



Connecticut Science & Engineering Fair

Quinnipiac University

March 6 - 18, 2023

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]	Student(s)	Grade	Town
Avon	Avon High School	John Salerni	3126	LS	2	Discovery of novel therapeutic targets and pathways for acute kidney injury using proteomics	Jack Wang	11	Avon
Avon	Farmington Valley Academy	Bobbi Woodbury	1017	LT	3	What's in Our Water?	Catherine Hogan Gracie Bennett	7 8	Farmington Farmington
Avon	Talcott Mountain Academy	Dr Brigette Zacharczenko	2002	L7	2	Shining light on cricket growth	Rand Copley	7	new hartford
Avon	Talcott Mountain Academy	Hannah Marye	5511	P8	1	Mitigating the Threat of Microplastics in Drinking Water: The Potential of Coconut Fiber and Activated Coconut Charcoal as Sustainable Filtration Materials	Rhea Doshi	8	Farmington
Avon	Talcott Mountain Academy	Doctor Brigette Zacharczenko	2026	L7	1	What Color Light Is A Cockroach's Favorite?	Yveson Hsiao	7	Farmington
Avon	Talcott Mountain Academy	John Pellino	2530	L8	3	Does reaction time differ based on the amount candy you eat?	Ilana Mezheritskiy	8	Avon
Avon	Talcott Mountain Academy	Dr. Brigette Zacharczenko	2513	L8	3	Natural Plant Dyes	Alaina Ryan	8	Granby
Avon	Talcott Mountain Academy	Brigette Zacharczenko	2010	L7	2	Should You Buy Grow Lights?	Justin Xu	7	West Hartford
Bethel	Bethel High School	Ray Turek	6046	PS	3	League of Legends Esports AI: Training a Machine Learning Model in a Dynamic Gameplay Environment from Professional Human Experience	Mashnoov Chowdhury	11	Bethel
Bethel	Bethel High School	Mr. Raymond Turek	3052	LS	3	How Does the Duration of Contact lens use and the Number of Times Saline Solution is Changed Affect the Amount of Lysozyme Protein Build-up on its Surface?	Zoe Demo	11	bethel

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Bethel Bethel High School Ray Turek
3094 LS 3 Testing Plant Communication via Plant/Non-Plant Volatile Organic Compounds (VOC) when under Herbivory stress
Student(s) Juliana Habshey **Grade** 11 **Town** Bethel

Bethel Bethel High School Mr. Turek
3006 LS 3 Using a C++ Game Engine to Create an Interactive Model of The Interactions Between Ants or Worms With Plants and the Resulting Carbon Footprint
Student(s) Samantha Schneider **Grade** 12 **Town** Bethel

Bethel Bethel High School Raymond Turek
3035 LS 3 Quest for Creating Sustainable and Safe Nail Extensions: The Amberization of Tree Resin, Bio-Based Polymerized Compounds, and Monomerization of Acrylic
Student(s) Simar Soni **Grade** 11 **Town** Bethel

Bethel Bethel High School Ray Turek
6072 PS 2 Robotics Collision Course Prevention
Student(s) Brendon Spies **Grade** 12 **Town** Bethel

Bethel Bethel High School Mr. Raymond Turek
3116 LS 3 The Impact of Pesticide legislation on the risk of Gastroschisis Maternal Birth Defects
Student(s) Hannah Stowell **Grade** 11 **Town** Bethel

Bethel Bethel High School Ray Turek
3123 LS 2 The Relationship Between Virtual Reality Activities and the Side Effects Associated.
Student(s) Arielle Vassell **Grade** 11 **Town** Bethel

Bethel Bethel Middle School Jason Maxwell
2533 L8 1 D.E.R.M.A. (Dermatologic Equipment for Rapid Medical Analysis)
Student(s) Toshan Bhattacharya **Grade** 8 **Town** Bethel

Bloomfield Academy of International Studies Dr. Davis
5515 P8 3 Humans Living on Mars by 2030
Student(s) Brooklyn-Amaya Thompson **Grade** 8 **Town** Bloomfield

Bozrah Fields Memorial School Joshua Fish
5505 P8 1 Porosity, Permeability Rates, and Water Movement Through Various Commercial Crushed Rock Sizes as it Relates to Drainage Rock in the Excavation Trade
Student(s) Leah Kozerefski **Grade** 8 **Town** Gilman

Bozrah Fields Memorial School Joshua Fish
5512 P8 2 Does Air Pressure Affect How Far A Soccer Ball Travels In The Air When Kicked?
Student(s) Tyler Savoie **Grade** 8 **Town** Gilman

Bridgeport Harding High School Dionne Cross
6018 PS 3 The Effect of Using Indophenol to Find Out How Much Vitamin C Different Kinds of Fruit Contains
Student(s) Philip Santiago **Grade** 9 **Town** Bridgeport

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Bridgeport Bassick High School Eley Varghese

6516 PST 3 Oil Absorption- Testing oil absorptivity and identify the material (sorbents) that is most effective for oil spills.

Student(s) Brenda Ranzha **Grade** 11 **Town** Bridgeport
Asly Alvarado **Grade** 11 **Town** Bridgeport
Shayla Lopez **Grade** 11 **Town** Bridgeport

Bridgeport Black Rock School Tejas Godbole

4003 PT 1 Solar Powered Charger

Student(s) Nilah DeJesus **Grade** 8 **Town** Bridgeport
Karina Conde **Grade** 8 **Town** Bridgeport

Bridgeport Bridgeport Aquaculture Center Kirk Shadle

3124 LS 1 Utilizing the Nematocysts of Cassiopea xamachana as a Bioactive Antiproliferative Compound

Student(s) Grace Kistner **Grade** 12 **Town** Fairfield

Bridgeport Bridgeport Aquaculture Center Kirk Shadle

6082 PS 2 A Novel Multi-Trophic Bio-Filter Apparatus To Remove Point Source, Anthropogenic Eutrophication From Waste Treatment Outflows

Student(s) Tyler Lilya **Grade** 12 **Town** Stratford

Bridgeport Bridgeport Aquaculture Center Kirk Shadle

3031 LS 1 Disruption of quorum sensing processes in gram negative bacteria by blocking the AI-2 pathway.

Student(s) John Murray **Grade** 12 **Town** southport

Bridgeport Bridgeport Aquaculture Center Kirk Shadle

6009 PS 1 Spiral Redirect of Heat Exchange Flow Through a Unique Centrifugal Baffle Coupling

Student(s) Erika Pinto **Grade** 12 **Town** Bridgeport

Bridgeport Bridgeport Aquaculture Center Kirk Shadle

6052 PS 1 Using Magnetic Fields to Direct Crystallization of Calcium Carbonate to Emulate the Growth of Trabeculae Post Bone Fracture

Student(s) Jonah Rosenbaum **Grade** 12 **Town** Fairfield

Bridgeport Central High School Guime, Jennifer

6071 PS 3 Motion-senor Robot

Student(s) Iana Campbell **Grade** 10 **Town** Bridgeport

Bridgeport Central High School Leeford Dufe

6086 PS 3 Biodegradable Cup With Thermos Technology

Student(s) Aliyah Jenkins **Grade** 9 **Town** Bridgeport

Bridgeport Central High School Mrs. Jill Vital

6509 PST 3 How does acid rain affect the production of eggs and the agricultural aspects of Jamaica?

Student(s) Aliyah Smith **Grade** 11 **Town** Bridgeport
Kelsey Hamilton **Grade** 11 **Town** Bridgeport

Bridgeport Fairchild Wheeler Aerospace Paul Bergquist

3521 LST 3 Sunscreen Wars

Student(s) Melissa Cruz **Grade** 10 **Town** bridgeport
Fernando Barahona **Grade** 10 **Town** bridgeport

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Bridgeport Fairchild Wheeler Aerospace Paul Bergquist

6501	PST	2	Formulating Lip Balm
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Student(s) Coleen Donnelly **Grade** 11 **Town** Bridgeport

Victoria Castellani **Grade** 11 **Town** Bridgeport

Bridgeport Fairchild Wheeler Aerospace Paul Bergquist

6508	PST	3	Oil Presence in surfactant solution
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Student(s) Kelly Guamarriga **Grade** 11 **Town** bridgeport

Alejandro Rodrigues **Grade** 11 **Town** Bridgeport

Bridgeport Fairchild Wheeler Aerospace Paul Bergquist

3517	LST	2	Eliminating Microorganisms
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Student(s) Katelynnn Robinson **Grade** 10 **Town** Trumbull

Joshua Sanchez **Grade** 10 **Town** Bridgeport

Bridgeport Fairchild Wheeler Aerospace Mr. Koekkoek

6518	PST	1	Cerebral Palsy Accessible Keyboard
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Student(s) Paul Zint **Grade** 11 **Town** Shelton

Giovanni Gumbs **Grade** 11 **Town** West Haven

Bridgeport Fairchild Wheeler Biotechnology Cynthia Crudale

3044	LS	2	Therapeutic Techniques And Their Effectiveness On Intrusive Memories
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Student(s) Ayush Puthiyavettle **Grade** 12 **Town** Trumbull

Bridgeport Fairchild Wheeler Biotechnology Mr. Bouffard

3113	LS	3	Procedure For Starting Mycelium To Digest Plastics
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Student(s) Eleanor Schwartz **Grade** 9 **Town** Monroe

Bridgeport Fairchild Wheeler Biotechnology Marilyn Carolina

3121	LS	3	The Effectiveness of Chaga Mushroom Extract to Reduce Oxidative Stress in Caenorhabditis elegans.
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Student(s) Isabella Serra **Grade** 12 **Town** Shelton

Bridgeport Fairchild Wheeler Information Technology Suchith Shantharaj

6089	PS	2	Password Analyzer
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Student(s) Kayla Spodnik **Grade** 9 **Town** bridgeport

Bridgeport Fairchild Wheeler Information Technology Suchith Shantharaj

3063	LS	3	Which Method of Sharing Information is Most Effective?
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Student(s) Raymond Stewart **Grade** 10 **Town** Bridgeport

Bridgeport High Horizons Magnet School Daria Collins

4006	PT	1	Horror of Waves
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Student(s) Kelci Keddo **Grade** 8 **Town** Bridgeport

Benardette Kudaisi **Grade** 8 **Town** Bridgeport

Bridgeport John Winthrop School Susan M. Beres

4011	PT	3	Deadly Water: How do different water filters affect the purity of the filtered water?
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Student(s) Shelly Guo **Grade** 8 **Town** Bridgeport

