



THE BRIDGE

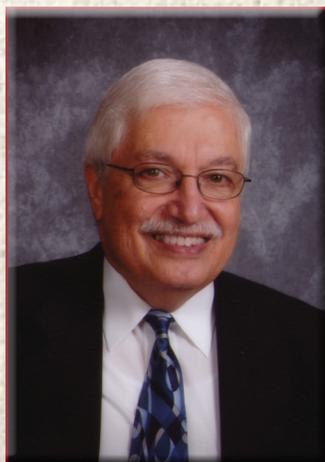
woodbridge.k12.ct.us



The Education Report of the Woodbridge School District

connecting school and community

Vol. 7 – Summer 2013



To The Citizens of Woodbridge:

On behalf of the Woodbridge Board of Education, I would like to present you with our seventh annual education report. Woodbridge is a town that values education. With that in mind, we renew our commitment to continue to improve the quality of education for our students, while at the same time being respectful to the taxpayers of Woodbridge. In preparing for a new school year, we have done exactly that.

Through the collaboration of the Boards of Education, Selectmen and Finance, the school district's budget for the 2013-14 school year calls for a 0% increase. This was made possible as a result of good fiscal management, focused spending, a zero-based budget, cost savings and other efficiencies in areas such as energy consumption, insurance and staffing. At the same time, the quality of the educational program has not been compromised. In fact, it continues to improve.

The Bridge highlights some of the accomplishments and exciting learning opportunities of the past year that are brought to life by an exceptional, professional staff. It also provides updates on facilities, grounds and budget as well as stories of success that make your exemplary school district one that continues to stand out in the state, region and country. Without your support this would not be possible. Thank you.

Gaeton F. Stella

Dr. Gaeton F. Stella, Superintendent

Technology: The foundation for advancing learning in the 21st Century

In the 21st century, 13% of which is now behind us, technology is not an option, not a luxury and not an extravagance. Technology is integral to how we communicate, research, learn and interact. Even the oldest children at Beecher Road School (BRS) were born into a world where email, Internet, audio and video streaming, and gaming were already very well established. A world where Google has gone from a proper noun to a verb, knowledge is at our fingertips, the planet is one and location doesn't matter. In this environment, we strive to use technology as a tool for learning, working hand-in-hand with skilled teachers who bring the human dynamic to the world of chips, bits and bytes. Tomorrow's highly skilled, high paying American jobs start here. A major focus of this edition of *The Bridge* is technology and how it's used at BRS to advance learning in the 21st century.

Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.
Bill Gates

University of California uses BRS students in research project

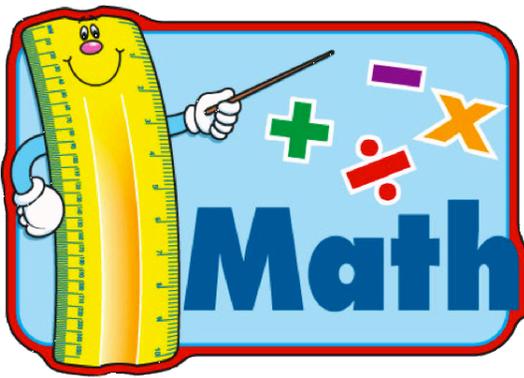
In collaboration with the University of California, a pilot research program taught BRS elementary students skills in programming.

"It was awesome!" rang through the halls of BRS during this summer's Extended Day Program. Students had a chance to learn introductory programming in

Java language while playing a magical computer game. Samantha Wood, a graduate student in Computer Science at the University of California, San Diego, led this activity. Ms. Wood's research team at UCSD is working to improve the ways computer technologies, particularly in the area of game development, can be used

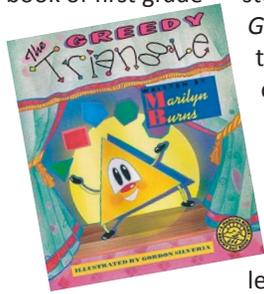
RESEARCH - continued in Technology - page 8





Mathematics at Beecher Road School (BRS) emphasizes critical thinking, conceptual understanding, procedural fluency and problem solving. Students at all levels take part in activities that deepen their understanding of important math concepts and provide them with opportunities to share their strategies and methods for solving problems.

Beginning in kindergarten and extending through sixth grade, teachers encourage students to develop meaning for the math that they do. Primary grade teachers often use literature to help present new math concepts. Kindergarten students love books like *Bennie's Pennies*, a story about a boy who spends his five pennies buying different gifts for his family members, or *Five Little Monkeys*, a tale of five naughty monkeys who keep jumping on the bed and falling off one at a time. A favorite book of first grade



students is *The Greedy Triangle*, that tells the story of a triangle who yearns for more than three sides. Teachers often use music to help students learn a new math

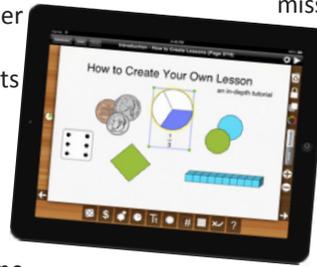
concept. When first graders learn about the greater than (>) and less than (<) signs, they sing a song about a baby shark that is always pointing its mouth towards the greater number. Several parents have reported that their children sing this song, and many others, in the shower!

As teachers implement the new *Common Core State Standards**, they expose students to concepts that may initially be challenging. In grade 1, students need to understand the meaning of the equal sign and be able to determine the unknown whole number in an addition or subtraction equation relating three whole numbers. First graders were initially very skeptical

that an equation such as $8 = 5 + 3$ was true, but with the use of balance scales they became convinced that the equal sign does not mean “here comes the answer” but rather that it is a mathematical symbol showing equality. After students worked in groups to find an unknown number in an equation, they were able to use a digital *Super Detective Magnifying Glass* on the Smartboard to reveal the answer and were thrilled when it matched their own number.

