



Partnership Grants

2011/2012



Newburyport
Education
Foundation



Business Coalition

Message from the Chair

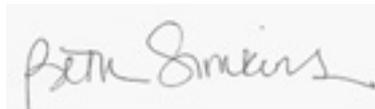
Dear Friends,

Since 1990, the Newburyport Education Foundation (NEF) Business Coalition, formally known as the NEBC, has been collaborating to enrich 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.

The Business Coalition has had another rewarding year watching partnerships grow between Newburyport businesses and the schools. Through the Partnership Grant program, several motivated businesses and energetic teachers have come together and created some amazing learning experiences for our students.

As you can imagine, a group such as the Business Coalition is only as successful as its participants. Without motivated businesses and energetic, creative teachers working together we wouldn't be able to put these successful programs together. And successful they are!

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 needs help partnering with a business? We want to hear from you! Please contact Heather Hansen (hhansen@newburyportef.org) for more information.



Beth Simkins

NEF Business Coalition Chairperson

Visit the NEF Business Coalition website to start your collaboration:
<http://www.newburyportef.org/business.shtml>
or contact Heather Hansen at hhansen@newburyportef.org

Partnership Grants

The Partnership Grant Program is the heart of the NEF Business Coalition. The program joins business partners with teachers 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 connects the standards-based curriculum content to the skills that relate to real life experiences. As a result, students have chosen the specific fields explored through the partnership program as careers.

The NEF Business Coalition strives to maintain strong links and ongoing collaboration between our community's businesses and our schools' educators. These collaborations support and enrich our schools' curricular objectives through activities such as development and funding of business partnership grants, internships, classroom speaking engagements, involvement in school projects/events, company site visits, and more.

Our Community: An A-Z Guide of Health & Safety

Program Goals and Achievements

To create our book, children brainstormed a list (from A to Z) of people, places, and items in our community that help to keep us healthy and safe. The list was made through a shared writing process where children shared the pen with the teacher (i.e. writing known words and sounding out unknown words). This list was then used to guide our learning on safety in the community.

Throughout the year, we invited community workers into our classroom and went on walking field trips. Each visit taught us more about our community and its resources. We took photos and drew pictures to create the images throughout the book. The final product was printed at Zip Type Printing Services.

Grade Level

Kindergarten
G.W. Brown School

Educator

Melissa Duguie

Business Partner

Zip Type

Grant Award

\$1,500

Artist In Residence

Grade Level

Kindergarten
G.W. Brown School

Educator

Melissa Duguie

Business Partner

Artist
Robert Rossell
Symmetry Tile
Works

Grant Award

\$2,050

Program Goals and Achievements

After exploring eco-textural stations with artist Robert Rossell, the students used clay and textural stamps to create tiles that celebrate nature and sustainability. The tiles were then fired in the kiln and returned to the students to keep.



AP Environmental Science visits Parker River Wildlife Refuge and the Wastewater Treatment Plant

Program Goals and Achievements

Advanced Placement Environmental Science covers a broad range of topics including Earth Science, Ecology, Human Population Dynamics, Land and Water Use, Energy, Pollution and Global Change. Students who take the course have varying levels of interest in the many different subjects that we discuss under these headings. They learn about environmental issues affecting the United States and the world and whenever possible, to what extent these topics are relevant locally. There are twenty six students enrolled in the course this year and many had never visited the Parker River National Wildlife Refuge and none had ever visited their local wastewater treatment plant!

On a three hour guided visit to the Refuge, our guides discussed exactly how so many important environmental science topics covered in the course are critical issues affecting the Refuge. Students measured the slope of the beach as they learned about erosion, observed migratory ducks as they digested theories about the effect of methyl mercury on their mating habits, deepening their knowledge of invasive species. They gained an appreciation for the work that has gone into preserving this important piece of federal land which connects Fly Way habitat for many species of birds and the general mission of U.S. National Refuge System.