Joann Escalante **Grade** 8 **Town** Bridgeport, CT

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Bridgeport Multicultural Magnet School Corina Starn

1003	LT	3	Water H2O?
Student(s) Victoria Morris			Grade 7 Town Bridgeport
Jhosmery Batista			Grade 7 Town Bridgeport

Bridgeport Waltersville School John Cunningham

4008	PT	2	Freezing Point Depression/Boiling Point Elevation: A Purity Indicator of Commercially Available Salts
Student(s) Jessalynn Ricketts			Grade 8 Town Bridgeport
Sherly Coleman			Grade 8 Town Bridgeport

Brookfield Brookfield High School Barbara Kessler

3525	LST	2	The Effects of Traditional Medicine in Qur'an and Hadith of Escherichia Coli
Student(s) Fatima Abdulrahman			Grade 11 Town Brookfield
Emily Smith			Grade 11 Town Brookfield

Brookfield Brookfield High School Jonathan Neuhausel

6513	PST	1	ParkBD: A Novel Multi-Modal Deep Learning Framework for Biomarker Identification and Drug Repurposing in Parkinson's Disease
Student(s) Shriya Jonnalagadda			Grade 11 Town Brookfield
Diya Girish Kumar			Grade 11 Town Brookfield

Cheshire Cheshire High School Ms. Julie Barker

6001	PS	2	A Domestic Violence Alerting Device comprised of an Analog Sound Level Meter, OLED Display, GPS Sensor and iOS and Android Mobile App built using Flutter
Student(s) Suchita Srinivasan			Grade 9 Town Cheshire

Cheshire Cheshire High School Julie Barker

3091	LS	1	Prioritizing candidate disease genes for de novo variants by integrating phenotype information with protein-protein interaction networks
Student(s) Shangyu Xu			Grade 12 Town Cheshire

Cheshire St. Bridget School Michelle Carroll

5506	P8	1	Improving a Homemade Livestock Identification System for all Farmers
Student(s) Avery Fowler			Grade 8 Town Cheshire

Cheshire St. Bridget School Michelle Carroll

5010	P7	3	Disaster Resilient Architecture:
Student(s) Luke Machado			Grade 7 Town Hamden

Clinton The Morgan School Abigail Walston

6058	PS	3	Producing Electricity with Water
Student(s) Davis Walker			Grade 11 Town Clinton

Danbury Saint Gregory the Great School Christine Fahey

5006	P7	2	Water Works?
Student(s) Shayleigh Barrett			Grade 7 Town New Milford

Danbury Saint Gregory the Great School Mrs. Fahey

2526	L8	2	How does different types of water affect tomato plant growth?
Student(s) Anthony Bruno			Grade 8 Town New Fairfield

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Danbury Saint Gregory the Great School Mrs. Fahey
2017 L7 3 Soil Stability-
Student(s) Claire Calomeni **Grade 7** **Town** danbury

Danbury Saint Gregory the Great School Mrs. Fahey
2504 L8 3 How different Genres of Music Affect Plant Growth
Student(s) Cailin Fetridge **Grade 8** **Town** Patterson

Danbury Saint Gregory the Great School Mrs. Fahey
2005 L7 2 How can water be filtered in an inexpensive way?
Student(s) Riley Lamp **Grade 7** **Town** New Fairfield

Danbury Saint Gregory the Great School Mrs. Fahey
2516 L8 1 The effect of fertilizer on hydroponic gardening.
Student(s) Connor McMahon **Grade 8** **Town** Brookfield

Danbury Saint Gregory the Great School Mrs. Fahey
2510 L8 3 Do Different Water Types Affect Plant Growth?
Student(s) Donovan Phillips **Grade 8** **Town** Danbury

Danbury Saint Gregory the Great School Mrs. Fahey
2011 L7 1 effects of inhaling Peppermint aroma on reaction time
Student(s) Piper Twedt **Grade 7** **Town** Norwalk

Danbury Westside Middle School Academy Nancy Barlow
4001 PT 1 Testing the Absorbency of Different Hydrophobic Fibers with Different Oil Samples
Student(s) Jasmine De Sousa **Grade 8** **Town** Danbury
Juliana Watson **Grade 8** **Town** Danbury
Ellie Moore **Grade 8** **Town** Danbury

Danbury Westside Middle School Academy Ms. Barlow
4004 PT 1 What is the Effect of Grass Height on Flammability?
Student(s) Adriana Dickinson **Grade 8** **Town** Danbury
Emma Reda **Grade 8** **Town** Danbury
Hailey Sanchez **Grade 8** **Town** Danbury

Danbury Westside Middle School Academy Nancy Barlow
1019 LT 1 The Benefit of the BioBroth Bubbler on Formaldehyde-Infected Air
Student(s) Briti Kaur **Grade 8** **Town** Danbury
Nashla Giron **Grade 8** **Town** Danbury

Danbury Westside Middle School Academy Ms. Barlow
1008 LT 2 The Effects of Different Materials on the Strength of Bioplastic
Student(s) Payton Maher **Grade 8** **Town** Danbury
Ricardo Rodriguez **Grade 8** **Town** danbury
Kenric Paguay **Grade 8** **Town** Danbury

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Danbury Westside Middle School Academy Ms.Barlow

4013 PT 2 A project to benefit all of the community, with dual-language stock market course and ML stock price predictor, focusing on the Latino and Hispanic community.

Student(s) Alejandro Mayorga **Grade 8** **Town** Danbury
Matthew Guzman **Grade 8** **Town** Danbury CT 06810

Danbury Westside Middle School Academy Ms. Barlow

2518 L8 2 The Effect of Plant-Based Natural Pesticides on Tenebrio Molitor.

Student(s) Christopher Mladen **Grade 8** **Town** Danbury

Danbury Westside Middle School Academy Nancy Barlow

4010 PT 1 The Benefit of an Automatic Electricity Blocking Device on Preventing Waste of Electricity

Student(s) Lea Sanchez-Dubois **Grade 8** **Town** Danbury
Shatarupa Mandal **Grade 8** **Town** Danbury
Shezan Alladin **Grade 8** **Town** Danbury

Danbury Westside Middle School Academy Nancy Barlow

4007 PT 1 Fueling a Stirling Engine From a Cold Energy Source (Ice Cubes)

Student(s) Aaliyah Taft **Grade 7** **Town** Danbury
Jessica McDermott **Grade 7** **Town** Danbury

Danbury Westside Middle School Academy Ms. Barlow

1002 LT 1 Promoting Outdoors Safety By Altering Pregnancy Tests to Detect Urushiol

Student(s) Alice Tran **Grade 8** **Town** Danbury
Vianca Villacres **Grade 8** **Town** Danbury
Thomas Lazo **Grade 8** **Town** Danbury

Darien Darien High School David Lewis

3127 LS 1 Analysis of Comprehension Scores of Middle School Students Using Different Forms of Reading (Assisted Reading and Digital Texts)

Student(s) Lindsey Darby **Grade 12** **Town** Darien

Darien Darien High School David Lewis

3038 LS 1 Utilization of Decellularized Spinach as a Vascular Perfusion System for Organoid Development

Student(s) Avery Horn **Grade 12** **Town** Darien

Darien Darien High School Sarthak Kanodia

3055 LS 2 Prediction of Vegetation Dynamics in Wetlands using NDVI and Climate Time-series data with an LSTM Model

Student(s) Anusha Narang **Grade 12** **Town** Darien

Darien Darien High School Mr. Pratt

3078 LS 2 Extent of Coverage as a Measure to Validate the Media Contagion Theory as an Explanation of Mass Shootings

Student(s) Emma Quayle **Grade 12** **Town** Darien

Ellington Ellington Middle School Krista Brogle

5504 P8 1 Developing and Quantifying the Strength and Reliability of Soft Robotics Tubing Attachment Methods

Student(s) Thomas Gerlach **Grade 8** **Town** Ellington

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Enfield	Chiaravalle Academy	Tim Coleman				
1021	LT	1	Which plant is more efficient at reducing carbon dioxide from the air, through photosynthesis?			
Student(s)			Madeline Agrafojo	Grade 8	Town	Suffield
			Anna Burnham	Grade 8	Town	Suffield

Enfield	Chiaravalle Academy	Mr. Coleman				
1001	LT	3	The Self Sustaining Fish Tank			
Student(s)			Noah Bohonowicz	Grade 7	Town	Somers
			Michael Bielanski	Grade 7	Town	Enfield
			Mason Crkanowicz	Grade 7	Town	Suffield

Enfield	Chiaravalle Academy	Mr. Coleman				
1006	LT	2	The effect of caffeine on plants			
Student(s)			Keenan Cieslak	Grade 7	Town	Monson
			Shiv Patel	Grade 7	Town	Longmeadow
			Beau Dugas	Grade 7	Town	Enfield

Enfield	Chiaravalle Academy	Tim Coman				
5004	P7	3	Comparing Electrolytes in Sports Drinks			
Student(s)			Kayla Cupillo	Grade 7	Town	Suffield

Enfield	Chiaravalle Academy	Timothy Coleman				
2007	L7	2	Determining the optimal mixture of chicken compost, or sand to grow beans.			
Student(s)			Misha LaCroix	Grade 7	Town	Enfield
			Jayden Eldridge	Grade 7	Town	Somers

Enfield	Chiaravalle Academy	Timothy Coleman				
1011	LT	3	How Lawn Chemicals Affect Soil Biodiversity			
Student(s)			Delphine Lamattina	Grade 8	Town	West Hartford
			Carys Wilson	Grade 8	Town	Somers
			Sabrina Plaz	Grade 8	Town	Suffield

Enfield	Chiaravalle Academy	Tim Coleman				
1016	LT	1	Recycling Greywater for Plant Growth			
Student(s)			Delainey Pappas	Grade 8	Town	Enfield
			Hadley Buttrey	Grade 8	Town	Windsor Locks
			Caleb Quinby	Grade 8	Town	Windsor

Enfield	Chiaravalle Academy	Timothy				
4009	PT	3	What water filtration method can be quickly produced, requires little process, and can provide clean water for less developed countries?			
Student(s)			Holt Serrano	Grade 8	Town	Somers
			John Donnelly	Grade 8	Town	Suffield

Fairfield	Fairfield College Preparatory School	Mrs. Deborah Kiel				
3023	LS	3	Algae vs Other Organisms			
Student(s)			David Boudreau	Grade 12	Town	Ansonia

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Fairfield Tomlinson Middle School Ryan Gleason
1012 LT 1 The effect of water from different sources in fairfield connecticut on the rate of plant growth
Student(s) **Calista Gleason** Grade 8 Town Fairfield
Emma Speicher Grade 8 Town Fairfield

