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	

welcome to designate their contributions to areas of special interest.

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

Since 2005, the Gloucester Eductation 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 Distict 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 on 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 forseeable 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 Goucester'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 privdes sutainability 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.

FINANCIAL INFORMATION

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
- 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

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/.

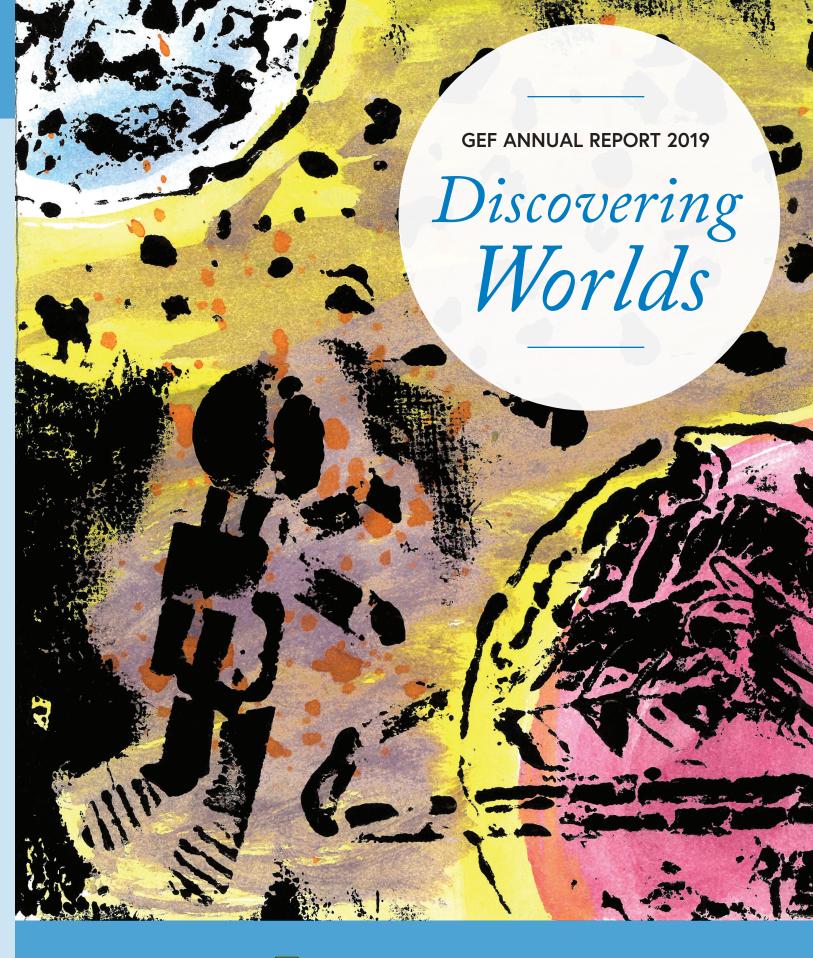
GLOUCESTER HIGH SCHOOL

- 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
- Ardelle Sail for Marine Biology/Oceanography
- 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
- 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





GLOUCESTER EDUCATION FOUNDATION

WWW.THINKTHEBEST.ORG

^{*}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

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.

"The art of teaching is assisting the art of discovery."

This quote from the poet Mark Doran underscores what we strive to achieve in the Gloucester Public Schools: to embed the art of discovery in what we teach our students, the wonder, the seeing for the first time in a new light, and the development of attitudes that will shape students' lives for the better. The Gloucester Education Foundation has allowed us to bring that sense of purpose to levels that we could not possibly have reached without their support.

> Dr. Richard Safier, Superintendent Gloucester Public School District

Discovery is as old as the hills. Early man found that he could create heat and light when he discovered fire. Many centuries later, explorers ventured out in wooden ships and discovered new lands and civilizations. In modern times, scientists working in their laboratories discover new therapies that mitigate the effects of disease and prolong life.

Discovery exists in education—it is, in fact at its very heart.