Cupcake Wars in second grade

A class of second grade students integrated math and technology throughout the year by using iPads for various math activities. One project that highlighted this integration was a performance task called *Cupcake Wars*. In this project, students had to determine how many cupcakes would be needed for an entire grade level, and determine the cost, the quantity of each ingredient, the number of batches, and the cooking time. Students applied math skills such as adding and subtracting two-digit numbers, as well as problem-solving strategies to determine how to approach each element of the task. Students were required to show their work and explain the thinking behind their approach to each element of the project. Additionally, the project was differentiated. This means that all students worked on a similar activity but at several different ability levels. Students completed this entire project on iPads.



Multiplication and division is a major focus area for third graders. Students fluently multiply and divide within 100 using a variety of strategies. By the end of third grade, students are expected to know all the products of two one-digit numbers, (e.g., the product of 6 and 8 is 48). Students solve two-step word problems using the four operations of addition, subtraction, multiplication and division. They begin to represent these problems using equations with a letter standing for the unknown quantity.

Third graders focused on learning *area* by building floor plans of a dream house. They learned formulas to compute area, with

those formulas based on, and summarizing, a firm conceptual foundation about what area is. Students need to learn to conceptualize area as the amount of two-dimensional space in a bounded region and to measure it by choosing a unit of area, often a square. Students learn to understand and explain why multiplying the side lengths of a rectangle equals the same measurement of area as counting the number of tiles that fill the rectangle's interior.

Geometry is turning point for mathematical understanding

Angle measure is a turning point in the study of geometry. Students often find angles and angle measure to be difficult concepts to learn, but that learning allows them to engage in interesting and important mathematics. Fourth grade students used the Smartboard to construct various angles and then determine the missing angle adjacent to it through their knowledge of complementary and supplementary angles.

Fifth graders extended their whole number work with adding, subtracting, multiplying and dividing decimal numbers and fractions. They represented multiplication and division of fraction word problems

using area models. Students created story contexts to represent problems involving multiplication and division of a fraction and whole number. The understanding of multiplication as scaling is an important opportunity for students to reason abstractly. Previous work with multiplication by whole numbers enables students to see multiplication by whole numbers larger than 1 as producing a larger quantity, as when a recipe is doubled.

Students used the iPads to record their work in a variety of ways. Then they were able to share this work with the entire class by projecting it to the Smartboard via software called *Reflector*. This remarkable technology allowed students to see many different approaches to the same kind of problem. More importantly, it gave students the opportunity to justify their chosen approach. This type of activity encourages students to draw on all of their mathematics knowledge to solve real life problems.



Several groups of students in grades 3 – 6 and Multi Age Group (MAG) classes engaged in a statistical analysis of the 2012 presidential

election. They explored the electoral college, examined population charts and graphs, made predictions based on polling data and analyzed the election results.

Students began the unit by studying the electoral college. First, they discussed the way the electoral college allocates votes to each state. Then they examined the process by which a presidential candidate wins a state's electoral votes. They also learned about various ways in which a presidential candidate could win the popular vote and still lose the election via the electoral college. In the next segment of the unit students analyzed current polling data and discussed the concept of red states, blue states and swing states. They examined several different online polling maps and devised various scenarios for a particular candidate to win the necessary 270 electoral votes. Some students colored in blank maps of the United States prior to the election to show their predictions; other students filled in their maps as the polling data was reported.



After the election, students analyzed the results and compared them to their predictions. They also examined the percent margin of victory of various candidates.

This election unit offered students numerous opportunities to apply mathematical skills and concepts to real-life issues. Students used mental math strategies when they were figuring out different winning scenarios for each candidate. They applied concepts

of probability when they made their predictions. Students also worked with decimals and percents as they analyzed the relative weight each state had in the electoral college. Throughout the unit they scrutinized a myriad of graphs and charts, evaluating the information and discussing its importance.

All students in grades 3 – 6 participated in the *Continental Math League* (CML). The CML is designed to maximize student opportunities to participate in mathematics as well as to improve their problem solving skills. Students from across the United States participated in monthly assessments. Teachers at BRS kept track of scores after each of the five meets. This year Beecher Road School had many top scoring students. In the fourth and fifth grades, BRS had students who scored 29 out of 30 points over the course of five meets. The top six students from each grade level received recognition for their accomplishments.

**The Common Core State Standards Initiative is a U.S. education initiative that seeks to bring diverse state curricula into alignment with each other by following the principles of standards-based education reform.*



US HISTORY MADE REAL

In a yearlong study of American history, fifth graders had opportunities to develop theories and understandings regarding the development of the English colonies and the United States as a country. This work culminated in a series of history activities and presentations taught in the school's large gathering place, the Rotunda, that included lessons on the development of the new nation, westward expansion, the War of 1812, slavery and causes of the Civil War.

The objective of these lessons was three-fold: First, give the entire fifth grade, five individual classrooms, an opportunity to gather and build community prior to their move to grade six. Second, the series of lessons was designed to integrate

technology. Teachers used the document camera to share materials with the one hundred twenty plus student community. *Smartboard* lessons enabled the integration of interactive websites, historical images, music and primary sources. Students worked cooperatively to develop political cartoons using class sets of iPads throughout the academic year.

Lastly, activities were created with multiple intelligences and *differentiated teaching** in mind. Students were exposed to a variety of picture books that captured different concepts regarding slavery and southern life prior to the Civil War. Engaging math skills, they were able to visualize the size of slave trade ships and the space allotted to each slave by measuring the area on the blacktop using chalk. The actual measurements were taken from a journal documented by a reverend who liberated slaves from deplorable conditions. Students were quite surprised by this work and wrote reflective and emotional entries about slavery.

