

News Release

Everett Public Schools

March 25, 2008

For more information:

Bob Sotak, 425-385-4676

Mary Waggoner, 425-385-4049

Life lessons in pop bottle *eco-columns*; schools desperately seeking the bottles

Shirley Maynard is on a mission to collect 2-liter pop bottles for elementary schools. She sees this as another part of her job orchestrating the EverettPublic School's massive distribution of science kits. Maynard's base of operations is the 5,000 square foot Science Resource Center (SRC) in the basement of Hawthorne Elementary. There, Maynard, volunteers and other staff, warehouse, re-supply, ship and accept the return of 1,100 different lessons in a box used in science lessons in the district's 26 schools. The science kits are a basic tool in the district's inquiry-based science program and are used by teachers from kindergarten through 12th grade.

One of the elementary science kits brings ecosystems alive for elementary students. Each year students in the district's 17 elementary schools, build *eco-columns* using almost 2,300 2-liter pop bottles in the process. Everything, from the smallest organism to a complex human being, lives within a community made up of living and non-living things. We call this an ecosystem, explains Maynard. In this lesson, students build a model ecosystem (*eco-column*) using three 2-liter bottles. Each resulting multi-tiered world connects a terrarium life system on top to an aquarium life system on the bottom.

Students stock their tiny worlds with living and non-living elements — soil, gravel, rocks, twigs, alfalfa, grass, algae, pond snails, fish, crickets and bugs. These live and inanimate supplies are also part of the ecosystem science kit inventory stocked, stored and shipped by Maynard and her crew.

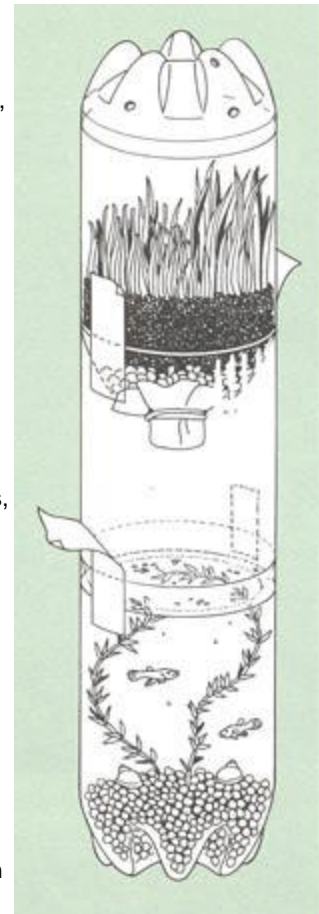
As students nurture their *eco-columns* and observe changes, they begin to understand how every living thing is interdependent, explains Bob Sotak the district's K-12 science specialist. As part of the science inquiry process, students speculate how the terrarium top impacts the aquarium bottom and what part pollution might play in the life cycles of both. Students design pollution experiments for *eco-columns* that *do not contain* animals, and they study the effects on the various organisms. Using this data, students can speculate how pollutants might affect ecosystems *with* animals.

This way, students are learning the importance of accurate record-keeping, how to plan an experiment and the necessity of experimental controls. They also draw parallels between the things that happen inside their model ecosystems and the things that occur every day in the real world, explains Sotak.

The lessons are powerful, and the unit is basic to the district's science program. However, a big challenge each year is rounding up enough 2-liter bottles to supply the district's 17 different elementary schools. It takes about 2,300 2-liter bottles each year, emphasized Maynard, and each year we end up buying some bottles full of soda at the last minute, then draining them to get enough building blocks for the *eco-columns*.

Knowing that people drink soda year-round and that many of the 2-liter bottles end up wasted in a landfill, Maynard and Sotak have launched a 2-liter bottle drive. We ask that you rinse the bottles, replace the caps if possible, bag them and drop them off at any Everettelementary school, urges Sotak. If you have a large number of them, call us at (425) 385 -4676, and we will arrange to pick them up.

Appropriately, students'life cycle learning ends with a matching recycling process. As Maynard explains, We retrieve all living organisms and bring them back to the SRC where we nurture them for the next rotation. Once emptied, the old *eco-columns* can also be dismantled, rinsed, and in some cases, used again. Teachers not wanting to store good bottles for next year are encouraged to return them to the SRC. The bottles whose own life cycles are finished as drink-holders/world-holders begin life again with a stop in the recycling bins. Of the symmetry of the process, Sotak grins, It's almost poetic.



---end---