

The SMILE Program  
University of Rhode Island  
90 Lower College Road, Roosevelt Rm 1  
Kingston RI 02881

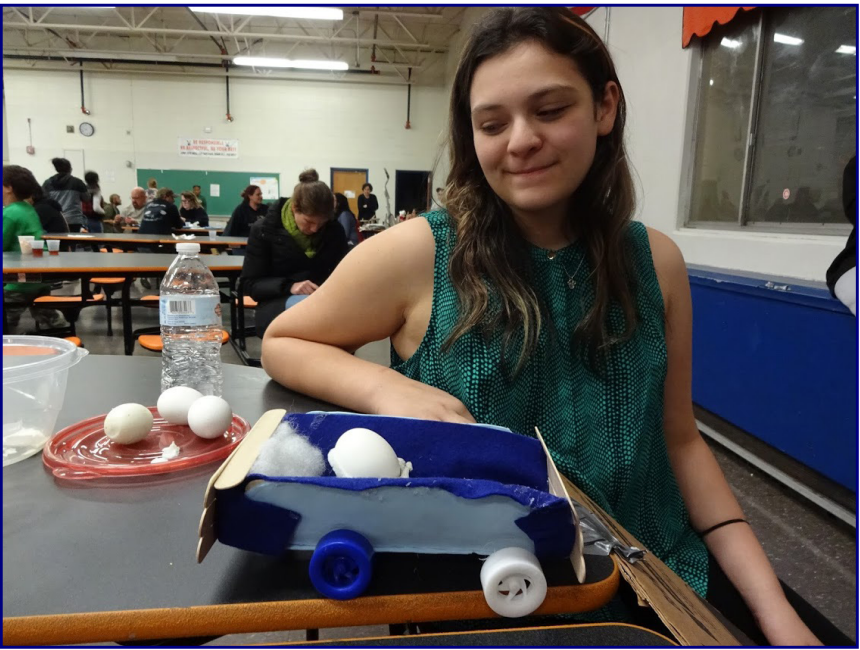
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24 Years of service

# SMILE, It's Family Science Night!



Top: Crash test car designed and tested by SMILE Middle School Student. Bottom: Students and families use hydraulics to raise a lift.



In November and December, SMILE clubs from across the state participated in district wide Family Science Nights. SMILE students look forward to this community event that brings together students and their families, friends, teachers, school administrators, and community leaders for an evening of interactive science, technology, engineering and math (STEM) activities. Family Science Night promotes community and education. This special evening includes a potluck dinner followed by science and math activities taught by SMILE students. Activities are designed for the whole family to participate in, learn from, and enjoy.

Participants in Family Science Night are always impressed and proud of the accomplishment of their SMILE students. Many parents have expressed to SMILE staff their delight and surprise at seeing their child as a competent teacher as parents and siblings rotate through a series of stations. It is an evening where families are learners and begin to bond into a SMILE community. Students have the opportunity to present activities five or more times to their family and community members, impressing everyone with their enthusiasm for science and math and teaching, and building authentic confidence and self-esteem.

Continued on page 2...

## Donate

The SMILE Program relies on the generous support of our donors. Invest in the future of RI students by supporting SMILE.

Please make checks payable to  
"The SMILE Program"

Mail to:  
The SMILE Program  
90 Lower College Rd, Roosevelt Rm 1  
Kingston, RI 02881

\*The SMILE Program is a 501(c)3  
non profit organization.

