Partnership Grants 2013/2014
Dear Supporters,

What an amazing year at the Newburyport Public Schools! Thank you to all the businesses, community organizations, and educators that collaborated on providing enriching experiences for the students. These opportunities inspire our students to think beyond the walls of the classroom and may potentially impact their career paths. The purpose of the Newburyport Education Foundation (NEF) Business Coalition is to build relationships for applied learning.

For more than 24 years, the NEF Business Coalition has been collaborating to enhance our schools’ curricular objectives through activities such as development and funding business partnership grants, internships, classroom speaking engagements, involvement in school projects/events, company site visits, and more.

Please join us in making our 25th year the best yet! Do you have a business or skill that might be a good fit for our students? Are you a teacher that has an idea but need help partnering with a business? We want to hear from you! Please contact Heather Hansen, Business/School Liaison, (hhansen@newburyportef.org) for more information.

Again, thank you for continued generosity and support!

Megan Ashe
NEF Business Coalition Chairperson

Visit the NEF Business Coalition website to start your collaboration:
or contact Heather Hansen, Business/School Liaison, at hhansen@newburyportef.org
I have been involved with the NEF Business Coalition Partnership Grant Program for more than 10 years. It is one of the most rewarding things that I am involved in. Connecting educators and their students to real-world experiences through a collaboration with businesses and community organizations in our community can enhance our student’s education beyond the classroom. I encourage any individual or business who wants to get involved to become a partner and make an impact on our students in a whole new way.

~ Scott Eaton, Senior Vice President, Newburyport Five Cents Savings Bank
Partnership Grants

The Partnership Grant Program is the heart of the NEF Business Coalition. The Partnership Grant Program connects teachers and business partners who then work together to create meaningful educational experiences that allow students to see how their skills apply to the world of work. The program integrates the standards-based curriculum content with work-based skills that provide an authentic learning experience.

Partnership Grant Program Benefits

For Students:

• The curriculum and their experiential learning become more relevant by understanding the application in the real world.

• Fosters a higher level of student engagement in their learning which in turn enhances their access to the curriculum.

For Teachers:

• Provides opportunities to expand their capacity by working with experts in their fields.

For Business Partners:

• Create a spark of interest for students – perhaps help them in finding their passion.

• Meaningful way to give back to the community.
Program Goals and Achievements

The Adaptations and Immigration program was designed to meet fourth grade standards for immigration (social studies) and adaptations of living things (science) in a way that engaged students with the rich resources of our area. The class partnered with Historic New England to pilot a new offering at the Spencer-Peirce-Little Farm focused on the Stekionis family. The Stekionis family became the touchstone for discussions in the classroom, connecting the sterile steps of the immigration process to real people, our neighbors.

The class continued a long standing partnership with Mass Audubon's Joppa Flats Education Center to customize the field experience to science standards: classification, physical adaptations of plants and animals, and observation in a natural habitat. Mass Audubon also facilitated the collection of live periwinkle snails for observation in the classroom. Imagine the excitement of our young scientists and historians as they explored these field experiences!

Students were able to see, touch, and hear that which would otherwise be presented in a book. These experiences truly took root in the students and made history and science come alive in a new and wonderful way in the classroom.

Students are now in the process of creating physical adaptations, as well as utilizing the engineering and design process, that will help incoming third graders adjust to their “immigration” to the Molin School.
Program Goals and Achievements

The animal habitats featuring aquatic and terrestrial animals continue to thrive at the Bresnahan Elementary School. Each year this grant has made it possible to add new habitats to classrooms and administrative space. Students view habitats throughout the school and interact with the habitats on a consistent basis through our science, literacy, and writing curriculum. Al Hom, owner of Village Pet Shop, continues to maintain, update, and provide advisory assistance to all of the habitats. Mr. Hom’s expertise is greatly appreciated as is the amount of time he provides maintaining these habitats. The Bresnahan School, NEF Business Coalition, and Newburyport community should be very proud of the exhibits and experiences provided to students.

This year the Bresnahan School welcomed two new animals to the school community. Mrs. Trail’s third grade classroom now hosts a tarantula habitat and Mrs. Ahern’s first grade classroom hosts a leopard gecko habitat. The grant for this year helped maintain, feed and update all of Bresnahan’s current habitats that are located throughout the school.