Think about the young child discovering the world of ideas as she becomes a fluent reader. Or the sixth-grader discovering the joy of music as he learns the trumpet for the first time. A teenager surely feels the thrill of discovery while figuring out how to move a robotic arm, master a difficult math problem, or conquer the potter's wheel to create a masterpiece in clay. Indeed, throughout their high school years, students in Gloucester engage in a schoolwide inquiry process, which prompts them to ponder questions, investigate, and reflect upon solutions—in other words, to discover.

Since its early years, the Gloucester Education Foundation (GEF) and our supporters have helped students make discoveries that allow them to effectively navigate the real world that they will one day inherit. Our 2019 Annual Report, Discovering Worlds, highlights some of the journeys that our students have taken over the past year. As we were compiling this report, we made a discovery of our own: a fantastic treasure trove of prints created by our high school art students. We have included some of their works in this report to help illustrate many of the "worlds" that our students have been exploring.

Fortunately for our students, GEF discovered early how to bring innovative programs to our students; we had only to search as far as our generous community, which since 2005 has provided more than \$7 million to GEF, fueling a thousand new discoveries for our students. As always, we are grateful for the support that you continue to give to Gloucester's students. Together, we help them continue to explore and discover—and to "Think the Best" and be their best.

Joseph Calomo President, Board of Directors Christina Raimo **Executive Director**

Our Mission

The Gloucester Education Foundation drives innovation, encourages creativity, expands student opportunities and empowers educators to strengthen teaching and learning in the Gloucester Public School District.

GEF BOARD OF DIRECTORS

Joesph Calomo, President Christine McGrath, Vice-President Serena Low, President-Elect June Landergren Steel, Past President Dean Murray, Treasurer John Bjorlie, Esq., Clerk Marie Cahoon, Recording Secretary Kathleen Costa

Kathleen Clancy (Ex-Officio), School Committee Liaison Christina Raimo (Ex-Officio), Executive Director

GEF COMMUNITY COUNCIL

(April 1, 2018 - March 31, 2019)

Jennifer Goulart Amero Jim Barker Jan Bell John Byrnes Kathleen Clancy Robert Cunningham Martin Del Vecchio Jim Destino Peter Dolan John Doyle Mary Kay Dyer Bob Gillis Valerie Gilman

Bob Jedrey Grace Numerosi Fred Johnson Ruth Pino Eric Kreilick Ellen Preston Marietta Lynch David Rhinelander David Marsh Maggie Rosa Aria McElhenny Val Somers Paul McGeary Leora Ulrich Richard Weiss Erin McKay Jeremy McKeen Dick Wilson Kristin Michel Sal Zerilli Beth Morris Stevie Neal

Sarah Grow

Grace Numerosi

Anna O'Connor

Kathleen Purdy

John Sarrouf

Jochem Struppe

Joe Rosa

ADVISORS

(April 1, 2018 - March 31, 2019)

Dr. Richard Safier, Superintdendent Gloucester Public School District Sefatia Romeo Theken, Mayor, City of Gloucester Paul Lundberg, President, Gloucester City Council Jonathan Pope, Chair, Gloucester School Committee

Beebe Nelson

Liisa Nogelo-Kerr



GLOUCESTER EDUCATION FOUNDATION

Susan Clancy and Niels Ketelhohn Family

Tom Burger and Andree Robert

Jill and Peter Cahill

Sarah and Gib Carey

Bob and Gigs Cunninghan

Gifford Family Foundation

Valerie and Paul Gilman*

Sarah and Jason Grow*

Harbor View Realty Trust*

Christine and Paul Lundberg*

Mary and Harry Hintlian'

Robert and Eileen Matz*

Wendy and John Nasser

Nor'east Cleaners, Inc.^

Derek and Karen Reed

Sandra and John Ronan^a

John and Dawn Sarrouf*

Engagement Fund^

Dean and Elizabeth Salah*

Millriver Carpenters, Inc.*^

Stephen and Anna O'Connor

John Curtis Perry and Sarah Hollis

Andy Rosenberg and Marian Zeles

Silicon Valley Community Foundation,

Employee Engagement Fund

Robert and Amanda Spellman

Nathan and Cecily Spencer*

Bob and Carolyn Stewart*

James and Robin Towne*

George and Joan Waterhouse

Elaine and Douglass Webb'

