

A STEM PROGRAM

# SMILE

Science and Math Investigative  
Learning Experiences

Newsletter

Volume 28, No. January 2022

*28 Years of Service \**



SMILE Students got back out into the community exploring STEM fields of study and careers. This year, students visited the University of Rhode Island Graduate School of Oceanography to learn about ocean explorations on the RV Endeavor, the replacement RCRV Narragansett Dawn currently being built, and data collected from the ocean expeditions. In December, SMILE clubs came to Roger Williams Botanical Center (RWBC) as part of a SMILE field trip funded by URI's Dr. Evan Preisser's NSF grant. A tour led by Lee Ann Freitas, director of RWBC, focused on the ecology of plants, and the interactions of plants and insects. Students examined plants in the outside gardens, were amazed to see a camellia bush in bloom in December, and learned about outdoor insect hibernating sites.



## SMILE High School Seniors

### *College Check-list*

**Keep your grades up**  
**Take SAT Exam**  
**Apply to College**

Remember it is always good to consider two “safety schools,” two “good matches,” and at least one “reach” college.

As soon as possible start working on your college applications, check the deadlines.

As you work on your application essays, have your parents, teachers, or counselors review them.

Teachers’ recommendation letters must be requested at least one month before the deadline.

During Challenge Weekend you will have the opportunity to talk to SMILE graduates about their college experience.

### **Look for Scholarships**

Check your guidance school’s counselor office for local and national scholarships.

Check out the following web sites [www.RIScholarships.com](http://www.RIScholarships.com); [www.collegeboard.com](http://www.collegeboard.com)

### **Financial Aid**

Students and families should apply for financial aid. Contact the financial aid office at the colleges in which you are interested to find out about forms and deadlines.

Fill out the FAFSA (Free Application for Federal Student Aid) to apply for financial aid soon after January 1, 2022 and Feb 15, 2022 to ensure it is received before the college deadlines. You can apply online at

[fafsa.ed.gov](http://fafsa.ed.gov).

Learn about college loan options. Borrowing money for college can be a smart choice, especially if you get a low-interest federal loan.

### **Need help with your college application?**

1. [www.ed.gov/prog\\_info/SFA/FAFSA](http://www.ed.gov/prog_info/SFA/FAFSA)

2. Call the SMILE office at (401) 874-2036 or send us an email at [smileprogramuri@gmail.com](mailto:smileprogramuri@gmail.com).

Visit College Planning Center of Rhode Island. Located in the Warwick Mall. Monday to Saturdays Noon to 7.00 PM and Sundays Noon to 3.00 PM. Phone: (401) 736-1182. Web: [www.collegeplanningcenter.org](http://www.collegeplanningcenter.org)

They offer help with the college admission process, how to apply for financial aid, free scholarship searches,

assistance in completing the admissions and financial aid applications, and more.

