Andrew Kim **Grade** 10 **Town** Woodbridge

**Redding** CT STEM Fair - Amity Regional High School Catherine Piscitelli

3506 LST 2 Examining Eye Movement During Decision-Making to Characterize Attention in People with Obsessive-Compulsive Disorder

**Student(s)** Thomas Livesay **Grade** 12 **Town** Woodbridge  
Summer Schaaf **Grade** 12 **Town** Woodbridge

**Redding** CT STEM Fair - Amity Regional High School Catherine Piscitelli

3098 LS 3 Using Artificial Neural Network Machine Learning Algorithms to Detect Melanoma Skin Lesions

**Student(s)** Keri Tenerowicz **Grade** 12 **Town** Bethany

**Redding** CT STEM Fair - Amity Regional High School Deborah Day

6005 PS 2 Real-Time Sinkhole detection using Civil Engineering techniques, the Internet of Things (IoT), and Artificial Intelligence

**Student(s)** Sophia Wang **Grade** 11 **Town** Woodbridge

**Redding** CT STEM Fair - Greenwich High School Andrew Bramante

6090 PS 1 Al(III)-Mediated Ionic Conduction in New Abundant Metakaolin Solid Electrolyte for Safe, Efficient Power Grid Na-Ion Batteries

**Student(s)** Alexander Kosyakov **Grade** 12 **Town** Riverside

# Conn. Science & Engineering Fair

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[SchTown] [School] [Teacher]  
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**Redding** CT STEM Fair - Greenwich High School Andrew Bramante  
6024 PS 1 Open-source, In-field Android and iOS Detection and Mapping of Waterborne Diseases via Time-Based Spectroscopic Sensing and RGB Luminance with a New 3D Printable Optical Interface  
**Student(s)** Nicholas Liu **Grade** 12 **Town** Greenwich

**Redding** CT STEM Fair - Staples High School Karen Thompson  
3085 LS 2 Non-invasive, Early Detection of Invasive Ductal Carcinoma (IDC) via Deep Convolutional Neural Networks Using Breast Cancer Histology Images  
**Student(s)** Aniruddha Murali **Grade** 12 **Town** Westport

**Redding** Joel Barlow High School Paul Testa  
3077 LS 1 Detrimental Ecological Impacts on Eruca Vesicaria Sativa  
**Student(s)** Olivia Fassman **Grade** 11 **Town** Redding

**Redding** Joel Barlow High School Dr. Katherine Nuzzo  
3109 LS 3 Capacity of Nymphaeaceae for Phytomediation of Zn in Freshener Applications  
**Student(s)** Christopher Gomolak **Grade** 12 **Town** Easton

**Redding** Joel Barlow High School Paul Testa  
3017 LS 3 Investigating the Effects of Different Sound Frequency and Water Levels on the Growth of the Common Bean Plant (Phaseolus vulgaris)  
**Student(s)** Cameron Hirsch **Grade** 11 **Town** Redding

**Redding** Joel Barlow High School Katherine Nuzzo  
3032 LS 2 The effect of inoculating Rhizobium bacteria into Helianthus annuus L. to increase drought tolerance.  
**Student(s)** Kathryn Liu **Grade** 11 **Town** Easton

**Redding** Joel Barlow High School Dr. Katherine Nuzzo  
3066 LS 3 Association of Tachycardia in Academic Performance in Youth  
**Student(s)** Madeleine McHale **Grade** 11 **Town** Redding

**Redding** Joel Barlow High School Paul Testa  
6525 PST 3 The Real-Time Dynamic Classification of American Sign Language with a System of 2D and 3D Convolutional Neural Networks  
**Student(s)** Sean McHale **Grade** 11 **Town** Redding  
Kol Crooks **Grade** 11 **Town** Redding

**Redding** Joel Barlow High School Paul Testa  
3061 LS 1 The effect of Deuterium oxide (D2O) on the viability of Coliphage bacteriophages under Low temperatures as a model for stability in live attenuated viral vaccines  
**Student(s)** Annika Morgan **Grade** 12 **Town** Redding

