



STEM INITIATIVE UPDATE

Sacred Heart Academy – 2018



THANK YOU FOR YOUR INVESTMENT

It has been three years since you helped with our
STEM Initiative at Sacred Heart Academy.
On the following pages, you will see the
successes and share the pride!

REMINDER: ORIGINAL GOALS

- All new Science Lab for K through 12th graders
- 1:1 technology for 7th to 12th graders
- Expanded curriculum, additional science and math opportunities for students
- Increase in hands-on learning, better preparing students for the next level
- Oversubscribe the campaign to create an endowment for sustainability

SUCCESS!

- All new Science Lab for K through 12th graders
- Fully equipped—best in the central Michigan area! The STEM Lab offers flexible learning space for all grade levels and types of science learning, from first grade engineering to high school physics.



SUCCESS!

- 1:1 technology for 7th to 12th graders



- Chromebooks are used in every class, from English to Art, Math to Spanish, Government to Physics and more.



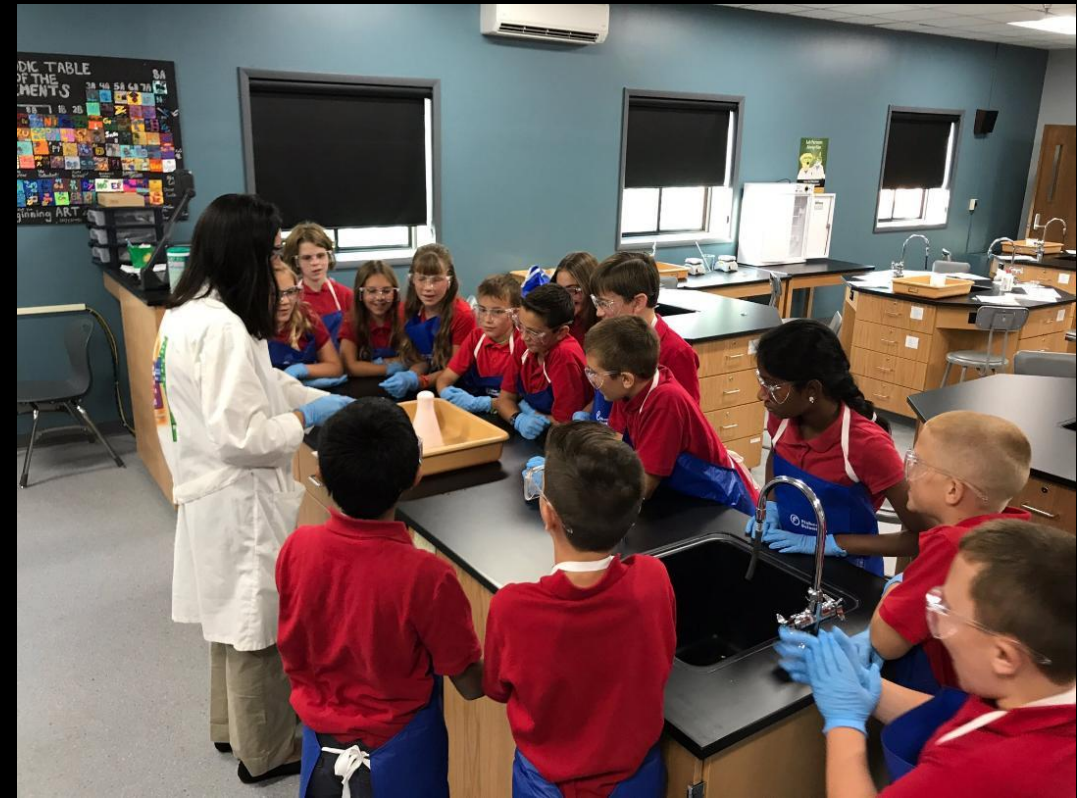
SUCCESS!

- Expanded curriculum, additional science and math opportunities for students
- In recent years, SHA has added an additional forensic science class, a zoology, and a genetics class. In 2018-19 we are looking to add two or three additional electives which are not yet confirmed. In addition, junior high electives have been expanded to run during the full year.



SUCCESS!