The trip to the Wastewater Treatment Plant was directly related to the curriculum of the course as well. Employees of the plant were prepared with a very informative presentation and a guided tour of the new facility. Primary, secondary, and tertiary treatment was discussed in detail with the students gaining a greater appreciation for the valuable work that goes on at the facility. Many students expressed that they previously did not know of the plant's existence or functions. They were impressed with the substantial effect that the treatment plant has on the water quality of the Merrimack River.

Grade Level: 11-12

Newburyport High School

Educator

Sheila King

Business Partners

Parker River
National Wildlife
Refuge

&

City of Newburyport,
Department of Public
Service, Water
Division

Grant Award

\$650



Bat Houses

Grade Level: 5

Rupert A. Nock
Middle School

Educator

Brad Balkus

Business Partners

Keiver Willard
Lumber Company

&

Mass Audubon

Grant Award

\$1,500

Program Goals and Achievements

The North Shore of Massachusetts supports some of the most incredible and unique natural resources in the country. Nature enthusiasts from around the globe visit our area and wonder at the health, abundance, and diversity of our local ecosystems. Bats however, a major participant in the critical cycles of our local ecology, are under threat and in serious decline. White nose syndrome, loss of habitat, climate change and environmental degradation are threatening the future existence of all hibernating bat species in North America. Some areas of the northeast have experienced an 80% decline in bat populations over the past two years.

Partnering with Keiver Willard Lumber Company and Mass Audubon, the technology engineering program at grade five worked to increase student awareness of bats in our local and global ecosystems. Our focus was on: preserving local bat habitat, threats to bat populations, and the effects of bat disappearance on humans. Students learned and used the engineering design process, CAD (Pro-Engineer), and materials tools and machines to design, build, and place bat boxes to help sustain our local bat populations and keep our local ecosystems healthy.

Composition of Matter & Phase Transitions

Program Goals and Achievements

The purpose of this collaboration with Strem Chemicals was for our students to observe phase changes, and more specifically, the formation of a vacuum. We spent about five weeks during the school year discussing the basic properties of matter. This demonstration brought a much needed hands-on component to our classrooms and allowed students to see complex phase changes. The demonstration designed by Strem Chemicals was age-appropriate, engaging, and highly informative. Most importantly, this collaboration allowed our students to interact with real scientists and helped develop a growing enthusiasm for the subject matter.

Grade Level: 8

Rupert A. Nock
Middle School

Educators

Kristen Quinn
&

Mary Kate Allen

Business Partner

Strem Chemicals Inc.

Grant Award

\$1,300



Counting Makes ‘Cents’

Grade Level

Kindergarten
G. W. Brown School

Educator

Melissa Duguie

Business Partner

Institution for
Savings

Grant Award

\$1,500

Program Goals and Achievements

Students learned about the concept of money and then took a walking field trip to the Institution for Savings. There they learned about spending verse saving and saw where the money is kept. Students then returned to the classroom to apply their knowledge with math manipulatives, games, stories and activities.



Our Glorious Tea Party

Grade Level: 4

Edward G. Molin
Upper Elementary
School

Educator

Patricia Levitt

Business Partner

Carry Out Cafe &
Catering

Grant Award

\$240

Program Goals and Achievements

Following an interactive read aloud and literature discussion of the *Chronicles of Narnia: The Lion, Witch, and Wardrobe* by C.S. Lewis, Mrs. Levitt's 4th grade class attended an elegant and delightful formal English tea party as the culminating event. Under the expert direction of Paula Simpson, owner of Carry Out Cafe, students planned the menu, participated in the preparation of the tea party food at the Carry Out Cafe commercial facility, polished the silver, and dressed the tables for the party. On the big day, students donned their best finery and exhibited exquisite manners. To chronicle the event, the children wrote the script and narrated a video of their tea party experience. Additionally, the class wrote a 4th Grade Tea Party poem to be included in their personally-bound poetry books. The entire project allowed students to apply their growing skills in reading comprehension, writing, the mathematics of fractions and measurement, technology, and appropriate social demeanor. The culinary treats were delicious in their dainty form and a wonderful time was had by all.

Healthy Me!

