A Special Thank You to:

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Dr. Lisa Ihne, Cherry Avenue Elementary School
Mr.Scott Bullis, Lincoln Avenue Elementary School
Dr. James Foy, Sunrise Drive Elementary School

Thank you to the Friends of Sayville Education Foundation for your generosity and continued support.

Thank you to district printer John Nelson.

SAYVILLE PUBLIC SCHOOLS
The Foundation for Success

FOURTEENTH ANNUAL SCIENCE SYMPOSIUM

"A CELEBRATION OF SCIENCE AND ENGINEERING"

Sayville High School
Cafeteria A & B-High School Projects
Senior Lounge-Elementary Projects
20 Brook Street
West Sayville, New York 11796

Monday June 12th, 2023
5:00pm-7:00pm

Science and Engineering Symposium

5:00pm-7:00pm

Location: Sayville High School Cafeteria

A, B and Senior Lounge

Baked goods and Refreshments available.

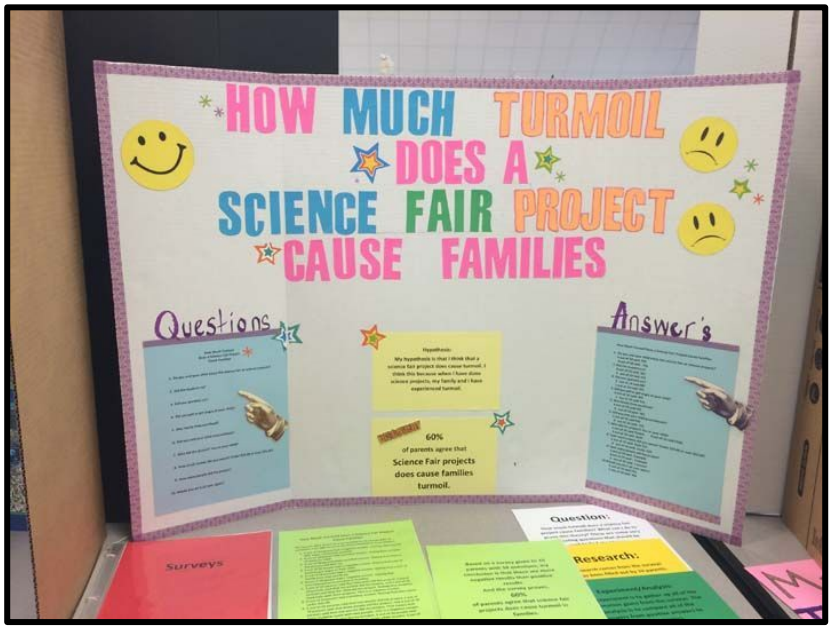
The Science and Engineering Symposium is a collaboration between the Sayville Elementary School(s) Science Fair and High School R.I.S.E. and R.I.S.E. Tech student research programs.

Students share, demonstrate and display their projects to the community in an effort to promote Science Technology Engineering and Mathematics to all who attend. The symposium closes with our R.I.S.E. and R.I.S.E. Tech seniors receiving their graduation cords and presenting their award winning and competition recognized projects

Dear Parents and Symposium Students:

Science and Engineering projects are a great way to excel student knowledge in unfamiliar areas of interest in the pursuit of finding answers.

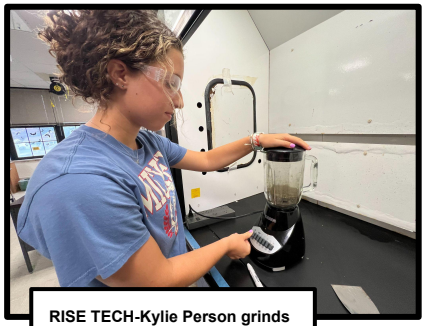
Despite all the running around, last minutes trips to Staples, glues that won't stick, 11th Hour deadlines and messes on the kitchen table..... trust us it's all worth it!



We thank you for all of your hard work and dedication to your projects! We look forward to seeing you all continue to do amazing things in the future!

