

Burbank PTA Enrichment Activities 2016-2017

A significant portion of PTA funds – approximately 50% – is used to provide in-school enrichment programs. These activities provide experiential learning opportunities that enhance the curriculum. This year, enrichment programs covered a wide-range of science, math, English language arts, and social studies topics and benefitted students in all grades. In addition, classes utilized the two Burbank gardens to make direct connections to the curriculum and, for the first time, STEM Week included grade-level specific STEM activities.

STEM Week Enrichment Activities

Kindergarten – Light

Burbank Kindergartners participated in a STEM enrichment program about light. After discussing how light is perceived and properties of light, the students participated in four different hand-on light experiments. During the activities, the students asked questions, discussed what might happen, tested their theories and recorded their findings. This activity complemented the Kindergarten 5 senses unit.



First Grade – Air Pressure

Mad Science of North Boston presented a show illustrating the principles of air pressure to the 1st graders. The show included a soda bottle being crushed by the atmosphere, a hot air balloon made out of a dry-cleaning bag, and a hovercraft. This activity aligned with the 1st grade weather unit.



Second Grade – Green Chemistry

Burbank second graders learned about green chemistry - the science of creating products that are better for our environment - in a lively presentation by Beyond Benign - Green Chemistry Education. Working like real scientists, the students worked to make an alternative renewable and biodegradable material to replace Styrofoam using a mushroom fiber product developed by Ecovative. After allowing their material to grow for a week, the students observed changes in the material and tested its properties. As a final step, the material was composted. This activity complemented the 2nd grade compost/soil unit.

Second Grade – Classical Physics

The second graders accepted the challenge and experimented with classical physics principles to lift their teachers off the ground. The students learned about levers, fulcrums, torque, and mechanical work, and had a blast giving their teachers a lift.



Third Grade - Robots

Chuck the robot visited the 3rd grade classes during STEM week. The students learned that robots don't have to look or act like humans to be useful. Chuck helps people in warehouses find things in shelves faster, walk less, and carry heavy items. They learned the definitions of autonomous, mobile, and cloud and were really excited to know that Chuck can work 16 hours without also break. This activity supported the 3rd grade electricity unit.

Fourth Grade – Stop-Motion Animation

Empow Studios led Burbank 4th graders through the adventure of creating a stop motion animation story. Students paired up and used laptops and materials provided by Empow Studios to film a story of their own creation, capturing an image for each movement in the story. Each pair set the scene using materials like Legos or by drawing on a paper, and then used computers, webcams, and animation software to bring their stories to life. The students were focused and worked hard to finish their movies, which they were then able to take home.

Kindergarten Enrichment Activities

Honey Pot Hill Orchards Field Trip



After a hayride into the orchard, an "Apple Ambassador" gave the Kindergartners an introduction to apple picking and the orchard. The students picked apples into their own small bag to take home. Then all students were invited to taste fresh pressed apple cider and an apple cider donut, and to visit the farm animals. This field trip enriches the Kindergarten farms unit.



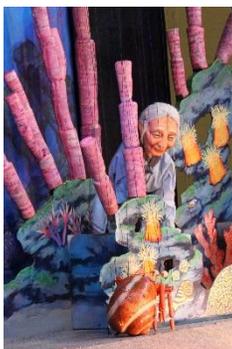
Perkins School for the Blind

The Burbank Kindergarten classes had a wonderful presentation from the Perkins School for the Blind on April 6th. With the help of her interpreter, Jaimi Lard, who was born deaf and blind, used a combination of slides and videos to show how she lives in her home, goes to the gym and grocery store, and manages daily tasks. She also taught the students some sign language. This activity aligns nicely with the Kindergarten senses unit.



Tanglewood Marionettes

On May 15th, the Kindergarten and 1st grade classes were treated to a wonderful and lively performance of "The Dragon King" by the Tanglewood Marionettes. Two puppeteers used beautiful hand-crafted marionettes and a colorful, changing set to tell the tale of an underwater journey based on Chinese folklore. Following the show, the students were given a behind-the-scenes tour of the set and an up-close look at the marionettes.



Building Bridges with the Museum of Science

The Kindergarten classes had the opportunity in May to experience the Museum of Science "Bridges Workshop." The workshop featured hands-on engineering activities. Working in small groups, they built small bridges over a river, and then each class collaborated as a whole to build a large bridge that they could walk over!



