

GEF CASH FLOW

APRIL 1, 2017 - MARCH 31, 2018

FUNDS RECEIVED

Unrestricted Support*	\$239,204
Restricted Support**	
Programs	\$185,802
Endowment and Investment	\$503,546
Restricted Total	\$689,348
TOTAL RECEIVED	\$928,552

EXPENDITURES

Program Support

Arts	
Gloucester High School	\$11,585
O'Maley Innovation Middle School	\$750
Elementary Schools	\$29,926
Districtwide	\$3,919
Total Arts	\$46,180

STEM

Gloucester High School	\$103,129
O'Maley Innovation Middle School	\$15,114
Elementary Schools	\$8,000
Total STEM	\$126,243

Other

Gloucester High School	\$37,168
O'Maley Innovation Middle School	\$1,000
Elementary Schools	\$23,059
Districtwide	\$507
Total Other	\$61,734

Program Support Total	\$234,157
Payroll	\$94,350
Operations and Fundraising	\$83,633
Endowment/Future Programs	\$392,508

TOTAL EXPENDITURES	\$804,648
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*Unrestricted funds may be granted at the discretion of the GEF Board of Directors to any worthy program, project or initiative.

**Restricted funds were donated to GEF for specific/targeted purposes. GEF donors are welcome to designate their contributions to areas of special interest.

The above figures are unaudited. Audited financial statements for the Fiscal Year ending March 31, 2019 will be available from GEF later in the year.

FINANCIAL INFORMATION

Support for Gloucester's Public Schools: More Than Meets the Eye

Since 2005, the Gloucester Education Foundation has raised nearly \$7 million on behalf of the Gloucester Public School District and GEF supports the Gloucester schools in ways that you won't always see reflected in our financial statements. For example, in prior years, GEF collaborated with the District in securing 21st Century Community Learning Center Grants, which funded after-school programs at Gloucester High School and O'Maley Innovation Middle School. Combined, these efforts resulted in an additional \$930,000 from 2014 - 2017 for the District. GEF has also helped the District secure an additional \$188,373 from the Massachusetts Life Sciences Center, \$100,000 from the Cummings Foundation and smaller grants totaling \$14,750. All in all, GEF has raised an additional \$1.23 million, above and beyond its annual fundraising, for innovative programs for Gloucester's children.

Leave Your Mark on Education in Gloucester

The need to support public education in Gloucester will continue into the foreseeable future. We invite you to be part of that future by making a provision in your will or another planned gift to GEF to help ensure that we can continue to bring innovative and exciting programs to District schools. Your family attorney or financial advisor can provide guidance. For more information, call GEF at 978-282-5550.

An Easy Way to Support Gloucester's Public Schools

Last year, GEF unveiled Show of Hands, which allows GEF supporters to make monthly gifts to our organization. This program provides consistent, year-round support for programs in the Gloucester Public Schools and provides sustainability to GEF's work.



If you wish to establish a monthly gift to support innovative programs in Gloucester's schools, visit our online giving portal <https://thinkthebest.org/monthly-giving/> or call our office at (978) 282-5550 to discuss giving options.



PROGRAMS FUNDED BY GEF *A Representative Sample*

ELEMENTARY SCHOOLS

- Theater support
- Summer literacy program
- **Elementary theater programs**
- After school music program
- Literature-based social emotional learning support (Veterans')
- Grade 5 ballroom dance program and the Mad Hot Ball
- Soundfield® Systems (RED-CATs) (K-2)
- Schoolyard gardens startup support
- *Dance Through the Decades*
- SPED bikes
- *Art Explorations* textbooks and supplies
- **Author visit (Veterans' and Plum Cove)**
- Tech Tub® for early literacy support (East Gloucester)
- Heart monitor watches (Veterans')
- **Summer STEAM camp (Beeman)**
- Jam Hub® silent music studio (Beeman)
- *Countdown to Kindergarten* orientation
- Maritime Gloucester field trips
- **Sound system for Veterans' Theater**
- Math Olympiads® program expansion

