

A STEM PROGRAM

SMILE

Science and Math Investigative
Learning Experiences

Newsletter

Volume 31, No. 1 January 2025

31 Years of Service!

For the 24-25 school year, The SMILE Program is proud to announce its partnership with the Johnston School District! We've branched out this year, organizing a full set of elementary through high school SMILE programs in Johnston and two new Central Falls elementary programs! Our students have enjoyed the start of their SMILE year, going on several field trips and trying out new integrative activities. The SMILE Program has had an eventful year!



Road To College



Whether you're starting your first honour's class or finishing your last AP class, it's never too late to plan ahead! For our SMILE high schoolers considering higher education, here's how you should prepare.

Freshman

College planning begins as early as your first year in high school. Meet with your guidance counsellor to find out your graduation requirements, and work with them to create fitting yearly schedules. Honors and Advanced Placement (AP) courses show colleges you're ready for more challenging coursework; decide if these courses are achievable for you. Indulge in your interests! Find things you like, and get involved in activities, events, and community service opportunities.

Sophomore

Next year you'll take your SATs, which scores your level of college readiness. Higher scores could make you eligible for Merit Scholarships, which award you based on your achievements. Consider taking the PSAT, and start considering financing options for college including [scholarships](#), grants, jobs, etc. For assistance in studying for the PSATs and SATs, check out the [collegeboard](#) website.

Junior

Time to register for your SATs. Depending on the college, a strong score can boost your application. You may be in for your first round of AP exams in May. A passing score could fulfil some general education or intro-level course requirements in your chosen college. Explore college options, including majors, financing options, locations, and [scholarship opportunities](#).

Senior

Plan college visits, narrow down your options, and aim to apply for early-decision deadlines. In the fall, you should work with parents/guardians to complete your [Federal Application for Federal Student Aid](#) (FAFSA Form). Review your [college application checklist](#)—which usually requires transcripts, letters of recommendations, and personal essays—and plan to gather these ASAP!

Remember!

- It's best to consider two "safety schools," two "good matches," and at least one "reach" college.
- As you work on your applications, have parents/guardians, teachers, or counsellors review them.
- The SMILE Program Challenge Days grant you the opportunity to speak to college students about their experiences and ask for advice.

Many students across the state are applying for college and strengthening their applications. It's a difficult road, but YOU ARE NOT ALONE! RISLA's offers free assistance at their [College Planning Center](#) locating in Cranston, RI. Visit their website for more detailed information. Good luck SMILE students!

SMILE SCHOLARSHIP

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. Raised in Fall River with limited financial means, Mr. Nulman joined the US Merchant Marines after high school during WWII, sending his earnings home to support his family. Unknown to him, his mother saved that money in a “college fund,” which she gifted back to Mr. Nulman when he returned home, allowing him to further his education while training for a job. His schooling equipped him with textile skills and business experience, allowing him to start up a small company with the money he saved up from work.

Mr. Nulman grew his business over time, developing it into a thriving corporation that employed dyeing techniques which he invented. He was a lifelong philanthropist, supporting children, medical facilities, and learning institutions. In honor of his legacy, the Saul Nulman SMILE Scholarship provides \$500 scholarships for up to 6 SMILE seniors pursuing high education. If you’re a senior preparing for higher education and meet the below criteria, we urge you to apply!

Application Requirements

- ◇ At least 3 years in SMILE (but not necessarily your senior year)
- ◇ Attendance at 3 SMILE Challenge Events
- ◇ Academic Merit: C average or better
- ◇ Acceptance at a post-secondary educational institution
- ◇ SMILE Teacher Letter of Recommendation
- ◇ Official high school transcript
- ◇ 250-word essay (prompt listed on application)

APPLICATIONS MUST BE RECEIVED BY APRIL 28TH TO BE CONSIDERED!