In addition, they participated in a simulation of the *Underground Railroad* on the playground, in which they had to decide if they would remain in Canada and enjoy their freedom or return to save a fellow slave. While this made learning interesting as a culminating activity to the study of slavery, students were aware of the severity and related impact of slavery on the American economy and political landscape. They enjoyed the opportunity to work together, understand more about the exciting technology incorporated into classrooms, and were engaged in studying using a variety of modalities, (e.g., visual, auditory, kinesthetic, and tactile).

** A framework or philosophy for effective teaching that involves providing students with different avenues to acquire content.*

American history becomes real with a reenactment of The Boston Tea Party.





RESEARCH-BASED ARGUMENT: LEARNING TO DEFEND YOUR CASE

ell Phones, Performance Enhancing Drugs, Competitive Sports, Books vs. Kindles, Recycling, Logging and Censorship: These are just a few of the many topics being hotly debated by fifth grade

student “lawyers” at Beecher Road School. In fact, “debating” has come alive for students this year in a whole new way and in a whole new genre. Students recently completed a joint unit of *Research-Based Argument* in the *Reader’s and Writer’s Workshop**.

Fifth grade has always been a time to question, to analyze and to be exposed to important current events. That has not changed. The difference this year was that students were challenged to weigh the arguments on a given subject matter and develop their own position statement. This workshop approach calls upon students to apply their knowledge across the curriculum by developing, writing and sharing their own *research-based argument essay*.

Many steps were taken to align this integrated study. First, the teachers modeled a lesson based on a general topic. Students learned the process from observation. Next, they were immersed in reading current articles of interest while they stopped and recorded their findings in a note-taking format.

Teachers guided children to write and present their findings, to choose a *side* to their topic and to *stake* a convincing claim.

For example, one student’s side and stake went like this: *Imagine a dull, lifeless earth filled with nothing but decay. There are no trees, no plants, no animals and the humans are dying out. A place where each breath of air slowly pollutes our lungs. It is my position that we should cut back on the pervasive logging that currently exists.*

Children learn to use proper citations, quotations and examples as evidence to support their position.

A magazine article called “Why Recycle?” stated that the net cost for landfills is \$80, while it is \$25 for recycling. This shows that recycling programs cost \$55 less for collection and processing. Recycling is certainly cheaper than using landfills.

One student who was fascinated with censorship decided to further her investigation by researching banned books: *Our nation’s children are losing their favorite books! One example of this is J.K. Rowling’s Harry Potter series. These books are extremely popular with young readers, but some adults feel that they are inappropriate due to the witchcraft content and their violent nature. But kids love the books because of their magic and exhilarating battles against the forces of evil.*

Students across the grade level were so inspired by this unit that they applied their understanding to their specific areas of interest. Teachers and students alike found the new genre enriching and rewarding. A performance-based assessment was administered to measure student growth in each area of language arts. The overall results were outstanding. 📖

* A special teaching approach to develop excellent readers and writers.

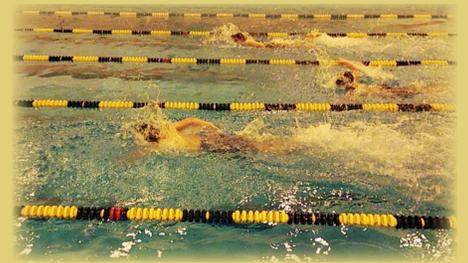
Parents new to BRS are “believers”

Dear Principal Prisco,
It has been a wonderful transition year for Noah and Rebecca Lee. As parents, Christine and I had a lot of worries about moving from Baltimore to New Haven. We also have had our kids in private schools until we came to New Haven, so we had our own share of biases and preconceived notions about public school education. However, our kids’

experience at Beecher Road School really made believers out of us. They are thriving! Noah’s love for the school is reflected by his wish to donate the prize money to school. It’s a small amount, but I thought his gesture was touching. As a fifth grader, Noah Lee was the youngest award winner at the Renee Fisher Piano competition. He was proud to represent Beecher Road School.
Ben Lee 📖



Of all the elementary schools in Connecticut, Beecher Road School is one of the few that has a swimming pool to teach young children how to swim and develop an appreciation and respect for the aquatic environment. This year the *intermediate* swimming program ended with a fifth and sixth grade *Swim Olympics*. These events are celebrations of the swimming unit of study, an important component of the physical education curriculum.



BRS students participating in Swim Olympics

While many elementary school students participate in team sports, individual/dual sports participation is less common. This event gives every student at BRS the chance to experience this type of sport. Students have the opportunity to practice good sportsmanship, cheering for their teammates and encouraging each swimmer to do their best.

Swimming and learning an appreciation and respect for the aquatic environment includes learning how to play safely and exercise in the water, learning new strokes, self-help skills, and how to help others should aquatic emergencies occur. Some students become peer tutors, helping their classmates achieve swimming skills at a higher level. Still others model high quality performances for their classmates.

The swimming program succeeds in its mission to help all BRS students become more comfortable and safe in and around the water. 📖



WBRS News is a student created and directed news program produced by 20 sixth graders with the help of Technology Team Teacher James Crawford. The weekly broadcast is shown throughout the school answering the question, “What’s happening at Beecher this week?”

Student reporters work to find important news and facts, and incorporate them into a broadcast script for the school community. The student anchors feature words of the week, upcoming field trips, weather and a peek at the cafeteria menu. The young TV crew also learns to use a green screen, video cameras and microphones to give the broadcast a professional feel.



Students in the other grades can’t wait to get to sixth grade to be a part of the WBR team. Since its first broadcast three years ago, WBR News has become a staple to kick off the start of another school week. ↻

Information just “1 click away” — Over 34,000 visitors accessed school district website last year

During the past two and a half years, the school has focused on increasing the number of teachers that have a classroom website. There has been significant growth in this area. Staff websites have grown from 18% to 90%. Specifically, 38% of classroom teachers before, 100% now. 28% of special area teachers before, 86% now. And, from 0% of the special services staff to 69% now.