Farmington Farmington High School Guoan Zheng
6031 PS 2 3D printed, Smart Pipette for pH Sensing
Student(s) **Jiayi Liu** Grade 10 Town Farmington

Fishers Island Fishers Island School Michelle Zimmerlin
3018 LS 1 Mytilus edulis ability to control harmful algae blooms from nitrogen rich fertilizer and phosphorus rich fertilizer.
Student(s) **Madeleine Hatfield** Grade 12 Town Mystic

Glastonbury Glastonbury High School Diane Pintavalle
3015 LS 2 Understanding Algae Dominate in Benthic Attributes in San Salvador, Bahamas Using Photo Machine Learning Technology
Student(s) **Arianna Susco** Grade 12 Town Glastonbury

Glastonbury Glastonbury High School Ms. Diane Pintavalle
3025 LS 3 An Analysis of the Accuracy of Pelage Characteristics as Species Identifiers of New England Cottontail Rabbits
Student(s) **Anna Szydlo** Grade 12 Town Glastonbury

Glastonbury Glastonbury High School Diane Pintavalle
3090 LS 2 THE INDIRECT EFFECTS OF PHYTOHORMONES ON THE COMPOSITION OF COMMUNITIES OF INSECTS INTERACTING WITH Quercus alba (WHITE OAK) IN THE FORESTS OF CONNECTICUT
Student(s) **Kiernan Tierney** Grade 11 Town Glastonbury

Glastonbury Glastonbury High School Diane Pintavalle
3009 LS 3 Developing a Bone Chip
Student(s) **Jade Wong** Grade 12 Town Glastonbury

Greenwich Brunswick School Dana Montanez
6506 PST 1 Comparative analysis of the most efficient, accessible, and useful gasifiable biomatter
Student(s) **Thomas Armstrong** Grade 10 Town Greenwich
Eric Lorenz Grade 10 Town Greenwich

Greenwich Brunswick School Dana Montanez
3501 LST 2 Utilizing eDNA and DNA barcoding to establish a Green Crab Census in the Long Island Sound
Student(s) **Connor Choy** Grade 11 Town Greenwich
Casey Quinson Grade 11 Town Port Chester

Greenwich Brunswick School Dana Montanez
3082 LS 2 A Comparative Analysis: The Efficacy of Carbon Sequestration in Kelp v. Prairie Grass
Student(s) **Cole Cline** Grade 11 Town Greenwich

Greenwich Brunswick School Dana Montanez
3513 LST 1 Determining the relationship between sound frequencies and settlement rates in pediveliger oyster larvae to develop oyster-recruitment methods for the restoration of oyster reefs
Student(s) **Sebastian DeAngelis** Grade 11 Town Darien
John Morningstar Grade 11 Town Greenwich

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Greenwich Brunswick School Dana Montanez
3516 LST 1 The effects of cable bacteria on reducing methane production in microbial methanogen populations
Student(s) Jack Degl **Grade** 10 **Town** Mahopac
Henry Johnson **Grade** 10 **Town** Greenwich

Greenwich Brunswick School Dana Montanez
6059 PS 2 A Comparative Analysis of the Longevity of Biochar Filters in Removing Agricultural Pollutants from Wastewater.
Student(s) Luke Dougherty **Grade** 11 **Town** Bronxville

Greenwich Brunswick School Mrs. Montanez
6011 PS 1 Development of Eco-Navigation System for Reducing Greenhouse Gas Emissions of Ships using Wind-Assisted Flettner Rotors
Student(s) Thomas Ewald **Grade** 11 **Town** Greenwich

Greenwich Brunswick School Dana Montanez
3505 LST 2 Effects of Phototoxic Chemicals in Sunscreen on Reef-Building Coral
Student(s) Robert MacNaughton **Grade** 11 **Town** Bronxville
Michael Yeager **Grade** 11 **Town** Greenwich

Greenwich Brunswick School Evan Ciecimirski
3529 LST 3 Utilizing Magnesium Acetate as the Basis for Hydroponic, Structural Plant Proteins in the Absence of Light
Student(s) William Nook III **Grade** 10 **Town** Greenwich
Jack Sieg **Grade** 10 **Town** Greenwich

Greenwich Brunswick School Dana Montanez
3522 LST 3 Poultry-feather Derived Keratin as a Medium in Cilantro Plant Growth
Student(s) James O'Connor **Grade** 11 **Town** Rye
Whip Gorman **Grade** 11 **Town** New Cannan

Greenwich Brunswick School Dana Montañez
3519 LST 1 The effects of Light Pollution on the growth and health of stone corals Montipora Capricornia and Oxypora Coral.
Student(s) Grayson O'Hara **Grade** 10 **Town** Rye
Tucker Spiess **Grade** 10 **Town** Old Greenwich

Greenwich Brunswick School Dana Montanez
3509 LST 3 Isolation and Purification of Plant-Based Flocculants for the Treatment of Contaminated Water
Student(s) Thomas Pope **Grade** 11 **Town** Darien
Henry Ferguson **Grade** 11 **Town** Greenwich

Greenwich Brunswick School Dana Montanez
3526 LST 2 The Nostoc Effect: Creating the Ultimate Biofertilizer to Mitigate Climate Change
Student(s) Gabriel Trahanas **Grade** 10 **Town** Riverside
Ryan Ahn **Grade** 10 **Town** White Plains

Greenwich Brunswick School Dana Montanez
3061 LS 2 The Effectiveness of Ultraviolet Light Sterilization on Disinfecting Hydroponic Systems
Student(s) Oliver Velasco **Grade** 10 **Town** Greenwich

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Greenwich Central Middle School Andrew Bramante

2521 L8 1 Reducing Food Waste with Early, Visual Detection of Bread-Mold via BODIPY-Colorimetric Card
Detection of 1-Octen-3-ol

Student(s) Amelia Foell **Grade 8** **Town** Greenwich

Greenwich Central Middle School Andrew Bramante

5507 P8 1 Demonstrating the Persistence of Long Island Sound Polyaromatic Hydrocarbon (PAH) Contamination

Student(s) Bridget Hadden **Grade 8** **Town** Greenwich

Greenwich Central Middle School Andrew J Bramante

2508 L8 2 Wavelength-Specific Illumination of Hydroponic Growth Systems, for Increased Crop Production

Student(s) Kate Wick **Grade 8** **Town** Greenwich, CT

Greenwich Eastern Middle School Andrew Bramante

2531 L8 2 Implementation of Rhizobium Nitrogen-Fixation to Increase Overall Crop Production, and Inhibit

Student(s) Hannah Dcruz **Grade 8** **Town** Riverside/Greenwich

Greenwich Eastern Middle School Andrew Bramante

2503 L8 2 Enhancement of Sleep Cycle Circadian Rhythms via the Introduction of Ambient Sounds

Student(s) Rachel Goldenberg **Grade 8** **Town** Greenwich

Greenwich Eastern Middle School Andrew Bramante

5510 P8 2 Does Our Desire for Convenient Spring Water Come at an Expense for Meaningful Microplastic Harm?

Student(s) Sara Rahimtula **Grade 8** **Town** Old Greenwich

Greenwich Eastern Middle School Andrew Bramante

2511 L8 1 Simple, Rapid Detection of Early Maturity-Onset Diabetes of the Young (MODY) via Random-C-Peptide Biomarkers

Student(s) Lula Wang **Grade 8** **Town** OLD GREENWICH

Greenwich Greenwich Catholic School Mr. Timothy Koppe

1018 LT 2 Functional Filtration

Student(s) Grace Brew **Grade 8** **Town** Greenwich

Leah O'Meara **Grade 8** **Town** Stamford

Greenwich Greenwich Catholic School Mr. Koppe

1009 LT 2 5 Second Rule

Student(s) Emma Drexel **Grade 8** **Town** Stamford

Maria Olga Athanasiadis **Grade 8** **Town** Stamford

Greenwich Greenwich Country Day School Nathan Haag

3095 LS 3 The Use of Phages instead of Antibiotics.

Student(s) Ian Beckman **Grade 12** **Town** Greenwich

Greenwich Greenwich Country Day School Nathan Haag

3089 LS 3 Algal Biofuel Cost and Application: A Metanalysis Of How To Implement Algae Based Fuels With Minimal Costs

Student(s) William Kearns Duran **Grade 12** **Town** Old Greenwich

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Greenwich Greenwich Country Day School Dr. Haag

3034	LS	3	The Efficacy of Yoga in Reducing Stress in Special Needs Adults
Student(s) Lola Manuel			Grade 12 Town Greenwich

Greenwich Greenwich Country Day School Nathan Haag

6023	PS	3	Racial and Ethnic Representations of Crime in True Crime Documentaries
Student(s) Rebeca Manzo			Grade 12 Town Riverside

Greenwich Greenwich Country Day School Dr. Nathan Haag

3042	LS	3	Brain Cognition amongst High School athletes: Basketball and Football
Student(s) Sebastian Matz			Grade 12 Town Larchmont

Greenwich Greenwich Country Day School Nathan Haag

3122	LS	3	Does diet soda help with weight loss in young teenagers
Student(s) Lucas Murray			Grade 12 Town Greenwich

Greenwich Greenwich Country Day School Dr. Haag

3128	LS	3	Bonobo Interactions with the Ape Initiative
Student(s) Calder Perry			Grade 12 Town Cos Cob

Greenwich Greenwich Country Day School Nathan Haag

3109	LS	3	Will statistical models find if the increase in Sea Surface Temperature has correlated with the Accumulated Cyclone Energy and Power Dissipation Index of hurricane data since 2000?
Student(s) Lyneth Restrepo			Grade 12 Town Bridgeport

Greenwich Greenwich Country Day School Nathan Haag

3026	LS	3	The use and experiments of CRISPR/Cas-based genome editing in plants
Student(s) Dylan Schwartz			Grade 12 Town BEDFORD CORNERS

Greenwich Greenwich Country Day School Nathan Haag

3115	LS	1	Music and the imagination: how compositional techniques used within film scores help shape the imagination
Student(s) Savanna Shettler			Grade 12 Town Danbury

Greenwich Greenwich High School Andrew Bramante

3129	LS	2	Creation and Simulation of Function of Claramine-Atorvastatin Coated Hyaluronic Acid Nanoparticles for Targeted Dissolution of Atherosclerotic Plaque
Student(s) Justin Bernstein			Grade 10 Town Greenwich

Greenwich Greenwich High School Andrew Bramante

3111	LS	2	Delivery of Epicatechin via Bovine Serum Albumin Based Nanoparticles In order to Reduce the Growth of Escherichia Coli of Ocimum Basilicum
Student(s) Mitchell Goldstein			Grade 12 Town Cos Cob

Greenwich Greenwich High School Andrew Bramante

6028	PS	2	Development of an Efficient and Easily-Applicable Low-Energy Process for the Degradation of PFAS
Student(s) Zara Haque			Grade 10 Town Riverside

Greenwich Greenwich High School Andrew Bramante

6056	PS	2	Photocatalytic Degradation of Microplastics Found in Southwestern CT Drinking Water
Student(s) Ava Jackson			Grade 10 Town Old Greenwich

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Greenwich Greenwich High School Andrew Bramante

3079 LS 1 Footprint Reduction of PET Fiber Waste in Refuse-Environments via Non-Toxic Ideonella Sakaiensis Degradation

Student(s) Lucy Li

Grade 11 Town Greenwich

Greenwich Greenwich High School Andrew Bramante

3099 LS 2 Eco-Friendly Removal of Eutrophication-Initiating NH₄⁺ from Water via SAP-Enhanced, Activated Food Waste Biochar Adsorption Films

Student(s) Audrey Lin

Grade 11 Town Riverside

Greenwich Greenwich High School Mr. Andrew Bramante

3118 LS 2 Development of a Rapid Alzheimer's Disease Diagnostic through Multilayered, Comprehensive Statistical Analyses of Speech.

