

## Science and Math Investigative Learning Experiences

Newsletter Volume 31, No. 3 May 2025

31 Years of Service!

This year in The SMILE Program wraps up with our Middle School Engineering Challenge and Elementary Ecology Day events! Our middle schoolers immersed themselves in the bridge-design process while our elementary schoolers explored our beautiful campus!



## SCHOLARSHIP ANNOUNCEMENT

## The Saul Nulman SMILE Program Scholarship

#### To Our SMILE Seniors

Every year, The SMILE Program recognizes the efforts and successes of Saul Nulman, a man whose dreams, determination, and discipline paved the way for his success. In honour of his legacy, the Saul Nulman SMILE Scholarship provides \$500 scholarships for some SMILE seniors pursuing higher education. Current enrolment in The SMILE Program is not required, however each applicant considered must have been in SMILE for at least 3 years—including attendance at 3 end-of-year Challenge events—and display academic merit amongst other criteria.

We are thrilled to announce this year's 2025 SMILE Scholarship winners!

## **Scholarship Awardees**

- 1. Alexander Herrera
- 2. Aaliyah Terras
- 3. Douglas Parry
- 4. Emily Santerre
- 5. Grace Black
- 6. Luis Godinez Carrizales
- 7. Marco Garcia
- 8. Melanie Alvarez
- 9. Melany Rodriguez
- 10. Salvatore Ales
- 11. Vanessa Garrido
- 12. Vanessa Monterroza

Each of these 12 deserving students received a \$500 scholarship award along with an increased chance of achieving their academic and professional dreams. We are so proud of each and every one of them!

If you would like to be considered for a SMILE Scholarship during the 2025-2026 school year, you are welcome to visit our SMILE website where you can preview the application form. The SMILE Program announces this scholarship every year in early January, so keep on the lookout for our January Newsletter.

To access the application, talk to your school's guidance counsellor or visit the URI SMILE website at: <a href="https://web.uri.edu/smile/wp-content/uploads/sites/910/SMILE-Scholarship-Application.docx.pdf">https://web.uri.edu/smile/wp-content/uploads/sites/910/SMILE-Scholarship-Application.docx.pdf</a>

## MIDDLE SCHOOL ENGINEERING CHALLENGE

The SMILE Middle School Engineering Event, hosted at the University of Rhode Island on April 4, 2025, was a resounding success, welcoming 120 enthusiastic middle school students from eight different schools across Rhode Island. The centerpiece of the event was an engaging balsa truss bridge construction competition, where students put their engineering skills to the test, focusing on maximizing the load-bearing capacity of their structures.

Adding to the educational value of the day, Josh Harrison from the Rhode Island Department of Transportation (DOT) delivered an insightful presentation on the critical role of bridge infrastructure within the state, highlighting the importance of engineering in everyday life. With this engaging presentation, students worked through the afternoon, planning and designing their own bridges with a promised award for the builders whose bridge could withstand the most weight.

To further immerse the students in the university experience, URI Ambassadors led informative and engaging tours of the campus, showcasing the diverse opportunities available in higher education. Students explored the Fascitelli Engineering, Life Science, and Beaupre Chemistry buildings. Lunch and dinner were held in Mainfare Dining Hall where students were enamored with the plentiful options and all-you-can-eat buffet.

Throughout the event, URI mentors played a pivotal role, providing invaluable mentorship and guidance to the participating students. Their expertise and encouragement fostered a supportive learning environment, inspiring the students to explore the exciting possibilities of engineering.

The positive feedback and overwhelmingly favorable experiences reported by the students underscored the overall success of the event. By sparking interest in engineering and showcasing the potential of higher education, the SMILE Engineering Event has undoubtedly left a lasting impact on the next generation of engineers!







## MIDDLE SCHOOL ENGINEERING CHALLENGE

The SMILE Program sends a huge THANK YOU to all our teachers, students, staff, faculty members, student mentors, and sponsors who gave their all to make this challenge a wonderful experience!