During the summer of 2012 the district website underwent a major redesign with the goal of making information just “1 click away.” This transformation included more organized navigation bars to both district and school information, a more appealing visual design, and elimination of redundancies for a better overall user and visitor experience. The website also combined the separate School and District sites into one for ease of use.

The website itself continues to garner attention and be a resource to school and community members. By looking at the data from this year compared to last year you can see that the number of visitors checking for school closings and delays impacts the totals. These visitors are coming to the site for quick bits of information and then leaving the site. A very positive indication from the site data analysis is the time spent on the site per visit is going up in a steady rate as well as the bounce rate going steadily down over the last few years. The bounce rate represents the percentage of visitors who enter the site and “bounce” (leave the site) rather than continue viewing other pages within the same site.

Website Data as of April 1, 2013

School Year	2008-09	2009-10	2010-11	2011-12	2012-13
Visits	16,298	27,387	36,745	31,823	34,469
Absolute Unique Visitors	6,654	11,182	14,271	14,075	13,799
Time on Site (In minutes)	1:39	1:58	2:17	3:00	2:36
Page views per visit	3.18	3.51	3.39	3.51	3.27
Bounce Rate	47.09%	39.61%	36.6%	36.39%	38.71%

Like “New York, New York,” Beecher Road School never sleeps

While many schools close for most of the summer, BRS remains open 12 months a year on an almost 24/7 basis. This summer BRS was no different. More than 500 children and adults were engaged in programs and activities during July and August. Youth programs included Summer Enrichment, Extended Day, Summer Recreation, Special Education and a Literacy Clinic.

In addition, dozens of teachers and administrators were involved in curriculum writing and various professional development activities. An exciting research project, conducted by the University of California, included 20 grade 4 through 7 students and focused on computer programming.

While all this was going on, the custodial staff was busy with a comprehensive building cleanup. Painting was completed in nearly a dozen classrooms. A new acoustical system was installed in the cafeteria to create a safer and more comfortable environment for our children. Replacement carpeting was installed in the library. Replacement tiles were installed in the main office. A new telephone/PA system was installed throughout the building to improve safety. The outside basketball area was repaved as well as two of the connecting pathways to the building. New basketball hoops and poles were installed, and additional safety and equipment enhancements to the primary playground were completed. Parking stripes were repainted in both the north and south parking areas. ↻

Making the school secure and more

The Town Building Committee for Infrastructure Upgrades at Beecher Road School has been meeting since December 2011 to plan major improvements to our school building, parts of which are over 50 years old. We anticipate that proposals for a major school facilities upgrade will soon be brought to referendum. Once funding for the project is approved by the Town, work will take place over the next couple of years. ↻

Stay informed: Visit the Woodbridge School District Website
www.woodbridge.k12.ct.us

Visual Arts

There is a palpable energy in the studio where young artists flex their creative muscles to express their ideas and imagery. This is a magical space where everything is possible and thinking can be seen.

Our studio offerings focus on a myriad of forms of expression. We celebrate the willingness of our students to try new things. They work toward discovering not just what they want to build, but what they are trying to express. Our goals as teachers of art are to assure that they acquire all the tools needed to discover themselves, the world around them and the realization that art is a universal language.

The art teachers at Beecher serve as facilitators for student learning, problem solving and creativity. They find ways to connect art with the entire curriculum as well as teaching art skills and methods that enable unique expression.

The circles inside of van Gogh's sunflowers and the brilliant circles of color created by Kandinsky helped kindergartners see this shape in the world around them. The fabric scraps heaped in a pile in the middle of the art room floor were instantaneously transformed into *fashion*. Paper grocery bags, cut, rolled, torn, added to, cut away, topped gleaming faces as flamboyant hats! Grades 1-3 are in constant unison with cultures around the world and with the studies taking place in the classroom through art. Thinking *how* we see and the skill of drawing *what* we see is a focus in the fourth grade. The *Great Hall of Native American Portraits* was replaced by *The Salmon Project* that came to life when every child's observational drawing of salmon was on exhibit. The textures and light and dark used were a direct result of exploring van Gogh's pen and ink drawings earlier in the year. The way

Georgia O'Keeffe helps us see the beauty of nature was evident in the display of interpretations of her work. The study of Spanish through the illustrations of animals was an outstanding exhibit this year.

Artistic composition and writing unite in Grade 5. Visual stories and ideas are told through art. An analog device for the purpose of exploration was invented by each child and created from the most unusual materials. At the same time this took place, the children were studying the exploration of the New World. They had a true sense of the time period and the

compositions. Picasso's "Three Musicians" illustrates the importance of friendship.

The study of the Industrial Revolution in fifth grade helped children understand that the invention of the camera and the cropping used in the compositions of the *impressionists* carried over to their work and final presentations of their digital stories.

Picasso connected all of us during *Artsweek6*. History, mathematics, Spanish, music, art, geography, literature and his meaningful friendships all help us understand connections. Banners from each class furlled proudly around the



The focus on Pablo Picasso led BRS students to create these cubist ladies in cool hats.

devices needed for a successful journey to a new place. Portraits of explorers were marvelous. Design elements were studied using a variety of materials and ideas during the year. Everything came together when the visit to the *Yale Center for British Art* gave children a sense of the time of British imperialism, the use of art for propaganda purposes and the marvel of Louis Kahn's magnificent building.

Sixth graders explore the portrait. Is what we see in the mirror telling the whole story of who we are? Many artists can be used to illustrate the diversity of the interpretation of the *head* – Chuck Close, van Gogh, Picasso, Hockney to name a few. Music became a focus when Vivaldi was used as a means to use color expressively; pieces composed by Igor Stravinsky were heard while children drew Picasso's drawing of him. The music of Phil Glass points out the connection to Close's repetitive

Beecher campus. A most impressive mural of Picasso's "Three Musicians" started on *ArtsNight* has livened up the area in the sixth grade wing.