To access the application, talk to your guidance counselor or visit the URI SMILE website at:

https://web.uri.edu/smile/wp-content/uploads/sites/910/SMILE-Scholarship-Application.docx_.pdf

CLUB UPDATES

CENTRAL FALLS HIGH SCHOOL Central Falls

Charles Fisher, Jeff Gilman

By: Central Falls High School SMILE Club

This year has been an incredibly exciting year for the Central Falls SMILE club. Our club has grown in size, and the new students have brought a great new energy to the club. When asked what they like about SMILE, one student said, "I like that everyone knows everyone, **we are all a big group of friends.**" In addition to adding many new members, we have also added a new teacher to help support the club, **Mr. Jeff Gilman!** Mr. Gilman stated that he can't wait to get to know this amazing group of students and participate in all the incredible activities SMILE has in store.

With this new energy, we have been able to dive headfirst into new activities and opportunities. In our club this year, we have had the chance to explore all sorts of new activities. We loved all the engineering projects this year, especially getting to dive deeper into **electrical engineering.** Students loved getting to be hands on with the activities and learn more about the **engineering design process** while having fun.

Our big event of the year, without a doubt, was our trip to **Sachuest Point.** Thanks to the generosity of SMILE, we were able to travel to Sachuest Point for a field trip, where **we learned so much about the ecosystem and environment.** Our students had a chance to hike, learn about the marine life living in the area, and understand how humans impact the environment. This was an incredibly memorable experience for our students, and we are eager to have the chance to go back!



(Central Falls High School SMILE club students representing at Sachuest Point National Wildlife Refuge in Middletown, RI!)

CLUB UPDATES

CLAIBORNE PELL ELEMENTARY SCHOOL

Newport

Abigail Frazier

By: Claiborne Pell SMILE Club

This year at Claiborne Pell Elementary School, 14 4th grade students are working on STEM projects. They recently **showcased their learning at Family Science Night**, where they were able to show family, friends and teachers their work. When we voted for our favorite STEM project, Saving Fred took first place, and Graphing Skittles got second. Our students **really enjoyed going on a field trip to URI's East Farm** to learn about how they maintain the orchard, their tractors, and of course, enjoyed apple picking & taste testing!

Take a look at some of our favorite moments this year!



STEM Night, Showcasing the graphing Skittles Project (Featuring: Marley Young)

STEM Night, Showcasing the Saving Fred Activity (Featuring: Kelsie Spencer and Sheily Gramajo)

SMILE Club Pell went to URI's Apple Orchard!

CLUB UPDATES

COLEMAN ELEMENTARY SCHOOL

Woonsocket

Danielle Granata

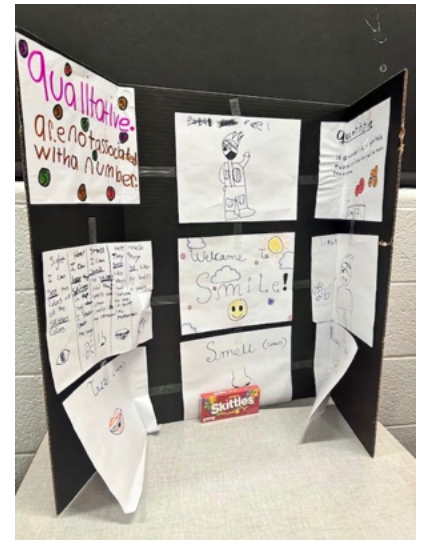
By: Coleman SMILE Club

This year in SMILE, students in the Coleman SMILE club have participated in a variety of activities and learning opportunities. Here were some of our favorite activities:

Clay Boats - Students worked in teams to create a boat out of clay that could float in a bucket of water. We challenged students to not only create a boat that floats, but to also create a boat that holds the weight of multiple pennies and can still float. **Students learned about density** and used their knowledge of density and weight distribution to create their boats. We held a competition for the boat that could hold the most pennies, and **the winning team's boat held 18 pennies!**

Marble Run - Students worked together in teams to create a "ski run" for marbles. As a group, we discussed the science behind a ski jump (like in the Olympics). We discussed key vocabulary such as "Potential Energy" and "Kinetic Energy," and **how the types of energy and motion affect the distance in which the marble will travel**. One student stated, "Our marble will travel farther if it has more distance to speed up," and another stated, "If we build our ski jump high, the marble will have more potential energy." Students competed in teams to see whose marble could reach the farthest target, and we discussed the results and drew conclusions about our ski jumps. Students had a blast!