Program Goals and Achievements

Our goal was to utilize health professionals from the community to support our thematic health and nutrition curriculum for the five preschool classes at the Brown School. Our focus was on healthy eating, exercise, safety, dental health, and hygiene. This unit supports curriculum standards from the National Core Curriculum and the health and wellness policy from our district. Dr. Anne-Marie Clancy from Newburyport Dental Associates conducted a dental health presentation to all classes, demonstrating proper brushing and flossing as well as discussing foods that promote dental health. Dr. Clancy distributed a tooth care package to each of the preschoolers. Sheryn Seale from Chartwells School Dining Services also presented the U.S.D.A.'s "My Plate" initiative, which demonstrates the quantity and variety of foods necessary for a balanced diet. Ms. Seale brought different fruits for the preschoolers to taste. Lynne Rurak, our Brown School nurse, conducted hand-washing lessons and the preschoolers accessed the Brown School gym to utilize new gym equipment. These learning initiatives were additionally supported by the following class activities:

Make a Mouth – reinforced dental vocabulary (teeth, tongue, gums)

My Bones

Fruit and Veggie Stamp Pattern crowns

"My Plate" constructions

Veggie paintings

My favorite exercise – journal entry

My favorite healthy food – journal entry

Sorting food groups activity

Yoga activity

Obstacle course activity

Listen and Move activity

Hand wash sequencing activity

Make a healthy parfait, and/or fruit smoothie cooking activities

Dramatic play centers: Dentist office, Restaurant, Yoga studio

Interactive Read-Aloud: *You Are What You Eat, I Like Me!*, *The Lady With the Alligator Purse*, *Eating the Alphabet*, *The Tooth Book*, *Healthy Teeth*, *Let's Move*, *Healthy Habits*

Grade Level

Preschool
G.W. Brown School

Educators

Suzanne Simon
and Maya Menezes

Business Partners

Newburyport Dental
Associates
&

Chartwells School
Dining Services

Grant Award

\$1,400



Place-Based Education Unit

Grade Level: 7

Rupert A. Nock
Middle School

Educators

John Reynolds,
Jessica DeLacey,
&

Shawn Flaherty

Business Partner

Plum Island Kayak

Grant Award

\$1,500

Program Goals and Achievements

As part of the Place-Based Education initiative in the Newburyport School District, teachers John Reynolds, Jessica DeLacey, and Shawn Flaherty planned a seven week cross-curricular unit of study for all 7th grade students at Nock Middle School. This presented a very exciting opportunity for hands-on learning experiences at locations throughout our community in partnership with the Gulf of Maine Institute (GOMI) and local naturalists and historians.

Week One: As an introduction to Place-Based Education, students determined what their place is. In doing this, they worked cartographers, mapping their place, in addition to mapping areas surrounding Newburyport and the entire Gulf of Maine bioregion. Gaining an appreciation for their place, this process also helped them develop a sense of stewardship for the bioregion.

Week Two: Students were immersed in nature when they traveled via bicycle to Maudslay State Park where they learned how to be present in nature. They practiced and developed their skills for sketching nature and identifying forest plant species using a dichotomous key. A scavenger hunt taught them to identify geographical features of Maudslay including kettle holes, drumlins, and erratics.

Week Three: Students traveled to either Joppa Flats or the Parker River Wildlife Refuge to work with Audubon scientists conducting research and collecting data.

Week Four: Students spent their day exploring the Merrimack Watershed via kayak! Tours were led by Plum Island Kayak Company.

Week Five: Students visited Joppa Flats and the Parker River National Wildlife Refuge and worked with Audubon scientists and naturalists collecting data from the various areas.

Week Six: Students found out how Newburyport has changed to become a much greener city. They participated in eco-tours via bicycle throughout the city.

Week Seven: Students explored the Merrimack River in the historic dories from Lowell's Boat Shop in Amesbury, MA. They learned how the river has changed over the years and gained an appreciation for river ecology. Students began to understand the impact of humans on the environment as they learned about the Merrimack River's history.

Plant Therapy

Program Goals and Achievements

This year the Plant Therapy program continued to partner with Wentworth Greenhouses. Through this project, High School Language Based Learning Disabilities teacher, Betsy Scott, taught her students team building, social skills, research and writing skills, using a hands-on approach to learning.

