

Charting Their Own Course: Kokhanok Village Uses “Real Life” Examples to Teach Kids



Developing an environmental education program for your village or tribe that reflects its unique history, culture, and values is a lot like navigating uncharted waters. That’s what Roy Andrew, president of the Kokhanok Village Council (KVC), discovered when he decided to pursue a customized approach to teaching that used “real life examples taken from our own people, village sites, problems, and history.”

The KVC had decided to focus on educating children because it recognized that any money spent on cleanups and other environmental improvements would be wasted unless the next generation understood how the village’s growth and development had affected its environment and learned safer disposal practices. “We must impart our knowledge to future generations so that they don’t repeat the same mistakes,” Mr. Andrews asserts.

Like any maiden voyage, however, Mr. Andrew’s quest to develop a unique education program encountered many difficulties. The biggest setback occurred when Mr. Andrew, fresh from college and full of “pride in my work and my communication skills,” gave young village children “college style lectures” on the environment.

Instead of giving Mr. Andrews their rapt attention, he says “the kids became impatient, lost interest and just endured what I had to say” because their teachers were in the

room. The school subsequently cancelled the lectures.

Feeling defeated and despairing, Mr. Andrews thought about never teaching kids again. He eventually realized, however, that “he had nowhere to go but up.” He decided to learn from his mistakes and change his approach. Instead of doing everything alone, he brought in the KVC, Kokhanok School staff, village residents, and the students so they could “design a program together.”

Together, Mr. Andrews explains, “we took into account all of our mistakes and worked to develop a new type of curriculum utilizing many different types of education approaches for students from K-12.” Besides the curriculum, the village education plan includes:

- Student produced videos that document village environmental history and progress.
- An environmental fair and awards ceremony to recognize

school kids’ environmental achievements.

- A printing and learning center for kids to print booklets and posters.

To fund its plan, Kokhanok Village received two “small, but potent” \$10,000 grants from the Alaska Native Health Board. According to Mr. Andrews, small grants work well because “they force you to develop short-term, attainable goals.” The short, 4-page application was also appealing.

The Kokhanok Village president believes that values he learned growing up as a child in this small village of 170 people helped get him through the tough times and offer a model learning program for his people. He urges others to always keep their goals and a sense of higher purpose in mind so that when disappointments occur, “you don’t feel victimized and insignificant.” He adds: “Be persistent and ready to work hard!”

In the end, this advice paid off. True to Mr. Andrews' original goals and vision, the finished curriculum combines modern environmental concepts with "emik," or what Alaskans call the "insider's point of view."

Cultural messages are woven throughout its pages. For example, the lessons use village geographical features, such as Lake Iliamna and animals and birds such as seagulls, swans, caribou, and seals that live in and around the lake, to help children understand that "we are all connected in a very special bond and unity" that deserves respect.

Each chapter of the curriculum examines the changes in village fuel use, along with solid waste, water, and wastewater management practices from 1955 to the present. Detailed maps and diagrams show visually how the village has evolved, including who lived where during the various time periods, and what family dump they used.

The curriculum is also filled with terms like "culvert" and "chlorine test," but they are explained in simple language, and the concepts are



Abandoned appliances and other scrap metal collected during Kokhanok's cleanup.

driven home by diagrams of how, in this case, water flows through the village—from source to sewers.

Drawing on his love of anthropology, Mr. Andrews peppers the technical material with anecdotes and stories from elders so that young village children understand traditional culture and values. For instance, for years, families got water from Lake Iliamna in the winter by boring holes into five feet of ice and "packing" it in 2 five gallon buckets. The lake in winter served not only as a source of physical sustenance, but as a meeting place as well, much like the coffeehouses of today.

However, village elders assert that "self-reliance in providing water for ourselves" ended in 1996 when the IHS installed a modern water supply system, and brought in a core of qualified personnel to operate and maintain it. "Gone were the days of water holes, packing water, socializing, frozen water buckets...knowing who lit their steam baths on certain days and watching who and when anyone would go out to chop a hole in the ice," the elders lament.