## Visit Us Online

[www.uri.edu/smile](http://www.uri.edu/smile)

## Join Us on Facebook



## Calendar

Weekly SMILE Club Meetings  
Scientific and Career Exploration Field Trips

Family Science Nights  
November-December 2017

Special Annual Events  
High School  
Engineering Challenge Weekend  
April 27-28, 2018  
URI Kingston Campus

Middle School  
Engineering Challenge Weekend  
March 23-24, 2018  
URI Kingston Campus

Elementary School  
5th Grade Outdoor Science Adventure  
April 6-8, 2018  
URI Alton Jones Campus  
4th Grade Ecology Event  
April 12, 2018  
URI Kingston Campus

## Teachers' Professional Development Workshops

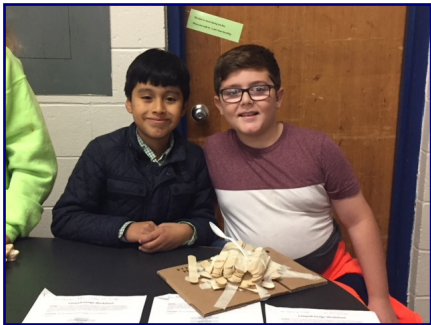
August 23-24, 2017	Dec 8, 2017	May 22, 2018
University of Rhode Island	University of Rhode Island	University of Rhode Island
Math and Science Curriculum Planning for the year	Math and Science Curriculum Special Events Planning	Program Evaluations



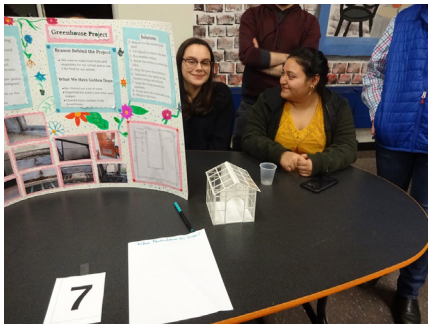
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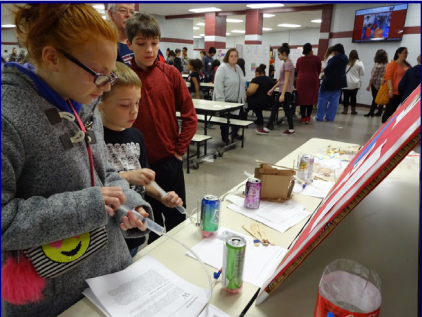
*This year’s FSN focus was on engineering and how this STEM field inflences the world around us!*



“My daughter loves SMILE. Every Tuesday she has something new and exciting to tell me. Thank you for all you do with the children in West Warwick.” `West Warwick SMILE Parent



“All three of my children participate in SMILE. They love it and learn so much every week, Thank you!” `South Kingstown SMILE Parent



“This program has been a great confi- dence builder!” `Westerly SMILE Parent



“The children are empowered to explain and take charge of their own scientific experiences.”



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:

- Amgen Foundation
- Amgen Biotech Experience
- Amica
- Anonymous Donors
- Arnold Lumber
- The Champlin Foundations
- Connecting For Children and Families
- Constellation, an Exelon company
- Dominion
- Graphic Expressions
- Holiday Inn South Kingstown
- Lloyd G. Balfour Foundation, Bank of America, N.A Trustee
- NOAA B-Wet Program
- Pawtucket COZ-21<sup>st</sup> Century
- Pfizer
- Ramsey McCluskey Family Foundation
- Rhode Island Foundation
- Schneider Electric
- Steere Engineering
- Toray Plastics, America, Inc.
- University of Rhode Island
- URI Transportation Center
- van Beuren Charitable Foundation
- Verizon Foundation
- YMCA of Greater Providence
- Central Falls School Department
- Newport School Department
- South Kingstown School Department
- Pawtucket School Department
- 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