Stanley Zapustas, Jr.*

Michele Amero*

Anonymous (2)

Applied Materials Foundation Employe

Kathy Hamilos*

Ellen Preston'

Jason Salony

Gloucester Pride Stride Commit

Tony Gross and Abbie Lundberg

Faria Rest Group, LLC

Kari and Jud Gale*

Engel and Volkers By the Sea^

Michael and Ramona Faherty

Barry Corden*

Katie Costa*

MAJOR DONORS (\$25,000+)

John and Mollie Byrnes* JMR Barker Foundation Cape Ann Savings Bank* The Dusky Fund*^

COMMUNITY LEADER (\$10,000-\$24,999)

J.J. and Jackie Bell* Kathleen and Kevin Clancy Mary Kay Dyer* Main Street Rockport Charitable Foundation

Institution for Savings* Richard Weiss and Barbara McLaughlin

SCHOOL SPONSOR (\$5,000-\$9,999)

Bruce J. Anderson Foundation* Janis and John Bell* Beauport Financial Services, Richard D. Wilson Marty and Michele Del Vecchio* David and Christina Raimo* Daren and Kim Sawyer

GRADE SPONSOR (\$1,000-\$4,999) Anonymous (2) Jennifer Goulart Amero and Ryan Amero

Edward and Mary Anderson

Annisquam Sewing Circle*/
BankGloucester*^ Jim and Chris Barker* Karen Bell and Robert M. Cox. Jr.8 John and Cynthia Bjorlie* Michael and Ann Mary Bresn Joe and Beth Calomo* David and Carole Campbell Cell Signaling Technology, Inc.*/
Diane Chen* Hal and Ginny Cogger* Jim and Judy Destino Brian Dovle Peter Feinstein and Miriam Weinstein Galen Gibson Scholarship Fund*/ Generous Gardeners* Harbor Cove Dental Pixie Harrington and Bob Gillis' **Godfrey Family** Ning and Steven H. Goodick' Douglas and Liisa Nogelo Keri Serena and Patrick Low* Stanley Marchant' Barbe and Larry Mave Roy and Shelagh McCauley* Kim McGovern and Frank Scherkenbach Christine L. McGrath and Patrick J. Salony* Sean and Erin McKay Leslie and Jay McNiff Stephen and Jean Muniz¹ O'Maley Innovation Middle School PTO^ Michael and Patricia Rosenblat Richard and Anne Rosenfeld* Rotary Club of Gloucester Deborah Sheedy Ed Shoucair and Kave Lynn Johnson-Shoucair Theda and Tamblin Clark Smith Family Val and Evelyn Somers Hoff and Lizel Stauffer

Anthony and Wendy Tarricone The Event Company* The Kreilick Family Foundatio Gary and Noell Wilson Fund

Charles Steiner*

Anonymous Suki and Fil Agusti* Rob Amory* Associated Charities of Glouceste Gregg and Nikki Bach* Brace Cove Foundation* Chris and Catherine Boucher

Robert and Judith Anderson Annisauam Village Players* Audrey's Flower Shop, Inc. Bay View Brotherhood Club, Inc. Beauport Hospitality Group William Bebrin Beeman School PTO*^ Selma Bell* Timothy and Diane Benastor David and Sally Benjamin Jonathan and Diane Bevin Elizabeth Bish, D.C.* Michael Boone Ronald and Andrea Bouchie Chester and Anthea Brighan Mary Brosnan* Julia P. Brotherton* Benjamin and Jill Brown Dale Brown and Curtis Gollrad David and Jill Buchanan Stephanie Buck* Building Center* Mary Burgarella* Barbara Buswell and Richard Rattray C.B. Fisk,Inc.*^ Maryellen Callahan Michael and Lavina Calomo Cape Ann Business Law, P.C. Cape Ann Museum* Cape Ann Pediatricians