It is village culture and history such as this that Mr. Andrews fought so hard to see come to light. And through his persistence, vision, and hard work, he's been able to see something equally as amazing—the children's eyes "light up" as they look at the maps and hear about their village history.





Kids Page



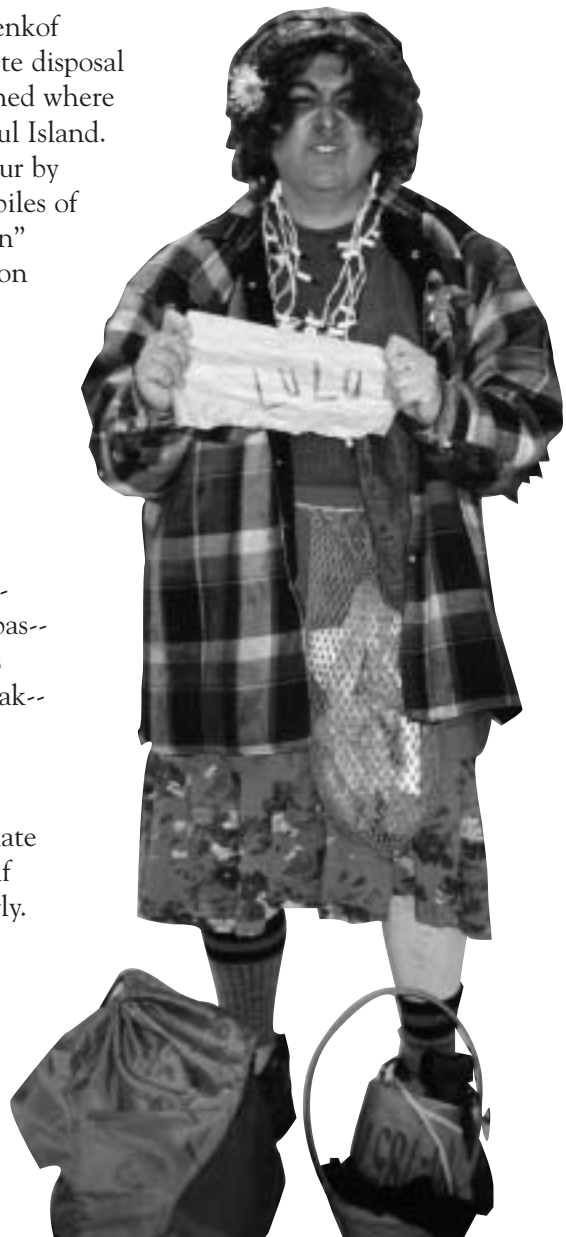
OF THE EPA TRIBAL WASTE JOURNAL

Lulu the Landfill Lady

Meet Lulu the Landfill Lady. She calls the St. Paul Island landfill home. Lulu, also known as Aquilina Lestenkof, was created for the St. Paul Island Ecosystem Conservation Office's household hazardous waste (HHW) collection event. Ms. Lestenkof transformed into Lulu by pulling on orange and black-striped socks and pairing an old flannel shirt with a floral skirt. She also accessorized, draping a string of Christmas lights around her neck, adding a gaudy hat with pink flowers, and tying a mesh bag to a rope around her waste.

After residents dropped off drain cleaner, batteries, and other hazardous items at the collection event, Ms. Lestenkof offered to take them on a tour of the local landfill, leading interested children and adults onto a school bus destined for the dump. Young children eyed Lestenkof suspiciously, recognizing her face, but not her clothes. During the ride to the landfill, she talked fondly of her home among debris and many children began to believe that she was really Lulu.