**Redding** Joel Barlow High School Paul Testa  
3023 LS 2 Novel, Non Covalent Inhibitors of TEM-1 Beta Lactamase  
**Student(s)** Owen O'Reilly **Grade** 11 **Town** Redding

**Redding** Joel Barlow High School Paul Testa  
3049 LS 2 Analysis of PHA Plastic Biodegradation in Marine Environments  
**Student(s)** Zachary Shortt **Grade** 11 **Town** Easton

**Redding** Joel Barlow High School Paul Testa  
6030 PS 3 Effects of Sulfides on Atmosphere  
**Student(s)** Matthew Sun **Grade** 11 **Town** Redding

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[SchTown] [School] [Teacher]  
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**Ridgefield** Ridgefield High School Ryan Gleason  
6016 PS 3 Single Stage to Orbit Spaceplane Utilizing Hybrid Propulsion Design Study  
Student(s) **Josh Burns** Grade 12 Town Ridgefield

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**Ridgefield** Ridgefield High School Mr. Ryan Gleason  
3034 LS 2 Testing the limits of eDNA preservation  
Student(s) **Rebecca Cohen** Grade 12 Town Ridgefield

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**Ridgefield** Ridgefield High School Patrick Hughes  
3008 LS 3 Investigating the Role of Substance P in Reducing Hunger Signals in Anorexia Nervosa  
Student(s) **Sophia Haber** Grade 12 Town Ridgefield

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**Ridgefield** Ridgefield High School Ryan Gleason  
3095 LS 2 Determining the Potential of an Encapsulin-Ferritin System as a Reporter for Magnetic Resonance Imaging  
Student(s) **Katharine King** Grade 12 Town Ridgefield

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**Ridgefield** Ridgefield High School Patrick Hughes  
3515 LST 2 The analysis of lead in water samples using the SCiO handheld scanner  
Student(s) **Samantha Margolin** Grade 12 Town Ridgefield  
**Anna Doman** Grade 12 Town Ridgefield

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**Salisbury** Salisbury School Tobias Ayer  
6055 PS 2 The development of a dynamic vehicle sound absorption device using a variable Helmholtz resonator  
Student(s) **Jaeho Sung** Grade 11 Town Salisbury

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**Sandy Hook** Newtown High School Timothy DeJulio  
6083 PS 2 Computational Fluid Dynamics Study of Turbulence  
Student(s) **Bryan Ingwersen** Grade 12 Town Sandy Hook

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**Sandy Hook** Newtown High School Mr. DeJulio  
3026 LS 2 The Study of Applied Bioinformatics  
Student(s) **Timothy White** Grade 12 Town Newtown

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**Shelton** Shelton High School Ernest Pagliaro  
6061 PS 2 The Clean Water Project  
Student(s) **Michael DeLeo** Grade 10 Town Shelton

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**Shelton** Shelton High School James McDougal  
6087 PS 2 Sky Sugar: Engineering Biodegradable and Edible Balloons  
Student(s) **David Ferrara** Grade 12 Town Shelton

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**Shelton** Shelton High School Patricia Presutto  
6035 PS 3 A Comparative Analysis of R and SPSS on Panel and Cross-sectional Data for Labor Cost over Thirty Years  
Student(s) **Siddharth Jain** Grade 11 Town Shelton

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**Shelton** Shelton High School Ms. Lichtenberger  
3079 LS 3 The Helping Hand  
Student(s) **Sanya Oak** Grade 9 Town SHELTON