We presented on using our five senses to categorize candy at Family Science Night. We also presented how we can **take and organize qualitative and quantitative data** based on our observations. We are looking forward to participating in some field trips in which we can continue to study and learn about engineering and our own community.



(Coleman Elementary SMILE club students experimenting with Ski Jump designs to later be presented at their Family Science Night.)



DEERING MIDDLE SCHOOL

West Warwick

Chris Baccej, James Owen

By: Deering SMILE Club



This year in our middle school program at West Warwick, we started delving into engineering with small groups to build a structure out of index cards! Although simple in concept, this activity helped us to practice important skills to move forward with; **collaboration, planning, revising, and learning from our mistakes.** We got to work on other activities such as Balloon Rockets and Solar Ovens. Activities like this helped us to learn about concepts like **Newton's Laws of Motion, solar energy, and general engineering design.**

All of what we learned from these experiments allowed us to prepare for **Family Science Night!** For this night, we were organized into several groups to better explain these experiments to friends, family, and members of URI SMILE. The presentations were so much fun to give and to look at! We are looking forward to our big **Challenge Day at URI** and meeting up with all of the other clubs!



CLUB UPDATES

ELLA RISK ELEMENTARY SCHOOL Central Falls

Shena Tremblay, Laticia Biggerstaff

By: Ella Risk SMILE Club

At Ella Risk we host a SMILE club for fourth and fifth grade students. Between the two grade levels, we **average 15 students each week**. We have had a fun year participating in the SMILE program and weekly activities.

During the first session of SMILE, our students ranked **Saving Fred, Soaring Satellites, and Ski Jump** as their top three projects. We were able to attend a fun field trip at the beginning of the year to the **Apple Orchard at URI** where we participated in picking apples, observing their gardens, and talked about the pollinators who help pollinate the garden.

The students have talked all year about how much they enjoyed their trip to the orchard. Upon the return to our school, we were able to put together **bags of apples to distribute to our school community**. We are looking forward to the Spring SMILE Session and our upcoming Family Science Night where we will have the chance to share all the fun activities we have taken part in.



CLUB UPDATES

ROGERS HIGH SCHOOL

Newport

Bethany Borguetta, Elizabeth Letourneau

By: Rogers SMILE Club



The SMILE Club at Rogers High School in Newport began the year with **biotech challenges**, building gel electrophoresis equipment and running samples of food dye to observe their separation. Our club was well represented at the **Student Activities Fair held in October**, generating so much interest that for the first time ever, there are students on the waitlist.

The weather was perfect for apple picking on our first field trip to East Farm. We greased zerk fittings on the tractor and learned how the **scientific method was applied to mitigate the effects of wasps and voles in the orchard**. The apples were so delicious, and we were able to pick a few pears as well. Our next challenge was to build an operation game, which was both nostalgic and super fun. The challenge that followed was to **design a heart valve**, using creativity and imagination to redesign and refine the model to be functional and efficient. The **delayed release pill** challenge was especially engaging. Students tested many different configurations of colorful fizzy bath tablets and soluble and insoluble material coatings to achieve the targeted delayed release times for the colors.



Our Family Science Night was well attended by the families of our elementary, middle, and high school SMILE Clubs in Newport and was a joyful expression of enthusiasm for science, technology, engineering, and mathematics. Before winter break, our challenge was to build a speaker, turning electric currents into sound. We are looking forward to what awaits us in the New Year.

CLUB UPDATES

WESTERLY MIDDLE SCHOOL

Westerly

Carolyn Michaud, Robert Brennan

By: Westerly Middle School SMILE Club



The 2024-2025 Westerly Middle School SMILE Club is our largest club to date. This year, we decided to expand our leadership by assigning the **weekly challenges** to our returning Grades 7 and 8 club members. We met early in the school year to review the upcoming activities, divide our returning members into facilitation teams, and plan for the rollout to our full club later in the school year. Our members read through the materials, figured out team sizes, determined possible constraints, predicted points of confusion, and planned their explanations. They gave advice to the coaches on how to prepare each week and then supervised groups on the day of their assigned challenge. **Students enjoyed the leadership roles**, and we hope to continue this process.