Silicon Valley Community Foundation, Del Kathy Carusone Jim and Judy Caulkett* Cazeault Solar and Home LLC* Mamtha Chandru David Chantal Jochem Struppe and Frieda Grotjahn Dana and Ginny Cohen Trinity Congregational Church, Missions Bill and Betsey Colby Phyllis and Douglas Comea Richard and Caroline Connolly John and Polly Connors* Jeanne and Denis Conrov James and Amanda Cod Linda D. Cook* STUDENT SPONSOR (\$250-\$399)

Roger Corbin and Liz Serpa Robert and Deborah Crad Robert and Nancy Craig Anchor Capital Advisors, LLC*^ Bass Rock Golf Club*^ Matt Beach and John Lamirando

Karen Neva Bell* Kimberly and Stephen Buckle Jim Croke Rosalvn and Richard Gold* Bob and Lee Harper Jerry Enos Painting* Jerry and Pattie Goulart Fred and Deanie Johnson* JPL Landscapina Solutions., Inc. Kevin Littman* Long Beach Dairy Maid* Manchester Athletic Club* Marty Morgan*

John and Mary Ann McCormick Joseph and Heidi McGrath Carol B. McNeill* Richard Mills* Dean and Annette Murray Mark and Renee Olsei Jeffery Parsons* Kristen and Rob Parsons Deborah Paul Rob Russell

Mary Saunders Brian Scarlett David and Diane DeBono Schafer Laura and Kevin Smith Village Silversmith*

Anonymous (23)

Albano Electric Co., LLC*/ Natasha Gabriele Cliff and Tracy Alves* Jane Gagliardi* Kari and Jud Gale* Roger Garberg and Mern Sibley* Lucile Gatchell* Jonas Gavelis and Bonnie Sylve Rick and Martha Geraahtv GHS Interact Club*^ Irma and John Giglio lennifer Gillis* Patricia Glazer Gloucester House Restaurant Anthony and Samantha Goddes Eliat Goldman and Thea Chalov Saraent and Susan Goodchild Paul and Gretchen Goss Erica and Nathan Grace* James and Helen Greely Marcia Greenbaum Renata Greene Julie Gucciardi* Dorothy Haight Halibut Point Restaurant Jon Hardy and Alexandra Rhinelander Patricia Harrington David and Michele Harrison Karen and Jay Harrison Edward Hart and Anita Robbo Stephen and Dawn Heanue Ken and Patty Hecht Curtis Henderson Kerry Herrmann Mary Jo Holland* Frank and Loran Caputo* Laurie Horne* Thomas and Sharon Carsten Digne and Scott Horne Michael Ernst and Catherine Howell Fund Building Center, Inc.*^ Rebecca Imperiali Richard and Marcia Jansson Robert and Patricia Jedrey Mark and Jane Jenkins³ Calvin Johnson Miranda and Carl Johnso Steve and Herbie Johnso Martin Joyce-Brady Chuck and Kristine Karvelas Eileen Kelley* Karen Kenny and Philip Chase John and Erica Keyes* Clifford King and Catherine Rva Debi and Ed Kina* Peter and Karen Koch-Wese Bruno and Barbara Kozel Paul Kronish Kuhns Family* Peter and Pam Lane Tom and Grace Lattof* Laundry Agency[^] Charlotte Leavitt Joann and Rob Leavitt*

Nancy and Mike Leavitt

Anne Letendre-Talbot

Karen Lee

Roger Lee, Jr.

