

A Model Outdoor Classroom Program for Middle School

By Gary Edmondson

Sally Wall has been teaching science to 7th and 8th graders at Seabrook Intermediate School in Clear Creek Independent School District for the past 13 years. Sally has won outstanding educator awards twice from the Space Center Rotary Club and also from the Mayor of Houston. She was Clear Creek ISD's outstanding secondary educator, and she won the state and national *Project Learning Trees Outstanding Environmental Educator Award*.

Why the Approach Works

What I found most impressive about Sally's use of the Outdoor Classroom were the programs and routines that she established with her students. These allowed her program to become sustainable without extra assistance. Student lead maintenance of their outdoor areas is built into the program, while funding is taken care of both by the school district and local business support. Another important concept is Sally's belief that you must keep students motivated, and this is done by creating programs that allow students as much interaction outdoors as possible.

How It Works

The summer before the program started, Sally and another teacher Kassie Moore, helped write and develop the curriculum for a new *Grow Lab for 7th Graders* class.

The class takes place in the winter and spring of the year. Planter boxes are a big part of the curriculum. The purpose of these boxes is to show kids how to garden naturally, use organic treatments to solve problems, create an environment where statewide TAKS testing objectives can be taught, and to learn about watering and maintaining a garden.

The planter boxes are raised beds that measure 5' x 10'. Each winter the 7th graders begin by growing

seeds in the greenhouse. Students are divided into groups of 5 or 6. They must work cooperatively designing a box of plants they have chosen to grow, propagating with seeds, planting the box, weeding and maintaining a bed, and watering it.

They are graded on these responsibilities and skills. Students grow flowers, vegetables, herbs, fruits, and native plants. They keep a journal on the growth progress of the plants by recording milestones such as when fruits or flowers begin to appear. They also learn about using organic alternatives to treat plants for disease. An award called the *Golden Trowel Award* is given for the box with the best diversity, maintenance, and design.

The following fall, when these 7th graders who have become 8th graders, there is a follow-up class. They look at what has happened to their unkempt boxes over the summer, observe what has survived, determine the populations of plants, and if seed has been produced. They then clean out the beds and prepare them for the new 7th graders to use in the spring.

Planting by the Moon

This past year, they used *The Farmer's Almanac* to plant by the moon. They did a comparison of the plants that were planted by the moon and those that were planted at another time. They noticed that above ground plants came up sooner and were healthier, but below ground crops showed little difference. There are other science classes including modules from *Wild and Free* and *Sea a New World*.

Animal & Plant Life

Across the street from the school there is a larger park, which is partially wetlands. There, the students are able to observe ecosystems and study TAKS objectives. They are

able to look at the differences between monocots and dicots, identify tree leaves, study ecosystems, look at biotic and abiotic factors, and use the wetlands. In these areas, they are able to use several curricula such as *Project Learning Tree*, *Wonderful Wetlands*, *Project Wild*, and *Aquatic Wild*. *Project Wild* and *Aquatic Wild* provide students a way to study animals and ecosystems. In addition to these curricula, the teachers have come up with many other sets of lessons that help them learn in the garden, wetlands and forest environments.

Middle school is often, jokingly at least, considered a zoo, but at Seabrook Intermediate School they have a real zoo with animals in it. This is located in the Living Material Center. They have over 65 species of animals. There are snakes, turtles, hamsters, fish, a bobcat, and many other animals as well. They use the animals to study genetics, variations within species, and as part of science fair projects.

Seabrook Middle School's use of the outdoors provides us with a model program. They have sustainable funding, and they have succeeded in building into their program methods for maintaining both their garden beds and their plant and animal study areas. This is the ideal that all schools want to attain.

This article was written by Urban Harvest, a non-profit organization that provides schools assistance in building, maintaining, and using curriculum in the outdoor classroom. For more information see www.urbanharvest.org