## **ELEMENTARY ECOLOGY FIELD DAY**

On April 25th, 143 SMILE students in grades 4 and 5 from across Rhode Island participated in Ecology Field Day, hosted at the University of Rhode Island. The students represent ten elementary schools in seven districts across the state. With the guidance of 18 dedicated URI mentors, staff from the United States Geological Survey (USGS), SMILE teachers, staff and volunteers, these young explorers took part in a variety of hands-on activities across five habitats throughout the day.

The students explored stream, forest, vernal pool, pond, greenhouse, and garden habitats. During the event, SMILE students engaged in fascinating activities like soil and water chemistry analysis and learning how to assess water quality through the presence of specific macroinvertebrates. They also enjoyed plant pressings, embarked on a scavenger hunt for plant adaptations in the greenhouse, dissected a daffodil, and even danced like bees to understand pollination!







The day's curriculum emphasized topics such as scientific illustration and biodiversity transects, allowing students to explore the unique animals and ecological zones of vernal pools, as well as the fascinating world of mosses and lichens. They even learned how to determine the age of a tree by measuring its circumference! USGS staff led a series of activities on stream exploration, including measuring the speed of the stream.

Students shared lunch in the college dining hall with their URI mentors and took some time to relax and have fun, rolling down a hill during the afternoon break. Weekly club activities focused on habitats, populations, and other environmental topics effectively prepared the students for this enriching experience. Mentors from URI prepared by completing a semester-long class with professor Dr. Tolani Olagundoye, ensuring they were equipped to guide the students through the day's adventures.

## **ELEMENTARY ECOLOGY FIELD DAY**

All in all, Ecology Field Day was an engaging blend of learning, exploration, and fun, fostering a deeper appreciation for the environment among Rhode Island's youth.



## CALCUTT MIDDLE SCHOOL

## Central Falls

Kate Tolman, Kelly Sierra By: Calcutt Middle School SMILE Club



What a year it has been at Calcutt Middle School for SMILE! We kicked off the year with a field trip to the **Botanical Gardens at Roger Williams Park Zoo**. During this trip we were able to view an assortment of greenery that was grown and cared for within the greenhouses on site. Students worked collaboratively to complete a scavenger hunt where they located different assortments of plants that were described in the guided tour. Students were especially excited to view the carnivorous plant section and see the koi fish!

This winter/spring we have been busy continuing with the engineering activities and getting ready for our big events. We hosted a **successful Family Science Night** where our elementary, middle and high school SMILE clubs in our district demonstrated engaging science and engineering activities. Families across the district and schools were able to learn from our SMILE students about the science and engineering behind each of the activities. It was a great night full of food and fun!

We also began to **study truss bridges** in preparation for the SMILE Challenge Day in April. During the challenge day, students from all over the state work together to create a truss bridge that supports weight in a competition format.

We will be ending our year with **our stewardship project.** We will be visiting the local park in Central Falls to pick up trash and litter on Earth Day! Students have been advocating for a community clean up and have chosen our local park as the location to do so. They even have invited friends and family outside of our SMILE club to join us in the trash pick-up! It has been a great year in SMILE at Calcutt!



## GLOBE PARK ELEMENTARY SCHOOL

## Woonsocket

Brittany Letendre, Nicole Chartier
By: Globe Elementary School SMILE Club

This year is Globe Park Elementary School's third year with the SMILE program. Our group has had a lot of fun this year. One of the big highlights of the year was being able to do the field trip to URI's East Farm Apple Orchard. Students had a great time at the farm but what they loved most was learning about bees and honey. We even were able to try three different types of honey!

Our SMILE group has been enjoying the spring curriculum. They have loved investigating nature. The owl pellets have been a favorite and they are excited to see that their radishes have grown. We are a little frustrated that our bread has not turned moldy, and we started that experiment on Monday, February 24th. As our year comes to a close, we are looking forward to completing our stewardship project and going to Ecology Day!