The SMILE Program		
<b>SMILE STAFF</b> Carol Englander Director  Kelly Gallo Curriculum Specialist  Clair Stengall-Murphy Curriculum Specialist  JoAnn Basel Curriculum Specialist  Cathy Valentino Curriculum Advisor  Isha Chugh Bookkeeper  Kaitlyn Czap Development Coordinator	<b>URI RESOURCE FACULTY</b> Kathy Collins, Vice President for Student Affairs  <b>ENGINEERING</b> Faye Boudreaux-Bartels Christopher Hunter Mercedes Rivero-Hudec Manbir Sodhi Jose Amador CELS-NRS  <b>BOARD OF DIRECTORS</b> Fred Frostic, President John Peterson, Vice President Ruth Jarrett, Secretary Domenic Valentino, Treasurer Malcolm Spaulding, Board Member Glenda Kirby, Board Member Carol Reppucci, Board Member Steve White, Board Member Augusto Gomes, Board Member Fran Alexacos, Board Member	<b>COLLEGE OF ENVIRONMENT &amp; LIFE SCIENCES</b>  Larry Englander CELS, Plant Sciences Evan Preisser CELS-BIO  <b>MATHEMATICS</b> Orlando Merino

*The Science and Math Investigative Learning Experiences (SMILE) Program is an enrichment program for education-ally 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.*





## 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, 2018 and Feb 15, 2018 to ensure it is received before the college deadlines. You can apply online at [fafsa.ed.gov](http://fafsa.ed.gov).

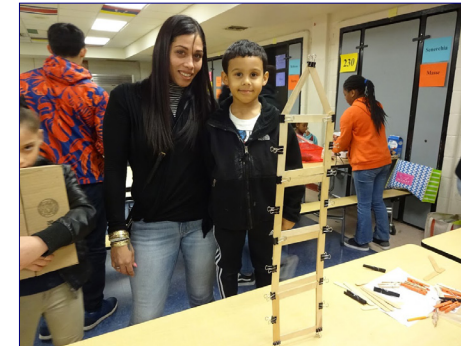
Learn about college loan options. Borrowing money for college can be a smart choice, especially if you get a low-interest federal loan.

### 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.

Activities presented at this year’s Family Science Night included: making a solar oven, designing and testing a crash test car with protection for the EGG passenger; creating sneakers from unusual materials; building a newspaper skyscraper; making a fidget spinner; variables in making creepy putty; making a periscope; building a cardboard chair; building a clay boat that holds the most weight; and making a hydraulic lift using craft sticks and syringes.



“Everything is excellent and a great experience. My daughter loves this program.”  
`Central Falls SMILE Parent



“It is an awesome program. It builds self-esteem and leadership.”  
`Woonsocket SMILE Parent

*Family Science Night is a fun and engaging STEM experience where SMILE students showcase their knowledge.*



**Many thanks to  
Michele Cinquegrano  
Regional Director of  
Verizon Government Affairs for  
coming to Family Science Night  
Central Falls to present SMILE  
with a grant award of \$20,000 to  
benefit SMILE students across  
the state.**





Thompson Middle School, Newport

Candace Lewia and Elizabeth Gibbs  
By Thompson SMILE Club



Determining the mass of design components.

It has been a stellar Fall in the Thompson Middle School SMILE program. We have had a great time floating paper and clay boats, engineering sneakers, building bucket towers and designing cars that can cradle an egg passenger without scrambling it. We had challenges to overcome if our designs didn't work the first time, but, like true engineers, we redesigned until we met with success! In the process we also learned a lot about how important engineering is in our daily lives. For example, we know more than most adults about auto safety - you are guaranteed to be safe if you have a TMS SMILE student as a passenger in your car. We even sharpened our marketing skills by presenting the sneakers we engineered. You would have a hard time choosing which brilliant footwear you like best; you would have to buy them all!



Testing a bucket tower design for strength.

Central Falls High School

Laura Stanish, Kerri Valentine  
By Central Falls High School SMILE Club

Why would you not SMILE? Students at Central Falls High School generally smile, but on Thursday afternoons, SMILES are infinite. Over the last few months, students have been engaged in a variety of engineering tasks including Solar Ovens, Fidget Spinners, Hydraulic Lifts, Airplanes, and are in the middle of the Mouse Trap Cars. This extremely diverse group of students collaborate to help each other, challenge each other and generally make each other better thinkers. Students took great pride in sharing their projects at Family Science Night. When asked what their favorite part of SMILE was so far, one student said "I loved Family Science Night. It was so great to share our work with parents and younger kids. I think we can be role models." "Don't think you can be, know that you are role models." replied his teacher.