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[SchTown]	[School]	[Teacher]	[Proj#]	[FCat]	[Honors]	[Project Title]			
Shelton	Shelton High School	Ernest Pagliaro	6021	PS	3	Clean Screen	Student(s)	Kyle Young	Grade 11 Town Shelton
Shelton	Shelton Intermediate School	Mrs. Magnan	5527	P8	3	Testing Airfoils in a Wind Tunnel	Student(s)	Benjamin DeMartino	Grade 8 Town Shelton
Shelton	Shelton Intermediate School	Adam Rudman	4003	PT	3	Rock Candy Science	Student(s)	McBenedict Mweze Mikhail Rodov	Grade 7 Town Shelton Grade 7 Town Shelton
Shelton	Shelton Intermediate School	Dr. Napoli	5554	P8	2	Power Up Baseball Hits	Student(s)	Kenneth Supersano	Grade 8 Town Shelton
South Windsor	South Windsor High School	Jim Chin	3523	LST	3	Compact, automated farm for anywhere and any time	Student(s)	Matthew Chin Kashyap Rao	Grade 9 Town South Windsor Grade 9 Town South Windsor
Stamford	Bi-Cultural Hebrew School	Chris Graseck	2001	L7	3	What Nutrients Help Azolla Grow? How Can We Use This To Fight Climate Change?	Student(s)	Esther Goldstein	Grade 7 Town Ridgefield
Stamford	Bi-Cultural Hebrew School	Chris Graseck	1005	LT	2	Is Salt Beneficial for Plant Growth?	Student(s)	Ella Hecht Nily Genger	Grade 7 Town Stamford Grade 7 Town New canaan
Stamford	Bi-Cultural Hebrew School	Christopher Grasek	1001	LT	1	Drought Tolerance of Herbs	Student(s)	Charlotte Moreen Jason Kwalwasser	Grade 7 Town Stamford Grade 7 Town Stamford
Stamford	Bi-Cultural Hebrew School	Chris Graseck	1012	LT	2	Salt Tolerance of Plants	Student(s)	Teresa Weiner Samuelle Sendersky	Grade 7 Town Stamford Grade 7 Town Samford
Stamford	Catholic Academy of Stamford	Kieran Hyland	4010	PT	3	Milk Magic	Student(s)	Eden Cheung Marcello Labbate	Grade 8 Town Stamford Grade 8 Town Greenwich
Stamford	Catholic Academy of Stamford	Kieran Hyland	4024	PT	3	Yogurt Ravioli	Student(s)	Caroline Ellis Lily Murphy	Grade 7 Town Stamford Grade 7 Town Stamford

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[SchTown] [School] [Teacher]  
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**Stamford** Catholic Academy of Stamford Kieran Hyland