Visit Beecher this year with a mission to understand the children who go here through their art. The pieces on the wall are not posters, decorations, or always beautiful. You will see the uniqueness of each child who goes here and how they think. Ask: What inspires them? What is their passion? How are they involved? Where do their ideas come from? How do they see? Projects are puzzles. How have they been solved? How has space been used through color, lines, textures, shape, value, etc. to communicate ideas? How wonderful it is that each one is different from another! 🎨



Creating is challenging. Art is work. Children need time to explore and be excited by the never ending possibilities of their art. Pablo Picasso said it best: Everything you can imagine is real.

The impressive patchwork recreations of Picasso's "Three Musicians" (L) and his "First Steps" (R) were accomplished by the teamwork of many students.

Music is food for the soul

Beecher Road School (BRS) has developed a reputation for its exceptional elementary school music program that rivals many others with older members in middle and high school. The performing arts exist so that others may enjoy their efforts. BRS music groups have had an exciting year performing.

Last fall the *BRS Marching Band* and *Colorguard* performed at the Civil War parade at the Woodbridge Town Hall. Later in the fall, they performed at the school's Veterans Day ceremonies. The busy *Marching Band* performed at the opening of Family Day at the Massaro Farm in Woodbridge in October.

The *Advanced Band* was in attendance at the Halloween Hoot again this year and performed the National Anthem to a sold out crowd at the Bridgeport Sound Tigers professional hockey game, also in October.

Our music honor society, TRI-M, has continued with its own traditions of canned food drives to assist the PTO, playground trash pickup initiative throughout the campus and social activity fun nights.

Winter Concerts were filled with wonderful music from the *Chorus*, *String Ensemble*, *Advanced Band*, *Jazz Ensemble* and *Brass Ensemble*.

This winter we had two students make the *Middle School Southern Regionals* for grade 6-7-8. It's challenging for students to audition against others who often have

two more years of playing experience. It was a great honor for our students to play with other best musicians from around the southern Connecticut region.

This spring, we finished the year with our *Jazz Ensemble* performances at DARE Graduation as well as school and evening concerts. We continued to perform at our outdoor venue for this year's Spring Concert. It was a delight for parents and families to enjoy dinner while listening to the musical achievements of their children.

Soloists performed for *BRS ArtsNight*



Hundreds attended the outdoor spring music concert.

opening, while the *BRS Marching Band* and *Colorguard* performed for the Memorial Day Parade in Orange.

We continued the tradition of hosting the eighth annual music adjudication on May 31st. This event brings music groups from other schools to be judged by professional music educators with very specific criteria. At this year's adjudication the *BRS String Ensemble* and the *BRS Chorus* both earned

platinum medals, and the *Jazz Ensemble* earned a gold. For the first time in 17 years, the only *Band* platinum medal went to Beecher Road School.

The *BRS Marching Owls* finished the final weekend of the school year with hard work through the pouring rain as they again won *Best Musical Unit* in the Bethany Fireman's Parade for 2013.

The *Marching Band* and *Colorguard* also performed at the annual "Closing Day of Baseball" in Woodbridge as they led the way for all of the baseball, softball and T-ball players in town to parade in front of Town Hall.

Simply put, Beecher's 2012-2013 school year exemplifies what students can accomplish in an exemplary music program.



Tuning up for the Memorial Day Parade in Orange.

Research - cont.
from page 1



to provide successful learning environments for children.

CodeSpells is a 3D video game designed to teach introductory programming. In the game, programming is presented as magic, and students engage in a series of quests requiring them to write and cast spells, which are actually simple programs. The game requires students to tackle the technical challenges of programming while it provides a fun and encouraging context in which to face these challenges. "I've always wanted to write my own programs," said one student as he successfully cast his own spell. Who knows what exciting computer programs will appear next at Beecher?

A Catalyst for Creative Expression

While many schools focus their use of technology on reinforcing basic knowledge, Beecher Road School has always engaged its students in finding ways to express themselves creatively. In other words, students at Beecher not only show what they know, they show how they can use what they know.

Technology is a thread woven throughout the school. As students progress through the grades, they learn skills starting with simple development of images and slides using the computer to create video stories with video editing software.

iPads: More versatile than pencil and paper

Last year the Boards of Selectmen and Education met second graders who were using iPads throughout their day in the classroom. These students were able to make decisions about which application best suited their project needs. Would it be an iPad app like *Notability* or *My Story*? Or would it be a pencil and paper? Would they use the built-in camera to illustrate their point, or would they draw something? At Beecher, that's what we strive for: students who understand the options and are able to make positive choices about their own learning.

TECHNOLOGY

This past year at BRS, iPads have been making their way into other classrooms. Fifth grade students are using them to create journals and timelines about their studies of American history. Later in the day they record themselves speaking Spanish to demonstrate their fluency in another language.

Book Clubs: A new direction

Fifth graders took Book Club discussions to new heights with iPads. After reading and studying historical fiction books, students formed into book clubs to discuss the critical aspects of the book. These book clubs, part of the *Columbia Reader's Workshop* model, require students to have in-depth discussions that follow a series of guidelines. Under normal circumstances in the classroom, the teacher can only attend one of the several book clubs at a time to hear the discussion and provide feedback. Using the iPads, students recorded their discussions and made digital notes. They then listened to and assessed their own discussions based on a rubric provided by the teacher. Students selected segments of the recorded discussion to send to the teacher to demonstrate their ability to meet the standards being assessed along with their written reflections.

Not only did this allow the teacher to hear examples of all Book Club discussions, but it also took students to a much higher level of critical thinking about their own learning.