SMILE students show families and friends how to make their own fidget spinners at Central Falls Family Science Night

PBS NEWSHOUR

SMILE "Making the Grade"

On November 14th, 2017 SMILE was featured on PBS NewsHOUR and Education Week

In late September 2017, SMILE Director Carol Englander was contacted by Lisa Stark, Education correspondent for PBS NewsHOUR. She had learned about the RI SMILE Program at URI and wanted to do a story on the very successful SMILE STEM program now in its 24th year. She wanted to focus on elementary and middle school clubs. I sent her the names of SMILE teachers at our nine elementary clubs and their locations and did the same for the nine middle school clubs. I also gave her the names of SMILE alumni at URI and also a SMILE alumnus who is a recent graduate from URI College of Engineering. Eventually Lisa Stark and her director, Cat McGrath selected Ella Risk Elementary SMILE club in Central Falls and Goff Middle School club in Pawtucket to videotape. With their camera crew they interviewed students, teachers, principals, SMILE alumni and the SMILE Director, as well as filming the clubs in action. It was an excellent experience. Please visit the SMILE website [www.uri.edu/smile](http://www.uri.edu/smile), on the home page you can click on the video and see SMILE "Making the Grade!"



A LETTER FROM A SMILE AIUMNI AND SCHOLARSHIP RECIPIENT



Thank you very much for your generous scholarship! I have been a proud member of the SMILE program for the past nine years. The program truly ignited my passion for the math and sciences and eventually helped me decide my career path as a future pharmacist! I am truly honored to have received this monetary award, thank you! –Gabriela Nieves

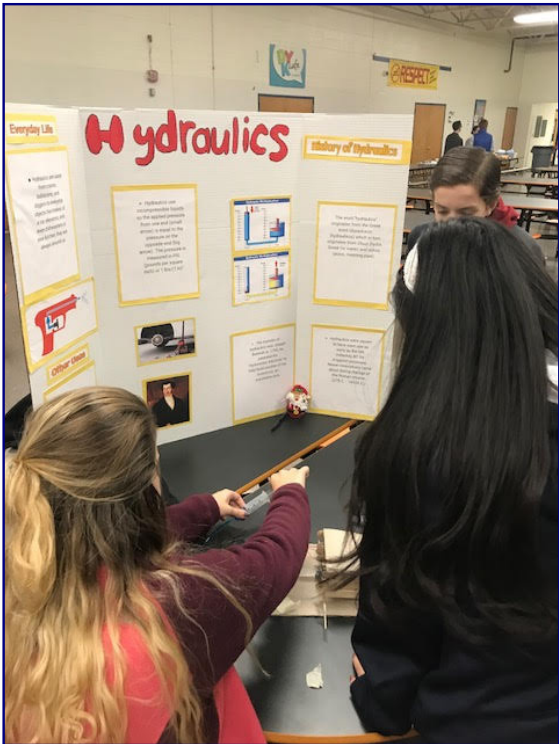


Deering Middle School, West Warwick

Eugene Gallo, Christopher Baccei  
By Ethan Aggor

Deering Middle School SMILE Experience

SMILE is one of the unique extracurricular activities that allows students to test the limits of their knowledge in science and math. Many of us have been members of the program for multiple years and have built a real camaraderie. This year's subjects have built off last year's topics with engineering. We have been challenged with multiple activities that have focused on areas such as buoyancy, safety testing, and product development. Family Science Night gave us a chance to demonstrate to URI and our families just how much we have done and learned by carrying out the engineering process. As the first half of the year wraps up, we are looking forward to discovering what SMILE has in store for us next as we get ready to work towards Challenge Weekend!