4018 PT 2 Disappearing Act

**Student(s)** Rachel Janik **Grade 7** **Town** Stamford

Oliva Tomas **Grade 7** **Town** Stamford

**Stamford** Catholic Academy of Stamford Kieran Hyland

4031 PT 3 Juice Balls

**Student(s)** Michele Pannone **Grade 8** **Town** Stamford

Samantha Pershqefa **Grade 8** **Town** Stamford

**Stamford** Catholic Academy of Stamford Kieran Hyland

5002 P7 3 Cabbage Chemistry

**Student(s)** Angelika Rus **Grade 7** **Town** stamford

**Stamford** Scofield Magnet Middle School Louise McMinn

5022 P7 1 Water Quality of the Rippowam River

**Student(s)** Aryan Pandalai **Grade 7** **Town** Stamford

**Storrs** E.O. Smith High School Cheryl Granger

6053 PS 2 Designing an Efficient Roof-Mounted Wind Turbine System

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

**Stratford** St. Mark School Mrs. Olins

2506 L8 2 Going Bananas!

**Student(s)** Skyler Johansen **Grade 8** **Town** Stratford

**Stratford** St. Mark School Mrs. Olins

1009 LT 2 The Quicker Picker Upper?

**Student(s)** Julia Lacasse **Grade 7** **Town** Stratford

Jenny Wu **Grade 7** **Town** Stratford

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

2509 L8 2 Deep Freeze Cell-e-bration (Cell cryopreservation in salt and sugar)

**Student(s)** Elizabeth Long **Grade 8** **Town** Milford

**Stratford** St. Mark School Mrs. Olins

5504 P8 2 Erosion in Motion

**Student(s)** Peter Pigliucci **Grade 8** **Town** Shelton

**Suffield** Suffield High School Melanie Brown

6041 PS 3 Mitigating the Waste of Single-Use Plastic Water Bottles Through a Simple Identification System

**Student(s)** Madison Gdomski **Grade 12** **Town** West Suffield

**Suffield** Suffield High School Melanie Brown

3060 LS 2 The Effect of Spatial Awareness on the Human Brain

**Student(s)** Laila Lawson **Grade 10** **Town** West Suffield

**Suffield** Suffield High School Melanie Brown

6045 PS 3 Water Vehicle Stabilizers Using Weight Adjusting to Wind and Water Currents

**Student(s)** Ayush Mehta **Grade 9** **Town** Suffield

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[SchTown] [School] [Teacher]  
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**Suffield** Suffield High School Melanie Brown  
6038 PS 3 Using motion sensors to help reduce collisions on the ski hill  
**Student(s) Jack Shanks** **Grade 9** **Town** Suffield Connecticut

**Suffield** Suffield High School Melanie Brown  
3524 LST 3 How do electromagnetic forces affect plant growth?  
**Student(s) Aarya Vasantlal** **Grade 9** **Town** Suffield  
**Avie Vasantlal** **Grade 9** **Town** Suffield

**Suffield** Suffield High School Mrs. Brown  
6060 PS 3 How Can Solar Power be Streamlined so it is More Cost Effective and Utilized Efficiently?  
**Student(s) Haley Young** **Grade 10** **Town** West Suffield

**Trumbull** Christian Heritage School 203-217-7498  
6098 PS 2 Building and Testing a Radon Daughter Collector and Detector  
**Student(s) Mia Angelini** **Grade 11** **Town** Trumbull

**Trumbull** Christian Heritage School Daniel Cote  
6014 PS 3 Piezoelectric Generator Insoles  
**Student(s) Marckwin Bristhole** **Grade 11** **Town** Bridgeport

**Trumbull** Christian Heritage School Daniel Cote  
5541 P8 3 The Crane: One of the Most Useful Compound Machines  
**Student(s) Noah Bruce** **Grade 8** **Town** Trumbull

**Trumbull** Christian Heritage School Mr. Cote  
6065 PS 2 Getting the Most Out of Solar Panels  
**Student(s) Anda Liang** **Grade 11** **Town** Trumbull

**Trumbull** Christian Heritage School Mr. Cote  
6042 PS 2 The Effect of Magnets on the Performance of Bike Suspensions  
**Student(s) William Parrish** **Grade 11** **Town** Milford

**Trumbull** Christian Heritage School Daniel Cote  
2529 L8 1 Use of Bioluminescent Dinoflagellates to Detect Water Contaminants  
**Student(s) Samuel Tsao** **Grade 8** **Town** OLD GREENWICH

**Trumbull** Hillcrest Middle School Jennifer Bauer-Tibor  
5519 P8 2 Integrating Intelligence Systems into Humanoid Robot Using Raspberry Pi  
**Student(s) Nicholas Lee** **Grade 8** **Town** Trumbull

**Trumbull** Trumbull High School Steffanie Elkins  
6056 PS 3 Glider  
**Student(s) Charitarth Chugh** **Grade 10** **Town** Trumbull

**Trumbull** Trumbull High School Steffanie Elkins  
3062 LS 3 The Effect of Type of Stress on Academic Performance.  
**Student(s) Howard Qian** **Grade 11** **Town** Trumbull

**Wallingford** Choate Rosemary Hall Betty Wang  
6073 PS 1 Enhanced Photocatalytic Activity of Carbon Dots Grafted TiO2 Nanorods  
**Student(s) Shimin Cai** **Grade 11** **Town** wellesley

# Conn. Science & Engineering Fair

## Preliminary Judging Results

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

**Wallingford** Choate Rosemary Hall Ben Small

3090	LS	2	Investigating Action Potentials of <i>L. terrestris</i> for Pharmacological Effects
<b>Student(s)</b> Hyunseo Kim			<b>Grade 11</b> <b>Town</b> Wallingford