- Increase in hands-on learning, better preparing students of all ages for the next level
- With wish list and grant money, the STEM Lab has improved microscopes and other equipment for hands-on biology, chemistry, and physics lessons.
- This past school year, the Pre-K through 6th grade students were also in the Lab often. Take a look at the photos on the next few pages.





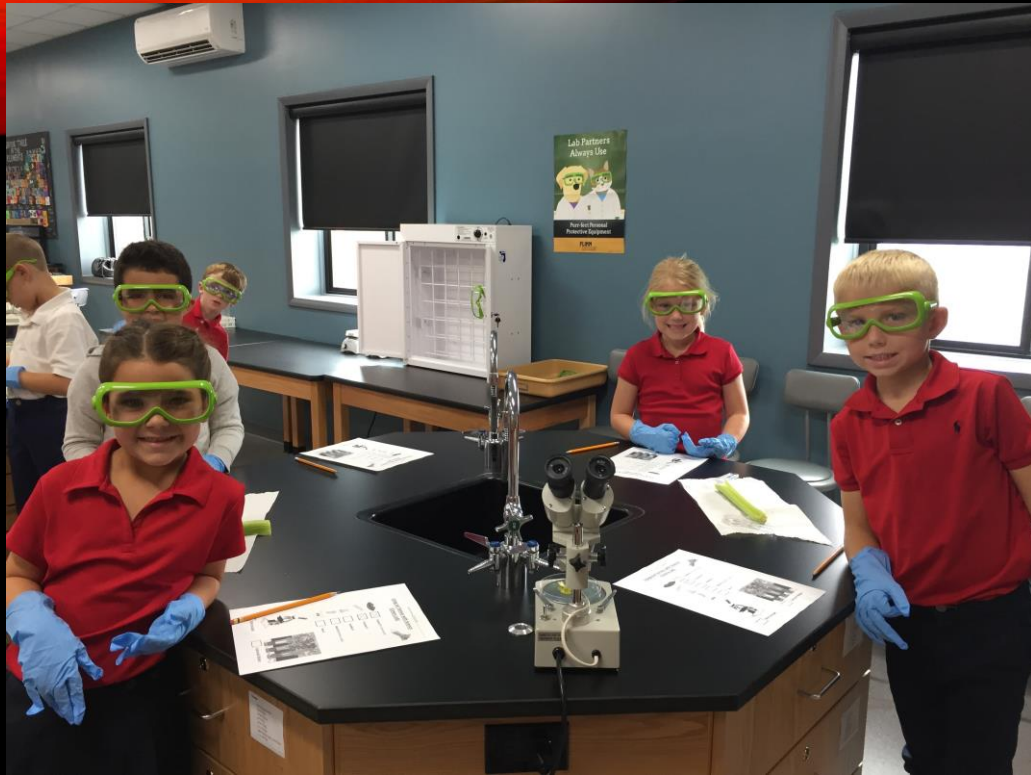
Pre-K students perform a bubble-lab. Are bubbles always round??



Pre-K students pour and measure as part of a stations lab.



Kindergartners examine feathers with magnifying glasses as part of the stations lab.