Funds from the grant supported the purchase of informational texts for 30 Kindle readers acquired for the library. The digital informational texts connect to the habitats and allow students to conduct research about the animals hosted at the Bresnahan School, extending the student’s learning, through technology, to habitats beyond our school walls.
Aquaponics - Sustainability Project

**Program Goals and Achievements**

It has been an exciting few months since the NEF Business Coalition funded the Aquaponics Project in January. The aquaponics system is designed to grow edible fish and use the fish effluent to fertilize edible vegetation. Currently there are 32 tilapia housed in a 100-gallon tank and several vegetable seedlings growing in two grow-out beds. The system was entirely constructed by a group of ten students after school. This same group of students has been volunteering their time after school to help monitor water quality, fish health, and fish growth. In addition, approximately 115 students have been introduced to the project through discussions and introductory observations.

Our partner, Gulf of Maine Institute (GOMI), has been instrumental in helping with the water quality piece of this project. GOMI provided the project aquatic probes and a wet chemistry test kit. This has been a vital resource as students try to maintain stable water quality within this unestablished aquaponics system. The most exciting part of this project thus far has been watching this group of freshman biology students do all the work, continue to come back, and love it. The next step of the project is to incorporate the project into the curriculum to inspire all of the high school's biology students.

**Grade Level: 9 & 12**

Newburyport High School

**Educator**

Erin Hobbs

**Business Partner**

Gulf of Maine Institute

**Grant Award**

$3,686
Program Goals and Achievements
Symmetry Tile Works brought a mobile printing studio to the Brown School to allow all kindergarten students to explore printing techniques using clay and textural stamps and create tiles that celebrate nature and sustainability. The workshop emphasized the student’s current curriculum and focus on sea life. The students were provided with a practice slab of clay before creating their final piece which was taken back to the studio to be dried, glazed and fired, then returned to the students to take home.

Grade Level: Kindergarten
George W. Brown School

Educator
Melissa Duguie

Business Partner
Symmetry Tile Works

Grant Award
$2,077
Community Through Art Education

Grade Level: 9–12
Newburyport High School

Educators
Aileen Maconi & Mary Rakoski

Business Partner
Newburyport Art Association (NAA)

Grant Award
$1,400

Program Goals and Achievements
The Community Through Art Education project partnered Newburyport High School students with the educational resources and the professional artists of the Newburyport Art Association (NAA). Students learned about professional artists’ works via art exhibitions at Newburyport High School’s Portside Gallery. NAA artists shared with students their artistic concepts, process, and aesthetic choices. Students also participated in hands-on art making opportunities during three artist workshops, two held after school at the high school and a third during a fieldtrip to Maudslay State Park.

According to the Massachusetts Visual Arts Framework, an effective arts curriculum provides opportunities for students to make connections among the arts with arts resources in the community. This grant met the challenge, offering more than 100 students a chance to learn from and create with professional artists of the NAA.
Creative Walls

Program Goals and Achievements

The visual art program at Newburyport High School (NHS) has made a commitment to provide all students with the richest art experience possible. One way to build art appreciation, foster creativity, recognize student achievement, make community connections, and create a warm inviting learning environment for all NHS students is to make the walls of NHS alive and welcoming through student artwork. To this end, NHS partnered with the Newburyport Art Association (NAA) for the Creative Walls project.

Working with the NAA, students learned about gallery design, hanging systems, and exhibiting artwork. Students and faculty then designed a new gallery space in the hallway of the art wing at NHS. New wall colors were selected and a professional hanging system was installed. Since completion, artwork has been on display in this area every day.

NAA artists also donated their time and expertise as students began to create two new murals for the visual art wing and for the music room at NHS. Located in a basement corridor with little light, this area especially needed the brightness of color. Inspired by street artist MOMO, students have begun a mural that is abstract like jazz, has color like salsa, and flows with rhythm and movement.

The Massachusetts Visual Arts Framework emphasizes making connections among the arts with arts resources in the community and this project did just that. More than 20 students participated in the design of the new Art Wing Gallery at NHS, more than 100 students have exhibited work in this space this year, and all students who walk through these halls have enjoyed the professional display of student work. In addition, 12 students have worked on the wall murals which are inspiring music and art students at NHS.

Grade Level: 9–12
Newburyport High School

Educator
Aileen Maconi

Business Partner
Newburyport Art Association

Grant Award
$1,200
Early Settlers: Migration and Adaptation

Program Goals and Achievements

In this multi-disciplinary, applied learning approach to teaching and learning, fifth graders studied early American history beginning with the earliest explorers, learning about why they left their homelands and how they developed the tools that allowed them to travel across oceans. Students examined early English settlements up to the Revolutionary War, the formation of our government, and then proceeded to explore the adaptations of living things that allowed the settlers to survive in diverse ecosystems.