Student(s) Maximilian Lu

Grade 11 Town Riverside

Greenwich Greenwich High School Andrew Bramante

3010 LS 1 Identification of Therapeutics for Neurological Disorders through Development of a Novel Machine Learning System for Predicting Drug-Gene Interactions in the Glymphatic System

Student(s) Ashley Malkin

Grade 10 Town Greenwich

Greenwich Greenwich High School Andrew Bramante

6043 PS 2 Reversible, Tunable Metal Electrodeposition on Pt-Functionalized, Indium Tin Oxide, Transparent Electrodes for Thermal Regulating and Dynamic Optical Properties of Smart Windows

Student(s) Madeline Minichetti

Grade 12 Town Greenwich

Greenwich Greenwich High School Mr. Andrew Bramante

6008 PS 1 Concurrent Removal of Rising Soluble Ocean Carbon Dioxide and Oil-in-Water Contaminants via Multi-Functional Remediation Framework.

Student(s) Naomi Park

Grade 11 Town Riverside

Greenwich Greenwich High School Andrew Bramante

3056 LS 2 In-situ Biodegradation of Landfill Styrofoam Waste by Zophobas Morio via an Innovative, Compounded Diet

Student(s) Colin Reynolds

Grade 9 Town Old Greenwich

Greenwich Greenwich High School Andrew Bramante

6016 PS 2 Synthesis and Investigation of Metal Organic Frameworks for the Purpose of Atmospheric Water Harvesting

Student(s) Caitlin Tice

Grade 10 Town Greenwich

Greenwich Greenwich High School Andrew Bramante

6022 PS 2 Use of Cryptomelane-Type Manganese Oxide Free Standing Membranes for Removal of Oil Contaminants in Water.

Student(s) Ryan Wadhwa

Grade 9 Town Greenwich

Greenwich Greenwich High School Andrew Bramante

3020 LS 2 A Zero-Waste Product; Pyrolytic Conversion of Walnut Shell Waste to Light-Hydrocarbon Fuels, Biopesticides, and Valuable Soil Additives

Student(s) Keira Young

Grade 12 Town Cos Cob

Greenwich Sacred Heart Greenwich Mary Musolino

3027 LS 3 Investigating the Role of Bilingualism in Enhancing Adolescents' Selective Attention Using Grammatical Illusions

Student(s) Martina Bernal

Grade 12 Town Greenwich

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Greenwich Sacred Heart Greenwich Mary Musolino

3067 LS 2 The effect of temperatures on the CO₂ output and food consumption rate of darkling beetles; implications for migration, pest control, and climate change adaptability.

Student(s) Isobel Costello **Grade** 12 **Town** Stamford

Greenwich Sacred Heart Greenwich Mary Musolino

6050 PS 3 Predicting a Rise in Smoking Due to the Psychological Effects of the Coronavirus Pandemic

Student(s) Claudia El-Masry **Grade** 12 **Town** Bronxville

Greenwich Sacred Heart Greenwich Mary Musolino

3507 LST 2 Testing Mars Global Stimulant MGS-1 Enhancements including a Novel Water/Nutrient Delivery System for Growing Crops for a Mission to Mars

Student(s) Charlotte Gannon **Grade** 12 **Town** Greenwich
Isabella Leao **Grade** 12 **Town** Greenwich
Robin Murphy **Grade** 12 **Town** Cos Cob

Greenwich Sacred Heart Greenwich Mary Musolino

6026 PS 2 Using Graphene to Create a Starch-Based 3D Printed Bioplastic that is Thermally and Electrically Conductive

Student(s) Olivia Ritossa **Grade** 11 **Town** Pelham

Greenwich Western Middle School Andrew Bramante

2514 L8 3 Use of Simple, Home-Remedy Cleansers to Selectively Inhibit Harmful Bacteria on Classroom Surfaces

Student(s) Amaya Khwaja-Patel **Grade** 8 **Town** Greenwich

Guilford Guilford High School Luke Rosnick

3005 LS 3 Association of COVID-19 Vaccine Booster Rates and Mortality Among Different Age Groups

Student(s) Jason Li **Grade** 11 **Town** Guilford

Guilford Guilford High School Kristie Whitcomb

3054 LS 3 Key Family Environmental Factors and Their Effects on Mental Health Among Youths

Student(s) Devin Lu **Grade** 10 **Town** Guilford

Guilford Guilford High School Kristie Whitcomb

6037 PS 2 Removing the Ocean's Noose: Designing a Ropeless Solution to the Lobster Trap

Student(s) Michael Neiss **Grade** 12 **Town** Guilford

Guilford Guilford High School Kristie Whitcomb

3066 LS 1 Sounds of Change: Music Therapy's Effect on Apathy in Parkinson's Disease Patients

Student(s) Zachary Neiss **Grade** 12 **Town** Guilford

Guilford Guilford High School Yanjiao Zhou

3088 LS 1 The impact of gut microbiome on COVID-19 vaccination

Student(s) Catherine ZHOU **Grade** 10 **Town** GUILFORD

Hamden Hamden Hall Country Day School Paulomi Aldo

2019 L7 2 Do human and dog saliva have special antibacterial properties and help heal wounds?

Student(s) Anna Aslan **Grade** 7 **Town** Hamden

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Hamden Hamden Hall Country Day School Dr. Patrick Fitzgerald
3097 LS 3 The Water Cycle and Environmental Bacteria Resistance to Antiseptics
Student(s) Theodora Aslan **Grade** 10 **Town** HAMDEN

Hamden Hamden Hall Country Day School Frank Gasparro
6005 PS 1 Photometry and DNA-psoralen Photochemistry with a Novel LED Source
Student(s) Andrei Balas **Grade** 9 **Town** Cheshire

Hamden Hamden Hall Country Day School Chris Buckley
6507 PST 3 Using Surveys to Study the Evolution of Art Generated by Artificial Intelligence
Student(s) Helena Chaine **Grade** 10 **Town** Orange
Eric Huang **Grade** 10 **Town** Guilford

Hamden Hamden Hall Country Day School Paulomi Aldo
2532 L8 3 The effect of colored lights on plant growth
Student(s) Anderson de Graaf **Grade** 8 **Town** Hamden

Hamden Hamden Hall Country Day School Paulomi Aldo
2522 L8 2 Blue Light Blues
Student(s) Samantha Diaz **Grade** 8 **Town** New Haven

Hamden Hamden Hall Country Day School Dr. Patrick Fitzgerald
3085 LS 3 The effect of storm drains on bacteria and water quality
Student(s) Kaleb Fiore **Grade** 9 **Town** Southington, CT

Hamden Hamden Hall Country Day School Patrick Fitzgerald
6053 PS 3 Effects of Rain Gardens on Water Quality in the Mill River
Student(s) Josh Huy **Grade** 11 **Town** Middlebury

Hamden Hamden Hall Country Day School Dr. Patrick Fitzgerald
3029 LS 1 Exfoliated graphite absorption of oil-based contaminants in water
Student(s) Ravindu Karunaratne **Grade** 9 **Town** Hamden

Hamden Hamden Hall Country Day School Chris Buckley
3080 LS 1 MiMe- Mindly Meditation
Student(s) Neev Makin **Grade** 9 **Town** Hamden

Hamden Hamden Hall Country Day School Paulomi Aldo
2527 L8 2 F.I.D (Fraternal, Identical, Doppelganger)
Student(s) Zhanna Milani **Grade** 8 **Town** Wallingford

Hamden Hamden Hall Country Day School Paulomi Aldo
2501 L8 3 How can interacting with different species of animals have different mental affects on humans?
Student(s) Landon Sassu-Martin **Grade** 8 **Town** Berlin

Hamden Hamden Hall Country Day School Paulomi Aldo
2517 L8 2 How different environmental conditions affect the growth of e-coli bacteria
Student(s) Alessandra Sticca **Grade** 8 **Town** Milford

Hamden Hamden Hall Country Day School Gina DAngelo
3058 LS 3 Impact of Chitosan Polysaccharide (From Chitin) on Intestinal Health
Student(s) Sophia Vash **Grade** 9 **Town** Fairfield CT

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Hamden Hamden Hall Country Day School Frank Gasparro
6042 PS 3 The Effect of Cooling on the Properties of Amorphous Solids
Student(s) Andrew Yang **Grade** 9 **Town** Southbury

Hamden Hamden Hall Country Day School Paulomi Aldo
2512 L8 2 The Effect of Temperature on Trypsin Activity on the digestion of Bugs
Student(s) Cooper Zebrowski **Grade** 8 **Town** Branford

Hamden Hamden Hall Country Day School Frank Gasparro
3515 LST 1 A model system for the effect of ash produced by wildfire on glacier melting
Student(s) Huiwen Zeng **Grade** 11 **Town** Cheshire
Jiahui Chen **Grade** 10 **Town** New Haven

Hamden Hamden Hall Country Day School Frank Gasparro
3064 LS 3 Tactile Stimulation: Temperature and Class Engagement
Student(s) Qianlin Zhou **Grade** 11 **Town** Hamden

Hamden Hamden Hall Country Day School Stephen Listro
6014 PS 3 An Image Deblurring Model Using Artificial Intelligence
Student(s) Yue Zhuo **Grade** 11 **Town** Hamden