Bring the Museum Back to The Classroom

Walking into the British Art Museum with iPads in hand, one grade 5 class was on a dual mission: Bring the museum back to the classroom and find more examples for the Geometric Scavenger Hunt. Students began by looking for specific examples of geometry in the architecture and displays of the museum. They took photos with the iPads and annotated the photos with necessary documentation to meet the requirements of the scavenger hunt. Back at school they were able to edit and submit their entries.



Studying the art works, each student was commissioned to select and photograph one of them. Taking the photo with the iPad and making necessary notes from the presentation by the museum docent, students were preparing to become docents themselves upon returning to school.

Back in the classroom, students projected their chosen work onto the Smartboard from the iPad and took their classmates on a guided tour of the painting. Since each small group of students only experienced a small segment of the British Art Museum's collection, this allowed them all to eventually see a much broader range of the collection.

At Beecher Road School - We Create

One of the best ways for us to encourage students to be creative and innovative is to be creative and innovative ourselves. By piloting the iPad program in a variety of classrooms, and by asking teachers to be innovative in the use of the iPad in the classroom, we are seeing expressions of learning that were not predicted. We see teachers learning from teachers; students learning from teachers; students learning from students; and teachers learning from students.

What are those students carrying?

A line of students are all clutching something bright red about the size of a book. Where are they going? Science? Spanish? The Library? Why are they traveling with such purpose?

They are on a mission. They are about to begin a *Living Science* journal using their iPads. While conducting experiments in the science lab, they will take photos of all the

continued next page

steps, label the photos as a diagram, and log their observations either by typing, writing or recording on the iPads. In the end, they will have a multi-week journal of their experiments published in the format of a digital book. They will then present their published books with other students and they will present their findings to the class. All this in a second grade classroom.

Not only have the iPads begun to travel to science class, but also to Spanish, health, social studies and the library.

Metacognition: Thinking about your thinking

Have you ever thought about how you think about something you do? Have you ever tried to write an explanation about what you do to solve a problem? Using an app called *Explain Everything*, students do just that. As they solve a math problem by writing it out on the iPad, like on a piece of paper, they record their own voice explaining what they are doing and why.

Students can watch their explanations, and while assessing their own work they are able to make corrections and record their thinking about that process. Later the teacher watches the entire recording and can quickly assess where the students' strengths and weaknesses lie in relation to a particular math standard.

Technology and the Impact of High-Stakes Testing

Two years ago, two sixth grade students wrote and created a video about their years at BRS. As they progressed through the hallways of Beecher from Kindergarten to sixth grade, their solemn comments as they reached the third grade hallway have hauntingly remained in our minds: *"By the end of third grade, we had already experienced the stress of the CMTs."*

BRS has been involved in piloting the new national testing based on the *Common Core State Standards** known as SBAC (Smarter Balanced Assessment Consortium) test. This series of tests will replace the former series of tests, the CMT (Connecticut Mastery Test). The new tests will all be taken using computers or mobile devices. During the pilot tests, most students used computers in the technology center. The Library Tech Team administered the test to a group of students on iPads. Mr. Wood, a team member, indicated, "students using the iPads seemed much more relaxed and far less stressed than many of the students sitting at desks with computers."

As we look to the year 2014 when all students will take these tests digitally, we seek



Taking tests on an iPad

to minimize the adverse effects of high-stakes testing on the critical learning program for each student. Providing for tests to take place in the classroom instead of a centralized mass testing environment has many benefits. The familiarity of the classroom setting is maintained. Teachers can administer tests within the classroom schedule instead of altering the routine to conform with the rest of the school. In the end, iPads in the classroom will allow for the flow of learning to continue throughout the twelve-week testing window.

** A framework or philosophy for effective teaching that involves providing students with different avenues to acquire content.*

Social Media: A powerful connection

Using social media has really changed the way BRS is informed on technology. James Crawford, a member of the Library Tech Team, uses social media to stay up-to-date on new and emerging technologies that impact our school. Social media sites such as *Twitter* have been a treasure trove of information about the latest apps available for the iPad. Mr. Crawford has used *Twitter* to connect with over two hundred educators across the country and around the globe. These associations have led to informative discussions about new student iPad apps and connections with other school districts who are using iPads in elementary schools. This exchange of information with other districts and teachers has allowed our iPad pilot to expand in innovative ways.

Communication about apps and technology products is not just limited to other users. Many technology companies now use social media to communicate with their users as well. In the case of the iPad, many of the apps are developed by individuals who have a social media presence. This allows members of our team to directly connect with the software developers and influence changes in future updates. Mr. Crawford has tested new apps and been asked for feedback on the apps before they are released for use in the education field.

This was never more evident than when suggestions were emailed to a developer and a few minutes later the phone rang with the developer on the other end. Winston Chen, a developer who was recently featured on NPR, created an app on the iPad that reads back text from various

digital sources. Mr. Chen did not have much experience with how iPads are used in schools. He sought out BRS to learn about how our iPads were being used. Members of the Library Tech Team and Mr. Chen have gone back and forth a few times working to provide a better experience for student users. This collaboration between software developers and teachers is something that did not readily exist before the advent of social media.

iPad: The great equalizer

In the early grades it is said that we learn to read; in later grades we read to learn. But what about the older student who knows and understands a great deal but has trouble decoding words? For that student, hearing the words spoken can make a huge difference in understanding and knowledge building. This year we used a new iPad app called *Voice Dream* created by software developer Winston Chen. This remarkable app will read text back to the student. Other apps also do this, but *Voice Dream* does it in a way that incorporates every possible improvement into one package. Students hear the words clearly, fluently, and with slight inflection, not an easy feat for software generated speech. Words are highlighted as they are spoken. *Meaning lookups* are easily accessed. Passages can be highlighted and pages bookmarked. Even better is the ability to obtain readable text directly from web documents as well as a variety of other formats including *Word*, *Pages* and *pdf*.