O'MALEY INNOVATION MIDDLE SCHOOL

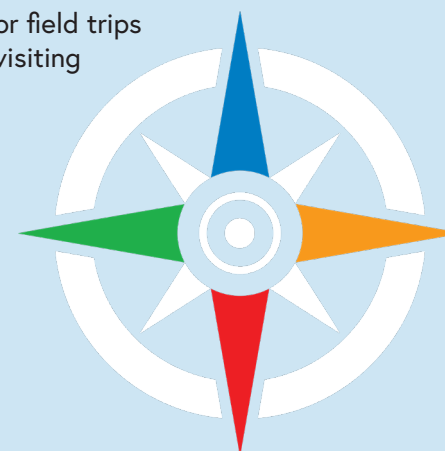
- Birdseye-Hammond STEM Center
- *Summer Engineering Adventure at MIT*
- "Slime Lab"— wet lab for life science
- Writing curriculum coordinator
- *Advanced Engineering* equipment/ supplies
- 60 iPads for project-based learning
- Three aquaponics systems – Grade 7
- **BioLab and aquaponics project – Grade 8**
- **Printmaking workshops**
- O'Maley Theatre sound & lighting equipment
- Music room renovation
- **iPads and software for drama studies**
- *Word Generation*® vocabulary program
- 3-D printer lab
- Musical instrument library and equipment
- New sound system for O'Maley Theater
- *Climate Change and Coastal Communities*
- Grant-writing support for O'Maley Academy and O'Maley BioLab

GLOUCESTER HIGH SCHOOL

- Start-up support for Computer Science program
- Digital Cameras and iMac Photo Lab
- Summer AP Prep classes
- ProJet 3-D Printer and SolidWorks® software
- Online texts and Vernier sensors for Chemistry
- Safety improvements for Cabinet Design and Innovation
- *Ardelle* Sail for Marine Biology/Oceanography classes
- Genome Gloucester summer program
- **Physics, Technology and Next Generation Science**
- Ceramics Equipment & supplies
- ShopBot® digital CNC router
- **Empowering Gloucester Girls for STEM Careers**
- Equipment and curriculum for Physics of Robotics and Engineering programs
- Music Therapy for Life Skills program
- Biomechanics to Prevent Injury
- Q Lab Lighting and Sound System for Theater Program
- **Seeking Relief from Sea Level Rise**
- CAD Software for Vocational Education
- Microphone system for theater program
- Teacher professional development
- **Robotics system replacement/upgrade**
- Learning Commons Creation Lab
- Dating Violence Prevention presentations
- SailBot® robotic sailing program
- **Gloucester Alternative Program tower garden**
- Quadcopter robotic mini-helicopter
- Teen Mental Health First Aid training
- Lab Volt® solar/wind training unit for electrical technology program
- Expansion of 3-D printer lab

DISTRICT-WIDE INITIATIVES

- City-wide Arts Festival
- Transportation for field trips
- Artistic Bridges visiting artist program
- Grant-writing support



Programs highlighted in **RED** are new in this past fiscal year. Open up this Annual Report to see more about them.

More details about many of these programs can be found at <http://thinkthebest.org/our-programs/>.

GEF ANNUAL REPORT 2019

Discovering Worlds



OUR CHANGING CLIMATE AND ITS IMPACTS

The rise in the ocean level caused by a changing climate is perhaps nowhere more profound than in communities like Gloucester, whose livelihood has been tied to the sea for generations and whose boundaries are defined by its very presence. Through a GEF-funded project last year, Gloucester High School looked at several key questions facing their community with regard to climate change and its impacts: How can we best prepare for projected sea level rise? What potential pollution threats, such as sewage and toxins, fall within projected flood zones? What transportation corridors will be impacted, and what infrastructure is at risk? And what are the best ways of reducing our carbon footprint to mitigate the impacts of a warming climate?

Students used online resources to map specific areas of the city and took field trips to evaluate some of the Gloucester's most vulnerable neighborhoods. A special focus was along the Annisquam River, which rose catastrophically during a winter storm in 2018 and flooded the high school parking lot, causing the loss of 73 automobiles. In early 2019, students invited community members to Gloucester High School for a presentation discussion of their findings. Community residents engaged with students afterwards as they showed guests their poster presentations that dramatically highlighted Gloucester's neighborhoods at greatest risk in coming years.