Students traveled to Wentworth Greenhouses to meet with Brian Wentworth and learn about the horticulture business. As part of the Wentworth Greenhouses project, Brian Wentworth taught the students about the various aspects of the horticulture business. They learned some 21st century changes in the field with the study of hydroponics and the applications predicted as our population continues to expand around the world.

The Plant Therapy students studied the issues and needs of the elderly this year, culminating in a research paper. The project provided connections for the students to their learning and the real life environment of horticulture and plant therapy as an avenue to explore connected to the health care field.

The Plant Therapy program is a continuing program that has been successful in facilitating the transition from school to work for the last 17 years for the Language Based Learning Disabled students at N.H.S. Several former students have chosen to work in the health care field, while another student completed his Master's degree in horticulture from the University of Massachusetts. Others are pursuing degrees in teaching. This exhibits the close ties to the "world of work" coupled with a thematic method to build skills, teach stewardship, and build self esteem.

Grade Level: 9-12

Newburyport High School

Educator

Betsy Scott

Business Partner

Wentworth Greenhouses

Grant Award

\$1,500



Poetry Soup

Grade Level: 9-12

Newburyport High School

Educator

Deborah Szabo

Business Partner

Minuteman Press

Grant Award

\$650

Program Goals and Achievements

Poetry Soup, a monthly gathering of student-writers and their mentors, has been running for the past nineteen years as an extracurricular activity. It has grown from a small group of about a dozen students to a core group of twenty students, with an additional twenty who occasionally attend. Our guest speakers, who agree to publish their work along with the students, include professors from Salem State College, Simmons College, and Endicott College, along with performance poets, and our beloved local Powwow River Poets.

For the past eight years, through the generosity of the NEF Business Coalition, students have committed their writing to posterity in the Poetry Soup Magazine. It is exciting for us to publish our students' work side-by-side with that of professional poets. Additionally, students have learned about graphic design, layout, and printing, as they bring the magazine through the necessary steps to publication with the help of Sumner and Nikki Missenheimer and Minuteman Press. Finally, students have been responsible for distribution, learning that even artists must partake in the world of salesmanship. For the past two years, students were particularly successful when they set up a table in front of the Firehouse and sold magazines during the Newburyport Literary Festival. This year they plan to have a table at the Newburyport Farmers Market. In addition, the magazine has brought recognition to Newburyport High School, when it has been distributed at numerous teaching conferences around the country by Newburyport resident Poet, Rhina Espaillat.



Read Across America

Program Goals and Achievements

Read Across America is a national event held each year to promote literacy and reading throughout schools in all fifty states. In conjunction, this event celebrates Dr. Seuss' birthday and his contributions to children's reading skills and development as life-long readers. Reading aloud to our students is part of each teacher's instruction and the district's comprehensive literacy model. In an effort to model adults as life-long readers, members of the community were invited to be guest readers in each of the fourth and fifth grade classrooms. The grant provided a book, *The Lorax*, by Dr. Seuss, for each community member to read and leave in the classroom. In addition, six additional books were purchased for each classroom. The topic and subject of the informational books connected to the theme of "Going Green" and focused on the environmental issues we face today and our responsibility to our community and world.

In order for students to understand the concept of "Go Green" and how they can participate in their community, David Hall, owner of Hall & Moskow, The Tannery Marketplace, presented to all the students at the Molin Upper Elementary. He shared his passion and understanding of how each of us needs to take responsibility for recycling, buying from local farmers, and in general doing whatever we can to go green. In order to connect to the theme of the day and to *The Lorax*, Mr. Hall challenged the students to participate in growing "Truffula trees." He provided the seeds for any student who wanted to grow the "Truffula trees."

Additionally, Molin's technology integrator, Sherri Gray, supported the comprehension and theme of *The Lorax*, by providing a website directly connected to the book to all teachers. This website was interactive and provided comprehension questions, vocabulary instruction, and extension activities. Teachers used the lessons and activities to engage students in making connections to all that was learned through this one day event.