Sincerely,
Your Science, Technology, Engineering
and Math Teachers

R.I.S.E. & R.I.S.E. TECH

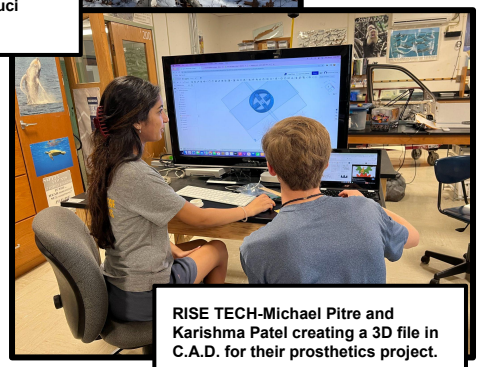


RISE TECH-Kylie Person grinds up “Bladderwrack Seaweed” for her Bioplastics Project.

RISE TECH-Tom Weik Solders a circuit board for his cryptocurrency project

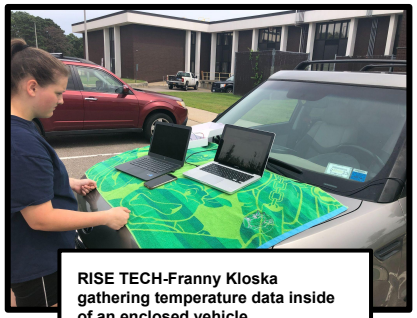
RISE students collecting samples at San Souci County Park

RISE students using a Thermocycler for PCR analysis of DNA



RISE TECH-Michael Pitre and Karishma Patel creating a 3D file in C.A.D. for their prosthetics project.

RISE students measuring air quality and learning environmental sampling techniques



RISE TECH-Franny Kloska gathering temperature data inside of an enclosed vehicle.

Science and Engineering Symposium

Agenda for the Evening

5:00 pm-6:15 pm
High School and Elementary School students present their Science and Engineering project poster boards to the community.

6:15 pm
Cording Ceremony
R.I.S.E. and R.I.S.E. Tech Seniors presented with their tassels for graduation.

6:30 pm
Senior Presentations
R.I.S.E. and R.I.S.E. Tech Seniors present their award winning research projects.

6:45 pm-7:00 pm
High School and Elementary School students break down projects.

Elementary Science Fair
Cherry Avenue

KINDERGARTEN

First Place	Jeffrey Nohowec	Measuring with Monster Trucks
Honorable Mention	Harper Hudson	Rock Candy Experiment
Honorable Mention	Shawn Gallagher	We Eat Nails for Breakfast
Honorable Mention	Maximus Krepela	Lemon Power

FIRST GRADE

First Place	Luke Cisek	Gummy Bear Osmosis
Honorable Mention	Leo Furshpan	Green Periscope

SECOND GRADE

First Place	Emma Nohowec	Painting with Pigments
Honorable Mention	Moorea Capellini	Music Helps our Brain Write Stories
Honorable Mention	Daisy Bentley-Garfinkel	Does Music Affect Concentration

THIRD GRADE

First Place	Catherine Croce	The Effect of Temperature on Yeast Fermentation in Bread Making
Honorable Mention	Scarlett Gallagher	Which Liquid Damages Teeth the Most

R.I.S.E. TECH Student Accolades

2022-2023 Recognition

Congratulations to the following students on their awards for authentic research at competitions.

High School Award Recipients:

Meredith Albertelli

“Improving Personal Protective Equipment Through 3D Printing and Engineering”

Long Island Science Congress

Award: Achievement

Kylie Person

"Can an Algal Bioplastic Serve as an Alternative to Single Use Can Packaging?"