Beginning with a visit to the landing point of the first Newbury settlers (the Newbury Lower Green where the settlers built their community) and the Coffin House, teachers from Historic New England led students in the exploration of what the settlers needed to survive. They discussed why John Parker chose this location, what the area might have looked and sounded like at the time of the settlement, what the natural surroundings may have had that the settlers needed, and what life was like for children at the time. Students then used ideas from this experience to write reflective narrative stories.

The second part of the unit was spent learning about both the historic importance of the salt marsh and the major role it had in the life of the early settlers. With the help of Mass Audubon’s Joppa Flats Education Center, students learned...
the science of the ecosystem from the perspective of the plants and animals that have adapted to survive in the salt marsh habitat and the human impact on the salt marsh, comparing conditions past and present. Students also visited Plum Bush Downs and Joppa Flats, using maps to orient themselves to their surroundings and familiar locations.

As the students continued their studies of colonial life and the causes and effects of the American Revolution, understanding the importance of the salt marsh, past and present, lead them to explore the importance of the harbor in the evolution of Newburyport as a major shipbuilding center and its eventual involvement in the Revolutionary War effort. At the request of George Washington, some of Newburyport’s prominent merchant ship owners agreed to outfit their ships for battle against the powerful British Navy, a practice known as privateering.

The class completed its studies by writing an historical fiction story supported by a program at the Spencer-Peirce-Little Farm called “In Search of a Story” which is based on the life of Offin Boardman, a famous Privateer.

Exploring the Conservation of Energy

Program Goals and Achievements

Under the direction of chemists from Strem Chemicals, eighth graders at the Nock Middle School were able to build their own solar cells. Students engaged in this hands-on activity in order to explore some complicated physical science concepts, such as the law of conservation of energy. The chemists also discussed the role of potential and kinetic energy in relation to the building and usage of solar cells. This activity was also culturally relevant as students were able to explore an emerging type of “green energy” that is being increasingly used in the United States.
Program Goals and Achievements

Fit for the Future Program partnered with CrossFit Full Potential to introduce students in grades four through eight to a wide variety of exercises using rounds and interval training using a CrossFit clock. Using pictures and videos recorded on iPads, students studied the appropriate techniques for the exercises. Students also used the iPads to record their fitness scores for the FitnessGram assessment used for the Presidential Youth Fitness Program.

The program connected to the curriculum framework by applying the basic principles of training and appropriate guidelines for improving immediate and long-term physical fitness. The program also explained the personal benefits of making positive health decisions and monitor progress towards personal wellness.
Program Goals and Achievements
Fifth graders explored how Newburyport’s harbor has changed over the years and the impact it has had on the community. Students studied the rock cycle, weathering, and erosion to investigate how changes in the Earth’s surface can occur over varying periods of time, with the examples of the “Old Man in the Mountain” in New Hampshire and the changes in the landscape of Plum Island and Newburyport harbor. Students learned about watersheds and identified that Newburyport is part of the Merrimack Valley Water Shed so anything that is eroded or washed into the Merrimack River can eventually end up in the harbor.

Using old maps of the area and a range of satellite images, students saw the changes that have occurred over the years and the human efforts made to repair and control the changes made by natural forces.

Students went out in the field to observe the island and beach using old maps and pictures for comparison. They observed the beach at the mouth of the river and looked for signs indicating changes in the beach coming into the harbor.

Students finished with an activity on the beach where they created model shorelines in paint roller trays and experiment with simulated tides of varying force on shorelines composed of different combinations of materials and varying slopes. The students independent work in the field was based on an earlier guided lab activity, where students decide on the design, make a prediction, and record results.
Program Goals and Achievements

Preschoolers explored the concept of measurement through a wide array of cooking activities, art projects, manipulative play, and interactive read-aloud stories. The lessons were designed by the teachers at the Brown School to align with the new standards for pre-kindergarten from the national Common Core curriculum. In May, the preschoolers walked to Orange Leaf to measure up some delicious treats.
Ocean Drifters

Program Goals and Achievements
As parts of the Global Ocean Observing System, drifting buoys (drifters) float in the ocean and move around the world via surface currents.