One of our older students recently tried the program and reported that the speech was much easier to understand than other software. The student was able to access material for student book clubs, reports and for a very challenging unit on persuasive writing. Through the use of this app, the student was able to download articles on the web and use the spoken information to create meaningful positions on topics such as the ethical treatment of animals. One of the outstanding benefits of the use of this software is that the student using it does not appear to be working any differently from any other student in the class. Everyone is engaged on their iPad and the student using *Voice Dream* is no different. Only the software is different. Looking the same and being treated the same is very important to young people. In the past, using special hardware or software was often limited by a student's desire not to appear different. The iPad is a great equalizer. *Voice Dream* provides access to material that students would not have had otherwise. ↶



Scientific Method

BRS is one of only a handful of schools in the state that has an elementary science laboratory staffed with a science teacher who teams with classroom teachers. 21st century elementary science harnesses students' curiosity and encourages them to develop the thinking, investigative and problem-solving skills used by scientists. This inquiry-based approach to learning provides students with experiences that encourage them to question, hypothesize, investigate, record observations, analyze data and draw conclusions that connect their science experiences to real world situations.

The past school year saw a number of innovations in the integration of science with other areas of study:

- Consultants from Columbia Teacher's College prepared teachers to design reading and writing lessons that meet the *Common Core State Standard (CCSS)*: 50% of student time in language arts should be devoted to nonfiction.
- Teachers at every grade level were introduced to a resource for developing student thinking and nonfiction writing skills called *Uncovering Student Ideas in Science*. These single-problem assessments describe a situation and ask students to respond in a way that demonstrates their understanding of the science involved. These appraisals are a great way for students to write about what they learned in their areas of study.

- Students in grades 2, 5 and 6 used iPads as the medium for sharing their writing and drawing about what they learned in science.



Second graders present science drawings and writings from their iPads

- Students in grade 4 piloted the use of *Motion and Design*. The program had them designing and engineering vehicles while learning the physics of force and motion.
- In July, teams of teachers worked to develop a comprehensive plan for implementing and evaluating student work with science journals. Their efforts integrated CCSS expectations for writing

with NGSS (Next Generation Science Standards) science and engineering practices and Connecticut state standards for inquiry. When these materials are introduced in the upcoming school year, students involved in science inquiry at every grade level will apply the nonfiction writing practices they learn in language arts to share what they have learned in science.

Our goal is to produce scientifically literate citizens who are able to understand pressing issues at the local, national and global levels, many of which are related to science. Statistics show that at precisely the time we need people trained in the areas of science to address problems such as climate change, production and distribution of food, and the careful husbanding of natural resources, the number of college students completing relevant degrees is falling. A recent study suggests that the most effective time to begin attracting students to careers in science is while they are in elementary school. At BRS we are meeting this challenge. ↻

PTO Raises \$12,000 for paving project

PTO President Brie Pfannenbecker presented a \$12,000 check to the district. The money was raised through a PTO fundraiser to support paving the basketball court area and adjoining pathways coming from the school. The whole area, used by



L-R: Ms. Pfannenbecker, Dr. Stella, Mr. Pullo, Business Manager

hundreds of children every day, needed attention. With the support of the School Board, Town and PTO, the project was completed this summer. ↻

Good teachers touch lives forever



JEAN MOLOT WOODBIDGE TEACHER OF THE YEAR, 2013-14

Jean Molot began her teaching career in Woodbridge in 2005 as a Math Specialist. She continually makes indispensable contributions to the total school program at Beecher. Ms. Molot serves on numerous committees, is a consummate professional and a natural leader. She maintains the highest standards of excellence, honesty and integrity and is a dynamic and exceptional teacher.

A life-long learner, Jean brings a positive role model to her profession and is a valuable member of our primary grades team. Her colleagues often seek her advice and support.

In the classroom, Jean provides a stimulating environment of trust, respect, motivation, challenge and affection for her students, engaging them with creative fun, humor and confidence while remaining focused on their individual achievement.

In every school there are the stalwarts who are the backbone of a professional faculty. They don't seek fame or glory but only to do their job in the most professional and responsible manner. They model wonderful qualities, and, like Jean, are teachers who children will remember long after they complete their schooling. ↻



Building a bridge of cross cultural understanding and communication,

Superintendent Guy Stella, Assistant Principal Nancy White, and 2012 – 2013 BRS Teacher of the Year, Jeanne Dempsey recently returned from a 7-day “getting to know you trip” to the public schools of Shenzhen, China. Shenzhen, one of China’s newest cities, has been described as the gateway to China. Only 30 years old, it is a fast moving, modern city of approximately 16 million people. Located one hour from Hong Kong, the city is an economic free zone and is a hub of international commerce.

The summer trip was at the invitation of Dr. Fang, the head of the Human Resources Department of the Shenzhen Public School System. Dr. Fang visited BRS in May and was impressed with what he saw. Dr. T. Ding, a parent of children at BRS and a community leader, accompanied the group as both a coordinator and translator. The purpose of the BRS team was to visit some of the most academically advanced schools in China, and to explore areas of interest that may be of mutual benefit to both school systems.



Jeanne Dempsey, Nancy White, Dr. Fang, Dr. Stella and Dr. Ting before a meeting in Shenzhen, China

The rigorous schedule had BRS educators visiting four schools a day including numerous conferences, interviews and interactions with administrative leaders, teachers and students. Dr. Fang and many of the Chinese school leaders expressed great interest in developing a mutually beneficial relationship with the Woodbridge School District – one that could lead to future exchanges of administrators, teachers, parents and children. One great

benefit to our children is an increased global awareness and direct familiarity with a non-western culture.

Classroom in Shenzhen, China

What is BRS doing to increase global awareness in our students in relationship to other world cultures and languages, while developing 21st century skills of cross-cultural communication, empathy for others, and ability to interpret issues from multiple perspectives?