We are also fortunate to have our new Grades 6, 7, and 8 members join in seamlessly, actively participating and adding their creativity to the club. Thus far, our club has enjoyed the **Ping Pong Pickup Challenge** the most because of the variety of possible solutions and the ability to compare results using point values for the different materials used in each design.

The Club is very much looking forward to the URI event and the next stage of activities. We hope to schedule field trips to the **Norman Bird Sanctuary** and the **Trustom Pond National Wildlife Refuge** when the temperatures warm.



WINTER TEACHER WORKSHOP

SMILE teachers from across Rhode Island came to the University of Rhode Island to attend the annual Teachers' Workshop on January 8th. It was packed with learning and planning as teachers prepared for the Elementary Ecology field day and the Middle and High School Engineering Challenges.

The Elementary session was facilitated by SMILE Elementary Curriculum Coordinator and Ecology Field Day Co-coordinator, Brenda Dillmann, focused on the theme of habitats. The teachers investigated taking measurements in science including tree rings as timekeepers, carrying capacity, population density, and population sampling. They retouched concepts of hydroponics, the water cycle, and Darwin's finches.

The Middle School session was facilitated by Jo Ann Basel, Middle School Curriculum Coordinator, Ecology Field Day Co-coordinator, and SMILE director. The teachers learned about making truss bridges, making and reading blueprints, marbled greeting cards, and making origami grippers.



The High School session was co-facilitated by Piper Krause, URI 3rd year mechanical engineering student and High School Curriculum Coordinator, and Carol Englander, SMILE Executive Director. Themed around solar energy, teachers learned about its history, the cost of solar cells, and how solar toys work.

Teachers investigated potential field trips to sites of plant and herbivore interactions as part of the Dr. Evan Preisser NSF grant of which SMILE is the Educational Outreach partner. They started to plan March family science nights and stewardship projects. Teachers left with additional equipment to bring to their clubs and a sense of excitement about upcoming annual events.



FAMILY SCIENCE NIGHT

Throughout November and December, SMILE students across the state showcased their projects and club progress at their district-hosted Family Science Nights. At this event, SMILE clubs from all grade levels in the district gather with friends and family to enjoy a potluck-style dinner. Our SMILE students get the amazing opportunity to present their learning to members of their community, and attendees can explore and interact with some of the activities the students are working on in their clubs.

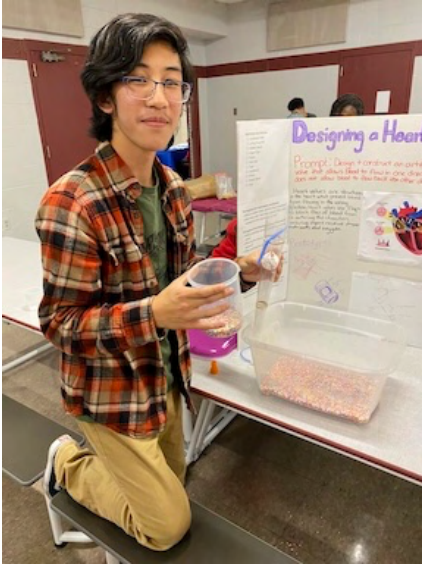
Newport



West Warwick



Woonsocket



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:

CENTRAL FALLS

Ella Risk Elementary School
Shena Tremblay
Tish Biggerstaff

**Raices Dual Language Academy
Elementary School**
Amy Carney
Joan Morse

Veterans Memorial Elementary School
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Sarah Correia

Calcutt Middle School
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Central Falls High School
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We also want to thank our Individual Supporters, who are vital in helping The SMILE Program to continue its mission.

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Executive Director

Jo Ann Basel
Director

Brenda Dillmann
Curriculum Specialist

Cheryl Swartz
Accountant

Susan Axelrod
PD Coordinator

Piper Krause
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Tierra Gonsalves
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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.