THE "BASIC SCIENCE"

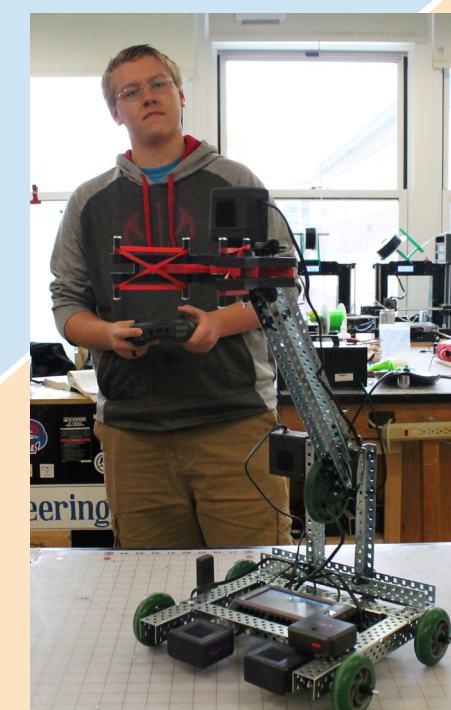
Funding from GEF's generous donors has brought about a major upgrade in the way that Gloucester High School students are able to explore physics—often called “the basic science” because it underlies many of the other scientific fields of study. Students now have access for six years to two on-line homework systems for Honors and Advanced Placement® students that include e-texts, online simulations, personalized feedback and coaching based on their individual needs.

Students are also now using Vernier LabQuest2® equipment for Physics, an array of tools that makes thousands of hands-on experiments possible and enables students to master key principles of physics. Also included in this project: a set of 60 binoculars used for light analysis experiments and for use in the school's astronomy classes—and potentially in a new Astronomy Club that will help our students truly reach for the stars!

A NEW GENERATION OF ROBOTS

Students entering Gloucester High School's robotics classes in the 2019-2020 school year will be greeted by a new generation of robots, thanks to a major project funded last year by GEF donors. Over the past year, new equipment has been arriving steadily, as the pieces of a completely upgraded robotics system have been gradually assembled for the opening of school in September.

The upgraded system provides a sophisticated toolkit that allows students to create and design complex projects. For example, students will be able to build pneumatically-powered robotic arms to retrieve and transport objects and materials and, with a new visual system, they can fine-tune their robots to track objects with great precision. Students will be gaining skills that will benefit their college-level studies and boost their marketability in the workplace, as robotic technology assumes an increasingly larger role in the 21st century world.



A VERTICAL VEGETABLE PATCH!

Students in Gloucester High School's Alternative Program last year got a taste, literally, of growing their own food. “Food for Thought,” a project funded by GEF, provided a new Juice Plus® Tower Garden, a 62-inch tall cylindrical gardening system that grows food using aeroponics, a method using just water and nutrients. The garden is set up in the program's learning space, where students plant and tend a variety of fruits and vegetables which supplement their daily meals. Students learn where food comes from, the connection between food and health, and how to make good food choices to better control their own well-being.

The Tower Garden has also created a laboratory of sorts. Students learn the science of growing food, including starting seeds and the use of indoor-outdoor growing systems; the basics of soil science; how roots grow; nutritional values found in different types of foods, and sustainability issues pertaining to water, soil and air. And, they learn leadership, as they assume responsibility for the planting and care of their “vertical vegetable patch.”

A NEW WAY TO LOOK AT LIFE

Question: What do you get when you combine 200 8th graders with 600 fish, 67 fish tanks, 1,000 lettuce plants, and billions of nitrifying bacteria?

Answer: An exciting new way to learn about life!

The O'Maley BioLab is a center for research in life sciences through activities that involve student in the monitoring and maintenance of living systems.



Last winter, the space housed an innovative student project in aquaponics, a method of gardening that creates a symbiotic and self-sustaining life system. It combines fish, plants, and a grow bed that is host to microscopic organisms that convert the fish waste into useful nutrients for plants rooted in the grow bed. The grow material and plants filter the water, which is then returned back into the fish tank.

Working in teams of three during a three-month period, the school's eighth-graders built and maintained 67 individual aquaponics systems, feeding their fish daily and testing the water's chemistry to safeguard the health of the fish. They examined the microbial organisms in the grow beds under microscopes and harvested their lettuce – and in the process, they learned a lot about science and what it takes to be responsible for maintaining a healthy life system.