## HORGAN ELEMENTARY SCHOOL

#### West Warwick

Maria DePalma, Tracy Thornbury
By: Horgan Elementary School SMILE Club



The West Warwick Elementary SMILE club has had great success this year learning new science concepts through hands-on activities. We started the year by welcoming our new 4th grade crew with a team building activity based on engineering, called Saving Fred. The students were determined to save Fred with the lifesaver gummy, and most succeeded at the task. We continued engineering activities with graphing skittles, floating clay boats, and soaring satellites. Students worked in teams trying to build a satellite, using simple materials, which could float in a vertical wind tube for at least 5 seconds. They were thrilled to explore the concepts of lift and weight as they tested and redesigned their prototype.

At our wonderful family night in December, we shared our presentations and newfound knowledge with family and friends, while enjoying a fabulous array of home cooked favorites for dinner.

As the year continued, we started our spring ecology curriculum which consisted of learning about measurement in science. Following this activity, tree rings and dendrochronology were explored. Students created their own tree ring timeline representing their own lives, as if they grew like a tree. Most recently, students donned surgical gloves and dissected barn owl pellets. Students were initially hesitant to touch and explore the owl pellets. However, by the end of the experiment, they were classifying and identifying bones and other remains, revealing what the owls eat and the types of prey in their habitat.



# NICHOLAS FERRI MIDDLE SCHOOL Johnston

Marie Contildes

By: Ferri Middle School SMILE Club

This is the first year SMILE is being offered at Ferri Middle School, and the students are having a **GREAT** time! We started out the year by building card towers as an icebreaker, a getting-to-know-you activity.

We loved building the solar cookers, but the best part was being able to eat the SMORES at the end! So many of the activities we did had us working together, engaging in science and the real-world application of these skills. These activities included: building tables out of paper, making confetti launchers, and constructing bristle bots from toothbrushes. Who knew a battery, a motor, and the head of a toothbrush could turn into a mini robot?

This semester, time was spent on designing bridges as we got ready for the Engineering Challenge Day at URI. On March 11, 2025, Johnston held its first annual Family Science Night. It was a huge success as so many families came out to support us and see what we've been working on. This year has been so rewarding in that SMILE has shown us that Science is all around us!





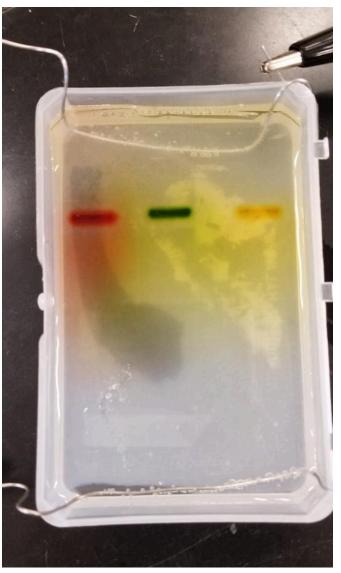
## SOUTH KINGSTOWN HIGH SCHOOL

## South Kingstown

Michael Lobdell, Reed Fraser
By: South Kingstown High School SMILE Club

The SKHS SMILE students have participated in many activities throughout the year. The Operation Game activity covered the topic of circuits. One of the highlights was looking at a dissected heart while doing the heart valve activity. The students enjoyed doing the gel electrophoresis activity.

**Field Trip to East Farm** - Some of the SKHS SMILE students learned from Dr. Alm, an expert on pollination. Dr. Alm taught the students about the importance of bees and pollination and were able to see the bees in action. After learning about bees and pollination, we went to the orchard to pick apples.





Family Science Night - South Kingstown SMILE clubs held the annual Family Science Night on Wednesday, March 5th, 2025. Family Science Night is an event we look forward to each year. The students enjoy seeing what the other SMILE clubs at Peace Dale and Broad Rock have done throughout the year. It is great to be surrounded by science activities to explore and learn about. The SKHS students presented on gears, solar energy, circuits, and tested electrolyte levels.