The purpose of this project was for middle school students to understand the mechanisms which cause ocean currents. Ocean drifters are used worldwide to measure variables related to the ocean such as wave amplitude and period, wind speed, current, temperature, and salinity. The drifter was deployed with a transmitter which communicates with a satellite in geosynchronous orbit. Four daily transmissions are collected from the buoys in order for students to get an intimate profile of the subtleties of ocean current and to make predictions based on historical data regarding the path of their classroom buoy. They learned that ocean current is affected by the wind, tides, Coriolis Effect, convection currents, and turbulence. Two “drifters” were launched in early May and will be actively transmitting signals well into 2015.

Grade Level: 8
Rupert A. Nock
Middle School Educator
Brad Balkus
Business Partner
Gulf of Maine Institute
Grant Award
$1,500
Program Goals and Achievements

All 7th grade students participated in a guided kayak tour with Plum Island Kayak to observe the estuarine habitats along the Merrimack River, Joppa Flats, Plum Island, and the Great Salt Marsh as part of a science place-based education unit.

This place-based cross curriculum unit of study has a main focus on life sciences, particularly ecology, environmentalism, and conservation as they apply to the Gulf of Maine bioregion including the Merrimack River Watershed and the Great Marsh. The kayak tour allowed students to truly experience the estuarine parts of the Gulf of Maine bioregion.

During the four days of the trip, all 7th grade students experienced a day on the water where they learned necessary techniques and skills to kayak and also observed and sketched the estuarine habitats and wildlife. Our partnership with Plum Island Kayak is essential to running these excursions. Plum Island Kayak provided the equipment and experienced staff to make this trip possible.
Poetry Soup

Program Goals and Achievements
Throughout the year, Newburyport High School students gathered at the Jabberwocky Bookshop and the Kelley School Youth Center to share poetry. They read their original poetry and listened to the work of guest speakers, as well as Newburyport High School alumni. The meetings ended with a question and answer period, sometimes followed by music, when students brought their guitars, or held a spontaneous “haiku battle.”

At the end of the year, students put together Poetry Soup Magazine, which provides our young poets an opportunity not only to get published, but also to be read alongside some very prominent contemporary writers, such as Rhina Espaillat, Alfred Nicol, and Richard Wollman. It also serves to keep a connection with alumni, some of whom still enjoy contributing to the magazine, even after graduation. The NEF Business Coalition Partnership Grant provides funding for the printing of the magazine.

Student editors make all the decisions necessary to print this first-rate literary magazine, including design, layout, and photography. After contacting the supportive staff at Minuteman Press, students proofread, edit, price and send out the final copy – then proofread the proofs. In other words, they do the job of magazine editors and publishers in real life.

Grade Level: 9-12
Newburyport High School
Educator
Deborah Szabo
Business Partners
Jabberwocky Bookshop,
Newburyport Youth Services
& Minuteman Press
Grant Award
$675
Program Goals and Achievements

In sixth grade chorus, students use their musical knowledge to sing songs from across the world and throughout history, and they create their own songs focusing on the here and now in the Newburyport community. The album “Rocking the Community” is made up of six original tracks written about the different aspects of living in a community.

To create their album, students explored the elements of songwriting and participated in community discussion about topics that were important to them. Each class voted on a topic for their class song. Then each student wrote their own song and as a class they mixed-and-matched different ideas to include their individual lyrics into one class song. Students then worked in smaller groups to fine-tune the lyrics and create the melody. It was a long, collaborative process that involved teamwork, patience, and creativity.

The students collaborated with The Musical Suite and PortMedia which allowed them to experience the recording process firsthand. Engineers Chuck Walker, Andrew Love, and Dan Searl introduced them to the terms, equipment, and recording procedures. The students then recorded their original tracks with studio microphones and heard their songs mixed, mastered and validated on professional recording technology. The project itself was a true testament to how wonderful a community can be. This was a true collaborative effort to support our young musicians.
Salt Marsh – Threatened Ecosystem

Program Goals and Achievements
The Salt Marsh - Threatened Ecosystem project engaged students in comparing two distinct ecosystems in Newburyport: Moseley Pines and the Great Salt Marsh. Further work involved the students conducting research to understand the ways that the salt marsh is threatened and how they can be stewards of this important resource.

With this project, students went out into the field where they first were able to listen to naturalists talk about what they were seeing and then ask questions. The questions that students ask in the field are genuine and directly related to what they really want to know. Later, in the classroom, students researched and gathered information based on what they had seen and wondered about. The project integrated literacy, math, and time management skills.