First Grade Enrichment Activities

Weather Workshop with the Discovery Museum

The Burbank first-grade students were transformed into meteorologists on January 17th as they conducted weather related experiments. They also combined art and science to create cloud prints, and were able to take home a Weather Observation Kit. This workshop was a perfect conclusion to the students' weather unit.



Aquatic Insects with Mass Audubon Habitat

On May 30th, the 1st graders learned about aquatic insects. Habitat teachers introduced the life cycles of a caddisfly, dragonfly, and mosquito at three stations. The students also created caddisfly homes. This enrichment activity was a wonderful complement to the first-grade insect unit.



Museum of Science's Life Cycles

During the life cycles workshop on June 6th, the 1st graders compared the life cycles of a golden retriever and a box turtle, a representative mammal and reptile, respectively. They meet Sherbet, a 40-year-old box turtle named for his orange color, and a White's tree frog. They also learned an action song about life cycles: all living things start small; they grow and develop; they become an adult; and, they reproduce.



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Second Grade Enrichment Activities

Author Debbie Miller

In October Alaskan author Debbie Miller visited the 2nd grade to talk about life in Alaska and its wildlife. She also shared with the students how she creates her stories and books and artwork. The presentation inspired many great questions from the students and got them excited for the 2nd grade Alaska unit.



Sled Dogs

On February 8th, the 2nd graders were treated to an exciting visit from John Kenney and his Siberian Husky, Teddy. Mr. Kenney is an



experienced dog musher with forty years of experience who shares his experiences with all the Belmont Elementary Schools each year. In addition to introducing Teddy, Mr. Kenney demonstrates how his dog sled works. This visit enriches the 2nd grade unit on Alaska and brings to life the Iditarod Dog Sled Race.



Life under a Log with Mass Audubon Habitat

At the beginning of May, the Burbank 2nd grade learned that there's much more to in the New England woods than we usually see: on each fallen twig, under every log, and in each pile of leaves, there are animals and other living creatures. By exploring this important habitat, the students discovered and explored the decomposers that are constantly working out of sight. This activity complemented the 2nd grade unit on decomposition and soil.



Jambo Africa

On June 5th, the 2nd grade classes explored lifestyle, family, customs, clothing, housing, education, food, health, work and play to identify cultural differences and similarities. One students dressed as a Maasai child and one as a villager were compared to one dressed as is to illustrate how we can be very different, somewhat the same, or identical in garb. The students were introduction to some Swahili words and phrases and were able to inspect African artifacts.



Third Grade Enrichment Activities

Electromagnetism with the Museum of Science

At this hands-on workshop, students explored the properties of electricity and magnetism. Student volunteers had hair-raising experiences, were shocked (gently) by the material, and learned first-hand the strength of magnets. Topics of discussion and experimentation included conductors, insulators, repulsive and attractive forces, and other topics related to the 3rd grade electricity unit.



Origami

Burbank's third grade classes were treated to a phenomenal origami instruction workshop, Origamido, by origami master Michael LaFosse. Mr. LaFosse is the author of more than 70 origami books and instructional videos and displays his origami masterpieces in art and academic institutes across the globe. Detailing how math and geometry skills are used in origami, Mr. LaFosse showed the students how to create boats and hearts – just in time for Valentine's Day. Students spent much of their inside recess time that week (thanks to ALL the snow) creating origami art and each child returned home with many of their own pieces.



Colonial Day

The 3rd graders traveled back in time as Burbank School was transformed into a Colonial school house, complete with schoolmasters and schoolmarms. Students, teachers, and parent volunteers dressed in costume and enjoyed a day filled with period games, activities, and food. From learning to candle dip, tin punch, and write with a quill to enjoying traditional partner dancing and lawn games, the students got a glimpse into many aspects of life during Colonial times.



Paul Revere House

In June, the 3rd graders found out what really happened during Paul Revere's midnight ride. They separated the facts from the myths surrounding the ride, and then acted out the events of that famous night in the roles of Paul and Rachel Revere, their children, British soldiers, rowers, Samuel Adams, John Hancock and others. This activity reinforces the Colonial Times unit and Freedom Trail field trip.