High School Engineering Challenge Day - The SMILE Engineering Challenge this year was THE highlight of the year. The activities that we did before the challenge prepared students for the parallel circuit car and solar powered lights. The seniors had the opportunity to talk with URI students about dorm and college life. The 9th, 10th, and 11th graders went on a tour of the URI campus. The students appreciated the chance to eat lunch and dinner at the dining hall.

## VETERANS MEMORIAL ELEMENTARY SCHOOL Central Falls

Karen Cardoza, Leslie Gibbons By: Veterans Elementary School SMILE Club



SMILE is now at Veterans Elementary School! This is our first year and we are learning a lot. We love our after-school club!

We started off the year with a wonderful field trip to the URI Apple Orchard for a Master Gardener/Bee Pollinator trip where we picked apples, learned about natural pest control methods, and got to explore the gardens.

During the fall, we focused on the engineering process and completed many activities in groups and with partners. Some of our favorite builds were Peppermint Racers, Soaring Satellites, and the Ski Jump. We had to work together to plan, design, build, test, and revise our work until we created the best version of the projects that we could.

During the spring session, we learned a lot about measurement and discovered all the things that we could learn about the environment just by looking at tree rings. We loved dissecting owl pellets to see what the barn owls had eaten and using a dichotomous key to identify the bird or mammal. We are also learning about biotic and abiotic factors, population density, and carrying capacity through our experiments this month.

In March, families enjoyed our Family Science Night where we ate, and taught about Tree Cookies, Float Your Boat, and Saving Fred. Next, we look forward to Ecology Field Day at URI!



## WEST WARWICK HIGH SCHOOL

#### West Warwick

Chris Baccei, James Owen
By: West Warwick High School SMILE Club

This year, our club has worked hard on the activities provided through URI. We enjoyed an awesome Family Science Night in the fall, where we were able to share our beginning of the year knowledge with family, friends, and the rest of the SMILE community. This is always a wonderful celebration with all our West Warwick SMILE clubs!

Recently we have worked on developing our skills and knowledge in the areas of solar power and gears. The activities that we worked on prepared us for our big challenge day at URI. We enjoyed working with the other schools and competing to develop a mock-car with solar powered lights.

We are anticipating an upcoming field trip, where we may be able to enjoy the nicer weather outside and the local environment that our area has to offer. The stewardship that we have begun to plan will connect to the importance of our environment as well and allow us to explore the impact of local farming and urban agriculture.





## WINSOR HILL ELEMENTARY SCHOOL Johnston

Dionna Gajdowski, Gabrielle Harwood, Nicole Esteves By: Winsor Hill Elementary School SMILE Club



Winsor Hill SMILE Club has been having an engaging, fun, and productive first year; what a great start it has been!!! Our students look forward to our weekly meetings and tell us **Tuesday is their favorite day** of the school week. They work hard each week on a variety of activities that put their science, mathematics, technology, and engineering skills to the test! An activity loved by all was the satellite building, which explored the concepts of gravity and density.

On March 11th, we hosted our first Family Science Night with Ferri Middle School and Johnston High School. It was a very successful evening with great turnout, students eager to share their knowledge, and pleased parents taking on the learning role. We were proud to see our students showcase their efforts!

Spring activities started with measurement skills to prepare students to determine the age of a tree. We also explored environmental interactions with biotic and abiotic factors and dissected owl pellets to decipher what the barn owl ate for dinner (SMILE teachers' favorite). Lastly, we look forward to Ecology Field Day at URI on April 25th!



## WOONSOCKET HIGH SCHOOL

#### Woonsocket

Brigette Hernandez, Ethel Locke
By: Woonsocket High School SMILE Club

#### "What is the SMILE club?"

This is a phrase that we SMILE students hear quite frequently. SMILE is a science, math, and engineering after-school program that takes place every Tuesday after school. SMILE allows students to meet new people, learn new things, and gain more experience. In SMILE, we work in groups to find a solution to our daily challenges. We work together to build, solve, and explore new things.

