

# Back to Natives EDUCATION

## TRAVELING NATURALIST PROGRAMS FOR K - 6TH GRADES

A Back to Natives Naturalist is available to visit your classroom and present the following programs based on the California State Content Standards for Science. These exciting, interactive presentations can stand alone or enhance one of our Schoolyard Habitat Garden Programs!

**Cost:** K – 5<sup>th</sup> is \$50/1 hr. presentation, max 35 students (6<sup>th</sup> is \$75/2 hr. presentation)

**Schedule:** 949-509-4787 or education@backtonatives.com

### **GRADE K** (Standards: 1a, 2a, 2c, 3c, 4a, 4b, 4d, 4e)

Students learn the importance of plants, and participate in a “skit” to learn about roots, stems, leaves, seeds, and the things seeds need to grow. Participants learn about the characteristics shared by mammals, and feel a real mammal pelt. They learn about the characteristics shared by birds, touch a real bird wing, and play a game to match egg replicas to the birds that “laid” them. They learn about the characteristics shared by reptiles and touch a turtle’s shell. Students learn about insects, and watch as one of their classmates “becomes” a butterfly.



### **GRADE 1** (Standards: 2a, 2b, 2c, 2d, 2e)

Students learn that plants need water and light, and review the role of roots and leaves in making food for plants as the students “grow” from seed to plant to flower to seed again. Students learn to tell what an animal eats from looking at its teeth as they observe the skulls of a native carnivore, omnivore and herbivore. Students learn about the features that help mammals, birds, insects and reptiles thrive in different kinds of places. They see and touch a mammal pelt, antlers, claws and hooves. They perform experiments to see (and hear) why owls hunt well at night, and watch as a classmate “becomes” an insect with compound eyes, antennae, six legs and wings. They touch a real turtle shell and discover how reptiles thrive in hot, dry places.

### **GRADE 2** (2a, 2b, 2e, 2f, 3e)

Students participate in a “skit” to learn how flowers and fruits help plants reproduce. They learn the effects of light and environmental stress on plant germination and growth. Students view realistic life cycle models to learn about metamorphosis, and explore our “family album” to learn that animals reproduce offspring of their own kind that resemble their parents and each other. Students learn that insects, birds, and reptiles hatch from eggs, and observe egg replicas to guess what animal emerges from which egg. Students observe the skulls of various animals, and determine which is predator and which is prey based on the position of their eyes.

### **GRADE 3** (1a, 3a, 3b, 3c, 3d, 3e)

Students participate in a “skit” and discover that energy comes from the Sun to Earth in the form of light. As plants, students use their structures to grow and reproduce. Students learn about the adaptations of diverse life forms in different environments. They see and touch the teeth of a shark from the ocean. They perform experiments to see and hear how owls hunt well in a grassland. They feel the sharp claw of a bobcat, who hunts well in the forest, and touch the shell of a reptile that is adapted to the hot, dry desert environment. Students learn that some changes in the environment are detrimental to animals, causing them to become endangered and extinct.

## **GRADE 4** (2a, 2b, 2c, 3a, 3b, 3c)

Students become junior ecologists as they discover what an ecosystem is. They learn the importance of producers as the primary source of energy as they play an “energy pyramid” game, exploring the role of producers, and primary, secondary and top consumers. Students observe the skulls and teeth of various animals, and determine which is the skull of an herbivore, omnivore or carnivore while learning about the food chain. They explore the features that help plants and animals survive in different kinds of environments. Students become aware of the interdependence of plants and animals for pollination and seed dispersal, food and shelter, and explore ways that humans can help animals survive in this era of environmental challenges.

## **GRADE 5** (2e, 2f, 2g, 3a, 3d, 3e)

Students learn that most of Earth's water is present as salt water in the oceans and that the amount of fresh water is limited and must be conserved. They view a map of the local watershed, where the water they use comes from, and play a game to learn how water is polluted and cleaned. Students learn about photosynthesis and plant respiration and discover how sugar, water, and minerals are transported in a vascular plant. Each student takes on the role of a plant structure – heartwood, xylem, ploem, and bark – as the entire class “builds a tree.”

## **GRADE 6** (5a, 5b, 5c, 5d, 5e, 6b)

Students review the role of photosynthesis in making energy for plants, and the role of producers in providing energy for all of the other organisms in the food web. They play an energy pyramid activity to learn how different organisms function in the environment. Students participate in an “energy cups” game to learn how energy is lost as it is transferred up the food chain from producers to top consumers. Students also perform experiments to see how abiotic factors affect the organisms living in an ecosystem. They measure the temperature, amount of light, soil pH and soil moisture at a site in the school yard. Students learn about natural resources and classify them as renewable or nonrenewable. This program must occur in the school yard, where soil is exposed. Cost: \$75/2 hr. presentation, max 35 students.

# **SCHOOLYARD HABITAT GARDEN PROGRAMS FOR K - 6TH GRADES**

Back to Natives also offers a Schoolyard Habitat Garden Program, developed to educate students about the value of native plants and wildlife habitat, especially in an urban environment. Our habitat garden curriculum meets many of the California State Science or Social Science Standards for Kindergarten through 6th grade. These exciting, hands-on programs can stand alone, but are more beneficial for students if presented in combination with one of our Traveling Naturalist programs. Call 949-509-4787, or email [education@backtonatives.org](mailto:education@backtonatives.org) for info or to schedule.

**Cost:** \$9.50/student, min 20. Cost includes an initial onsite consultation, pre-digging, site conditioning, educational activities, planting guidance, and a one gallon sized plant for every two students.

