

GROWING AN OUTDOOR EDUCATION COOPERATIVE

A middle school, a university, a conservation agency and a government agency all walk into a watershed...



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PRINCIPAL EVALUATION CRITERIA

*Improving Instruction, Managing Resources,
Engaging the Community, Aligning
Curriculum*

Sometimes, neat things begin with a simple conversation. That's how Cheney Middle School's (CMS) unique outdoor education cooperative began. This cooperative unites seventh-grade students and their teachers with preservice teacher education majors at Eastern Washington University; a local conservancy organization, The Lands Council; and Partners for Fish and Wildlife, the private lands program of the U.S. Fish and Wildlife Service. Through this cooperative effort, 300 seventh-graders learned about human impact on watersheds and what they can do to protect and improve their local ecosystem over the last two years. In addition, they collectively planted close to 2,500 native trees and shrubs on private lands in order to create animal habitat, restore riparian areas and improve water quality.

In the fall of 2015, Eli Holm was a new assistant principal and athletic

director at CMS. He recently moved from Federal Way Public Schools, where students were engaged in outdoor science education with the Mt. Rainier Institute. One crisp fall day at a cross-country meet, he struck up a conversation with a couple of parents and quickly found a shared interest in outdoor education. One of those parents, more specifically, the author of this article, happened to be a professor of education at Eastern Washington University. I sought out another professor of education at EWU, Dr. Kathryn Baldwin. She was interested in getting field experience for her preservice teachers so they could become trained in, and advocates for, outdoor science education.

THE PARTNERSHIP

The trick, however, was finding a partner. After several months and failed attempts, we finally stumbled onto The Lands Council. Kat Hall, conservation and education director for The Lands Council, had a federal

(EPA) grant administered through the state (Ecology) and was looking for a local school in the Latah Creek/Hangman Creek watershed to partner with in riparian restoration work. She already had cooperative agreements in place with two private landowners in the Cheney School District.

A partnership was born!

Ms. Hall and the Lands Council work in partnership with Partners for Fish and Wildlife's Brian Walker, who works out of nearby Turnbull National Wildlife Refuge.

THE PLANTING

Holding an education session at the middle school to learn about threats to the watershed was the program's first step. The middle school teachers worked to create a cross-curricular unit for the students. Hall trained the college students in the use of Enviroscope models before bringing them to CMS. The college students taught groups of seventh-graders during their life science class using

the models to demonstrate how pollutants enter the ecosystem.

Taking the middle school students out to the site was the next step. Here, Walker and his crew were hard at work preparing the planting areas by machine-digging holes and erecting exclosures, which are areas created to exclude unwanted animals, to protect the young trees and shrubs from wildlife. Partners for Fish and Wildlife also provided the plants and shovels. The plan was to take the middle schoolers out on two different days, half on one Friday and half the next. Unfortunately, on the first day a windstorm blew in and Holm had to postpone the trip, so the next Friday all 150 students went to the sites together.

After receiving initial training by Ms. Hall and Mr. Walker, the preservice teachers each supervised a small group of students. In fact, the kids planted every tree or shrub on site, close to 1,000 in all! Happy, muddy students returned to school beaming about their accomplishments and time outdoors.

The next year, Fish and Wildlife brought more trees and shrubs. Mr. Walker is enthusiastic about the cooperative arrangement.

“Partnering with EWU, CMS, and The Lands Council allowed these restoration projects to greatly expand the planned riparian planting component,” said Walker. “We were able to expand from a total of a half-acre of planting to more than three acres, increase the number of planted trees and shrubs from 500 to nearly 2,500, and do it all while educating students and restoring native wetlands.”

In addition, over the first winter, almost every tree or shrub survived.

WATER SAMPLING

In the spring, the students headed back out to the planting site with half going on one day and half on another

day. While the planting area was dry in the fall, the spring brought water everywhere in wetlands created by the U.S. Fish and Wildlife Service adjacent to the planting areas! The task for the day was to sample water quality. Again, Ms. Hall trained the preservice teachers, who in turn worked with small groups of students.

“Happy, muddy students returned to school beaming about their accomplishments and time outdoors.”

The students tested the water for pH, nitrates, dissolved oxygen, and clarity. For another test of water quality, the students sampled the water for macroinvertebrates and identified a number of species. Students took great delight seeing how many creepy crawlies were already living in the water. This spring, a new group of seventh-graders will return to the site and test the water again and compare to last year’s findings.

Dr. Baldwin is also pleased with the partnership, saying “This project benefits our preservice teachers with a practical experience teaching natural resources in an authentic context with actual students! They get to plan lessons and get feedback from the middle school students to inform their teaching in the future,” she said.

“I think with this experience, more preservice teachers will feel confident to teach students about natural resources and get students outside to learn in context.”

COMMUNITY NIGHT

The final phase of the project included a community night at the middle school. One of the goals of the Lands Council is community outreach and education. Under the guidance of CMS teachers, all the students worked on projects relating to the

environment and created a visual display to show what they learned. Then, parents, family members and the community were invited to CMS to see the displays and listen to the students present their research.

Presentations varied from tri-fold poster board displays to videos, to a live performance! The evening was a great success and a fitting conclusion to an exciting new endeavor. Assistant Principal Holm is positive about the total experience for his students and teachers.

“Cheney Middle School students and staff greatly benefited from the partnership. Our students are learning from experts in the field and preservice teachers are provided an opportunity to see what it looks like to teach outside the four walls of the classroom,” he said. “We are preparing future teachers, environmental stewards, and engaged citizens.”

TAKEAWAYS

The hope for all partners is to create a sustainable relationship, lasting for many years, to benefit middle school students, preservice teachers, the local environment and the community.

This year’s seventh graders already planted their trees and are eager to get back out into the field in the spring. What’s next for CMS?

Mr. Holm’s long-term goal is for each grade to have its own ongoing outdoor science education experience.

Ms. Hall’s remarks might summarize things best: “When a local non-profit, a university, a federal agency, and a middle school join forces to help restore degraded watersheds and provide youth with outdoor environmental education, everyone wins.” ■