Steven Lewis

Teresa Lord

Beth Lott

Carol C. Linsky*

Jackie Littlefield

Marianne Lufkin³

Sheila Lummis*

Jason Machado

Noel Mann*

Mary-Helen Macleod

Mark Adrian Shoes*^

Barbara Markell*

Barbara McCarthy

John and Aria McFlhenny

Adah Marker*

Matt and Rosemary Lundberg

Carlton and Patty Macauley

Mustafa Malik and Sadaf Aia

Marshall Landscape Supplies

Long's Jewelers^

Joan Ross Cummiskey Peter Cunningham Phil and Mary-Alice Curcuru Phil and Eve Cutter Karen Dane and Ames Steven Deborah Coull Salon Chris and Jane Deering Richard and Myra Denta Steve and Dawn Dexter Cathy and Stephen Doe Amy and Martin Donnelly Driftwood Charcuterie Dennis Dver William and Barbara Dye Debbie and Bill Ebeling* Marilvn Edwards Todd and Francine Elliot Surrey and Rob Elwell* Michael Ernst and Catherine Howel Ronda Faloon and Rob Chandler Bill and Lyn Fenollosa Susie Field and Bob Heineman Guv and Andrea Fincke³

Foster's Grill Store*

Jim and Lynne Frick*

Tieh C. and Leslie Friday

Cathy and Mark Fulford

Nancy Fraga

Grace Frost

Marion Frost*

Michael Francis

Helene French*

Jessica Moran Philip Muller James Nagle Liz Neumeier' **Breann Nunes** David Nunes Dana Olson Ethan Patrick Paypal Giving Fund[^] Beverly Hospital[^] Philpott, Doyle and Company, P.C.* Tim and Michelle Philpott Ralph and Renee Pierce* Plum Cove School PTO*^ Jonathan and Susan Pope Mike and Marnie Powers' Danielle Pratl Wesley and Rebecca Prevost Nora Priest' John and Angela Quince Mauricio and Jackie Quiro Ken and Bonnie Randall Martin and Kay Ray Lisa Reynolds Christopher and Heidi Riccio Thomas and Muriel Richards Ben and Courtney Richardso Matthew and Sari Rochford Rockport Music, Inc.*^ Linda and Bucky Rogers* Ron Ross and Mary Benhai Denise Rouleau' Arthur Rvan Bob and Debbie Rvan* Stephen Sacca and Janet Ulwick-Sacca Debra and Brian Salah Kelly and Steven Salah Schooner Adventure Terry Philip Segal* John and Joanne Senos **Shatford Family** Fred and Lauren MacDougall Johnson Mary Anne Shatford Pauline Sheedy* Peter Short Mr. and Mrs. David W. Slade Bruce and Kathy Slifer* Allyn and Jeanne Smith* Benjamin and Julie Smith

LeeAnn and Allyn Smith

Kristine Stellato

Southeastern Asset Management Inc.

2018-2019 Contributers

Paul and Catherine McGeary Lester Stockman Kelly Stockwell Dennis McGurk* Roger McNeill Naomi Stonberg* Gail and Eric McNiff* Margaret Strescin Leslie and Jay McNiff Don and David Sudbay Sugar Magnolia's*/ Mary Rhinelander Richard and Jennifer Messier Gregory and Lisa Sweatt Nicholas and Bonnie Michalisia Jack and Marie Swee Fern Miller Marilyn and Larry Swift **Betty Mitchel** Bruce Tarr Bonnie Mitchell Alison Monell Rosalia Testaverde Amy Toran Dan and Beth Morris* Travelers Community Connections Movement Arts Gloucester MA, LLC' **Daniel Tuck** Legra and Josh Ulrich Sean and Colleen Murdock Veterans' Memorial School PTO Chris Viegaard Sharon Murtaugh Kevin Vieira Charles and Stella Nahatis Conrad Vitale Greg and Stevie Neal* Grace Wall* Stephen and Erika Wall Nicastro Family Alexander Webb John and Grace Nicastro Wellspring House West Parish School PTO*^ Matthew Noce Tim and Annette Nolan Michael and Candace Wheeler Dorcas and Peter Norton Jim and Tess Whitmore* Grace Novello Randy and Heather Widtfeld Grace and Giuseppe Numero Lisa Wilson Maria Wilson Elizabeth O'Connor-Burke Winnisquam Park Association Brenda O'Leary Bruce and Ellen Wrigh Alicia and Mike Oliver Tom and Kristin Zarrella Millie Zinck Wayne and Glenda Zink* Jerry and Bonnie O'Neil* Stephanie and Randy O'Neil Bobbi and Ben Orlando* **MEMORIAL DONATIONS** Leonard and Patricia Orland O. Vincent Cafass Elaine and Thomas Paradis Dr. Jan Koch-Wese Matt and Christina Parisi* Janet Rattray Ryan and Agustina Parsons Felicia Sheedy Brian Tarr Vinay and Sangitu Patel