At the landfill, Lestenkof described proper waste disposal practices and explained where waste goes on St. Paul Island. She spiced up the tour by referring to specific piles of debris as her "kitchen" or "bedroom." Back on the bus, she challenged children to think of waste reduction techniques, including reuse and recycling. As Lulu, she also bestowed buckets of "green" cleaning supplies to a few lucky passengers. The buckets contained vinegar, baking soda, and other alternatives to harsh cleaning products, which can contaminate local water supplies if disposed of improperly.



ONE PERSON'S WASTE IS ANOTHER PERSON'S WARDROBE

During an Earth Day fair, students on Prince of Wales Island used recyclable materials to create clothing and accessories, modeling their designs during a "trash-ion" show. The fair also featured a trash art display as some of the children used recyclable materials in collages and sculptures.

After the trashion show, students admired Earth Day logos designed for the event and participated in a poetry contest. They also strolled to tables staffed by representatives from the U.S. Forest Service, the Alaska Department of Conservation, and the Alaska Department of Fish and Game, where they received information about environmental issues and learned how to crochet backpacks, handbags, bath mats, baskets, and other items out of plastic bags. Students from the Organized Village of Kasaan talked about their red worm composting project. They feed food scraps to a bin full of red wigglers that process the organic material into nutrient-rich compost and sell small bags of the final product to community members.



The Ultimate Can Crusher

Can crushing and a solid waste management lesson produce a smashing combination in the classroom. Students learn that it is important to reduce the volume of waste by designing their own can crushers. Many Alaska Native villages ship recyclable materials such as aluminum cans to Anchorage or Seattle on barges or airplanes, where space is limited. By compacting materials, villages can ship more recyclable items. For some villages, recycling is not logistically or economically feasible, but landfill space is at a premium. Compacting can reduce the volume of waste and provide an alternative to burning.

After introducing the concept of simple machines such as levers and pulleys, teachers can collect rope, wire, hinges, screws, nails, wood scraps, bricks, blocks, and other materials and ask students to design a can crusher with them. Before beginning the construction phase, students



should write instructions for building their machine. They should also be able to explain how the machine will work. Under adult supervision, the construction phase can proceed, and when the students are finished, a testing phase can stimulate a discussion of waste volume reduction options available to villages.

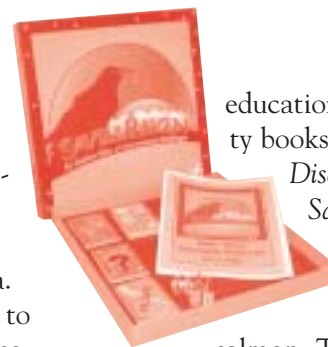
For additional information about this activity, visit www.epa.gov/epaoswer/osw/kids/quest/pdf/31crush.pdf, or order a free copy of *The Quest for Less: Activities and Resources for Teaching K-6* (EPA530-R-00-008) from EPA's RCRA Call Center at 800 424-9346 or 703 412-9810.

Savin' Raven

Be the first to experience the excitement of RurAL CAP's Savin' Raven game. This colorful board game is popular in schools, community halls, and homes throughout rural Alaska. Savin' Raven inspires children to discuss waste management issues affecting their communities.

The board includes nine destination sites, ranging from a dump to a community recycling center, spread across a map of Alaska. Players race to dispose of items such as styrofoam packing peanuts and used oil at the proper site. Along the way, they learn about environmental hazards and answer questions about solid waste management.

Rural CAP also distributes an educational kit that includes videos,



educational posters, activity books and curriculum.

Discovering Alaska's Salmon focuses on the life-cycle and cultural significance of salmon. The teachers'

guides also contain information and activities tailored to children in rural Alaska. One exercise, for example, involves interviewing elders to obtain information on past waste management practices.

Rural CAP provides Savin' Raven and the educational kit to rural educators for free. To order a copy, contact Ellen Kazary, RurAL CAP Environmental Program Coordinator, at 907 279-2511 or ekazary@ruralcap.com.