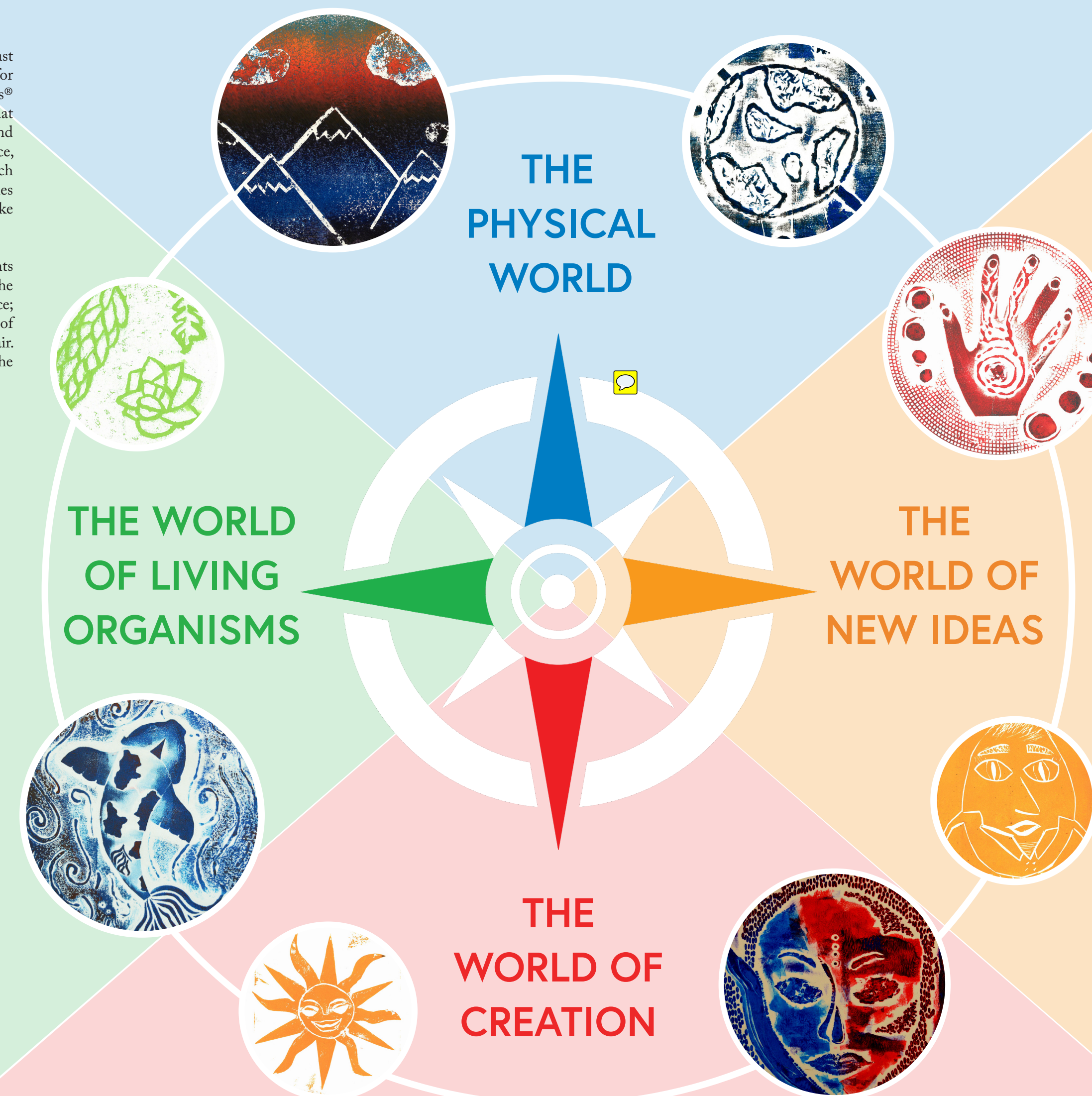
The aquaponics project also introduced a new partnership to the Gloucester schools. Through memorial gifts made in honor of the late Barbara Wilson, O'Maley established a BioLab Intern position in conjunction with Salem State University and welcomed one of its recent graduates, Lia Anderholm, who mentored the students through this unique and empowering learning experience.



HOLLYWOOD, HERE THEY COME!

Support from GEF is allowing O'Maley theater students to experience movie-making first-hand! The school last year acquired a new set of iPads and software, which students now use to film projects of their own creation against the backdrop of a “green screen” in their classroom. The students also learn how to edit their own works and are gaining valuable experience that will be useful as they enter high school and eventually, the workplace.