Long Island Science Congress

Award: High Honors-Competing at State Level

S.A.A.W.A. (South Asian American Women's Alliance) Science Fair

Award: Third Place in the category of Earth and Environmental Science

Riley Lapine

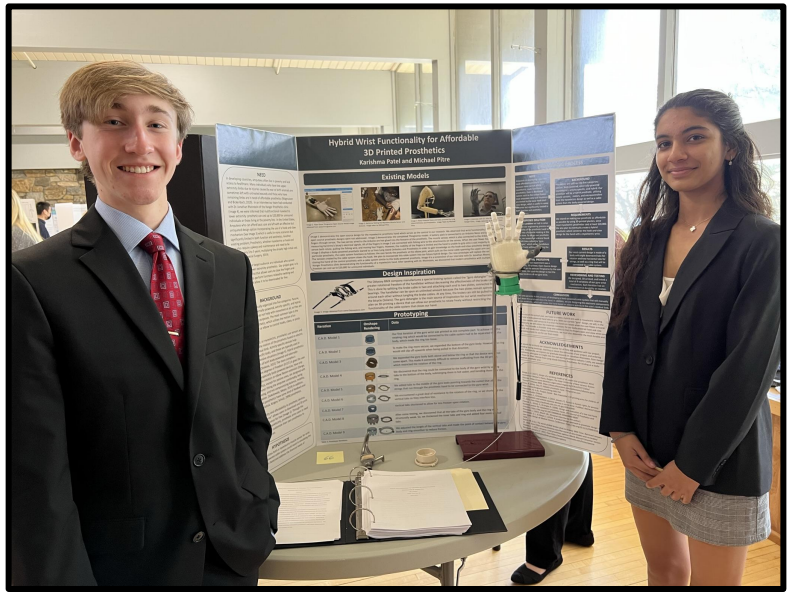
Achievement: Greater New York Ace Mentorship Scholarship Award

R.I.S.E. TECH TIER IV STUDENTS

Student Name		Project Title
Martino	Albanese	How Can We Make Self-Driving Cars Safer?
Adam	Burgardt	Is A Small Scale Electrical System More Efficient Than A Public One?
Sasha	Gagnon	Do Viral Agents Contribute to the Non-Hereditary Development of Type 1 Diabetes in Young Children?
Frances	Kloska	Reducing Heat Stroke Related Deaths and Injuries Through Automotive Safety Technology
Emily	Kroll	Can Interchangeable Cleats Be a Better Alternative to Current Footwear Designs?
Riley	Lapine	Can Residential Wind Turbines be used as a Method of Alternative Energy?
Karishma	Patel	Hybrid Wrist Functionality for 3D-Printed Prosthetics
Michael	Pitre	

R.I.S.E. TECH SENIOR PRESENTATION:

Karishma Patel & Michael Pitre
“Hybrid Wrist Functionality for 3D-Printed Prosthetics”



Michael Pitre & Karishma Patel presenting at S.A.A.W.A.

Elementary Science Fair
Cherry Avenue

FOURTH GRADE

First Place	John Kreuscher	Not so Safeville
Second Place	Emma Nhotsoubanh	Do packaged seeds grow better than seeds from inside a fruit?
Third Place	Sunny Smith	Is there a better color for green screens?
Honorable Mention	Logan Fink	Highest Exit Velocity
Honorable Mention	Emerson Cioffi	What type of nail Polish is the Most Durable?
Honorable Mention	Anthony Pitre	Stop the Stitch

FIFTH GRADE

First Place	Brendan Burke	Can’t Stop the Wifi
Second Place	Annalise Bocchetti	Do LED lights kill Bacteria
Third Place	Graeme Stewart	Floating Garden
Honorable Mention	Millie Valenti	Hot Rubber Ball vs. Cold Rubber Ball
Honorable Mention	Lilian Graham	Flower Power
Honorable Mention	Catherine Carberry	Charlie, Stay
Honorable Mention	Zachary Abend	Give Peas a Chance

Elementary Science Fair
Lincoln Avenue

KINDERGARTEN

First Place	Drew Cocchi	Bubble or Burst
Runner Up	Gwendolyn Jones	Surface Tension

FIRST GRADE

First Place	Francesca Corso	How Clean is that Dryer?
Runner Up	Charlotte Johnson	The Best Paper Airplane
Honorable Mention	Shane McQuillen	Do Words Hurt?

SECOND GRADE

First Place	Julianne Blanco	Is My Brother Left Handed or Right Handed?
Runner Up	Benjamin Plouffe	Lego Float the Boats
Honorable Mention	Carly Cocchi	Up and a “Weigh”

R.I.S.E. TECH TIER II STUDENTS (continued)

Kylie	Person	Can an Algal Bioplastic Serve as an Alternative to Single Use Can Packaging?
Maura	Reilly	Can Having a Clean Cleat Improve the Performance of Soccer Players?
Kamryn	Restivo	Can Affordable Homes Be Constructed Using Recycled Plastics?
Jolie	Whalen	Can Homes Designed for Energy Production Contribute to Minimizing Reliance on Local Power Grids?
Carter	White	Can an Automated Environment Powered by OpenCV Assist Individuals Who are Affected by Paralysis?
Sydney	Young	Can Augmented Reality Art Spaces Assist Artists in Communicating Their Work Globally?
Vincent	Fontanetta	Could Collaboration in a Virtual Environment Improve Learning?
Robert	Rubino	Can Injuries and Deaths in Residential Areas be Reduced by App Tracking Traffic Patterns?