**Wallingford** Choate Rosemary Hall Professor Yannis K. Semertzidis

6025	PS	2	Beam Dynamics as a Function of Scraping Parameter Studies For the Muon g-2 Experiment at Fermilab/Chicago
<b>Student(s)</b> Anjali Mangla			<b>Grade 11</b> <b>Town</b> Cheshire

**Wallingford** Choate Rosemary Hall Ben Small

3046	LS	2	Sleep Deficiency among High School Students
<b>Student(s)</b> Yuting Wang			<b>Grade 11</b> <b>Town</b> Houshayu, Shunyi District

**Wallingford** Choate Rosemary Hall Chris Hogue

3084	LS	2	Utilizing a GFP to BFP Reporter Construct to Quantify Gene Targeting Efficiency
<b>Student(s)</b> Jonathan Wu			<b>Grade 12</b> <b>Town</b> Wilton

**Waterbury** Our Lady of Mount Carmel School Tricia Ann Vertuccio

2514	L8	3	Catch my drift?
<b>Student(s)</b> Gabriel deLevie			<b>Grade 8</b> <b>Town</b> Naugatuck

**Waterbury** Our Lady of Mount Carmel School Tricia Ann Vertuccio

4015	PT	3	Which Wheels Work?
<b>Student(s)</b> Taylor Kunkel			<b>Grade 7</b> <b>Town</b> Waterbury
<b>Student(s)</b> Aoife Lee			<b>Grade 7</b> <b>Town</b> Waterbury

**Waterbury** Our Lady of Mount Carmel School Tricia Ann Vertuccio

5015	P7	3	Fire and Sharp Things
<b>Student(s)</b> Luke Reilly			<b>Grade 7</b> <b>Town</b> Naugatuck

**Waterbury** Our Lady of Mount Carmel School Tricia Ann Vertuccio

5525	P8	3	Aerodynamic Under Construction
<b>Student(s)</b> Nicolas Rosales			<b>Grade 8</b> <b>Town</b> Waterbury

**Watertown** The Taft School Jim Mooney

6529	PST	3	On the Polygon Determined by the Short Diagonals of a Convex Polygon.
<b>Student(s)</b> Yi Won Kim			<b>Grade 11</b> <b>Town</b> Watertown
<b>Student(s)</b> Andrew Lee			<b>Grade 10</b> <b>Town</b> Wallingford

**West Hartford** Bristow Middle School Janice LaVangie

5012	P7	2	A low-cost and efficient way to harvest biomechanical energy: Generating electricity from people during daily activities
<b>Student(s)</b> Angela Zhang			<b>Grade 7</b> <b>Town</b> West Hartford

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

2014	L7	1	Plants on the Move
<b>Student(s)</b> Kaylana Caguitla			<b>Grade 7</b> <b>Town</b> West Hartford

**West Hartford** St. Timothy Middle School Mr. Kevin Gemmell

5542	P8	3	Surf's Up
<b>Student(s)</b> Thomas Baldini			<b>Grade 8</b> <b>Town</b> West Hartford



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**West Hartford** St. Timothy Middle School Mr. Gemmell

5550	P8	3	Breaking the Ice
<b>Student(s)</b> Connor Dainiak			<b>Grade 8</b> <b>Town</b> West Hartford

**West Hartford** St. Timothy Middle School Kevin Gemmell

5034	P7	3	Candy Chromatography
<b>Student(s)</b> Ava Rotundo			<b>Grade 7</b> <b>Town</b> West Hartford

**Weston** Weston Middle School Jamie Charles

2510	L8	3	How do height and weight affect swimming race times?
<b>Student(s)</b> Madeleine Revzon			<b>Grade 8</b> <b>Town</b> Weston

**Westport** Bedford Middle School NA

2511	L8	1	Analysis of SNPs' association with early onset of Alzheimer's disease
<b>Student(s)</b> Aalok Bhattacharya			<b>Grade 8</b> <b>Town</b> Westport