While they are learning new skills and having fun with it, O'Maley students are also performing a valuable service for their own school: they are using their new-found abilities to film and produce the morning announcements and document school activities such as S.A.I.L.S. Club service projects, bringing life at O'Maley to the screen for their peers.



MAKING THEIR VOICES HEARD

Since its earliest days, GEF has supported theater in all of Gloucester's public schools, especially in the city's elementary schools. Over the past year, GEF expanded its support in all five of Gloucester's elementary schools so that young students are impacted by more real-world theater professionals as they learn voice projection, stage presence, and acting techniques. GEF gave an extra boost to Veterans' Memorial School with the funding of a new sound system, installed in time for the school's production of *Seussical: the Musical*. Special thanks to GEF friend Hugo Burnham, who oversaw the project and donated his time for the installation, which is now making Veterans' students' voices heard, loud and clear!

EXPERIENCING GLOUCESTER'S ICONIC ART FORM



While the students at O'Maley were busy with their printmaking, Gloucester High School was welcoming the arrival of a brand-new large-format printing press, funded by a grant to GEF. The press will be ready for use in the upcoming school year in the fine arts classroom. GHS students have been using a small press to make their prints, and many of the beautiful results are seen throughout this annual report. If this is any indication of their talents, we cannot wait to see what our students create with the new press!

A MILESTONE ARTS FESTIVAL

Last spring marked the 10th anniversary of the Citywide Arts Festival, a creation of GEF's early founders to showcase the artistic talents and achievements of Gloucester's students, and as a way to thank the community for its support of education in the arts. Beautiful artwork representative of all grade levels adorned the walls of Cape Ann Museum, City Hall and the Sawyer Free Library, which also housed student creations in ceramics, paper mache, and wood.



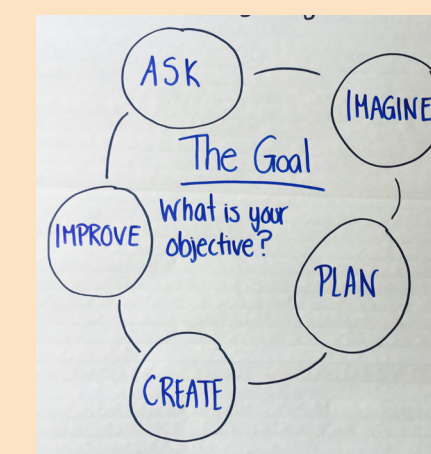
There were musical performances by Gloucester students of all ages; dance demonstrations at City Hall, a theater performance by Gloucester High students at the Cape Ann Museum auditorium, and the ever-popular robotics demonstration at City Hall. Capping the event were stellar performances by the O'Maley Jazz Band and the Docksidiers, Gloucester High School's big band, acclaimed far beyond the boundaries of Gloucester.

The Citywide Arts Festival continues to be a reflection of the talents of our students and a tribute to the community's heritage as a center of the arts in all of their forms.



NOT FOR ADULTS ONLY

Most people think that engineering is for serious adults only, but during the summer of 2018, a group of third, fourth and fifth-graders at Beeman Memorial School discovered that this field of science can be fun and exciting, even for the very young. Beeman's Summer STEAM Camp introduced 120 students at the school to various



types of engineering through a six-week program that was based on the Engineering is Elementary curriculum developed by Boston's Museum of Science. Each week, students experienced a different field of engineering—rocketry, building engineering, materials science, and others—by completing a series of project-based challenges. During the program, students also used Scratch, a child-friendly coding program developed by MIT, and became familiar

MAKING THE STEM TENT LARGER

The Applied Materials Foundation last year funded a national initiative, (get name), aimed at creating strategies to broaden the pathways for more female students to pursue careers in science and technology. Gloucester was one of the sites that was awarded funding, launching a new program at Gloucester High School that is involving a group of female students, who will undertake a self-guided study of their own experiences in science moving through the Gloucester schools and will perform external research through interviews with working scientists to gain insights on women and minority representation in the STEM workforce. Now in its early stages, the program in future years will include a mentorship component, as well as site visits to scientific workplaces and presentations from visiting scientists as students develop their own ideas and strategies for opening STEM pathways for females and minority students.