#### What we do:

In SMILE, you learn about STEM (Science, Technology, Engineering, and Math). You may think that it's a boring program, but it's not. It's an eye-opening experience for students in many schools. When you first enter SMILE, you'll be greeted by our wonderful teachers, Ms. Locke and Ms. Hernandez - they prioritize our education and make sure we learn and have fun! You get to experience new things, like going on field trips to URI. Another experience that happened this year was going on a field trip to the bird sanctuary. We also do experiments after school. In these experiments, you learn teamwork, persistence, and patience. These skills and tools will help you grow and maybe even become an engineer or a scientist! I know it might seem scary to try this program, but don't be afraid, we are a welcoming family full of hard workers and scientists.

## Perks of SMILE:

SMILE has plenty of perks. We start off every day with snacks and fun discussions to relax after having a long school day. In these discussions, you have amazing opportunities to meet new people. SMILE has all sorts of people with many different skills, and we are from many different grades. In addition to all of this, we play many games to connect you with others. One of the best perks is our interactive field trips that help you get interested in the STEM field.



## What do we like about SMILE?

"I like how you can solve any problems with your group, but if you are still struggling, Ms. Locke and Ms. Hernandez are there to help" - Jose, SMILE student. "I like SMILE because it allows me to learn new things while having fun with friends. It also helps me meet new people and solve new problems." - ZaCari, SMILE student. "I like SMILE because I get to experience new things and learn more about different scientific fields I'd like to pursue in the future!" -Arianna, SMILE student.

#### CENTRAL FALLS

#### Ella Risk Elementary School

Shena Tremblay Tish Biggerstaff

#### **Raices Dual Language Academy Elementary School**

Amy Carney Joan Morse

#### **Veterans Memorial Elementary School**

Karen Cardoza Leslie Gibbons

#### Calcutt Middle School Kate Tolman

Kelly Sierra

## **Central Falls High School**

Charles Fisher Jeff Gilman

#### **JOHNSTON**

#### Winsor Hill Elementary School

Dionna Gajdowski Gabrielle Harwood Nicole Esteves

## Nicholas A. Ferri Middle School

Marie Contildes

#### Johnston Senior High School

Anna Herbert Marion DiLeonardo

#### **NEWPORT**

#### Claiborne Pell Elementary School Abigail Frazier

**Thompson Middle School** 

Jeannine Walsh Bolano Kevin Bolano

#### Rogers High School

**Bethany Borguetta** Elizabeth Letourneau

#### **SOUTH KINGSTOWN**

#### Peace Dale Elementary School Jennifer Defeo

Susan Carr

#### **Broad Rock Middle School**

Anna Stuart-Vieira

#### South Kingstown High School Michael Lobdell

Reed Fraser

#### **WESTERLY**

### Westerly Middle School

Carolyn Michaud Robert Brennan Jr.

**Westerly High School** 

Lesley Fastovsky

#### WEST WARWICK

#### **Horgan Elementary School**

Maria DePalma

Tracy Thornbury Deering Middle/West Warwick High

> Chris Baccei James Owen

#### WOONSOCKET

#### Coleman Elementary School

Danielle Granata

## **Globe Park Elementary School**

Brittney Pysczynski Nicole Chartier

#### **Pothier-Citizens Elementary School**

Michaela Nunes Sean Grace

#### **Hamlet Middle School**

Brandon Beaudry Jenn Hardy

#### Villa Nova Middle School

Ian Chernasky Sean McBride

#### Woonsocket High School

Brigette Hernandez **Ethel Locke** 

## **PARTNERSHIPS**

We want to thank the following funders that have allowed SMILE to grow and continue to provide high-quality, after-school, STEM programming to our Rhode Island students:

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South Kingstown School Department

Westerly School Department

West Warwick School Department

Woonsocket School Department

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

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> Jo Ann Basel Director

Brenda Dillmann Curriculum Specialist

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## 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.