**Westport** Staples High School Karen Thompson

6510	PST	1	Optimization of High-Efficiency Organic-Inorganic Lead Halide Perovskite Solar Cells via a Novel Polycaprolactone Additive Pathway
<b>Student(s)</b> Sirina Prasad			<b>Grade 12</b> <b>Town</b> Westport
<b>Student(s)</b> Anisa Prasad			<b>Grade 12</b> <b>Town</b> Westport

**Wilton** Middlebrook Middle School Mrs. Mallozzi

5510	P8	1	Fighting Wildfires with Data from Satellite Remote Sensors.
<b>Student(s)</b> Gayathri Kaimal			<b>Grade 8</b> <b>Town</b> Wilton

**Wilton** Middlebrook Middle School Debbie Mallozzi

5514	P8	2	Medibox
<b>Student(s)</b> Varun Vadhera			<b>Grade 8</b> <b>Town</b> Wilton

**Wilton** Middlebrook Middle School Mrs. Garcia

5502	P8	1	Alternative Household Method to Extinguish Fires
<b>Student(s)</b> Keerthi Vijay			<b>Grade 8</b> <b>Town</b> Wilton

**Wilton** Wilton High School Patricia Rinaldi

6031	PS	3	Network Throttling Detector
<b>Student(s)</b> Rohan Vaddiraju			<b>Grade 10</b> <b>Town</b> Wilton

**Windsor** Academy of Aerospace and Engineering Lili Aramli

3050	LS	3	Addiction and Regeneration in Planaria
<b>Student(s)</b> Nithila Annadurai			<b>Grade 11</b> <b>Town</b> Newington

**Windsor** Academy of Aerospace and Engineering Dr. Lili Aramli

6009	PS	3	How can commercially available consumer-level modern wearable technology devices be adapted and applied to the biomedical field?
<b>Student(s)</b> Rishan Annadurai			<b>Grade 11</b> <b>Town</b> Newington

**Windsor** Academy of Aerospace and Engineering Lili Aramli

3005	LS	3	Stress and Heart Disease
<b>Student(s)</b> Richa Balamurugan			<b>Grade 11</b> <b>Town</b> Newington

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**Windsor** Academy of Aerospace and Engineering Dr. Bellinger

6506 PST 2 Effect of varying shape memory alloys on the folding mechanism of a pollination device and the efficiency of the collection and dispersion using electrostatic forces.

**Student(s)** **Gianna Guzzo** **Grade 11** **Town** Suffield  
**Andrea Lacunza** **Grade 11** **Town** Avon

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

6530 PST 1 Optimizing Archimedian screw geometry to increase the energy conversion efficiency of a micro hydropower plant.

**Student(s)** **Devesh Kakkar** **Grade 11** **Town** South Windsor  
**Johnathan Bell** **Grade 11** **Town** Glastonbury

**Windsor** Academy of Aerospace and Engineering Dr. Lili Aramli

3103 LS 3 Effect of External Exposure of Low-Intensity Light on Breast Cancer Cell Proliferation With Plexiglass-Bead Radiation Absorption and Emission

**Student(s)** **Emily Ngo** **Grade 11** **Town** South Windsor

**Windsor** Academy of Aerospace and Engineering Dr. Bellinger

6092 PS 1 The Effect of Piezoelectric Cantilever Beam Design and Spatial Positioning in a Network on the Efficiency and Maximum Energy Output of a Vibro Wind Unit.

**Student(s)** **Jean Pasato** **Grade 12** **Town** Middletown

**Windsor** Academy of Aerospace and Engineering Dr. Bellinger

6511 PST 1 The Effect of Hydrofoil Design Parameters on Dynamic Behavior and Energy Extraction Efficiency of an Oscillating Hydrofoil Power Generation Unit

**Student(s)** **Christopher Rinaldi** **Grade 12** **Town** Enfield  
**Abhiram Tirumala** **Grade 12** **Town** South Windsor