Hamden Sacred Heart Academy Doctor Wendy Decter
3087 LS 2 Presence of American Foulbrood in Beehives
Student(s) Sophia Carrasco **Grade** 9 **Town** Hamden

Hamden Sacred Heart Academy Dr. Wendy Decter
3037 LS 2 Do turmeric and cumin protect Daphnia's heart when it is exposed to caffeine?
Student(s) Lillian Cochran **Grade** 9 **Town** New Haven

Hamden Sacred Heart Academy Dr. Christophy
3081 LS 2 Is There a Correlation Between Covid-19 and Scented Candle Reviews?
Student(s) Julia DeFrances **Grade** 10 **Town** Hamden

Hamden Sacred Heart Academy Elizabeth Christophy
6032 PS 3 Can Heat Beat Your Speed?
Student(s) Camila Ferro **Grade** 10 **Town** Hamden

Hamden Sacred Heart Academy Elizabeth Christophy
3043 LS 3 Secondary Traumatic Stress Subscales in Psychiatric Nurses: A Secondary Data Analysis
Student(s) Rachel Harrison **Grade** 10 **Town** MILFORD

Hamden Sacred Heart Academy Wendy Decter
3070 LS 2 Electromagnetic Radiation: The Invisible Infiltrator
Student(s) Divya Sankar **Grade** 9 **Town** Naugatuck

Hamden Sacred Heart Academy Dr.Decter
3059 LS 2 What insulation is the best
Student(s) Gianna Tullo **Grade** 10 **Town** East Haven

Hartford A.I. Prince Technical High School Sarah Wilby
6006 PS 2 Thermacork Shelters
Student(s) Meranyelis Negron-Figueroa **Grade** 11 **Town** Hartford

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Hartford A.I. Prince Technical High School Sarah Wilby

6511 PST 3 Bibby Socks - heating your feet with the power of your steps

Student(s) **Essence Telford** **Grade 11** **Town** New London
Brandon Sanchez **Grade 11** **Town** Hartford
Camille Edmondson **Grade 11** **Town** Hartford

Hartford Environmental Sciences Magnet School Rebecca Hays

2506 L8 2 How does the application of granular sodium chloride and liquid magnesium chloride before and during winter weather events affect the quality of nearby bodies of water?

Student(s) **Elizabeth D'Agostino** **Grade 8** **Town** New Britain

Hartford Renzulli Academy Foifon Teawdatwan

5508 P8 3 Experiment Vital

Student(s) **Elisha Adeniran** **Grade 8** **Town** New Britain

Hartford Renzulli Academy Foifon Teawdatwan

4005 PT 3 Robot Strength

Student(s) **Litish Deepa** **Grade 7** **Town** Hartford
Sameer Shirzai **Grade 7** **Town** Hartford
Ericson Grullon **Grade 7** **Town** hartford

Kent Kent School Jesse Klingebiel

6024 PS 2 Caterpillar Bot (Modular All-Terrain Rover)

Student(s) **Xiaonian Feng** **Grade 11** **Town** Marlborough, MA

Kent Kent School Jesse Klingebiel

3045 LS 1 Cell type-specific expression of the molecular players in mouse prefrontal cortex during cocaine addiction

Student(s) **Eric Teng** **Grade 11** **Town** San Marino

Lakeville The Hotchkiss School Alireza Soltani

3030 LS 2 The Effects of Caffeine on Adolescents' Academic Concentration, Anxiety, and Performance

Student(s) **Aiden Wang** **Grade 10** **Town** Hillsborough

Lakeville The Hotchkiss School Richard Kirby

6049 PS 2 Assisting Carbon Neutralization: Automated Energy-saving Controller for Household Appliances

Student(s) **Da Zhuo (Alejandro) Zheng Zhou** **Grade 11** **Town** Lakeville

Litchfield Wamogo Regional High School Fred Jaquin

6041 PS 1 Measuring Our Place in the Solar System:

Student(s) **Ryan Emanuel** **Grade 10** **Town** Morris

Manchester Manchester High School Jeffrey Labasi

3019 LS 1 The Isolation And Identification Of Polystrene Degrading Bacteria From Zophobas Morio

Student(s) **Paris Bazemore** **Grade 12** **Town** manchester

Manchester Manchester High School Wendy Turek-Hernandez

3077 LS 2 Short-term Guided Mindfulness Meditation Compared with a Placebo Stress Supplement in Acute Stress

Student(s) **Natalie Christopher** **Grade 12** **Town** Manchester

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Manchester Manchester High School Wendy Turek-Hernandez

6039 PS 3 Biodiesel optimization of the washing process

Student(s) Sean Sourinho **Grade** 12 **Town** Manchester

Manchester Manchester High School Wendy Turek-Hernandez

3013 LS 2 Spectrophotometric Determination of the Total Polysaccharide Content of Ganoderma Lucidum Grown Under Different Conditions.

Student(s) Sylvia Squatrito **Grade** 12 **Town** Manchester

Manchester St. James School Ellen Oei

1013 LT 2 Amazing Ants.

Student(s) Noah Gendreau **Grade** 7 **Town** Lebanon

Dylan Ghezzi **Grade** 7 **Town** Manchester

Manchester St. James School Ellen Oei

5005 P7 1 Which Rock is more Porous?

Student(s) Nick Grace **Grade** 7 **Town** Manchester

Manchester St. James School Ellen Oei

2021 L7 3 Brush Your Teeth

Student(s) Matthew Taylor **Grade** 7 **Town** Columbia

Meriden H.C. Wilcox Technical High School Charles Rolle

6517 PST 2 Insulation Temperature Control

Student(s) Chase Casner **Grade** 11 **Town** Cheshire

Krystian Colbert **Grade** 11 **Town** Southington

Angel Suarez **Grade** 11 **Town** New Britain

Meriden H.C. Wilcox Technical High School Charles Rolle

6510 PST 2 Energy Efficient Apartment

Student(s) David Hardy **Grade** 10 **Town** Wallingford

Connor Wright **Grade** 10 **Town** Meriden

Ethan McMahon **Grade** 10 **Town** Southington

Middletown Xavier High School David Applegate

3012 LS 3 The Effects of Electrical Currents in Plant Growth

Student(s) Benjamin Akaratovic **Grade** 10 **Town** Wethersfield

Milford Harborside Middle School Independent

2004 L7 3 Finding the most effective solutions to kill germs and bacteria on door knobs using natural substances (lemon juice, cold/hot/room temperature tap water, saltwater).

Student(s) Sahithi Alla **Grade** 7 **Town** Milford

Milford Harborside Middle School Independent

2523 L8 2 Affect of 3 solutions(Tap water, Salt water, Sugar water) on plants in Natural light Vs. Artificial light as it relates to plant growth.

Student(s) Sathvik Alla **Grade** 8 **Town** Milford

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Milford Platt Technical High School Sara Bruno

3508 LST 3 Urban Hub Revitalization Project

Student(s) Ashley Ramos **Grade** 12 **Town** Bridgeport
Bruno Valdivia **Grade** 12 **Town** West Haven
Katelyn Zayas **Grade** 12 **Town** New Haven

New Haven Engineering and Science University Magnet School Alyssa Anderson

2519 L8 3 The Effect of Sugar on Yeast Fermentation

Student(s) Titiladeoluwa Adeniran **Grade** 8 **Town** Seymour

New Haven Engineering and Science University Magnet School Alyssa Anderson

3503 LST 3 The Effect of a Calcium Chloride Solution on the Coagulation of Sodium Alginate for the Implementation in Cultures of Cyanobacteria

Student(s) Temiladeoluwa Adeniran **Grade** 10 **Town** Seymour
Mari Arnold **Grade** 10 **Town** Stratford

New Haven Engineering and Science University Magnet School Roger Rushworth

2509 L8 1 Investigating The Effectiveness Of Biochar In Remediating Soil Contamination by Heavy Metals and Hydrocarbons.

Student(s) Sahithi Aliminate **Grade** 8 **Town** Milford

New Haven Engineering and Science University Magnet School Roger Rushworth

3073 LS 2 Assessing the Effectiveness of Different Flocculants on Algal and Agricultural Contamination in an Acidifying Ocean

Student(s) Saket Aliminate **Grade** 9 **Town** Milford

New Haven Engineering and Science University Magnet School Roger Rushworth

6079 PS 1 An Analysis of the Efficient Blockage of RFID Readers Based on the Thickness, Distance, and Density of Each RFID Reader Obstruction Material

Student(s) Nivriith Ananth Iyer **Grade** 9 **Town** West Haven

New Haven Engineering and Science University Magnet School Mr. Roger Rushworth

6038 PS 2 Which Type of Rocket Oxidizer Can Combine with a Solid-Propellant Rocket Fuel in Order to Produce a High Output, Height, Distance, and Time?

Student(s) Parth Gokhale **Grade** 9 **Town** Milford

New Haven Engineering and Science University Magnet School Roger Rushworth

2534 L8 1 Design and Implementation of a Novel Machine-Learning-Based System Utilizing Feature Extraction for Precise Cervical Cancer Detection via Biopsy Sample

Student(s) Ethan Joseph **Grade** 8 **Town** West Haven

New Haven Engineering and Science University Magnet School Ms. Alyssa Anderson

3016 LS 2 Investigating the Usage of Treated Nano-Clay Composites for the Efficient Removal of Emerging Contaminants in an Aqueous Solution

Student(s) Snigtha Mohanraj **Grade** 10 **Town** Ansonia

New Haven Engineering and Science University Magnet School Roger Rushworth

2502 L8 2 The Effect of Ocean Acidification on Coral Reef Growth

Student(s) Adithi Variar **Grade** 8 **Town** Wallingford

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New Haven Sound School Charles Mulligan

3520 LST 1 Potential role of proximity to creek source water on population dynamics of Eastern Oyster (*Crassostrea Virginica*)

Student(s) Emma Bigman **Grade** 10 **Town** Middlebury
Sofia Roberts **Grade** 10 **Town** Branford

New Haven Sound School Chuck Mulligan

3511 LST 3 Potential Impact of Heavy Rain Events on Coastal Bacterial Populations: Modeling Human Impact in Close Proximity to Wastewater Treatment Facilities

Student(s) Cora FitzGerald **Grade** 10 **Town** Guilford
Britney Xochipitecatl Cuahtepitz **Grade** 10 **Town** New Haven