R.I.S.E. TECH TIER III STUDENTS

Student Name		**Project Title**
Meredith	Albertelli	Improving Personal Protective Equipment Through 3D Printing and Engineering
Charlie	Breen	Can Pond and Water Maintenance Become Completely Autonomous?
Courtney	Corcoran	Can an App Improve Your Skiing Experience?
Jack	D'Andrea	Can an App Improve Your Skiing Experience?
James	Kretz	One Size Fits All Sneaker
Kate	Leigh-Manuell	Can an App Improve Your Skiing Experience?
Tom	Weik	Identifying the Efficacy of Environmentally Friendly Cryptocurrency Mining

R.I.S.E. TECH TIER I STUDENTS

Student Name		Project Title
Nathan	Cabanas	Can A Compact Snowboard Design Allow For More Efficient Travel?
Ian	Chung	A.I. Application Development for Removing Unwanted Emails
Richard	Fontanetta	App and Game Development to Assist in understanding Chemistry
Kyle	Karpowicz	Can Thorium Serve as an Alternative for Uranium in a Nuclear Reactor?
Max	Person	Can airflow resistance on a vehicle be harnessed to create regenerative energy?
Kenneth	Ruf	Can Modified Heavy Item Transport Devices Reduce Lifting Related Back Injuries?
Dylan	Walsh	Could a Virtual Model of Schools assist Students with Finding Classes?
Wesley	Jones	Can Ankle Role Injuries be Limited By a Redesign of The Ankle Cushion?

R.I.S.E. TECH TIER II STUDENTS

Student Name		Project Title
McKenna	Broderick	Can Maneuvers in Cheerleading be Modified to Incorporate Safety and Reduce the Risk of Neck and Spinal Injuries?
Christian	Buono	Could Collaboration in a Virtual Environment Improve Learning?
Christopher	Costa	Can Thorium Serve as an Alternative for Uranium in a Nuclear Reactor?
Jake	Hinteman	Can a Single Golf Club With an Adjustable Head Angle Benefit Golfers?
Owen	Hinteman	Can Modifying Weight Distribution Improve Watercraft Planing?
Steven	Mercorella	Can 3D Printed Leg Guards Serve To Better Protect The Players Without Hindering Ability?
Brendan	Meyers	Can Having a Wearable EpiPen Increase the Chances of Surviving an Allergic Reaction?

Elementary Science Fair
Lincoln Avenue

THIRD GRADE

First Place	Parnika Unguturu	Energy from Garbage
Runner Up	Joseph Frederick	Rocket Physics
Honorable Mention	Alexa Charles	Awesome Obstacles
Honorable Mention	Lila Jones	Potato Currents

FOURTH GRADE

First Place	Madalyn Dinkel	Underwater Vacuums
Runner up	Leo Chung	Heat and Lose
Honorable Mention	James Phillips	Brightest Beach
Honorable Mention	Lucas Chung	The Perfect Solution
Honorable Mention	Cormack Shea	Beyblade Battles
Honorable Mention	Donald Gould	Rapid Rubber Bands
Honorable Mention	Emerson Cioffi	What type of Nail Polish is the Most Durable
Honorable Mention	Anthony Pitre	Stop the Stitch

FIFTH GRADE

First Place	Avery Wade	How Cold Can You Go?
Runner up	Emma Lochner	Why Did the Chickens Cross the Road?
Honorable Mention	Audrey Leo	The Pointe of Nutrition
Honorable Mention	Joey Cipriano	Oh Chute!
Honorable Mention	Cameron Senatore	Build and Zip

Elementary Science Fair
Sunrise Drive

KINDERGARTEN

First Place	Lia Gallo	What's the Scoop?
Honorable Mention	Quinn Fuentes	The Ultimate Uno Shuffle
Honorable Mention	Dean Hoschler	Spaghetti Bridge
Honorable Mention	Matthew Swift	M&M Magic

FIRST GRADE

First Place	Christian Gallo	Battle of the Beys
Honorable Mention	Carly Dileo	How "Bout them Apples?
Honorable Mention	Ryan Fedelem	The Eggcellent Rainbow Egg Drop
Honorable Mention	Angelina Plantz	Which Boat will float the Longest?
Honorable Mention	Mackenzie Topal	What Solution will Make a Gummy Bear Grow the Biggest?