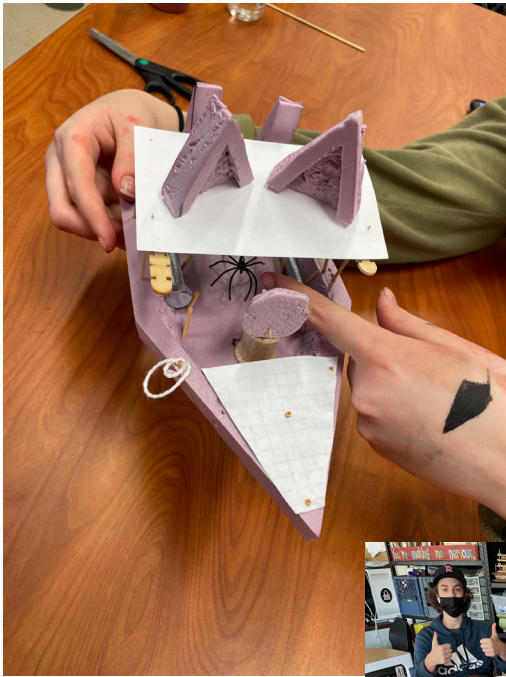


## CLUB UPDATES

### ROGERS HIGH SCHOOL, NEWPORT

Beth Letourneau, Brooke Anderson

*By Rogers SMILE Club*



Rogers High School SMILE Club began its year at the end of October due to Mrs. Letourneau having a baby! We have been having meetings twice a week to catch up and be able to do all the activities. We are nearly there! The most recent activity we did was building the hydraulic lift. The lift was a really cool challenge because we learned about forces and how to apply pressure using water-filled syringes so they would raise a platform with weight on it. It was a tough challenge, but with the help of a lot of hot glue we were successful. In previous activities we learned about the carbon cycle through building a climate box, breaking down chalk and testing the air quality in our school. The carbon cycle has huge effects on the rising temperatures and sea levels in our world so it's important to understand how it works and to know what we can do to slow the increase of CO<sub>2</sub> in our atmosphere. We also learned about life aboard a sea vessel and how expeditions work on ships like the Discovery and the Endeavor. In connection to this experience we were challenged to engineer a ship that could hold a lot of weight and looked appealing. We could only use specific materials so we had to get creative. In the end, Sam and Jiana's boat held the most weight. We also had the school vote on the best looking ship, which was won by Maddie and Reece.

Coming up we will continue practicing the engineering process by learning about chemical and electrical engineering. We are excited to make a chemical reaction and then later build circuits!!



## CLUB UPDATES

### CENTRAL FALLS HIGH SCHOOL

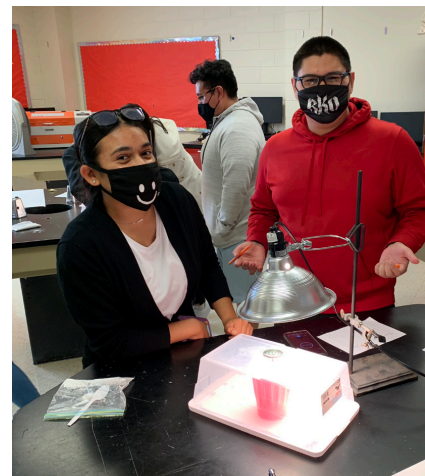
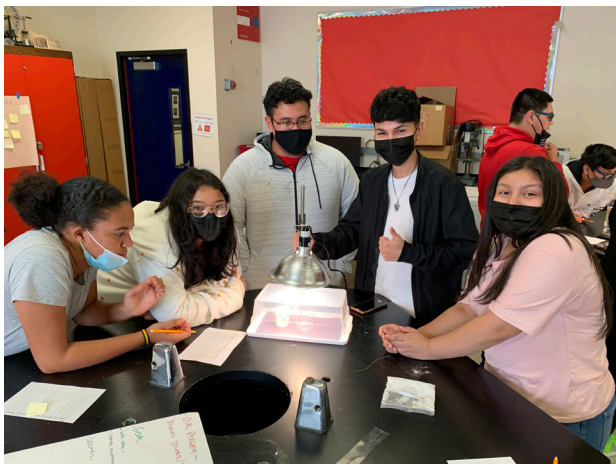
Charlie Fisher  
*By Central Falls SMILE Club*



This semester was a time of change. We came back into the building for the first time in over a year, and got a fresh start on a new year. Our club has experienced many changes, with most members being new to SMILE! These past few months we have been exploring many areas of science, while at the same time getting to know each other.

As we use science as a way to learn about our universe, we come to the conclusion that everything is truly connected. The Central Falls High School SMILE club allows us the chance to improve our scientific skills such as analyzing data, asking questions and collecting data. Additionally, we are able to expand our knowledge of science concepts beyond the classroom setting. We were able to engage in projects that allowed us to understand how scientists conduct research, and practice the engineering design process. This year we have focused on the movement of carbon, from the atmosphere to the ocean. We have explored the impact that humans have had on the environment. Over the course of this year we have been able to use the experiments and material provided to have hands-on experiences that were incredibly impactful. Finally, we were fortunate to have the opportunity to travel to URI, and learn from scientists about the incredible research they are conducting.

Thanks to the SMILE program we feel more prepared for our science classes and college because we know that by working together and having an open mind anything is possible for us. Lastly, the more we are able to explore and work together, the more possibilities we will have in the future.



