

**Acorn Woodpeckers:** Students learn to identify one of the most interesting birds at Circle J! They learn that AWP's eat insects in summer and store acorns for consumption in winter. They observe an active acorn granary and learn about nesting habits. NGSS: 1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive. LS1.B Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring survive.

**Pond & Stream Investigation:** Student observe the stream and pond environments and then collect tiny aquatic life- snails, insects and fish. They examine the creatures using magnifiers and microscopes, describing the external features that help them to survive. NGSS: LS1-A: Structure and Function: All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air. Plants also have different parts (roots, stems, leaves, flowers and fruits) that help them survive and grow.

**Who Will Plant a Tree?:** We read the book Who Will Plant a Tree? by Jerry Pallotta and then go on a journey collecting seeds (using a sock over our hands) to see all the different ways seeds travel at Circle J-Norris Ranch. We will search for Scrub Jays burying acorns, ants collecting seeds and animal scats full of seeds to discover the animals planting trees and shrubs at Circle J! K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

**Service Project: Habitat Restoration:** Students will plant young native plants and observe the differences between the young plants and the older, more mature plants in the area. 1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

**Bird Nest Building:** Students quietly listen to & watch bird activity. They are challenged to design a nest, find a safe location, and build the nest in a way that will maximize the success of offspring. They learn about bird about nest building & nesting habits of birds. K-2-ETS1-2 Develop a simple physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

**Exploring for Insects & Spiders:** Students use insect nets to capture insects & spiders. They carefully place them in Lucite magnifier boxes and examine them closely to identify body parts & their functions. LS1.A Structure and Function

**Nature Walk:** Students explore nature on a walk around Circle J. Students will find different types of living things, including plants, insects, lichens, birds, etc. and will discuss what each may need to survive at Circle J. Students will compare Circle J to their homes and school to analyze what impact humans may have on the natural environment. K-ESS3-3, and K-LS1-1.

**Investigating Insect Galls:** Students search for, collect, observe and then sketch galls (insect nurseries). They learn about the life cycle stages of the insects and how to identify each stage. They observe as adults dissect some galls and view the insects under magnifiers, keeping data on what they find inside! afterwards, they draw and label a diagram model of the Gallmaker wasp life cycle.

**Oak Woodland Exploration:** Hike the ranch and search for animals and plants. Look for nests, burrows and other animal homes. Learn that flowers produce seeds and animals can transport seeds. Collect seeds to plant next season. LS1.D Information Processing If we see cows and calves- LS3.A Inheritance of Traits