SECOND GRADE

First Place	Clayton Roberts	Will it Prevent Spoiling
Honorable Mention	Grant Hoschler	Spaghetti Bridge Experiment
Honorable Mention	Riley Reutlinger	Kool-Aid Rock Candy
Honorable Mention	Vincent Ungaro	Does the Amount of Mentos Affect How High Coke will rise?
Honorable Mention	Keira Zbytniewski	Electric Fruit

THIRD GRADE

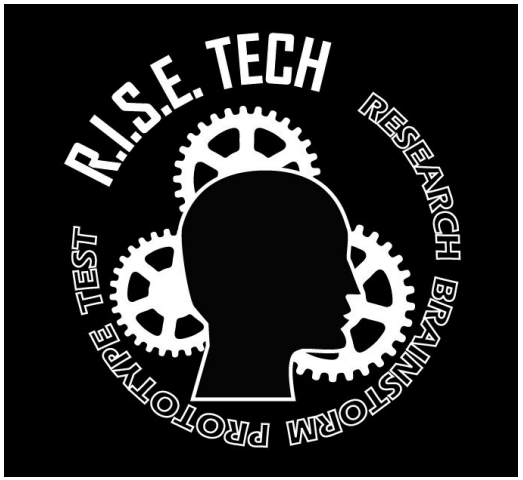
First Place	Cora Meittinis	Taste The Rainbow
Honorable Mention	Chloe Cox	Dance Your Heart Out
Honorable Mention	Laila DaSilva	Raising the Bar
Honorable Mention	Hudson Shull	Our Solar System

RESEARCH IN SCIENCE & ENGINEERING: TECHNOLOGY

"R.I.S.E. TECH"

Research/Technology Teacher: Mr. Rick Caskey

With the success of the R.I.S.E. program at Sayville High School the need for a research program related to Engineering design, Coding and 3D printing was developed to meet the needs of the ever constant changes and demands of the technological world. The R.I.S.E. Tech program allows research opportunities for students who are natural problem solvers and self guided learners. This is the the 8th year of the R.I.S.E. Tech program and our students have made great progress in the development of their projects.



R.I.S.E. Tech Logo Designed by: Emily Hartman

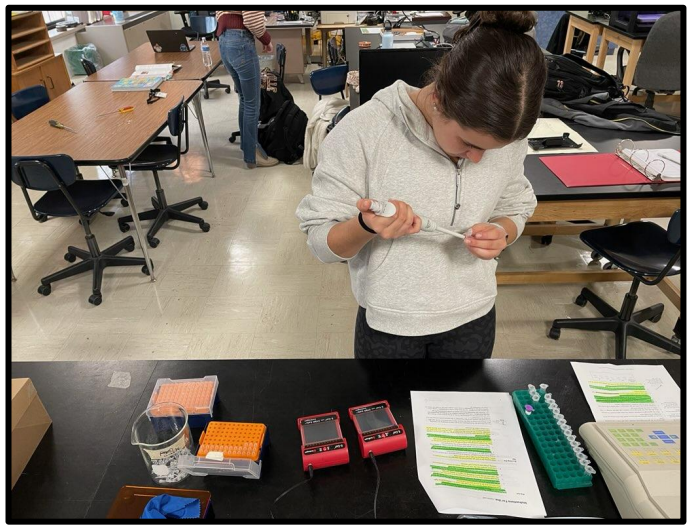
CONGRATULATIONS TO OUR

R.I.S.E. TECH

SENIOR CLASS OF 2023!

Martino Albanese, Adam Burgardt, Sasha Gagnon, Frances Kloska, Emily Kroll, Riley Lapine, Karishma Patel, Michael Pitre, Tom Weik

R.I.S.E. SENIOR PRESENTATION:
Kelsey Restivo
“Using a Lichen* Biodiversity Index as an Indicator of the Overall Health of San Souci County Park in Sayville N.Y.”