New Haven Sound School Chuck Mulligan

6033 PS 3 Potential Role of High Rainfall Events on Localized River Flow

Student(s) Tamzin Maines **Grade** 10 **Town** Old Saybrook

New Haven Sound School Charles Mulligan

3504 LST 3 Potential Impacts from Anthropogenic Influences on Phenotypic Plasticity of Juvenile Horseshoe Crabs (*Limulus polyphemus*): Implications for Survivorship

Student(s) Gabriella Spata **Grade** 12 **Town** New Haven
Ruby Blustajn **Grade** 12 **Town** Hamden

New Milford Canterbury School Andrew John Smith

6013 PS 3 The Diversity of Cichlid Fishes

Student(s) Yuntong Chu **Grade** 11 **Town** New Milford

Newtown Newtown High School Timothy DeJulio

3011 LS 3 The Role of Hepatic Stellate Cells in Liver Regeneration

Student(s) Kaylin Brissette **Grade** 9 **Town** Sandy Hook

Newtown Newtown High School Timothy DeJulio

6045 PS 3 Ping Pong Robot

Student(s) Aiden Burbank **Grade** 11 **Town** Sandy Hook

Newtown Newtown High School Timothy DeJulio

3107 LS 3 Transmissible Spongiform Encephalopathies: A Possible Treatment

Student(s) Beatrice Cardamone **Grade** 10 **Town** Sandy Hook

Newtown Newtown High School Timothy DeJulio

6054 PS 3 Development of Soft Robotic Arms Which Mimic Biological Systems and Structures

Student(s) Maura Daly **Grade** 12 **Town** Sandy Hook

Newtown Newtown High School Timothy DeJulio

3041 LS 3 Analysis of previous and current CRISPR-based treatments for Huntington's disease with the goal of developing a new treatment

Student(s) Annabelle Foley **Grade** 10 **Town** Sandy Hook

Newtown Newtown High School Timothy DeJulio

6004 PS 3 The MacroEnvironment

Student(s) Filippo Formica **Grade** 12 **Town** Sandy Hook

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Newtown Newtown High School Timothy DeJulio
6075 PS 2 AI Based Skin Cancer Detection System
Student(s) Aadit Jerfy **Grade** 10 **Town** Newtown

Newtown Newtown High School Timothy DeJulio
6010 PS 2 Line Follower Car
Student(s) Emily Li **Grade** 10 **Town** Newtown

Newtown Newtown High School Timothy DeJulio
3101 LS 1 The Effect of Placebos and Nocebos on Pain Perception
Student(s) Anna White **Grade** 12 **Town** Sandy Hook

Norwich Norwich Technical High School Kaminski/Pelloni
3527 LST 3 Sustainably Providing Vegetables in Accordance to Overpopulation
Student(s) Emerson Alexy **Grade** 11 **Town** Old Saybrook
Kelvin Lam **Grade** 11 **Town** Norwich

Norwich Norwich Technical High School Tiffani Kaminski
3506 LST 3 Using Zeolite Clinopitilite to Reduce Methane Emissions From Food Waste
Student(s) Morgan Cook **Grade** 11 **Town** Higganum
Sydney Brown **Grade** 11 **Town** Uncasville

Norwich Norwich Technical High School Mrs. Kaminiski
3523 LST 2 Environmental Friendly Methods for Deicing Roads
Student(s) Keyonna Hayes **Grade** 11 **Town** Uncasville
Aliyah Mayo **Grade** 11 **Town** Lisbon

Norwich Norwich Technical High School Tiffani Kaminski Deangelis
3502 LST 2 Inserting pET21b(+) Gene from Ideonella sakaiensis into Vibrio natriegens for Potentially Enviormenttaly Friendly Polyethylene Terephthalate Plastic Biodegradation.
Student(s) Elijah Smith **Grade** 11 **Town** Norwich
Jack Barnett **Grade** 11 **Town** Colchester

Norwich Norwich Technical High School Tiffani Kaminski
3514 LST 3 How Agricultural Runoff Affects The Oceans Blodiversity
Student(s) Beverly Valle **Grade** 11 **Town** Montville
Grace Fuchs **Grade** 11 **Town** Montville

Norwich Norwich Technical High School Tiffani Kaminski
3518 LST 3 An Easy System to Filter Water and Improve Plant Growth
Student(s) Deijanai Vergara **Grade** 11 **Town** Norwich
Julia Dexter **Grade** 11 **Town** Waterford
Emily Lopez **Grade** 11 **Town** New London

Pawcatuck St. Michael School Mrs Grossomanides
5003 P7 1 Four Fab Fats
Student(s) Connor Anderson **Grade** 7 **Town** Pawcatuck

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Pawcatuck St. Michael School Anna Helene Grossomanides
2023 L7 3 Impact of Contaminants of Emerging Concern on Bean Seed Germination and Growth
Student(s) Addison Cadmus Grade 7 Town Pawcatuck

Pawcatuck St. Michael School Anna-Helene Grossomanides
2524 L8 2 Conservation of the Monarch Butterfly
Student(s) Gianna Giovanelli Grade 8 Town Westerly, RI

Pawcatuck St. Michael School Anna-Helene Grossomanides
5503 P8 3 Do Fans Actually Cool You Off?
Student(s) Gianna Kennedy Grade 8 Town Pawcatuck

Pawcatuck St. Michael School Mrs.Grossomanides
2016 L7 3 Aquatic Plants in Action
Student(s) Sarah Previty Grade 7 Town Pawcatuck

Pomfret Pomfret School Joshua Lake
6015 PS 3 Research on sound generation through mechanical design for pedestrian safety during low-speed driving
Student(s) Yuna Cho Grade 10 Town Pomfret

Pomfret Pomfret School Joshua Lake
3049 LS 1 Detection and Remediation of War Polluted Soil Using Deep Learning Robot and Soil Remediating Bioplastic (BioCore)
Student(s) Yuree Oh Grade 11 Town Seoul

Pomfret Pomfret School Bill Martin
3062 LS 2 Sustainable Agriculture at Your Finger Tips
Student(s) Zhoutong Qi Grade 11 Town Wellesley

Redding CT STEM Fair Catherine Piscitelli
3104 LS 2 Determining the Availability of Telehealth Consults for Musculoskeletal Surgical Patients with Differing Insurance Plans
Student(s) Anchal Bahel Grade 12 Town Woodbridge

Redding CT STEM Fair Catherine Piscitelli
3110 LS 1 Determining the Effects of Prolonged Starvation on the Survival, Growth, and Development of Lymantria dispar
Student(s) Sabrina Osowiecki Grade 10 Town Redding

Redding CT STEM Fair Catherine Piscitelli
3119 LS 2 Analyzing the distribution of insertion, deletion, and substitution mutations in the gene encoding the Spike protein of COVID
Student(s) Jasir Zafar Grade 10 Town Orange

Ridgefield Ridgefield High School Patrick Hughes
3102 LS 2 The effect of robotic architecture on the perception of trustability in social robots
Student(s) Alyson Barczak Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Patrick Hughes
6065 PS 3 Is the Initial Therapy Better to be Done Online or In-Person?
Student(s) Maya Chauhan Grade 12 Town Ridgefield

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Ridgefield Ridgefield High School Patrick Hughes

3021	LS	2	Analyzing the impact of COVID-19 on the amount of happiness found in nature
Student(s) Molly Crist			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Patrick Hughes

3512	LST	3	The Effect of Exercise on the Mood of Adolescents: A Survey of High School Athletes
Student(s) Isabella Crowley			Grade 12 Town Ridgefield
Regan McGrath			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Mr. Hughes

6078	PS	3	Comparing Lipid Nanoparticle Delivery with Electroporation for Crispr Delivery
Student(s) Cora Fitzgerald			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Ryan Gleason

6060	PS	2	Analysis of the Free Floating and Companion (Both Transiting and Non-Transiting) Brown Dwarf Populations
Student(s) Nathan Gaynor			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Patrick Hughes

3036	LS	2	Assessing the Impact of Synthetic Sweeteners on Hunger Perception in Drosophila Melanogaster
Student(s) Aditi Gupta			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Patrick Hughes

3076	LS	2	Assessing grid and curvilinear neighborhood layouts for their impact on wildfire damage
Student(s) Charlotte Kemp			Grade 12 Town RIDGEFIELD

Ridgefield Ridgefield High School Ryan Gleason

3096	LS	3	The Effect of Pet Allergens on Asthma
Student(s) Emma Levine			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Mr. Hughes

3014	LS	2	Examining the Characteristics of Residual Pancreatic Cells and Islets in Type 1 Diabetes
Student(s) Kavya Podila			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Ryan Gleason

3117	LS	3	What are the effects of heavy metals seen in tattoo inks on the human body
Student(s) Maya Rubio			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Patrick Hughes

3008	LS	2	How the Intensity of an Exercise Affects Cell-Mediated Immunity Through the Release of Anti-Inflammatory Cytokines
Student(s) Gurshaan Sandhu			Grade 11 Town Ridgefield

Ridgefield Ridgefield High School Aine Kapell

3053	LS	2	The Efficacy of Varying Sound Frequencies on Accelerating Colony Formation and Zymolytic Properties of Saccharomyces cerevisiae
Student(s) Samantha Verdejo			Grade 12 Town Ridgefield

Ridgefield Ridgefield High School Patrick Hughes

6083	PS	3	Engineering a Methodology and Database to Efficiently and Effectively Discover and Classify Micrometeorites
Student(s) Heather Wallace			Grade 12 Town Ridgefield

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Ridgefield Ridgefield High School Mr. Hughes

3028 LS 3 Analysis of Contributing Factors to Overdose Death Variabilities within U.S. States from 2015 to 2022 and Cost-Benefit Calculation of Drug Overdose Prevention Programs

Student(s) Hannah Yu **Grade** 11 **Town** Ridgefield

Rocky Hill Rocky Hill High School Dr. Parker

6514 PST 2 Evaluating the Potential Impacts of Commonly Used Mosquito Repellents on Water Systems: DEET, Picaridin, IR-3535, Permethrin, and Oil of Lemon Eucalyptus.