Grade Level: 4-5

Edward G. Molin
Upper Elementary
School

Educator

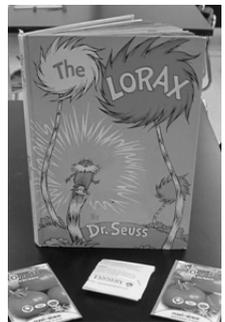
Graceann Remmes

Business Partner

Hall & Moskow,
The Tannery
Marketplace

Grant Award

\$1,040



Science Centers (Mobile Animal Habitats)

Grade Level: 1-3

Francis T.
Bresnahan School

Educator

John Gangemi

Business Partner

Village Pet Shop

Grant Award

\$1,785

Program Goals and Achievements

The Science Centers, funded through a NEF Business Coalition Partnership Grant, have allowed the Bresnahan School to continue to build a connection between the habitats on display and our science, language arts, and visual art curriculum. Students in all grades have had the opportunity to study the aquatic and terrestrial exhibits.

The displays are well received by students and teachers. Some displays can be moved from room to room at various times of the year which enables many students and teachers to use the displays for various curriculum projects. This year we expanded the present displays by adding a leopard gecko display into Mrs. Harrington's classrooms. Additionally, we updated the existing displays by purchasing new livestock and other required materials to maintain and support the animal(s) habitat. In conjunction

with the school librarian, more than 30 informational texts focusing on animals and habitats were purchased for the school library. Students use these, along with the features common in informational texts (e.g. captions, labels), to learn about the animals residing at the school and beyond the school walls.

Al Hom, owner of the Village Pet Shop, is a vital partner in this endeavor. His expertise and enthusiasm for animals is contagious to our students. One student earns time each week to help Mr. Hom with the care and maintenance of the habitats. Mr. Hom has developed lesson plans for his time with this student to create a weekly learning opportunity. The resulting enthusiasm has led to the student's parents to purchase a tortoise for him to care for at home. Another classroom has created observation journals on his African albino frogs and fish. The class consistently looks forward to Mr. Hom's weekly visits to utilize his expertise to answer their questions. Mr. Hom has truly become a partner with the Bresnahan School community.

The goals for this year's project included: incorporating informational texts about animals, updating and maintaining displays; adding appropriate animals, plants, equipment, and fixtures; adding one new display to a classroom (Mrs. Harrington's first grade class); and making the habitats available to all classes in grades 1 to 3 for curriculum connection projects. Curriculum areas included: science, English language arts, math, and visual art.

The Science of Water Purification

Program Goals and Achievements

The purpose of this year's collaboration with Strem Chemicals was to explore relevant chemistry topics that are sometimes difficult to address in a busy school year. Newburyport High School chemistry students tackled the topics of water purity, water filtration techniques, and limits of detection. These topics are important to all members of Newburyport in order to understand what makes drinking water safe to drink and what methods can be used to clean a sample that may be questionable. Strem's chemists designed a simple straight forward experiment with a single class period in mind. The testing and filtering of different water samples fit well into the topics of polarity, solutions, pH, and intermolecular forces, which were already being taught. The analysis was possible due to the equipment purchased through the NEF Business Coalition partnership grant. The knowledge, experience, and generosity of the NEF Business Coalition and Strem Chemicals makes this experience memorable for the students creating an opportunity for them to interact with professional chemists, and because of the real life connection to the water they drink every day. The time, energy, and money that went into planning the activity can only strengthen the positive memory as well.

Grade Level: 10

Newburyport High School

Educator

Raphael Matty

Business Partner

Strem Chemicals Inc.

Grant Award

\$1,070

Special Project

Newburyport Gulf of Maine Institute Team (GOMI), The Pepperweed Project

Grade Level: 7-12

Rupert A. Nock
Middle School and
Newburyport High
School

Educator

John Halloran

Business Partners

Parker River
National Wildlife
Refuge

Grant Award

\$1,500

Program Goals and Achievements

The NEF Business Coalition has continued to support the Newburyport GOMI team, a committed group of Newburyport High School 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 has continued to serve the community 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 second 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.