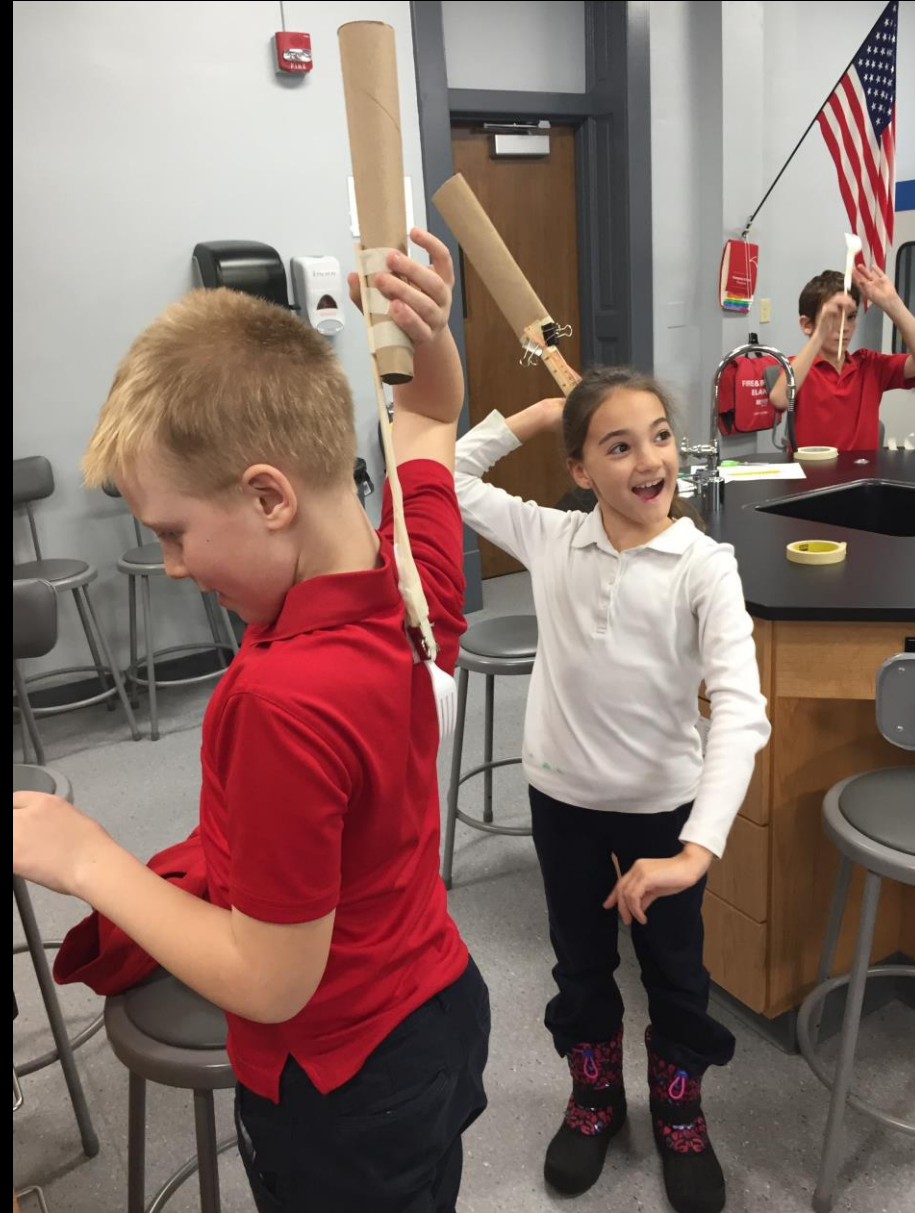


First grade students perform a microscope lesson (above) and on another day, work on an engineering lesson (at right).



The second grade poinsettia lab was an interesting lesson!

Third graders
constructed—and
tested—their own
back-scratchers.





5th graders watched a chemical reaction which produced gas in the form of foam that oozed out of the flask. It looks like science is fun!

SUCCESS!

- Oversubscribe the campaign to create an endowment for sustainability ✓
 - A STEM Fund was created within the SHA Foundation in 2016. The fund has a principal balance of almost \$150,000 and now spins off interest each year for the sustainability of STEM efforts at the school. This year, interest will help pay for Jennie Queen-Baker's salary and purchase new Chromebooks



MEET JENNIE QUEEN-BAKER

- Funded partially by grants and partially with help from the SHA Foundation, our school is blessed to have STEM Lab Coordinator **Jennie Queen-Baker**. She assists the elementary teachers, allowing them to utilize the STEM Lab at least once per quarter, offering hands-on activities which match the science curricula being provided in the classrooms, specific to each grade level, and building from year-to-year.
- In this way, she offers professional development for teachers, designing the labs and procuring the materials, managing the lab schedule, and assisting the middle- and high-school teachers with their class preps as well.