**Windsor** Academy of Aerospace and Engineering Michelle Bellinger

6521 PST 1 Development of In-situ Fabrication Methods of Martian Construction Material

**Student(s)** **Cristian Rodriguez** **Grade 12** **Town** East Hartford  
**Srikar Godilla** **Grade 12** **Town** Newington

**Windsor** Academy of Aerospace and Engineering Dr. Bellinger

6058 PS 1 The Effect of Design Parameters and Operating Conditions on Optimal Energy Conversion and Force Generation in a Magnetohydrodynamic Drive

**Student(s)** **Vishakh Talanki** **Grade 12** **Town** South Windsor

**Windsor** Academy of Aerospace and Engineering - MS Dr. Bellinger

4012 PT 1 What is the Effect of the Frequency of "Oobleck" on its Flow?

**Student(s)** **Cody Chivinski** **Grade 8** **Town** Torrington  
**Ronak Ramesh** **Grade 7** **Town** Middletown

**Windsor** Academy of Aerospace and Engineering - MS Dr. Bellinger

4028 PT 1 Do Contaminants Effect the Strength of Concrete at Construction Sites?

**Student(s)** **Justin Ho** **Grade 8** **Town** Suffield  
**Nicholas Sattan** **Grade 8** **Town** Suffield

**Windsor** Madina Academy Mrs. Rania

4004 PT 2 Using copper instead of stainless steel to build an hho generator to prevent the production of toxic chromium ions.

**Student(s)** **abdulmalik ajdinoski** **Grade 8** **Town** windsor locks  
**Ahmad Zoghol** **Grade 8** **Town** Enfield

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**Windsor** Madina Academy Tim Coleman  
5512 P8 3 Dry Ice Effects  
**Student(s)** Saad Farooq **Grade 8** **Town** Windsor

**Windsor** Madina Academy Mr. Coleman  
4008 PT 1 An innovative way to remove oil from water.  
**Student(s)** Amer Kabatilo **Grade 8** **Town** Windsor  
Zain Kabatilo **Grade 8** **Town** Windsor

**Windsor** Madina Academy Mr. Coleman  
1014 LT 2 Is There Bacteria in My Food?  
**Student(s)** Marriam Khan **Grade 8** **Town** Windsor  
Aichatou Tidjani **Grade 8** **Town** Springfield  
Haneen Abuteen **Grade 8** **Town** Windsor

**Windsor** Madina Academy mr coleman  
6505 PST 2 Harnessing Energy from Temperature Differences Created by Hot Water  
**Student(s)** Ahmad Mohammed **Grade 10** **Town** Windsor  
Muaz Sharaf **Grade 10** **Town** Windsor Locks  
Ahmed Zeinalabdin **Grade 10** **Town** Windsor

**Windsor** Madina Academy Tim Coleman  
6516 PST 2 Designing a multi-climatic tent system to help manage the comfortable sheltering of people during international crises and natural disasters.  
**Student(s)** Al-Yaman Zoghoh **Grade 10** **Town** Enfield  
Enis Shelbaya **Grade 10** **Town** South Windsor

**Windsor** St. Gabriel School Margaret Rosa  
5036 P7 2 Don't Keep Me in Suspense  
**Student(s)** Ben Owen **Grade 7** **Town** Windsor

**Windsor** St. Gabriel School Miss Meg Rosa  
5537 P8 2 Freezing Substances  
**Student(s)** Michael Sponzo **Grade 8** **Town** Windsor

**Windsor** St. Gabriel School Miss Rosa  
5533 P8 3 Temperature vs. Time  
**Student(s)** Katherine Wilkos **Grade 8** **Town** Windsor

**Windsor** The Loomis Chaffee School Koby Osei-Mensah  
6052 PS 2 A Novel Activation Function for a Convolutional Neural Network Implemented Without Machine Learning Libraries  
**Student(s)** Aresh Pourkavoos **Grade 10** **Town** Avon

**Windsor** The Loomis Chaffee School Mr. Oseih  
3014 LS 3 Study of injectable hydrogel microspheres loaded with bone marrow mesenchymal stem cells for the treatment of degenerative intervertebral disc  
**Student(s)** haokai Shen **Grade 11** **Town** Windsor