Professional Development



August 2017 Teachers Workshop-The SMILE Program's Professional Development Summer Workshop for teachers took place on August 23rd and 24th 2017 at the University of Rhode Island. At the August workshop, teachers were trained and provided materials for the Engineering curriculum theme. SMILE's Kelly Gallo, Claire Stengall-Murphy and Jo Ann Basel worked with teachers through a series of fun hands-on science and math activities that covered a wide variety of engineering related topics. Here teachers built models of crash test cars, invented new designs for sneakers, built fidget spinners, performed tests to demonstrate effectiveness of solar ovens, and made model hydraulic lifts among other activities. Teachers also received 5-6 IPADS for their clubs thanks to a generous grant from The Champlin Foundations. Teachers left the workshop with new knowledge, exciting curriculum and a huge box of science supplies for their clubs fall activities.

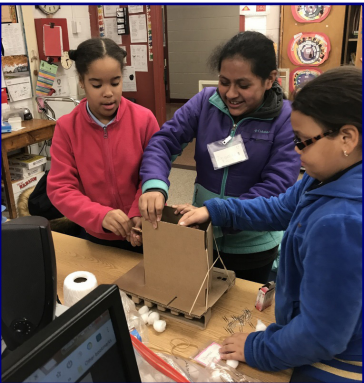


December 2017 Teachers Workshop-The SMILE Program's Professional Development Winter Workshop for teachers took place on December 8th 2017 at the University of Rhode Island. Elementary teachers received materials and activities on abiotic and biotic factors. Middle school teachers prepared for the Engineering Challenge by going over activities with materials that dealt with cranes, magnetism and magnetically levitated trains. High school teachers were engaged in pre-activities that involved solar energy and bioinformatics, the theme for their Engineering Challenge. Dr. Ying Zhang and her students, graduate student Keith Dufault-Thompson and undergraduate (and SMILE alum) Zach Pimental, presented two activities about bioinformatics: extraction of DNA from strawberry, and making protein models using beads and pipe cleaners. All teachers left the workshop with materials that will be used for inquiry based activities for their SMILE clubs this upcoming semester.

Calcutt Grade 5, Central Falls

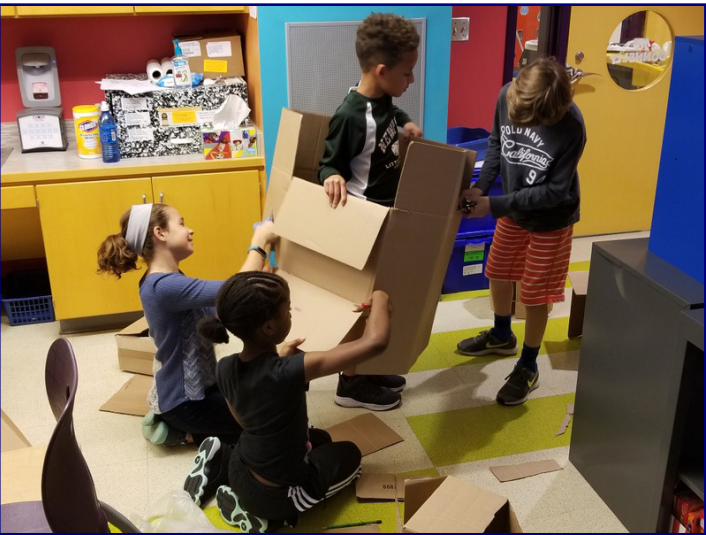
Peg Boyer, Karen Cardoza  
By Calcutt SMILE Club

This year, our SMILE club used the Engineering Design Process to do many activities. We started the year making newspaper towers. We loved making the tallest towers we could using just newspaper and 12 inches of tape. The Engineering Design Process starts with asking what the problem is, imagining ways to solve the problem, planning how to solve it, creating something to solve it, testing and improving the design. We also built cardboard chairs, Rube Goldberg machines, air powered spinning machines, and earthquake resistant houses that we presented and taught families about at our Family Science Night on December 4th. We loved using the Engineering Design Process, doing the activities and teaching our families too! We look forward to learning new things and going to the Elementary Outdoor Science Adventure in the spring!