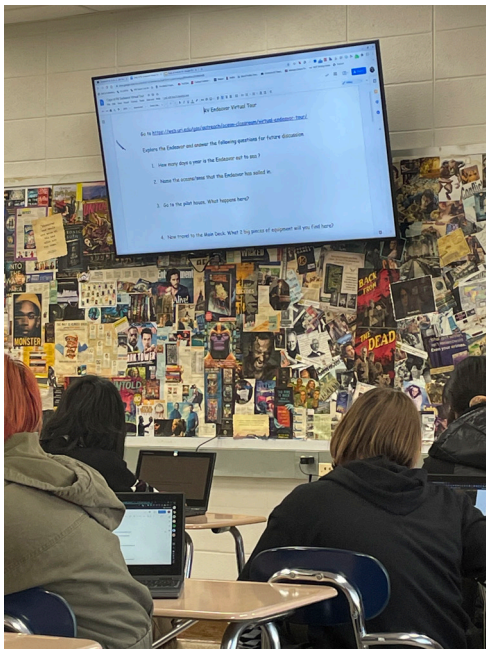
## CLUB UPDATES

### DEERING MIDDLE SCHOOL, WEST WARWICK

Christopoher Baccei, Eugene Gallo

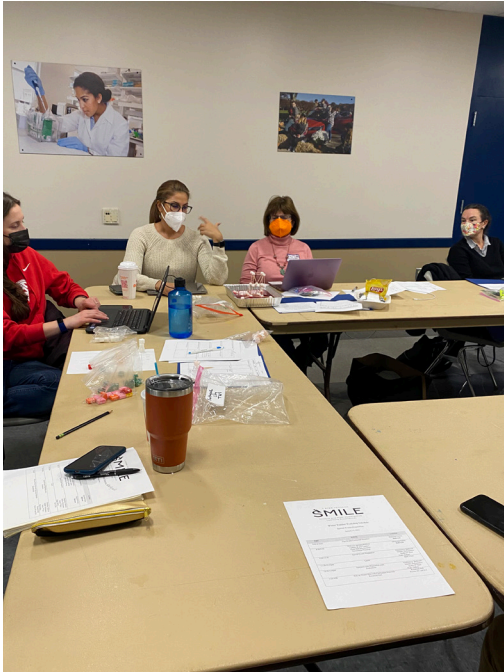
*By Deering SMILE Club*

We are excited to be back in person this year with our SMILE Club! During this year of SMILE, we have worked on many different things! At the beginning of the year, we learned to use our teamwork skills by doing an activity that needed each of us to participate. We had to work together efficiently to make decisions as if we were on a sinking ship and needed to decide which items would be of the most use to us to save. We also learned the importance of measurement. We had to pay attention to our estimates of measurements and complete a locker organization challenge by taking measurements of the lockers and engineering a piece that would allow for more organization in the locker. We learned about the Endeavour at URI and worked on our own watercraft design as well! We look forward to having a Family Science Night and our upcoming semester of SMILE activities before we return to URI for our big challenge day!