Kelsey Restivo Samples *Lichen DNA in the R.I.S.E. Lab.

***Lichens are a complex life form that is a symbiotic partnership of two separate organisms, a fungus and an alga. (U.S. Department of Agriculture)**

Elementary Science Fair
Sunrise Drive

FOURTH GRADE

First Place	Declan Floyd	Fire Extinguisher
Honorable Mention	Anthony Babbino	The Perfect Shot
Honorable Mention	Madison Brink	Reflective Growth
Honorable Mention	Daniel Dobin	The Influence of Wing Shape on Lifting Power in Gliders
Honorable Mention	Anthony Filaski	Puck Force
Honorable Mention	Jack Goodman	How pure is your water?
Honorable Mention	Ryan Griffiths	Which Type of Bat Hits the Farthest?
Honorable Mention	Lyla Moje	What Causes Tooth Decay?
Honorable Mention	Paige Nelson	Truth Decay Rethink What you Drink
Honorable Mention	Autumn Rucker	Do Plants Respond to Music?
Honorable Mention	Ethan Sadowski	Project Paper
Honorable Mention	Charlotte Spiegel	pHood Detective
Honorable Mention	Ella Tropin	Operation Gum

Elementary Science Fair
Sunrise Drive

FIFTH GRADE

First Place	Matthew Yovino	Turn and Burn
Honorable Mention	Benjamin Beil	Let's Roll
Honorable Mention	Avery Dileo	The Bad Seed
Honorable Mention	Nicholas Gennari	Tee Time!
Honorable Mention	Michael Iacobazzi	Does Practice Really Make Perfect?
Honorable Mention	Riley King	How to Fix Yellowing Plastic
Honorable Mention	Liam Myer	Paw-some Floors
Honorable Mention	Austin Roberts	Will it Rust?
Honorable Mention	Lily Rubino	Remarkable Markers
Honorable Mention	Chase Sullivan	Tap or Bottled Water Cleanest pH
Honorable Mention	Matthew Teller	Medieval Weapons
Honorable Mention	Adrianna Topal	What is the Saltiest Body of Water?

R.I.S.E. Student Accolades

2022-2023 Recognition

Congratulations to the following students on their accomplishments and awards for authentic research at competitions.

High School Award Recipients:

Anna Meserve

Perceived Effects of Celsius Energy Drinks and the Alignment with Advertised Value of Consumption

Long Island Science Congress

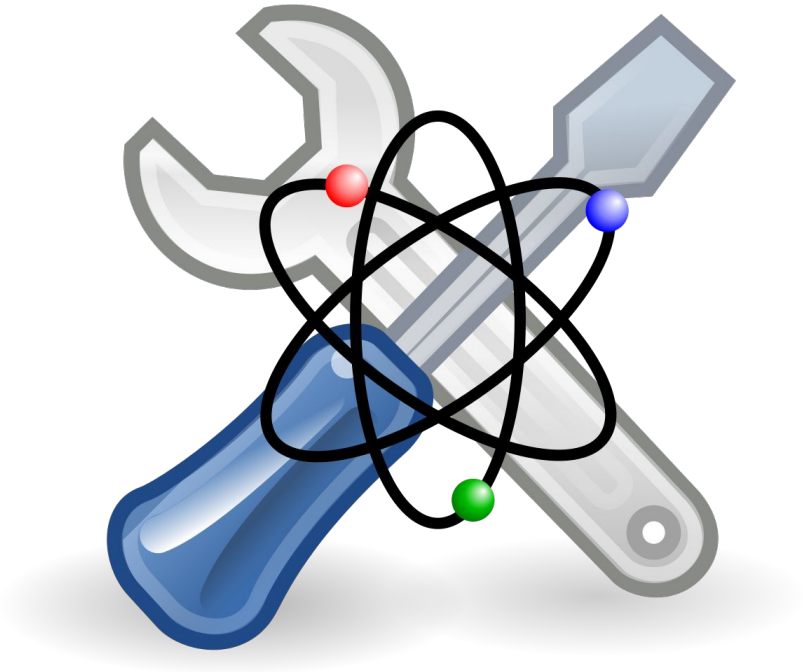
Award: Honors

Adria Vargas and **Taylor Carpentieri** recently won the "Long Island Water Quality Challenge", a competition that promotes project-based learning in Science, Technology, Engineering, and Mathematics (S.T.E.M.)-Caption By: Mariana Dominguez