**Woodbridge** Amity Regional High School Mrs. Piscitelli  
3048 LS 2 The Effect of Ocean Water's pH on Asian Shore Crab (Hemigrapsus sanguineus) Growth  
**Student(s)** Talia Barry **Grade 12** **Town** Orange

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**Woodbridge** Amity Regional High School Catherine Piscitelli

3019 LS 3 Structural Changes in the Prefrontal Cortex in an Activity-based Animal Model of Anorexia

**Student(s) Rhea Dey**

**Grade 11 Town** WOODBRIDGE

**Woodbridge** Amity Regional High School Catherine Piscitelli

6070 PS 3 Quantification of Cancer Cell Response to Squeezing Effect in 3D

**Student(s) Rosie Du**

**Grade 12 Town** New Haven

**Woodbridge** Amity Regional High School Catherine Piscitelli

6019 PS 3 Split Streams as a Novel Determinant of Extreme Severe Thunderstorm Potential in the Northeastern US

**Student(s) Jacob Feuerstein**

**Grade 12 Town** Woodbridge

**Woodbridge** Amity Regional High School Catherine Piscitelli

3508 LST 2 Investigating various characteristics of Rhododendron Plants Across Multiple Ploidies

**Student(s) Austin Gilbride**

**Grade 12 Town** Woodbridge

**Joseph Benedetti**

**Grade 12 Town** Bethany

**Woodbridge** Amity Regional High School Catherine Piscitelli

3009 LS 2 The Effect of Recurrent Hypoglycemia on Metabolic Enzyme Expression Levels

**Student(s) Jody Liu**

**Grade 11 Town** Orange

**Woodbridge** Amity Regional High School Catherine Piscitelli

6081 PS 2 Comparing Functional Connectivity Scan Reliability Between the Prisma and TimTrio Scanners

**Student(s) Tracy Lu**

**Grade 11 Town** Woodbridge

**Woodbridge** Amity Regional High School Catherine Piscitelli

6029 PS 2 Analyzing Particulate Matter Atmospheric Pollution Trends in Connecticut

**Student(s) Ella Marin**

**Grade 11 Town** Woodbridge

**Woodbridge** Amity Regional High School Catherine Piscitelli

3033 LS 3 The Effect of Light Color on the Mass of Leafy Green Algae (*Ulva lactuca*) Eaten by the Periwinkle Snail (*Littorina littorea*)

**Student(s) Nicole Mongillo**

**Grade 11 Town** Orange

**Woodbridge** Amity Regional High School Catherine Piscitelli

6040 PS 2 Degree Centrality and Betweenness Centrality: Predicting Viral Videos Based on Social Connectedness

**Student(s) Kayla Morgan**

**Grade 11 Town** Woodbridge

**Woodbridge** Amity Regional High School Catherine Piscitelli

3100 LS 3 The Impact of Seasonal Temperature Variation on Phytoplankton Biomass

**Student(s) Arnav Paliwal**

**Grade 10 Town** Woodbridge

**Woodbridge** Amity Regional High School Deborah Day

3029 LS 2 The Effect of Increased Tidal Inundation on the Behavior of Salt Marsh Birds

**Student(s) Natalie Prinz**

**Grade 11 Town** Bethany

**Woodbridge** Amity Regional High School Catherine Piscitelli

3051 LS 2 Comparing Methods of Measurement of Cell Signals in Macrophages

**Student(s) Neha Sudhir**

**Grade 12 Town** Woodbridge

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**Woodbridge** Amity Regional High School Catherine Piscitelli

6064	PS	1	Designing and Testing an Aid for the Visually Impaired
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**Student(s)** Shyam Viswanathan **Grade** 10 **Town** Woodbridge

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**Woodbridge** Amity Regional High School Catherine Piscitelli

6012	PS	2	Developing Age Detection Software Based on Touch Behavior
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**Student(s)** Kate Yuan **Grade** 12 **Town** Woodbridge

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