Claiborne Pell Elementary, Newport

Mary Nordby, Lori Delemos  
By Pell SMILE Club



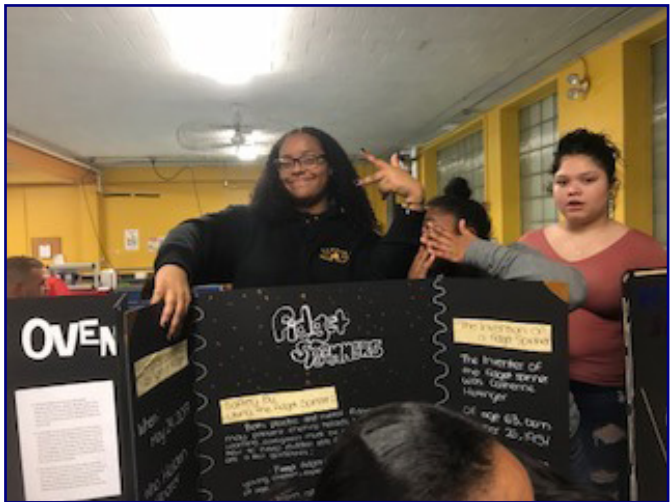
The process of designing, testing, and retesting in the development of a chair made entirely of cardboard.

We are learning about the engineering design process during our SMILE club meetings. We have explored STEM careers, such as architectural, civil, and structural engineering. We were engineers when we designed and constructed newspaper towers. The towers needed to withstand "hurricane force" winds. We also explored how to make weak materials stronger. For example, we designed chairs out of cardboard. The chairs had to be constructed without any glue or tape, and hold the weight of an adult. It was a challenging task that required much team effort. We built marble runs, also out of cardboard. We learned about friction, gravity, momentum, slopes, angles, and potential and kinetic energies during the process. Our favorite part of the design process was making prototypes of our finished designs. The SMILE program is a fun way to learn about STEM. We look forward to it every week. It is amazing!



Tollman High School, Pawtucket

Kevin Collard, Nicole Ellis  
By Paulina Lopez



So far my time at SMILE has been a great experience. We do various educational activities and engage with other SMILE members. It teaches great teamwork skills and problem-solving skills. Every Tuesday SMILE members meet up after school and work on projects. A few we have done so far were making a fidget spinner out of paper, a solar oven, pneumatic lift, etc. Although it was a challenging task, with our teamwork skills we were able to finish the project. SMILE is a great program, it really lets you experience new things and learn about topics you never really got into depth. By learning these skills I have been able to use them during school as well.

Coleman Elementary, Woonsocket

Jennifer Paolozzi, Anissa Hoard  
By Ashley Ponce, Emily Ledesma, Rhianna Ramos, Edaine Rosado, and Chyzel Brown