R.I.S.E. TIER III STUDENTS

Student Name		Project Title
Abby	Breen	Analysis of Shark Locations in the Great South Bay, Long Island NY
Skyler	Collins	The Effect of the Difficulty of Math Questions on Students' Ability to Accurately Answer Additional Math Questions
Jordan	Lucke	The Effects of Ultraviolet Radiation on the Physical Characteristics of Pertusaria
Faith	Cummings	
Ethan	Entenberg	Defining a Relationship Between Cosmetic Surgery and Appearance Targeted Bullying among Primary and Secondary Teachers
Nadia	Moosa	
Aislinn	Parrott	The Relationship Between Water Quality and the Prevalence of Stony Coral Tissue Loss Disease in the Florida Keys
Erin	Parrott	

R.I.S.E. TIER IV STUDENTS



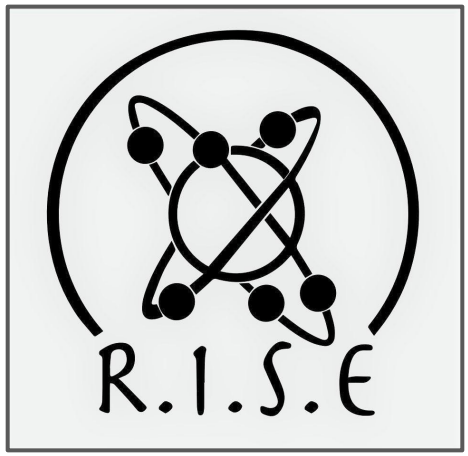
Student Name	Project Title
Jordan Carpentieri	The Effects of COVID-19 on the Occurrence of Solid Pollution at Foster Avenue Park, Sayville, NY.
Anna Meserve	Exploring the Perceived Effects of Celsius Energy Drinks and the Alignment with the Advertised Value of Consumption
Kelsey Restivo	Using a lichen biodiversity index as an indicator of the overall health of San Souci County Park in Sayville NY
Mia Santana	The Prevalence of the CSI Effect in Potential Suffolk County Jurors Based on Age
Paige Weber	The Effect of Temperature During the Developmentally Critical period of Vanessa *cardui* Butterflies

RESEARCH IN SCIENCE & ENGINEERING

“R.I.S.E.”

Research Teacher: Mr. Anthony DeAngelis

R.I.S.E. is a full-year, independent study course. It is intended for self-motivated students who have an interest in developing and implementing a project that explores in detail an area of science research, engineering and/or other related disciplines. Students should be in high academic standing and must have the ability to work independently and cooperatively in small collaborative groups. Students will develop protocols and project design based on nationally recognized science and engineering standards.



CONGRATULATIONS TO OUR R.I.S.E.

SENIOR CLASS OF 2023!.

Jordan Carpentieri, Anna Meserve, Kelsey Restivo, Mia Santana and Paige Weber

R.I.S.E. TIER I STUDENTS

Student Name		Project Title
Sophia	Buffardi	Comparative Analysis of Energy Consumption
Carly	Cangelosi	The Development of Biodegradable Shock Absorbing Shoe Inserts to Help Prevent Medial Tibial Stress Syndrome
Alana	Carpenter	The Role of Temperature, Relative Humidity, and CO2 Concentrations on the Biodiversity of Lichens at Brookside County Park, Sayville
Paige	Manning	Common Trend in Sports Mouthguards and Bacteria
Julia	Sack	The Effects of Social Media on Brain Wave Function
Sara	Stewart	The Effects of Mental Blocks on Adolescent Athletes
Riley	Wilson	Using aerial surveys of shark species in the nearshore surf zone at Robert Moses State Park to create safe zone maps of the shoreline.

R.I.S.E. TIER II STUDENTS

Student Name		Project Title
Taylor	Carpentieri	The effectiveness of the blue mussel (Mytilus edulis) in the filtration of microplastics from sea water
Adria	Vargas	A proposal for the creation and installation of a woodchip biochar filter to limit nitrogen pollution of stormwater runoff from Sayville High School to Green’s Creek, West Sayville, New York
Lucy	Vermilyea	Analyzing surf conditions to predict surfable days on the South Shore, Long Island New York