Student(s) Swapnil Roy **Grade** 12 **Town** Rocky Hill
Kristian Odobashi **Grade** 11 **Town** Rocky Hill
Ved Bathula **Grade** 11 **Town** Rocky Hill

Shelton Shelton Intermediate School Erica Napoli

2015 L7 3 The Eggstastic Egg Experiment

Student(s) Mallory Bohrer **Grade** 7 **Town** Shelton

Shelton Shelton Intermediate School Erica Napoli

2008 L7 2 Color VS Memory

Student(s) Ava Hamlin **Grade** 7 **Town** Shelton

Shelton Shelton Intermediate School Dr. Erica Napoli

2003 L7 1 The Fingerprint Powder Experiment

Student(s) Gabriella Kuniej **Grade** 7 **Town** Shelton

South Windsor South Windsor High School Patti Stamper

6519 PST 1 Using organic dyes for a more economical approach to a Dye Sensitized Solar Cell

Student(s) Pranay Kakkar **Grade** 10 **Town** South Windsor
Adithya Anand **Grade** 10 **Town** South Windsor

South Windsor South Windsor High School Dr David Kimel

6012 PS 3 Challenging the AMC10: An Examination of its Increasing Difficulty

Student(s) Aarush Kalia **Grade** 10 **Town** SOUTH WINDSOR

South Windsor South Windsor High School Independent

6088 PS 1 Predicting Solar Storms and Coronal Mass Ejections (CMEs) using novel Attention based Deep Learning algorithms

Student(s) Pragyay Yadav **Grade** 11 **Town** South Windsor

Southington Southington High School Mr. Destefano

3112 LS 3 Can galleria mellonella larvae be utilized to decompose plastics faster?

Student(s) Zeynep Agirman **Grade** 11 **Town** Southington

Stamford Bi-Cultural Hebrew Academy Chris Graseck

2014 L7 3 Effects on Radish Seeds with Acidified Water

Student(s) Emma Gordon **Grade** 7 **Town** Stamford

Stamford Bi-Cultural Hebrew Academy Christopher Graseck

2022 L7 2 How Do Different Colors of Light Affect Plant Growth

Student(s) Keren Roitman **Grade** 7 **Town** Stamford

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Stamford King School Dr. Victoria Schulman
 6027 PS 2 American Sign Language (ASL) Resin Printed Prosthetic Hand
Student(s) Nicole Guido **Grade 11** **Town** Greenwich

Stamford King School Victoria Schulman
 6036 PS 1 Environmental Remediation via Photocatalysis for Partial Methane Oxidation and Oil Photodegradation
Student(s) Antonia Kolb **Grade 11** **Town** New Canaan

Stamford King School Victoria Schulman
 6021 PS 2 The use of NMR to identify the LOD in mixtures of organic compounds to efficiently produce environmentally friendly biomass polymers & reduce energy loss from wasted plastic
Student(s) Gouri Krishnan **Grade 12** **Town** Darien

Stamford King School Victoria Schulman
 3075 LS 1 High G/C Content at the 3' End of the Spacer of Prime Editing Guide RNAs Results in Increased Editing Efficiencies
Student(s) Benjamin Persily **Grade 12** **Town** Scarsdale

Stamford King School Victoria Schulman
 3048 LS 1 Knockdown of the essential 23S rRNA methyltransferase, rv3579c, increases the susceptibility of Mycobacterium tuberculosis to macrolides
Student(s) Yuriy Sandmeier **Grade 12** **Town** New Rochelle

Stamford King School Victoria Schulman
 3068 LS 2 Determining the Pigmentation of Overexpressed BAP1 on 92.1 GFP Cell Lines to Predict Prognosis.
Student(s) Layla Shah **Grade 11** **Town** wilton

Stamford King School Victoria Schulman
 6087 PS 2 Designing a Simulation for Aerothermodynamic Performance of Transatmospheric Vehicles and Ablative Heat Shield Designs for Space Exploration and Missile Defense Reentry
Student(s) Ryan Wempen **Grade 11** **Town** Stamford

Stamford Westhill High School Mr Chandan Sarkar
 6066 PS 1 Investigating the application of statistical word analysis to automatically select controls from the NIST Risk Management Framework
Student(s) Rohan Sahu **Grade 11** **Town** Stamford

Stamford Bi-Cultural Hebrew Academy Chris Graseck
 1007 LT 3 How Microplastics Effect Daphnia magna
Student(s) Zoe Wirgin **Grade 7** **Town** Stamford
Molly Wirgin **Grade 7** **Town** Stamford

Storrs E. O. Smith High School Cheryl Granger
 6040 PS 2 Multi Temporal Analysis of Beaver Activity in Connecticut Forests Using Aerial Imagery
Student(s) Hiruni Witharana **Grade 9** **Town** Storrs Mansfield

Stratford St. Mark School Alexander Kennedy
 2006 L7 1 The Stroop Effect
Student(s) Julianne Gonzalez **Grade 7** **Town** Stratford

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Stratford St. Mark School Alexander Kennedy
1005 LT 2 Does Personality Affect Memory
Student(s) Avani Jacobs Grade 8 Town stratford
Miranda Abreu Grade 8 Town Stratford

Stratford St. Mark School Mr. Kennedy
1010 LT 3 How Different Liquids Affect the Growth of Plants
Student(s) Sofia Pagano Grade 7 Town Stratford
Sara Gnoza Grade 7 Town Stratford

Suffield Suffield Academy Raven Huang
6068 PS 2 Research on the Equation of the Magnetic Field Caused by Magnets
Student(s) Jiaxuan Su Grade 11 Town Suffield

Suffield Suffield High School Melanie Brown
3098 LS 3 The Impacts of the Permanent Implementation of Daylight Savings Time in Connecticut.
Student(s) Emma Conway Grade 11 Town Suffield

Suffield Suffield High School Melanie Brown
6505 PST 3 Alternative Fuel Sources for Commercial Jetliners to Combat Climate Change
Student(s) Christopher Crozier Grade 11 Town Suffield
Luca Matejek Grade 11 Town Suffield

Suffield Suffield Middle School Melanie Brown
4012 PT 2 Technical and Economic Feasibility of Photovoltaic Window Shades
Student(s) Shaunak Ukidwe Grade 8 Town Suffield
Arnav Ukidwe Grade 8 Town Suffield

Trumbull Christian Heritage School daniel cote
3047 LS 2 The Effect of Metal Salts and Chelation on the Catalase Activity in Alzheimer's Disease
Student(s) Sofia Khan Grade 11 Town stratford

Trumbull Christian Heritage School Dr. Daniel Cote
6080 PS 3 Designing a Device to Charge a Cellphone Using Energy Created by a Bicycle for Underdeveloped Areas
Student(s) Abigail Nagel Grade 11 Town Trumbull

Trumbull Christian Heritage School Nicole Blaskewicz
5502 P8 1 How Ice vs. No Ice Affects a Stirling Engine
Student(s) Charles Orban Grade 8 Town Norwalk

Trumbull Christian Heritage School Ms. Blaskewicz
5509 P8 3 Solar Storms and Magnetometers: What is a solar storm, and how do magnetometers contribute to society today?
Student(s) Grace Rowe Grade 8 Town Trumbull

Trumbull Trumbull High School William Heher
3057 LS 3 The Effect of Calcium Received on the Growth of Green Beans in Hydroponics
Student(s) Kaitlyn Allen Grade 12 Town Trumbull

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Trumbull Trumbull High School Steffanie Elkins

3114 LS 2 Which Genre of Music Promotes Brain Plasticity the Best?

Student(s) Nandhan Aditya Anandha Kumar **Grade** 12 **Town** Trumbull

Trumbull Trumbull High School Steffanie Elkins

3065 LS 2 The Effect of Differing Concentrations of Chlorine Ions on the Growth and Eating Habits of *Dionaea muscipula*

Student(s) Freud-Williams Maignan **Grade** 12 **Town** Trumbull

Trumbull Trumbull High School Steffanie Elkins

3022 LS 3 The Effect of Different Concentrations of Caffeine on Acidophilic and Alkaliphilic Plants

Student(s) Shivashankar Subramanian **Grade** 12 **Town** Trumbull

Wallingford Choate Rosemary Hall John Gadoua

6030 PS 3 Effect of Atmospheric conditions on the Power output of Solar Panel

Student(s) Seokhyun Chin **Grade** 10 **Town** Wallingford

Wallingford Choate Rosemary Hall Joseph Scanio

3046 LS 3 Effect of microbiota inoculants on novel bioplastic degradation: a comparative study on backyard and commercially compostable bioplastics

Student(s) Rebecca Denhart **Grade** 12 **Town** Durham

Wallingford Choate Rosemary Hall Jan Cook

6076 PS 2 Theoretical Investigation of Sodium Ion Adsorption on N-rich Graphene as a High-Rate Anode for Sodium-Ion Batteries

Student(s) Henry Ding **Grade** 11 **Town** Irvine

Wallingford Choate Rosemary Hall Jan Cook

3007 LS 1 Development of Buoyant, Lignin-Based Fulvic Acid Supply Device (FASD) to Prevent Ocean Desertification

Student(s) Yoon Ha Lee **Grade** 11 **Town** Seoul

Wallingford Choate Rosemary Hall Jan Cook

3083 LS 3 Investigating Stress Response Genes in *C. elegans* to Prevent Huntington's Disease

Student(s) Claire Liu **Grade** 11 **Town** Wallingford

Wallingford Choate Rosemary Hall Yingxin Gao

3072 LS 1 Using Machine Learning to Forecast Progression from Mild Cognitive Impairment to Alzheimer's Disease

Student(s) Ann Song **Grade** 10 **Town** Farmington

Wallingford Choate Rosemary Hall Jan Cook

3040 LS 1 TopoCan: A Novel Histopathological System for Clinical Prediction with Topology- and Spatial Genome-Informed Deep Learning

Student(s) Isabella Wu **Grade** 11 **Town** Wallingford

Wallingford Choate Rosemary Hall Jan Cook

6055 PS 2 The application of fractal in machine learning

Student(s) Danny Yoon **Grade** 11 **Town** Glenview

Wallingford Choate Rosemary Hall Jan Cook

6064 PS 1 A Self-Stabilizing Haptic Accessibility Mouse for Parkinson's Disease Sufferers

Student(s) Jingyuan Zhang **Grade** 10 **Town** Wallingford

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Wallingford Choate Rosemary Hall Christopher Hogue