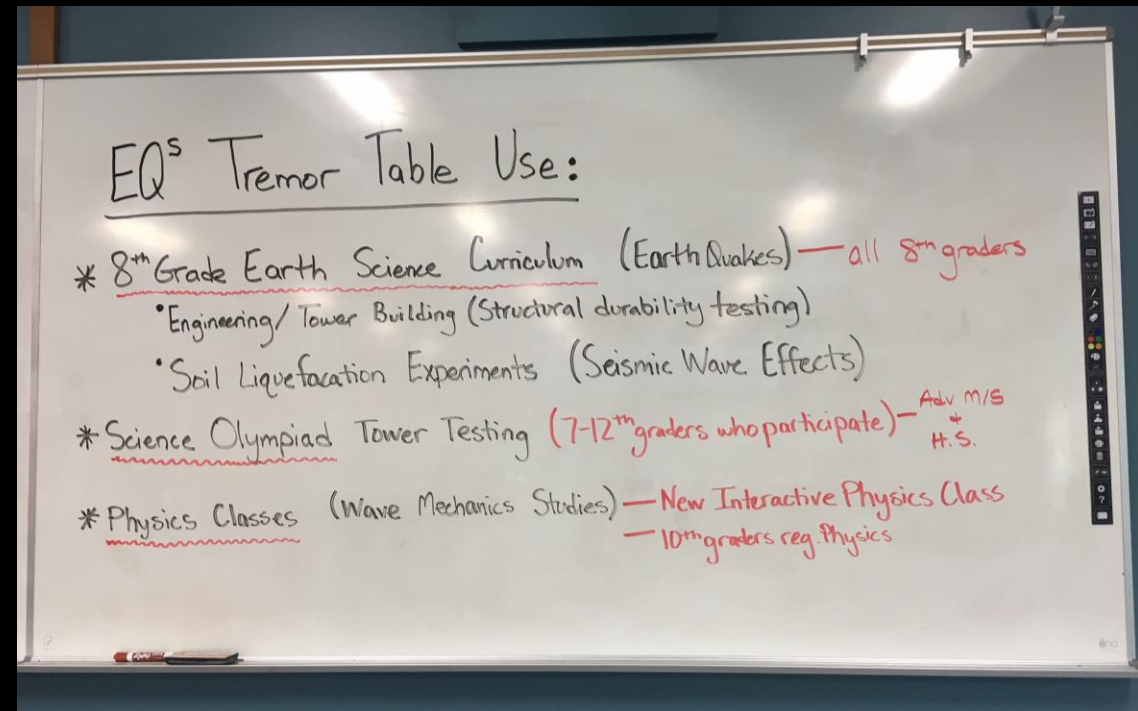
Jennie and her daughter Ava, who will be in 4th grade at SHA this fall.

JENNIE QUEEN-BAKER PROFILE

- Jennie has a bachelors degree from Michigan State University in clinical laboratory science and also a masters degree from MSU in forensic science. She was a teaching assistant at MSU in forensic biology and also worked at Sparrow Hospital in Lansing in immunology and cytogenetics.
- Most recently, she worked in clinical and research laboratories at the Johns Hopkins School of Medicine, Fred Hutchinson Cancer Research Center, University of Washington, University of Kentucky, and for the Howard Hughes Institute. Central Michigan University brought her husband to Mt. Pleasant so we are fortunate to have her at Sacred Heart Academy where her two children are enrolled.
- Jennie has seven years of science education experience including: science laboratory instruction for middle and high school students, hands-on science lessons prepared for grades 1 through 3, and a mobile education lab for grades 4 through 12.

ADDITIONAL SUCCESSES

- SHA was able to purchase extra sets of Chromebooks which are available for MAP and M-Step testing in elementary and high school throughout the year. ✓
- Teachers have appreciated the Chromebooks, because Google Classroom makes it easy to keep track of student assignments. ✓
- We no longer need to dedicate an extra classroom as a computer lab because the students all have computers ✓
- Robotics is being added to our list of extra-curricular activities! ✓
- SHA is still the only school in central Michigan with 1:1 technology for 7th through 12th grade! ✓



There are so many great things happening in the STEM Lab! Like Earthquake Tables courtesy of the Connor J. Puhlman School Improvement Fund and the Mt. Pleasant Area Community Foundation/Kellogg Youth Fund.



BLESS YOU!

You made it all happen. Your investment in the STEM Initiative at Sacred Heart Academy has had an incredible impact on our students.

We are currently working on a *Safety & Security Project*.

For information about any happenings at SHA, please contact:

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