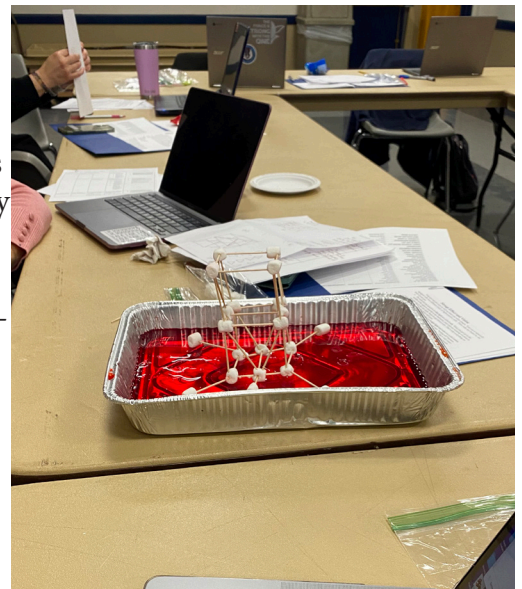




## TEACHER WORKSHOPS



The SMILE Program's Professional Development Summer Workshop for teachers took place, in person, on August 19, 2021 at the University of Rhode Island. Safety protocols were in place to keep teachers safe from Covid-19, including wearing masks and keeping at least 6 ft. apart. At the August work-shop, teachers were trained and provided materials for the Engineering curriculum theme. SMILE's Claudia Hoddersen, Jo Ann Basel, Samantha Johnson and Carol Englander worked with teachers through a series of fun hands-on science and math activities that covered a wide variety of engineering related topics. The elementary teachers learned how to make a fidget spinner, design, made and tested ships to hold the most pennies while learning about buoyancy and flotation, learned how to do bottle flipping, created marble runs and catapults. The middle school teachers learned about open ocean survival, the engineering design process, build a boat challenge, crane construction, the carbon cycle game, experimented with a climate box to see the effect of carbon dioxide on temperature, ocean acidification and building a salt water circuit. The high school teachers learned about measuring air quality, experimented with a climate box to show effects of carbon dioxide on temperature, used chalk to make a fire extinguisher, build model RCRV vessels, analyzed ocean data, made a model hydraulic lift for a research vessel, used chemistry to learn about endothermic cooling reactions, and made paper circuitgreeting cards. The teachers left the workshop with new knowledge, exciting curriculum and a huge box of science supplies for their clubs fall activities.



## TEACHER WORKSHOPS

The SMILE Program's Professional Development Winter Workshop for teachers took place on January 13, 2022 at the University of Rhode Island. SMILE's Claudia Hoddersen (EL), Jo Ann Basel (MS), Sam Johnson and Carol Englander (HS) worked with their level teachers on hands-on science activities. Elementary teachers received materials and activities to prepare the students for the Environmental Outdoor Science Adventure in April. The teachers will be teaching about animal tracking, abiotic and biotic factors, plant ecology and herbivore interactions, scientist skills and food webs, habitats of vernal pools, ponds and forests, and ornithology and predation using owl pellets. They will be testing pH, temperature, soil porosity and permeability. Middle school teachers prepared for the Engineering Challenge by reviewing activities with materials that dealt with bridges and transportation, earthquake hazards, and plant ecology and herbivore interactions. High school teachers were engaged in pre-activities that involved testing materials for prototypes, databases, and informatics for a new Smart Helmet Engineering Challenge, and investigating earthquake hazards and plant ecology and herbivore interactions. All teachers left the workshop with materials that permitted them to engage in inquiry based activities with their students.

## PARTNERSHIPS

We would like to thank the following list of funders that have allowed SMILE to grow and continue to provide high quality after-school STEM programming to Rhode Island students:

### CENTRAL FALLS

Calcutt 5th grade  
Kelly Sierra  
Molly MacDonald

Calcutt Middle School  
Molly MacDonald  
Kelly Sierra

Central Falls High School  
Charles Fisher

### NEWPORT

Thompson Middle School  
Candace Lewia

Rogers High School  
Elizabeth Letourneau  
Brooke Anderson

### SOUTH KINGSTOWN

Peacedale Elementary  
Victoria Wagner  
Katie Nerstheimer

Curtis Corner Middle School  
Anna Stewart-Viera  
Valerie Light

S.Kingstown High School  
Christina Antaya-Dube  
Amanda Varone

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Robert Brennan

Westerly High School  
Lesley Fastovsky

### WEST WARWICK

Horgan Elementary School  
Maria DePalma  
Amy Horne

Deering Middle School  
Eugene Gallo  
Christopher Baccei

West Warwick High School  
Eugene Gallo  
Christopher Baccei

### WOONSOCKET

Citizens Elementary School  
James Bucci  
Jodi Michienzi

Woonsocket Middle School (2 clubs)  
Michaela Gormley  
Ian Chernasky  
Michelle Morin  
Jenn Hardy

Woonsocket High School  
Brigette Hernandez  
Ethel Locke

Anonymous

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Central Falls School Department

Newport School Department

South Kingstown School  
Department

Walmart Foundation

Westerly School  
Department

West Warwick School  
Department

Woonsocket School  
Department

We would also like to thank our Individual Supporters, who are vital in helping The SMILE Program to continue its mission

#### SMILE STAFF

Carol Englander  
Director  
Claudia Hodderson  
Curriculum  
Specialist

Jo Ann Basel  
Assistant Director

Cheryl Swartz  
Bookkeeper

Kaitlyn Czap  
Chief Development  
Officer

Samantha Johnson  
URI HS Coordinator

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CELS NRS

#### The SMILE Program

*The Science and Math Investigative Learning Experiences (SMILE) Program is an enrichment program for educationally disadvantaged students in grades 4-12 in seven districts in Rhode Island. SMILE's goal is to provide group activities for these students in science, technology, engineering and math. Generous gifts by participating donors make this program possible. The SMILE newsletter is published three times a year. We encourage your comments and ideas. Please share this newsletter with others who might be interested in SMILE.*