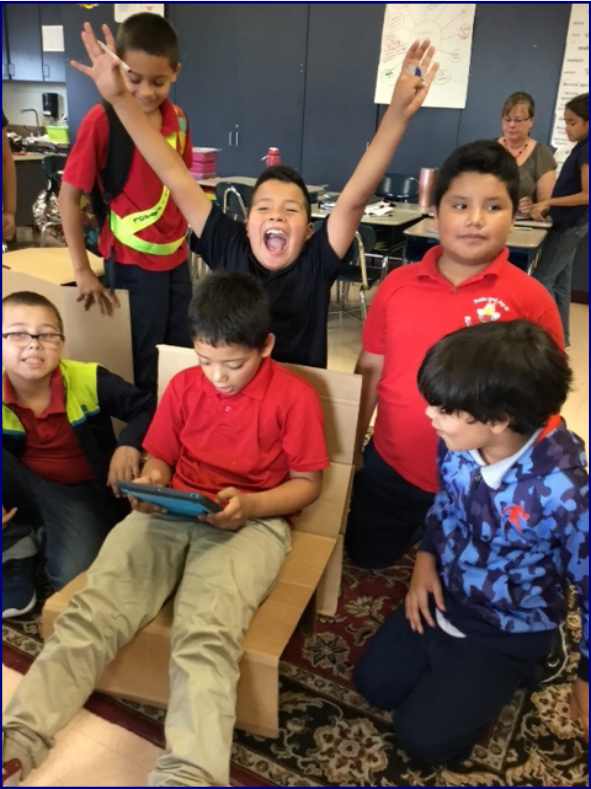


~I like doing science projects and planning stuff and challenges make me smarter. –Ashley  
~SMILE is awesome and gets me inspired. It gets me moving and gets me to do projects. I love science and doing projects so SMILE is definitely for me. SMILE is one of my favorite places to be. –Emily  
~The top 5 things that I love about SMILE: 1) Is that you change from the beginning to the end because at the end of the year you will love the idea of engineering. 2) Is that you get to make cool stuff, we made cardboard chairs, a marble run, and a newspaper tower. 3) You learn and you make. 4) We go on really fun field-trips. 5) If you are in SMILE learning is fun. –Rhianna  
~I like being in SMILE because it helps me aim myself for college. Also I like the field-trips we go on because sometimes there's field-trips I'm scared of but when I go on the field-trip I overcome my fear. I like how the teachers are honest with the students. –Edaine  
~On the first day of SMILE, I was so pumped up. I couldn't wait until our first field-trip! But it turns out it was better than a field-trip. It was super inspiring. We got to do all sorts of things, like build chairs out of cardboard and making marble tracks. It was so fun. –Chyzel

Ella Risk Elementary, Central Falls

Peggy Boyer, Sheryl Wilson  
By Ella Risk SMILE Club

This year we mixed 4th and 5th graders in our Ella Risk Club. Our main focus was to learn about engineering through some awesome projects we just showcased at Family Science Night on Monday December 4, 2017. Our favorites were the Rube Goldberg machine, the Periscope, the Marble Run, the Earthquake Resistant House, and the Air Powered Spinning Machine. A few projects we did not showcase at Family Science Night but we really enjoyed doing were the Cardboard Chair, and the Newspaper Towers. However, the highlight of our year so far was to be on national TV. Our Club was so lucky to be chosen to be filmed and televised by PBS NewsHOUR in a 7-minute segment informing the nation about the SMILE Program. We learned that SMILE gives us the opportunity to learn about STEM fields so we can imagine the possibilities for our futures.



Right: Using a SMILE iPad to research chair designs.

Westerly Middle School

Robert Brennan, Carolyn Michaud  
By Westerly Middle SMILE Teachers

Now in its second year, the Westerly Middle School SMILE Club has expanded to include twenty members and has greatly increased its membership from Grades 6 and 7. Returning SMILE members have taken a leadership role in helping new members prepare for Family Science Night with hands-on activities like the Clay Boat Challenge and displays of the prior year's URI Engineering Weekend activities. The Club is spending multiple weeks on design projects as students challenge themselves to follow the design process, redesign and improve their first solutions. Members expressed that they enjoy the creativity, teamwork, and opportunities to build relationships with new members and to solve challenges together. They have particularly enjoyed the Crash Test Car project this year.

We also have many events ahead as we enter 2018. The Middle School and Elementary School SMILE Clubs will combine again this year and will take a tour of the Rhode Island Resource Recovery Corporation. We also hope to combine with the High School SMILE Club for a trip to a local manufacturing facility during the spring. We look forward to our next club phase as the coaches learn about the annual SMILE Engineering Weekend and the upcoming activities that will prepare us for the culminating design challenge at URI.

