



## Celebrating Arbor Day with Local Students

by Cathy Ronk, UC Master Gardener

On April 30, 2015, a group of 25 Master Gardeners collaborated with Mooney Grove Museum Staff and Park Rangers to celebrate Arbor Day with 262 third through fifth grade students. The Master Gardeners have participated in this educational event organized by the Student Event Coordinator with the Tulare County Office of Education since 2002. Outdoor teaching stations located in various areas of the park gave the students a variety of learning opportunities.

The museum curator offered an acorn grinding experience. She talked about the uses of trees, especially what kinds of food come from trees. The students sat under a valley oak tree as they learned how the Yokut Indians gathered acorns and stored them at least 6 months before grinding them into powder for food. Then students used stone mortars and pestles to grind acorns and soon realized that much hard work produced only a little acorn powder!

A scavenger hunt, prepared by the museum curator, asked many specific tree questions that coincided with items on display in the museum. Park rangers showed the difference between inorganic mulch (such as rocks and plastic) and organic mulch (mulch that decomposes) at the mulch pile station. Students learned the value of mulch, like keeping the soil at even temperatures, retaining water, and discouraging weeds from growing. They thought about what kinds of bugs might be found in a mulch pile, then dug in the pile and found some bugs.

**“All About Seeds,”** is one of three stations taught by the Master Gardeners.

Here, the students learned to identify plant parts, where seeds come from, and how seeds grow. They were shown a bowl full of a variety of seeds, and compared their different shapes, sizes and colors. A matching game pairing a seed with the picture of the plant it will grow into challenged each class. Many trees are grown by seeds; some “planted by” the wind and birds. The term “germination” was defined and the elements needed for germination—light, water, air, and root space, were taught. Students broke open a pre-soaked lima bean after removing the seed coat. Inside, they saw the baby root, stem, and leaves beginning to form, and the part of the seed that contains food for the baby plant (cotyledon).

**The “Backyard Buddies” station** is where the students learned the difference between a “Pest” and a “Pal.” The food chain was discussed, and the class was introduced to the practice of integrated pest management (IPM). Students were shown pictures of organisms (i.e. snails, bees, birds, and spiders) that might be found in their backyards or at the park. Discussion included why some animals they might consider pests are really pals in a garden, and how pesticides can kill these helpful creatures. Their absence disrupts the food chain by eliminating food for birds, snakes, frogs, etc. IPM involves managing pests with natural and low-toxicity



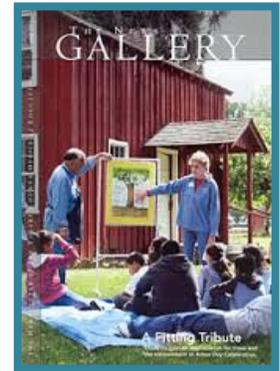
Cathy Ronk planting Redbud tree



Students planting a tree

methods, such as physically removing the insect pests and the use of beneficial predatory insects. These practices can minimize the use of pesticides. The concept that a bug is only a pest when it is found in high numbers was emphasized. The students handled snails (pests) and earthworms (pals). They used hand lenses to observe their heads, eyes, sense organs, and tails.

“**All About Trees**” provided the classes with a greater awareness and appreciation for trees in their environments. Students sat at tables covered with 55 fresh tree leaf and branch cuttings, introducing them to many different types of trees. The variety of mature trees in the park was noted. The Master Gardeners talked about the ways trees enrich our environment by providing beauty, relaxation, shade, privacy, oxygen, noise/wind/energy reduction, erosion prevention, and--their favorite--something to climb! They learned that over 5,000 different products come from trees, including our houses and paper. The definition of a tree, parts of a tree, and what a tree needs to grow were discussed. The amazing process of photosynthesis was taught, emphasizing that only plants know how to change the sun’s energy into healthy food for plant, people and animals. The by-product of this process in trees is free oxygen.



TCOE Arbor Day

Fittingly, this tree station also shared a brief history of Arbor Day with the students.

J. Sterling Morton and his wife, Carolina, moved to Nebraska Territory from Michigan. The couple loved nature and sadly noted there were no trees in the Nebraska plains. They quickly planted trees, shrubs, and flowers around their newly established home. Mr. Morton, a journalist and editor of Nebraska’s newspaper, spread his agriculture information and enthusiasm for trees. He first proposed a tree-planting holiday to be called “Arbor Day” in 1872. More than a million trees were planted in Nebraska on the first Arbor Day. Schools nationwide began celebrating Arbor Day in 1882. The most common date for observance is the last Friday in April. Arbor Day is a time for planting new trees in yards, parks, neighborhoods, and communities, as well as a time to appreciate trees for their beauty, value and usefulness.

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