Third Grade Enrichment Activities (continued)

Animal Adaptations with the Museum of Science



On May 2nd, the 3rd grade students were treated to an Animal Adaptations workshop led by the Museum of Science. Students expanded their understanding of biological adaptations by observing both skulls and live animals. Through a lively discussion, students learned about the specific adaptations of each of the live animals. In addition, they engaged in a hands-on

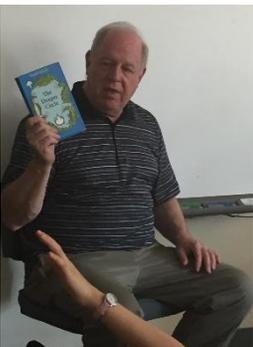


activity in which they become scientists and examined skulls to determine how the animal may have adapted. This enrichment program compliments the life science strand of the 3rd grade curriculum.

Fourth Grade Enrichment Activities

Science of Sounds with the Discovery Museum

In November, Burbank 4th graders participated in a hands-on workshop about the science of sound led by the Discovery Museum. The students observed, questioned, investigated, problem-solved, found evidence, and were able to conclude that sound is vibration. The students actively engaged in creating unique sound makers with household items, such as paper clips, cups, string, hangers, and wrenches.



Stephen Krensky

Each of the 4th grade classrooms were visited by acclaimed children's author, Stephen Krensky on June 13th. Mr. Krensky, an author of over 130 books, spoke about the writing and revising process and shared stories of his long and varied writing career. Mr. Krensky's books cover a variety of genres and target audiences.

Bee keeper

In mid-May, the 4th grade classes enjoyed a honeybee presentation by local beekeeper Birgit deWeerd. She mesmerized the students with her discussion of the social structure of the bee colonies and the critically important role of bees pollinating plants and making honey. She told students how to distinguish between honey bees and wasps. This was the 13th year that Mrs. deWeerd has presented to Burbank 4th graders and it continues to be a favorite for both teachers and students.



Garden Enrichment Activities

Kindergarten

In the fall, the Kindergarten classes visited the Vegetable Garden, to enrich their study of farms. Students did a scavenger hunt to explore plants at different stages of growth and to find insects. In the spring, the Kindergarten students explored the Garden Classroom, looking closely and classifying what they found as living or non-living.



First Grade



In the fall, the 1st graders visited both the Garden Classroom and the Vegetable Garden. They observed how the beanstalks from last year had grown and made more beans, with seeds inside. They saw that new pumpkins had grown from the old pumpkin that was left outside the previous last fall. And they found several black swallowtail caterpillars! These observations connect with their learning about life cycles. In the spring, the 1st graders searched the gardens for insects and other bugs and signs of their presence, such as webs and leaf damage. They found worms, grubs, ladybugs, spiders, leaf miners, roly-polies, and caterpillar eggs. They also planted carrots, dill, and zinnias to attract butterflies.

Second Grade

The 2nd grade classes visited both gardens in the fall. They reviewed plant life cycles and explored to find examples of plant parts and signs of fall. In the spring, they investigated soil components, dug and tested soil samples, and discussed how soil helps plants to grow. They explored the compost, discovered worms and other decomposers, and added compost and peas to the garden beds. The students also planted the planter boxes in the Garden Classroom with salad greens and root vegetables.



Third Grade



In the fall, the 3rd graders explored various herbs in the Garden Classroom and learned about their use in Colonial times for medicine and cooking. In the Veggie Garden students harvested the corn, beans, and squash that grew together as "Three Sisters" – an integrated planting technique used by the native Wampanoag – planted last year. In the spring, each 3rd grade class planted one of the three sisters, to prepare the garden for the rising 3rd graders.

Fourth Grade

In the fall, the 4th grade students dug for potatoes planted in grow bags by last year's 4th graders. They uncovered an exciting harvest and made memorable connections to their plant science studies and their unit on immigration.

After watching sprouts grow from the eyes of potatoes in the classrooms this spring, the 4th graders planted their potatoes. They learned about how potatoes grow and that dirt must be added on top of potatoes to prevent them from creating the toxin, solanine. This led to a discussion about how a toxin could be beneficial to a plant and other adaptations that protect plants from being eaten.

