



# ECO News

NOVEMBER

2013

## EDUCATING CHILDREN OUTDOORS

- Hyde Park Elementary
- Union Elementary
- Moretown Elementary
- Waitsfield Elementary
- East Montpelier Elementary
- Twinfield Union School

"You know how bears dig their dens and snow falls on it and it keeps them warm? We could use snow for the insulation!" - Twinfield 1st Grader in reference to our 'Insect Hotels'



Fake wounds call for real healing plants - yarrow

## More Sticks! More Math Outdoors!

by Amy Butler

This autumn I have spent hours cutting 2 foot long sticks in the forest behind my home. I also have a collection of sticks that are just a foot long and then a random assortment of sticks with twists and curves, just to shake it up a bit. With all these sticks piled in the back of my car it looks as if I am ready for a big camp fire. That's what most people think, but it's the exact opposite.

These are my "math sticks", not to get confused with plain old firewood! I have been bringing these to the schools I work with through the ECO program and have found many creative uses for them, primarily involving math.

We started out by asking students to make a shape where both ends of the sticks were touching the ends of other sticks. Each child got a stick and was invited one at a time to place their sticks in the growing shape. This took some coaching and guiding in the beginning, but these 1st and 2nd graders caught on quickly. After the last stick was added the

## Forest Apothecary

by Angie Barger

In Vermont, the growing season wraps up right around the same time the school year rhythm really takes off. We gather plants for medicine, but what does this really mean to a gaggle of curious kindergartners at Moretown Elementary School? Equipped with body paint and a box of giant bandages, we make off to their woodland camp where the fun begins.

The group is divided into two: doctors and patients. Doctors prepare the plants and bandages to create a forest apothecary, then listen to the story of Achilles to learn about the medicine of the yarrow plant (*Achillea millefolium*). Patients decorate their hands and arms with fake

"It looks like a space ship!"

"No,..it looks kind of like the Ferris Wheel I rode on this summer!"

"If we moved that stick we could have a house or a..."



Finding shapes with sticks

With the children's observations teachers took the opportunity to introduce and use math language. Polygons, square, rectangle, angles, rhombus, nonagon, acute, obtuse, parallel,... and it went on and on! The children were eager to create their own pictures with their own rules. Soon 50 sticks were not nearly enough for these students. Especially when it comes to making a giant robot or telling the story of Lightning Heart. More sticks, more math please!

wounds, much to their body-painting delight. Soon, patients wander in the direction of the doctors who greet them with empathetic tones in their voices.

Doctors are cued up to listen to the patients' complaints and ask them how they can help. They discern whether their patient may need yarrow to staunch a bleeding wound, plantain to heal a bruise or bug bite, or pine needle tea to provide extra vitamins and minerals for an early onset flu.

While the healing properties of plants play a role in our lesson today, we delight in the empathy learned and practiced within the class community.

## The Best Part of ECO

by Hyde Park 5th Graders



Hyde Park student tends fire for the Thanksgiving celebration

The best part of ECO is getting to go outside with a bunch of my friends. Building the fire ring with everybody really helped me get to know who my class mates are and what they like to do. You really get to know what everybody likes to do for fun. In class you get to see who is good at explaining them-

selves for math or something, but outside you get to see how they act if you let them have some fun and be active but at the same time still learning how to do, well, what ever I guess? If you did not have your friends to help, it would be hard to accomplish anything.

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I love being able to go outside because of all the beautiful leaves and camps that we made. While we're outside we get to choose a sit spot where we can sit down and reflect on how our ECO day was. I also like to be outside during ECO because we get to play all kinds of games before we go into the woods. The woods right now is beautiful. You can hear the river rushing by. You can hear the leaves crunch as you walk by. You can feel Jack Frost biting at your nose. And you can smell the smoke from the

warm and cozy fire. I also love all of the people outside with me, they keep me company as if I was with my family. I just love ECO, it's just an amazing activity to do every Wednesday.

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The best moment of ECO so far has been building the fort because you got to learn two different kinds of knots. You got to pick your spot for the fort and then you got to make your fort. I helped put the tarp on and stake out the tent. Some people had stations and I was in the tent making station. I learned how to tie the figure eight knot. My team's fort is by the river.



"I am thankful that our children have the opportunity to put down their textbooks once a week and do some learning outside in the fresh air" - Parent of Hyde Park 5th grader

## Owls, Mice, and Seeds!

by Lindsey Vandal

The focus at ECO with the 3rd graders at Union Elementary this fall has been habitat study. Most recently, each class visited Hubbard Park to play a running game to learn about population dynamics and food chains. The goal of the game, "Owls, Mice and Seeds," was to stay the same living thing you started as. One or two children started as owls, a few represented mice, and the rest pretended to be seeds. Over

the course of about fifteen rounds, seeds dispersed across our field habitat, mice foraged for those seeds and owls hunted for mice. Depending on whether you ate or were eaten, you'd change into another creature or remain the same. Several trusty parent and community volunteers recorded the populations of each creature at the end of the round. At the end of the game, we had a complex graph that

the students analyzed. The students clearly and confidently explained how the populations of these three creatures were directly interrelated. For example, when the mice population increased, there would be a drop in the seed population the next year because there were so many new mouths to feed. The students' understanding of this complicated scientific concept was deepened (and made really fun) by playing an invigorating tag-based game outside on a beautiful fall day!

## Full Moon Snowshoe Hikes @ NBNC

Join us this winter as we strap on our snowshoes under the glow of a full moon and explore the winding river banks and open fields of the North Branch Nature Center in search of nocturnal activity. The glistening rays of the full moon just may illuminate how some animals survive the cold nights of winter.

Don't own snowshoes? No problem! We'll have enough snowshoes and hot chocolate to outfit the whole family!

When:  
Fridays, Dec. 13, Jan. 17, Feb. 14, 7:00 - 8:30 p.m.  
Fee: \$5 members, \$10 non-members