6069 PS 3 Probing Neural Networks for Visio-Linguistic Feature Binding

Student(s) Minzhi Zhang **Grade** 11 **Town** Wallingford

Washington The Frederick Gunn School Morgen Fisher

6084 PS 2 Water Quality Inspection Catamaran

Student(s) Chengyue Zhang **Grade** 11 **Town** Shanghai

Waterbury ACES at Chase Anne Pember

2013 L7 3 Removing Sodium Nitrate from run off water

Student(s) Joel Brooks **Grade** 7 **Town** Naugatuck

Waterbury ACES at Chase Anne Pember

5513 P8 3 THE Design and Experimentation of Creating a Cold Pack Out of Household Items

Student(s) Brock Dauber-Katz **Grade** 8 **Town** Thomaston

Waterbury ACES at Chase Anne Pember

5001 P7 1 Streaky Windows Experiment

Student(s) Andrew Daukas **Grade** 7 **Town** Middlebury

Waterbury ACES at Chase Anne Pember

2515 L8 3 Growing a Plant from Food Waste

Student(s) Victoria DiMatteo **Grade** 8 **Town** Naugatuck

Waterbury ACES at Chase Anne Pember

5501 P8 2 The experimentation and design of all purpose cleaners

Student(s) Andrew Freer **Grade** 8 **Town** Thomaston

Waterbury ACES at Chase Anne Pember

2529 L8 2 Bioutilization of Italian Rye Grass to remove oily pollutants from soil

Student(s) Yesenia Galicia Herrera **Grade** 8 **Town** Meriden

Waterbury ACES at Chase Anne Pember

2025 L7 3 Apple Preservation (Organic vs Non Organic)

Student(s) Kenlee LaFlamme **Grade** 7 **Town** Watertown

Waterbury ACES at Chase Anne Pember

5011 P7 3 Reducing the Waste of Footballs

Student(s) Christian Simoes **Grade** 7 **Town** Watertown

Waterbury ACES at Chase Lisa Debany

1020 LT 1 Strontium Aluminate Begonia

Student(s) Isaiah Smith **Grade** 8 **Town** Meriden

Sharon Olabisi **Grade** 8 **Town** Meriden

Nevaeh Alfonso **Grade** 8 **Town** Prospect

Waterbury ACES at Chase Anne Pember

2505 L8 3 The Effect of Lysozyme on the Spoilage of Food

Student(s) Charles Tschepe **Grade** 8 **Town** Oakville

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Watertown Taft School Davi Maximo

6062	PS	3	Quantitative inequalities for the maximum curvature of planar curves
Student(s) Michael Ren			Grade 11 Town Watertown

West Hartford Renbrook School Howard Wright

2024	L7	1	Is Your Bottled Water Really Worth It?
Student(s) Nicolas Waldron			Grade 7 Town West Hartford

Westbrook Westbrook High School Mr. Zebrowski

6047	PS	2	Linear Particle Accelerator
Student(s) Enzo Adorno			Grade 12 Town Westbrook

Westport Greens Farms Academy Mathieu Freeman

3071	LS	2	The Antibacterial Effect of Apple Cider Vinegar on Staphylococcus and on the Human Epidermal Microbiome.
Student(s) Anna Moss			Grade 11 Town Fairfield

Westport Greens Farms Academy Mathieu Freeman

3060	LS	3	The Effects of Family Dynamics on an Individual's Suicide Risk Behaviors and General Mental Health
Student(s) Hannah Portman			Grade 12 Town Westport

Westport Greens Farms Academy Juli Gerdes

3084	LS	2	The Effects of Nitric Ozide, Ozone, Herbicides, and Vitamin D on Alzheimer's Induced Drosophila Melanogaster
Student(s) Laci Raveis			Grade 12 Town Fairfield

Wilton Middlebrook School Jessica Garcia

2520	L8	2	Pancreatic Cancer Treatment
Student(s) Megan Dragunat			Grade 8 Town Wilton

Wilton Middlebrook School Kendra Norman

5002	P7	2	BlindSight
Student(s) Arav Gupta			Grade 7 Town Wilton

Wilton Middlebrook School Debbie Mallozzi

5514	P8	2	Classifying Lenticular Galaxies with the help of a Convolutional Neural Network
Student(s) Ishanvi Jaiswal			Grade 8 Town Wilton

Wilton Middlebrook School Paige Randall

2020	L7	1	The Power of Your Produce!
Student(s) Nadia Khan			Grade 7 Town Wilton

Wilton Middlebrook School Jessica Garcia

5517	P8	2	Identifying Skin Lesions with Artificial Intelligence
Student(s) Leonardo Kulon			Grade 8 Town Wilton

Wilton Middlebrook School Kelly DePiano

2525	L8	1	Preventing Hypoxia using Magnetism
Student(s) Anshika Saagi			Grade 8 Town Wilton

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Wilton Middlebrook School Ms. Kelly Depiano

5516 P8 2 How to See Beyond What the Eye Can See (How to build a Microscope to see objects smaller than 1 micrometer in size)

Student(s) Angela Varghese **Grade 8** **Town** Wilton

Windsor Academy of Aerospace and Engineering Michelle Bellinger

3024 LS 1 Non-Invasive Pre-screening Approach for Early Detection of The Human Papillomavirus (HPV) to Aid in Cervical Cancer Prevention in Underrepresented Demographics

Student(s) Ana-Lois Davis **Grade 11** **Town** Broad Brook

Windsor Academy of Aerospace and Engineering Dr. Aramli

3086 LS 3 Hybridization of Tropaeolum nanum & Tropaeolum lobbianum

Student(s) Elijah Delgado **Grade 11** **Town** Hartford

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6051 PS 2 Testing Model Rocket Propulsion Methods

Student(s) Abby Neal **Grade 11** **Town** Somers

Windsor Academy of Aerospace and Engineering Michelle Bellinger

6512 PST 1 Harvesting Energy from the Wind by Combining Piezoelectrics and Turbines.

Student(s) Ronak Ramesh **Grade 11** **Town** Middletown
Aarush Singh **Grade 11** **Town** South Windsor

Windsor Madina Academy Ms. Sana

6057 PS 3 A Perpetually Flying Plane

Student(s) Hamza Alsaleh **Grade 9** **Town** Windsor Locks

Windsor Madina Academy Mrs.Sana Farooqi

6063 PS 1 Investigating the effect of dimpled and tubercled geometries in conjunction on the drag and lift of airfoils.

Student(s) Tasneem Zoghlo **Grade 10** **Town** Enfield

Windsor The Loomis Chaffee School Koby Osei-Mensah

6003 PS 1 Improving Photoelectric Conversion Efficiency of the Solar Cell with Silica-Based-Aerogel-Coated Surface

Student(s) Yan Che **Grade 11** **Town** Shanghai

Windsor The Loomis Chaffee School Koby Osei-Mensah

3002 LS 1 Classify Liver cancer using Uncertainty-aware CNN

Student(s) Qiwu Jiang **Grade 11** **Town** Windsor

Windsor The Loomis Chaffee School Koby Osei-Mensah

3106 LS 3 A Quantitative Study of Social Determinants of Health as Predictors of Covid-19 Case Rates and Mortality Rates to Emphasize Medical and Social Disparities in the United States

Student(s) Zarin Rizvi **Grade 11** **Town** Glastonbury

Woodbridge Amity Regional High School Catherine Piscitelli

3108 LS 3 Determining an Ideal Surgical Treatment of Distal Femur Fractures in Osteoporotic Elderly Based on Finite Element Analysis of Different Plate and Screw Scenarios

Student(s) Aaron Babajanyan **Grade 12** **Town** Woodbridge

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Woodbridge	Amity Regional High School	Catherine Piscitelli	6002	PS	2	Research and Development of an Autonomous Drone to Provide Security for Schools and Businesses using Computer Vision and Ardupilot Firmware	Student(s) Edgar Babajanyan	Grade 12	Town Woodbridge
Woodbridge	Amity Regional High School	Catherine Piscitelli	3093	LS	3	Effects of Increased Rainfall on Permafrost Stability and Methane Emissions in Eastern Canada to the Next Century	Student(s) Vishwa Balamurugan	Grade 11	Town Orange
Woodbridge	Amity Regional High School	Catherine Piscitelli	6085	PS	1	Refining a Novel Pediatric Bionic Ankle Through Empirical Testing and Integration of an Intelligent Fluidic Joint Control Architecture	Student(s) Aditi Bhattamishra	Grade 11	Town Orange
Woodbridge	Amity Regional High School	Catherine Piscitelli	6061	PS	2	Creating and Testing a Novel Drone Swarm Mapping and Surveillance Algorithm	Student(s) Francis Cavallaro	Grade 12	Town Orange
Woodbridge	Amity Regional High School	Catherine Piscitelli	6077	PS	2	Developing a Machine-Learning Based Algorithm to Identify and Predict Alzheimer's Disease from Clinical Notes	Student(s) Haseeb Chaudhry	Grade 11	Town Orange
Woodbridge	Amity Regional High School	Catherine Piscitelli	3100	LS	2	Developing a machine learning model to preoperatively evaluate patient outcomes for complex orthopedic fractures	Student(s) Suhail Irshad	Grade 11	Town Orange
Woodbridge	Amity Regional High School	Catherine Piscitelli	6007	PS	2	Determining the Forces Received During Multiple Head Impacts in High school American Football Players	Student(s) Matthew Li	Grade 12	Town Orange
Woodbridge	Amity Regional High School	Catherine Piscitelli	3032	LS	3	Using Bioinformatic Analyses to Identify Key Differences Between the Gene Expression of Normal Cells and Rheumatoid Arthritis Cells	Student(s) Daniel Liu	Grade 12	Town Woodbridge
Woodbridge	Amity Regional High School	Catherine Piscitelli	3074	LS	1	In Vivo Imaging of Structural Connectivity and Synaptic Density in Alzheimer's Disease	Student(s) Melinda Lu	Grade 12	Town Woodbridge
Woodbridge	Amity Regional High School	Catherine Piscitelli	6070	PS	2	Development of an Autonomous Device that uses Heart Rate and Vibrational Pulses to Reduce Stress	Student(s) Sheehan Munim	Grade 12	Town Orange
Woodbridge	Amity Regional High School	Catherine Piscitelli	6017	PS	2	Optimizing Reinforcement Learning Using Dynamic Environment Manipulation to More Efficiently Train Autonomous Navigation AI	Student(s) Aarav Patel	Grade 11	Town Orange

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Woodbridge Amity Regional High School Catherine Piscitelli

6034 PS 2 Designing and Optimizing a More Efficient and Inexpensive Optical Component for Thermal Cameras

Student(s) Anthony Sharonov **Grade** 12 **Town** Bethany

Woodbridge Amity Regional High School Catherine Piscitelli

6025 PS 2 Modeling Subcortical-Cortical Interactions During Reward-Based Decision Making Using a Hierarchical Temporal Memory Artificial Neural Network

Student(s) Annika Yun **Grade** 11 **Town** Orange

Woodbridge Amity Regional High School Catherine Piscitelli

3069 LS 1 Determining the Impact of Certain DNA Repair Function Loss on the Antibiotic Resistance and Persistence Development of E.coli Following Treatment With DNA Topoisomerase Inhibitors

Student(s) Annie Zhan **Grade** 12 **Town** Bethany