Grade Level: 5
Edward G. Molin
Upper Elementary School

Educator
Lauren Eramo

Business Partner
Merrohawke Nature School

Grant Award
$1,495
Program Goals and Achievements

The primary goal for the Timeless Treasures project was to inspire young writers to endure the hard work required to produce a well-crafted writing piece. The secondary goal was for students to take an active role in creating a time capsule that captures the lifestyle of children in the year 2014. The time capsule will be buried in the fall of 2014 on the grounds of the new Bresnahan School. The hope is that students will dig it up in the future and enjoy seeing their written work, illustrations, photos, and artifacts.

For the time capsule project, students submitted their best writing samples from third grade. The time capsule also includes artwork by the students, photos, and several artifacts that they chose to represent the year 2014.

Author Donna Seim and Illustrator Susan Spellman visited the classroom to share with students the incredible amount of work that went into the writing and illustrating of their young adult novel, Charley. Students heard, firsthand, how challenging writing can be. They also learned how rewarding it can be and were inspired to work hard as writers. Knowing that their writing will be included in a time capsule gave them a purposeful focus for editing and revising their work. They are looking forward to returning to the Bresnahan School for the opening of the time capsule to enjoy viewing their hard work!
Yoga and Mindfulness Program at the Molin School

The Yoga and Mindfulness Program included six weeks of classes for students, six weeks of classes for staff, a small group field trip to Roots to Wings Yoga & Healing Center, and a family yoga night. Students and staff were provided access to a proven intervention to improve academic and social performance. Through yoga, children have fun while learning to better manage their behavior and feelings.

This year, 12 classrooms participated in the yoga sessions facilitated by Candy Blaxter, a certified YogaKids trainer, and Beth Houlihan, co-owner of Roots to Wings Yoga & Healing Center.

Through the grant, teachers have increased access to sets of YogaKids cards to utilize throughout the school day to promote movement, concentration, and emotional regulation in the classroom. Yoga poses and mindfulness exercises are being integrated into teacher’s morning meeting practice and to facilitate transitions between activities on a more frequent basis. Of note, this year the yoga program was implemented in the six weeks prior to MCAS testing and many of the sessions provided students with the opportunity to practice poses and guided visualizations that alleviate test anxiety and increase concentration.

The advantages of this partnership and program implementation will likely have a lasting effect; the skills that yoga teaches are easily transferable from school to home to the workplace.

Grade Level: 4 & 5
Edward G. Molin
Upper Elementary School

Educators
Maggie Flaherty,
Erin Rich & Kate Gavora

Business Partner
Roots to Wings Yoga & Healing Center

Grant Award
$1,950

“I like to do yoga at school because it calms you and makes you more aware.”
~ 5th grade student

“Through the lens of occupational therapy, I am so grateful for the NEF Business Coalition support of the Yoga and Mindfulness program. All students benefit from the inclusive and positive engagement that yoga in the classroom provided. It gives students an opportunity to improve motor planning, focus, attention, and overall well-being and empowers teachers to provide these opportunities in their classrooms.”
~ Erin Rich, Occupational Therapist
Special Project
Newburyport Gulf of Maine Institute Team (GOMI), The Pepperweed Project

Program Goals and Achievements

The NEF Business Coalition continues to support the Newburyport GOMI team, a committed group of NHS students who help raise environmental awareness in the community and throughout the Great Marsh region. The group’s objectives are to raise awareness of environmental issues through education and outreach, and to locate, educate, and help eradicate the invasive species perennial Pepperweed.

The group serves as appointed representatives to 8 Towns and the Bay (8T&B), a regional environmental board of coastal Essex County communities. In this role, they have mapped the presence of Pepperweed in the Great Marsh, inspired the Parker River Refuge to hire an invasive species coordinator to oversee control efforts, and coordinated student volunteer efforts at NHS. This past school year, the team continued to teach Watershed, Climate Change, and Local Environments classes to groups of 7th graders at the Nock School. They also worked with principal Michael Parent to provide leadership in an expanded community service effort at the high school.

This past year marked the fourth year the team has collected water quality data, in partnership with the Merrimack River Watershed Council, at four sites in Newburyport. Funding for this project came from the Newburyport Bank. The team is hoping to expand that study into a "Safe Beaches" program that would test river sites that are used for swimming from boats.

With a grant from New England BioLabs, the GOMI team has also taught Climate Change classes to the public in a program at the Parker River Refuge, and to other GOMI teams in the annual New England GOMI mini conference.

This spring several GOMI students partnered with the Parker River Clean Water Association to help monitor and count endangered alewives in the Parker River. GOMI teams act locally yet think bio-regionally. We will continue to help move Newburyport student education beyond the confines of the community to a bioregional perspective.