BRS has had a Sister School relationship with the Heze Experimental Primary School in Heze, China since 2008. There have been numerous large scale Skype conferences between both schools since that time. BRS students, administrators, teachers, children and parents have used these Skype conferences to promote inter-cultural communication and share ideas.

In January 2009, BRS played host to two principals, both of their schools located in Shandong Province. You may also know that members of our staff have made three trips to China, prior to this summer. The hospitality extended to BRS educators by the administration, staff, children and parents of our sister-school communities is phenomenal.

Beecher chosen as a showcase for exemplary education

This past year, BRS was selected by the Connecticut Association of Schools (CAS) to host a one-day visit by a delegation of 20 principals from Shandong Province. The visiting principals were in Connecticut to study American educational practices by visiting exemplary schools. BRS was identified as one of those schools. In addition, CAS asked us to host two of the principals for one week in November. The BRS Community opened its arms to our visiting educators by providing housing, transportation, meals and lots of

opportunities to learn about American life. As planned, the principals also learned much about American education by visiting and observing classes, by speaking with administrators, teachers, children, parents, Board members and Town officials, and by visiting Bethany Middle School and Amity High School. As an outcome of the principals’ visit, a new pilot project will be initiated this fall at BRS. Twelve teachers will visit on

a staggered schedule over several weeks. The teachers will join grade level teams of teachers at BRS and help introduce students to Chinese culture and language. We anticipate that an after-school class in Chinese culture and language will also be initiated.

With projects like these, a bridge is being built between two great countries. This bridge will help the people of our two nations to collaborate and cooperate. Our projects connect with similar programs at the middle school.

Creating citizens who develop global understanding, BRS introduces students to a western world language and culture as well. Spanish is taught in kindergarten through grade 6 providing a direct link to courses at more advanced levels in middle school and high school.

Our goal is to have students graduate from Amity High School as good local, national and global citizens. 🌐



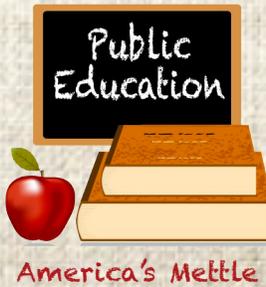
Beecher delegation visits a third grade in Shenzhen, China.



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On the web! Hundreds of additional pieces of information are on the Woodbridge School District website. Take a look at:
www.woodbridge.k12.ct.us



Town of Woodbridge
 Woodbridge School District
 40 Beecher Road
 Woodbridge, CT 06525

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Beecher Road School — Where Learning is the Adventure

Taxpayer's Guide to the 2013-2014 Woodbridge Board of Education OPERATING BUDGET – ZERO INCREASE OVER LAST YEAR



The Woodbridge Board of Education, Board of Selectmen and Board of Finance approved the funding plan for the school district that took effect on July 1. The budget increase is 0.00% over the previous year. This budget is respectful of the taxpayer while continuing to move the educational system forward.

The operating budget is the legal plan under which the school system is funded. It puts in place the financial wherewithal to pay for one year's worth of education.

Budget Category	Last Year 2012-13	This Year 2013-14	\$ Amount Change	% Change*	% of Total Budget*
Salaries and Benefits ¹	\$ 10,235,119	\$ 10,082,445	\$ (152,673)	-1.5%	78.7%
Utilities and Heating Oil ²	432,778	368,534	(64,244)	-14.8%	2.9%
Student Transportation ³	595,397	623,195	27,798	4.7%	4.9%
Tuition - (out of district) ⁴	239,102	315,174	76,072	31.8%	2.5%
All Outside Services ⁵	901,724	982,349	80,625	8.9%	7.7%
General Supplies ⁶	303,413	329,435	26,022	8.6%	2.6%
Furniture and Equipment ⁷	33,000	39,400	6,400	19.4%	0.3%
Dues and Fees ⁸	77,466	77,466	0	0.0%	0.6%
TOTALS	\$ 12,817,998	\$ 12,817,998	\$ 0	0.0%	100%

- * Percents rounded to the nearest one-tenth of a percent
- 1: Salaries and benefits would be a higher percent increase but through the monitoring of our staff profile we have been able to offer early retirement incentives and reduce staff by 1 teaching assistant position.
 - 2: Electricity, water, sewer and heating oil
 - 3: In addition to regular school buses, some children require special transportation due to special needs (\$148,224). We also buy the diesel fuel for the buses through the purchasing consortium. That cost is \$53,625.
 - 4: Because some children, due to special needs, require school settings outside of Woodbridge, we pay tuition for their special education. This line item also includes \$18,000 for participation in the regional *Wintergreen Magnet School* in Hamden.
 - 5: Services we purchase or lease. Examples include telephones, insurance, Internet, postage, professional development, legal, technical and professional services, substitutes, building repairs, improvements and maintenance.
 - 6: Paper, pencils, books, wax, soap, paper products, band aids, software, envelopes, library books, subscriptions, etc.
 - 7: In most cases, furniture and equipment items purchased are replacements.
 - 8: *Ezra Academy* school nurse (required by state law), unemployment, memberships in professional associations, miscellaneous expenditures, other fees, etc.

For a more complete and detailed look at the operating budget, go to the district website and click on 2013-2014 budget.

School starts September 3



The Education Report of the
 Woodbridge School District
 Vol. 7,
 Summer 2013

Woodbridge Board of Education

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The Board of Education and the Superintendent of Schools gratefully acknowledge the dozens of staff members who made contributions to **The Bridge**, and to all the staff who make programs and children's minds come alive every day. Thank you.

The Woodbridge Board of Education does not knowingly condone discrimination in employment, assignment, program or service, on the basis of race, gender, color, religion, natural origin, age, sexual orientation, disability or unrelated abilities to perform the duties of the position.