Barbara J. Wilson

HONORARY DONATIONS

Ruth Flaherty Tina Bowling Karen Kenny and Krysta Houghton Kurt Lichtenwald Erin Schondelmeier, Stacy Alexander, and Caro Maria Polizzia, Meaghan Ganley, Jonathan Levine, Jennifer Ripley Mrs. Hand, Mrs. Montgomery

Geoffrey Kennedy, Fraser Wat Jim Unis, and Philip Cook Kim LaCoste and Dawn Burke Lynn Salah Mr. and Mrs. David Campbell

Yvonne LeBlanc Ellen Link, Dirigo House Teachers, Brett Dunton Ann Grassetti, Kimberly Trigillio, Eric Leigh, Mrs. Salah, Mrs. Boland and Mrs. Hugh John Whitmore, GHS Class of 2015 Carol Cafasso

Kimberly Trigilio John Moses Linsky Herbert and Ellen Ross Serena Low Granchildren of June Steel

IN-KIND DONATIONS

The Event Company Duckworth's Bistrot Gib and Sarah Carey Willow Rest Roy Spittle Electric North Shore Arts Associatio Surfside Subs & Pizza/Lona Beach Dairy Maio

Cape Ann YMCA Cape Ann Cinema Winning Solutions

* Indicates 3 or more years as a GEF donor ^ Indicates business/organizational donor

and 3/31/19. We make every attempt to ensure accuracy, please let us know if we have made an error or inadverten

CONTRIBUTOR (UP TO \$249)

WWW.THINKTHEBEST.ORG



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 it 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"

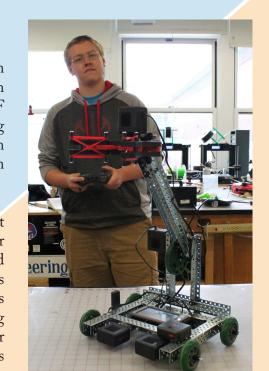
Funding from GEF's generous donors has brought about a major upgrade in the way that Gloucester High School students are able to explore physics—often called "the basic science" because it underlies many the other scientific fields of study. Students now have access for six years to two on-line homework 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 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."



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.





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

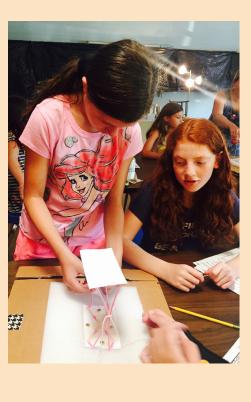


MAKING THE STEM TENT LARGER

The Goal

What is your objective?

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 selfguided 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.



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



O'Maley students immersed themselves in a key part of Gloucester's cultural heritage when local artist Mary Rhinelander visited the arts classroom for a workshop series in printmaking. Part of GEF's Artistic Bridges program in collaboration with the Cape Ann Museum, the project introduced students to the history of printmaking in their community, in particular, the work of Gloucester's own Virginia Lee Burton and the Folly Cove Designers. Students experienced the craft of printmaking, using the original Acorn Press once employed by the Folly Cove Designers and which is on loan to the school by the Manship Artist Residency Program in Gloucester.

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 everpopular robotics demonstration at City Hall. Capping the event were stellar performances by the O'Maley Jazz Band and the Docksiders, 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.